INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: March 17, 2008

RE: New Energy Corporation / 141-6956-00033

FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:
(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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(800) 451-6027
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New Source Construction and Part 70 Operating Permit OFFICE OF AIR QUALITY

New Energy Corp.
3201 West Calvert Street
South Bend, Indiana 46613

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70, Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T 141-6956-00033	
Issued by: *Original signed by Don Robin for* Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: March 17, 2008 Expiration Date: March 17, 2013

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1, A.3 and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a fuel-grade ethanol production plant.

Source Address:	3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address:	P.O. Box 2289, South Bend, Indiana 46680
General Source Phone Number:	574 - 233 - 3116
SIC Code:	2869
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This fuel-grade ethanol production source consists of two (2) plants:

(a) New Energy Corp. (NEC) located at 3201 West Calvert Street, South Bend, Indiana, and

(b) BOC Gases located at 3809 West Calvert Street, South Bend, Indiana.

Although the two (2) plants do not share common ownership or management, IDEM, OAQ has determined that since the two (2) plants are located on contiguous property that is owned by NEC and if it were not for the existence of NEC, the BOC plant would not be there, the two (2) plants are considered one (1) source. BOC Gases is totally dependent on NEC for its feedstock of CO_2 gas. Therefore, the term Asource@ in the Part 70 documents refers to both New Energy Corp and BOC Gases as one (1) major source.

Separate Part 70 Operating Permits will be issued to New Energy Corp. with Permit No.: T 141-6956-00033 and BOC Gases with Permit No.: T 141-17344B00548 solely for administrative purposes.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, consisting of one (1) rail hopper, identified as RH-0001, two (2) truck dumpers, identified as TD-0001 & TD-0002, and two (2) truck hoppers, identified as TH-0001 and TH-0002, two (2) belt conveyors, identified as CV-0001 and CV-0002, five (5) drag conveyors, identified as CV-0003, CV-0004, CV-0005, CV-0006, and CV-0008, one (1) elevator, identified as EL-0001, and one (1) elevator, identified as EL-0002, installed in December 2003, capacity: 840 tons of yellow dent corn per hour.

(b) One (1) corn handling operation, identified as EU-02, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0002, installed in 1982, consisting of one (1) pneumatic pump, identified as P-0001, seven (7) drag conveyors, identified as CV-0007, CV-0009, CV-0010 and CV-0013 through CV-0016, one (1) distributor, identified as DD-0001, two (2) bucket elevators, identified as EL-0001 and EL-0003, two (2) corn storage bins, identified as S-0005 & S-0006, capacity: 320,000 bushels of corn total, four (4) corn storage silos, identified as S-0007 through S-0010, capacity: 98,000 bushels of corn each, and two (2) sweep augers, identified as SD-0009 and SD-0010, capacity: 140 tons of yellow dent corn per hour.

(c) One (1) corn milling operation, identified as EU-03, installed in October 1982, equipped with a baghouse, identified as D-0112, exhausted through Stacks DC-0112 and BV-0112, consisting of one (1) belt conveyor, identified as CV-0018, one (1) pneumatic pump, identified as P-0111, one (1) scalper, identified as CS-0011, two (2) surge bins, identified as B-0011 and B-0112, one (1) drag conveyor, identified as CV-0011, five (5) rotary feeders, identified as RF-0111 through RF-0115, five (5) hammermills, identified as M-0050 through M-0054, three (3) screw conveyors, identified as CV-0111, CV-0101 and CV-0117, one (1) weigh hopper, identified as WH-0111, one (1) bag dump hopper, identified as B-0111, three (3) bucket elevators, identified as EL-0111, EL-0112 and EL-0113, one (1) weigh-feeder, identified as W-0121, one (1) airlock, identified as DA-0112, capacity: 140 tons of yellow corn per hour.

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1st thru 4th stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5th and 6th stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1) evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(k) One (1) DDGS handling operation, identified as EU-11, installed in October 1982, consisting of two (2) bucket elevators, identified as EL-0601 and EL-0602, two (2) dust suppression nozzles, identified as DN-0601 and DN-0602, and four (4) drag conveyors, identified as CV-0600 through CV-0603, capacity: 38.98 tons of DDGS product per hour.

(l) One (1) DDGS load-out operation, identified as EU-12, installed in October 1982, equipped with a baghouse, identified as D-0601, exhausted through Stack DC-0601, consisting of five (5) drag conveyors, identified as CV-0604 through CV-0608, one (1) bucket elevator, identified as EL-0603, one (1) surge bin, identified as S-0601, one (1) belt conveyor with tripper, identified as CV-0609, one (1) dust filter, identified as D-0601, one (1) dust fan, identified as DC-0601, one (1) airlock, identified as DA-0601, one (1) winch drive, identified as H-0601, three (3) dust suspension nozzles, identified as DN-0603 through DN-0605, and one (1) shuttle belt conveyor, identified as CV-0610, maximum capacity: 83.96 tons of DDGS product per hour.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(n) One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(o) Two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, rated at 220 million British thermal units per hour each, installed in October 1982, exhausted through Stack 001.

(p) One (1) distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, installed in March 2000, exhausting through Stack DC-0503, consisting of one (1) fan, identified as BL-502, one (1) cooling coil, identified as CC-500, one (1) cooler inlet rotary valve, identified as RV-502, one (1) cooler, identified as RC-502, and four (4) conveyors, identified as CV-522, CV-530, CV-531 and CV-532, capacity: 77,967 pounds of DDGS per hour.

(q) Five (5) storage tanks, consisting of:

(1) One (1) floating roof gasoline storage tank, identified as T-601, installed in 1983, capacity: 75,000 gallons. Under NSPS, 40 CFR Part 60.110a, Subpart Ka, this tank is considered an existing volatile organic liquid storage tank.

(2) One (1) floating roof fuel ethanol storage tank, identified as T-610, installed in 1983, capacity: 750,000 gallons.

(3) One (1) ethanol internal floating roof storage tank, identified as T-611, installed in 2001, capacity: 1,250,000 gallons. Under NSPS, 40 CFR Part 60.110b, Subpart Kb, this tank is considered an existing volatile organic liquid storage tank.

(4) One (1) floating roof in-process ethanol storage tank, identified as T-612, installed in 1983, capacity: 75,000 gallons.

(5) One (1) fuel oil storage tank, identified as T-4120, installed in 1983, capacity: 250,000 gallons.

(r) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003 and fuel-oil back-up approved for construction in 2007, and rated at 8.0 million British thermal units per hour each.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, rated at a total of 2.431 million British thermal units per hour, consisting of:

(1) One (1) emergency diesel-fired generator, rated at 1.8 million British thermal units per hour heat input and 500 kilowatts, limited to five hundred (500) hours of operation per year, and

(2) One (1) back-up diesel-fired fire pump, rated at 0.631 million British thermal units per hour and 250 horsepower.

(r) Paved and unpaved roads and parking lots with public access, identified as EU-17 [326 IAC 6-4].

(t) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6.5-1-2(a)].

(dd) Bag Dump-Process [326 IAC 6.5-1-2(a)].

(gg) DDGS finishing [326 IAC 6.5-1-2(a)].

(jj) Ash handling [326 IAC 6.5-1-2(a)].

(kk) Ash loadout [326 IAC 6.5-1-2(a)].

(ll) Coal receiving/handling and storage [326 IAC 6.5-1-2(a)].

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 Permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

(a) This permit, T 141-6956-00033, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) The "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1 (34).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Northern Regional Office phone: 574-245-4870; fax: 574-245-4877

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Northern Regional Office
220 W. Colfax Avenue, Suite 200
South Bend, Indiana 46601-1634

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T 141-6956-00033 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

((b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1 (21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1 (34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11 (c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and/or 326 IAC 2-3-2.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11 (c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

(a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.26 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on October 18, 1996. The plan consists of:

(a) Housekeeping practices, including sweeping and shoveling, to control overspills in corn and coal unloading as well as ash and DDGS loading areas, and

(b) All grain carrying vehicles shall be tarped.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least two hundred sixty (260) linear feet on pipes or one hundred sixty (160) square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least seventy-five hundredths (0.75) cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.

(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.

(c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall record:

(1) The pressure drop across the baghouse used in conjunction with the Riley-Stoker coal-fired boiler (EU-14), at least twice per day, with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(2) Visible emission notations of the Riley-Stoker coal-fired boiler Stack 001 exhaust shall be performed at least twice per day during normal daylight operations with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. A trained employee shall record whether emissions are normal or abnormal.

For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60 Appendix B and 40 CFR 60 Appendix F, Procedure 1).

C.12 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.

(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D - Missing Data Substitution Procedures.

(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR 63.1209 and 40 CFR 63.8.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.14 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1 (34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.17 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records;

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003

Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a

Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the record keeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Require-

ments (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq)), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emissions Unit Description: PSD Emission Units

(a) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, consisting of one (1) rail hopper, identified as RH-0001, two (2) truck dumpers, identified as TD-0001 & TD-0002, and two (2) truck hoppers, identified as TH-0001 and TH-0002, two (2) belt conveyors, identified as CV-0001 and CV-0002, five (5) drag conveyors, identified as CV-0003, CV-0004, CV-0005, CV-0006, and CV-0008, one (1) elevator, identified as EL-0001, and one (1) elevator, identified as EL-0002, installed in December 2003, capacity: 840 tons of yellow dent corn per hour.

(b) One (1) corn handling operation, identified as EU-02, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0002, installed in 1982, consisting of one (1) pneumatic pump, identified as P-0001, seven (7) drag conveyors, identified as CV-0007, CV-0009, CV-0010 and CV-0013 through CV-0016, one (1) distributor, identified as DD-0001, two (2) bucket elevators, identified as EL-0001 and EL-0003, two (2) corn storage bins, identified as S-0005 & S-0006, capacity: 320,000 bushels of corn total, four (4) corn storage silos, identified as S-0007 through S-0010, capacity: 98,000 bushels of corn each, and two (2) sweep augers, identified as SD-0009 and SD-0010, capacity: 140 tons of yellow dent corn per hour.

(c) One (1) corn milling operation, identified as EU-03, installed in October 1982, equipped with a baghouse, identified as D-0112, exhausted through Stacks DC-0112 and BV-0112, consisting of one (1) belt conveyor, identified as CV-0018, one (1) pneumatic pump, identified as P-0111, one (1) scalper, identified as CS-0011, two (2) surge bins, identified as B-0011 and B-0112, one (1) drag conveyor, identified as CV-0011, five (5) rotary feeders, identified as RF-0111 through RF-0115, five (5) hammermills, identified as M-0050 through M-0054, three (3) screw conveyors, identified as CV-0111, CV-0101 and CV-0117, one (1) weigh hopper, identified as WH-0111, one (1) bag dump hopper, identified as B-0111, three (3) bucket elevators, identified as EL-0111, EL-0112 and EL-0113, one (1) weigh-feeder, identified as W-0121, one (1) airlock, identified as DA-0112, capacity: 140 tons of yellow corn per hour.

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels,

Emissions Unit Description: PSD Emission Units - (Continued)

bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1st thru 4th stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5th and 6th stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil

Emissions Unit Description: PSD Emission Units - (Continued)

head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1) evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(k) One (1) DDGS handling operation, identified as EU-11, installed in October 1982, consisting of two (2) bucket elevators, identified as EL-0601 and EL-0602, two (2) dust suppression nozzles, identified as DN-0601 and DN-0602, and four (4) drag conveyors, identified as CV-0600 through CV-0603, capacity: 38.98 tons of DDGS product per hour.

(l) One (1) DDGS load-out operation, identified as EU-12, installed in October 1982, equipped with a baghouse, identified as D-0601, exhausted through Stack DC-0601, consisting of five (5) drag conveyors, identified as CV-0604 through CV-0608, one (1) bucket elevator, identified as EL-0603, one (1) surge bin, identified as S-0601, one (1) belt conveyor with tripper, identified as CV-0609, one (1) dust filter, identified as D-0601, one (1) dust fan, identified as DC-0601, one (1) airlock, identified as DA-0601, one (1) winch drive, identified as H-0601, three (3) dust suspension nozzles, identified as DN-0603 through DN-0605, and one (1) shuttle belt conveyor, identified as CV-0610, maximum capacity: 83.96 tons of DDGS product per hour.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic

Emissions Unit Description: PSD Emission Units - (Continued)

chemical classified using the 1987 version of SIC code 286.

(n) One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(o) Two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, rated at 220 million British thermal units per hour each, installed in October 1982, exhausted through Stack 001.

Insignificant Activities:

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, rated at a total of 2.431 million British thermal units per hour, consisting of:

(1) One (1) emergency diesel-fired generator, rated at 1.8 million British thermal units per hour heat input and 500 kilowatts, limited to five hundred (500) hours of operation per year, and

(2) One (1) back-up diesel-fired fire pump, rated at 0.631 million British thermal units per hour and 250 horsepower.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Limitations [326 IAC 2-2]

Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, and in order to satisfy the requirements of PSD BACT:

(a) The following emission limitations apply to the emission units listed in Section D.1 as the corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, the corn milling operation, identified as EU-03, the yeast propagation operation, identified as EU-04, the fermentation operation, identified as EU-05, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, the DDGS handling operation, identified as EU-11, the DDGS load-out operation, identified as EU-12, the alcohol load-out operation, identified as EU-13, the Riley-Stoker coal-fired boiler, identified as EU-14, and the two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15:

(1) SO_2 emissions shall be limited to:

(A) 1.2 pounds per million British thermal units,

(B) 412 pounds per hour, and

(C) 1,630 tons per year*.

(2) NO_X emissions shall be limited to:

(A) 0.7 pounds per million British thermal units,

(B) 240 pounds per hour, and

(C) 960 tons per year*.

(3) CO emissions shall be limited to:

(A) 14 pounds per hour, and

(B) 54 tons per year*.

(4) Particulate (PM) emissions shall be limited to:

(A) 20 pounds per hour, and

(B) 70 tons per year*.

* year = twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The total heat input to any operating boiler or combination of operation boilers shall be limited to 342.6 million British thermal units per hour.

Compliance Determination Requirements

D.1.2 Emissions Determination [326 IAC 2-2]

Compliance with Condition D.1.1(a) shall be determined by calculating the SO_2, NO_X, CO and PM emissions associated with the specified emission units, using the following equations:

(a) PSD SO_2 emissions = CEM + CEMD + (TTNG x 0.6 pounds of SO_2/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.29 pounds of SO_2/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.29 pounds of SO_2/mmBtu x 1 ton/2,000 pounds).

(b) PSD NO_X emissions = CEM + CEMD + (TTNG x 100.0 pounds of NO_X/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 4.41 pounds of NO_X/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 4.41 pounds of NO_X/mmBtu x 1 ton/2,000 pounds).

(c) PSD CO emissions = [(TC x 0.50 pounds of CO/ton of coal) + (TNG x 84.0 pounds of CO/mmcf of natural gas) + (TO x 5.0 pounds of CO/ kilogallon of No. 2 fuel oil)] x 1 ton/2,000 pounds + (TTNG x 84.0 pounds of CO/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.95 pounds of CO/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.95 pounds of CO/mmBtu x 1 ton/2,000 pounds).

(d) PSD PM emissions = [(TC x 88.9 pounds of PM/ton of coal x (1 - CE)) + (TNG x 1.9 pounds of PM/mmcf of natural gas) + (TO x 2.0 pounds of PM/kilogallon of No. 2 fuel oil)] x 1 ton/2,000 pounds +

[TCR x 0.079 pounds of PM/ton of corn x (1 - CE)] x 1 ton/2,000 pounds +

[TCH x 0.061 pounds of PM/ton of corn x (1 - CE)] x 1 ton/2,000 pounds +

[TCM x 0.012 pounds of PM/ton of corn (emission factor is after control)] x 1 ton/2,000 pounds +

∑ [FR x OGL x MO x 1 lb/ 7,000 grains] x 1 ton/ 2,000 pounds +

[TDGS11 x 0.061 pounds of PM/ton of DDGS handled] x 1 ton/2,000 pounds +

[TDGS12 x 0.0057 pounds of PM/ton of DDGS loaded out x (1 - CE)] x 1 ton/2,000 pounds +

K +

(TTNG x 1.9 pounds of PM/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.31 pounds of PM/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.31 pounds of PM/mmBtu x 1 ton/2,000 pounds) + INSIG.

where:

CEM	=	Continuous emissions monitoring (CEMs) Emissions for SO_2 or NO_X (tons) for EU-14 and EU-15
CEMD	=	Emissions during continuous emissions monitoring (CEMs) down-times for SO_2 or NO_X, (tons) for the Riley-Stoker coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
TTNG	=	Total throughput of natural gas (mmcf) to the space heaters and coal thaw burners
HEGO	=	Number of hours the emergency generator operated
HFPO	=	Number of hours the backup emergency fire pump operated
TC	=	Throughput of coal to the Riley-Stoker coal-fired boiler (EU-14) (tons/month)
TNG	=	Throughput of natural gas (mmcf) to the two (2) package boilers (EU-15)
TO	=	Throughput of No. 2 fuel oil (kilogallons) to the two (2) package boilers (EU-15)
CE	=	Overall control efficiency (fraction) of the control device
TCR	=	Throughput of corn received (tons/month) to corn receiving operation (EU-01)
TCH	=	Throughput of corn handled (tons/month) to the corn handling operation (EU-02)

TCM	=	Throughput of corn milled (tons/month) to the corn milling operation (EU-03)
FR	=	Flow rate of each DDGS dryer (cubic feet per minute)
OGL	=	Outlet grain loading of 0.0007 grains/cubic foot or that established by the most recent IDEM, OAQ approved stack test emission rate for each DDGS dryer.
MO	=	Number of minutes per month in operation of each DDGS dryer
∑	=	The sum for five (5) DDGS dryers (EU-10)
TDGS11	=	Throughput of DDGS (tons/month) to DDGS handling operation (EU-11)
TDGS12	=	Throughput of DDGS (tons/month) to DDGS load-out operation (EU-12)
K	=	0.0001 tons/month for alcohol load-out operation (EU-13)
INSIG	=	PM emissions from other insignificant activities

The Permittee shall use the emission rates measured during the most recent compliant stack test in place of the emission rates given in the above equation.

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with the emission rate of 0.50 pounds of CO per ton of coal in Condition D.1.2(c), the Permittee shall perform CO testing for the Riley-Stoker coal-fired boiler (EU-14) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with the emission rate of 5.0 pounds of CO per kilogallon of No. 2 fuel oil in Condition D.1.2(c), the Permittee shall perform CO testing for the two (2) package boilers when burning No. 2 fuel oil (EU-15). If No. 2 fuel oil is not combusted within one hundred eighty (180) days of issuance of this Part 70 Operating Permit, testing must be completed within thirty (30) days upon initial combustion of No. 2 fuel oil, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.4 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1(a) and D.1.2 the Permittee shall maintain records of the following:

(1) Records of SO_2 and NO_X CEMS emissions data,

(2) Throughput of natural gas to space heaters and coal thaw burners,

(3) Number of hours that the emergency generator and backup emergency fire pump operated,

(4) Throughput of coal to EU-14,

(5) Throughput of natural gas to EU-15,

(6) Throughput of No. 2 fuel oil to EU-15,

(7) Throughput of corn processed (received (EU-01), handled (EU-02) and milled (EU-03)),

(8) Throughput of DDGS,

(9) Operational times of each of the five (5) DDGS dryers on a monthly basis, and

(10) Actual PM emission from other insignificant activities and information used to determine such actual emissions.

(b) To document compliance with Condition D.1.1(b), the Permittee shall maintain continuous operation records of each boiler's hourly heat input while in operation and times when each boiler is not in operation.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2(a), (b), (c) and (d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Corn Receiving, Handling and Milling Operations

(a) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, consisting of one (1) rail hopper, identified as RH-0001, two (2) truck dumpers, identified as TD-0001 & TD-0002, and two (2) truck hoppers, identified as TH-0001 and TH-0002, two (2) belt conveyors, identified as CV-0001 and CV-0002, five (5) drag conveyors, identified as CV-0003, CV-0004, CV-0005, CV-0006, and CV-0008, one (1) elevator, identified as EL-0001, and one (1) elevator, identified as EL-0002, installed in December 2003, capacity: 840 tons of yellow dent corn per hour.

(b) One (1) corn handling operation, identified as EU-02, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0002, installed in 1982, consisting of one (1) pneumatic pump, identified as P-0001, seven (7) drag conveyors, identified as CV-0007, CV-0009, CV-0010 and CV-0013 through CV-0016, one (1) distributor, identified as DD-0001, two (2) bucket elevators, identified as EL-0001 and EL-0003, two (2) corn storage bins, identified as S-0005 & S-0006, capacity: 320,000 bushels of corn total, four (4) corn storage silos, identified as S-0007 through S-0010, capacity: 98,000 bushels of corn each, and two (2) sweep augers, identified as SD-0009 and SD-0010, capacity: 140 tons of yellow dent corn per hour.

(c) One (1) corn milling operation, identified as EU-03, installed in October 1982, equipped with a baghouse, identified as D-0112, exhausted through Stacks DC-0112 and BV-0112, consisting of one (1) belt conveyor, identified as CV-0018, one (1) pneumatic pump, identified as P-0111, one (1) scalper, identified as CS-0011, two (2) surge bins, identified as B-0011 and B-0112, one (1) drag conveyor, identified as CV-0011, five (5) rotary feeders, identified as RF-0111 through RF-0115, five (5) hammermills, identified as M-0050 through M-0054, three (3) screw conveyors, identified as CV-0111, CV-0101 and CV-0117, one (1) weigh hopper, identified as WH-0111, one (1) bag dump hopper, identified as B-0111, three (3) bucket elevators, identified as EL-0111, EL-0112 and EL-0113, one (1) weigh-feeder, identified as W-0121, one (1) airlock, identified as DA-0112, capacity: 140 tons of yellow corn per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the corn receiving, handling and milling facilities (EU-01, EU-02 and EU-03) Stacks DC-0001, DC-0002, DC-0112, and BV-0112 exhausts shall each be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.2.3 Particulate Control [326 IAC 2-7-6(6)]

(a) Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, and in order to comply with Conditions D.1.1(a)(4)(B) and D.2.1, the baghouses (D-0001 and D-0112) for particulate control shall be in operation and control emissions from the corn receiving, handling and milling operations (EU-01, EU-02 and EU-03) at all times that these facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM testing for the two (2) baghouses (D-0001 and D-0112) controlling PM emissions from the corn receiving, handling and milling operations (EU-01, EU-02 and EU-03), utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the corn receiving, handling and milling facilities (EU-01, EU-02 and EU-03) Stack DC-0001, DC-0002, DC-0112 and BV-0112 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouses (D-0001 and D-0112) used in conjunction with the corn receiving, handling and milling operations (EU-01, EU-02 and EU-03), at least once per day when the corn receiving, handling and milling operations (EU-01, EU-02 and EU-03) are in operation. When for any one reading, the pressure drop across the baghouses are outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.7 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain a daily record of visible emission notations of the corn receiving, handling and milling stack exhausts DC-0001, DC-0002, DC-0112 and BV-0112. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the corn receiving, handling and milling operations did not operate that day).

(b) To document compliance with Condition D.2.6, the Permittee shall maintain a daily record of the pressure drop across the baghouses (D-0001 and D-0112) controlling the corn receiving, handling and milling operations. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the corn receiving, handling and milling operations did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Yeast Propagation and Fermentation

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to the St. Joseph County Health Department, construction permit/PSD approval, issued on February 12, 1982 and revised through the Part 70 Operating Permit, all of the off-gases will be processed by scrubbing.

D.3.2 LAER Requirements CO_2 Scrubber (VOC) [326 IAC 2-3] [326 IAC 2-2] [326 IAC 2-1.1] [326 IAC 2-7] [326 IAC 8-1-6]

(a) Pursuant to 326 IAC 2-3, the Permittee shall vent the additional exhaust streams from the yeast propagator tanks (EU-04) and the beerwell (EU-07) to the CO_2 scrubber (V-230).

(b) The CO_2 scrubber (V-230) shall achieve an overall VOC control efficiency equal to or greater than ninety-five percent (95%), including the existing exhaust stream from the fermentation operation (EU-05).

(c) In accordance with 326 IAC 2-3, operation of the CO_2 scrubber consistent with the requirements of this condition shall constitute compliance with the LAER requirements for the VOC emissions from the yeast propagator tanks (EU-04) and the beerwell (EU-07) to be vented to the CO_2 scrubber (V-230).

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control device.

Compliance Determination Requirements

D.3.4 VOC

In order to comply with Condition D.3.2, the scrubber for VOC control shall be in operation and control emissions from the yeast propagator tanks (EU-04), the fermentation operation (EU-05), and the beerwell (EU-07), at all times that these emission units are in operation.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Prior to October 14, 2009, which is five (5) years from the last valid compliance demonstration, in order to demonstrate compliance with Condition D.3.2(b), the Permittee shall perform testing of the overall VOC control efficiency of the scrubber utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the scrubber (V-230) used in conjunction with the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06) and the beerwell (EU-07) at least once per day when these operations and processes are in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 15 and 28 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.7 Scrubber Flow Rate [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall record the flow rate of the scrubbing liquor used in conjunction with the CO_2 scrubber (V-230) at least once per day when the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06) and the beerwell (EU-07) are in operation. When for any one reading, the liquor flow rate is below a minimum flow of 80 gallons per minute for the scrubber exhausted to Stack BL-230 or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.8 Scrubber Failure Detection

(a) For a scrubber controlling emissions from a process operated continuously, a failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a scrubber controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Scrubber failure can be indicated by a significant drop in the scrubber=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, or leaks.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.9 Record Keeping Requirements

(a) To document compliance with Condition D.3.6, the Permittee shall maintain a daily record of the pressure drop across the scrubber (V-230) controlling the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06) and the beerwell (EU-07). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the yeast propagation operation and fermentation process did not operate that day).

(b) To document compliance with Condition D.3.7, the Permittee shall maintain a daily record of the water flow rate in the scrubber V-230 controlling the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06) and the beerwell (EU-07). The Permittee shall include in its daily record when a water flow rate reading is not taken and the reason for the lack of a water flow rate reading (e.g., the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06) and the beerwell (EU-07) did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Degasser, Evaporation & DDGS Dryer Operations

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1st thru 4th stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5th and 6th stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1)

Facility Description [326 IAC 2-7-5(15)]: Degasser, Evaporation & DDGS Dryer Operations (Continued)

evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 LAER Requirements Regenerative Thermal Oxidizers (RTOs) (VOC) [326 IAC 2-1.1] [326 IAC 2-2] [326 IAC 2-3] [326 IAC 2-7] [326 IAC 8-1-6]

(a) Pursuant to 326 IAC 2-3, the Permittee shall operate the two (2) regenerative thermal oxidizers (RTOs) to control VOC emissions from the five (5) DDGS dryers (EU-10), the evaporation process (EU-09) and the recovery column vent condenser, identified as E-409 (part of EU-08).

(b) The Permittee shall ensure that the two (2) RTOs achieve an overall VOC control efficiency of greater than or equal to ninety-eight percent (98%).

(c) In accordance with 326 IAC 2-3, operation of the two (2) RTOs within the prescribed overall control efficiency and compliance with the limit in (b) shall constitute compliance with the lowest achievable emission reduction (LAER) requirements for the five (5) DDGS dryers (EU-10), the evaporation process (EU-09) and the recovery column vent condenser, identified as E-409 (part of EU-08).

D.4.2 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the distillers dried grain and solubles (DDGS) dryer operation (EU-10), exhausted through Stack 5002 from the two (2) regenerative thermal oxidizers (RTOs) shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

D.4.3 Operations Controlled by the RTOs

(a) The Permittee shall operate no more than three (3) of the five (5) DDGS dryers, identified as EU-10, at a time, if one (1) of the two (2) RTOs is out-of-service.

(b) If the two (2) RTOs are simultaneously out-of-service, none of the five (5) DDGS dryers, identified as EU-10 shall be operated.

(c) If the two (2) RTOs are simultaneously out-of-service, the following emission units controlled by the RTOs shall not be operated:

(1) Recovery column, identified as part of EU-08, and

(2) Evaporation process, identified as EU-09.

D.4.4 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1] [326 IAC 2-2]

(a) Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the two (2) 8.0 million British thermal units per hour RTOs when burning No. 2 fuel oil shall not exceed five tenths (0.5) pound per million British thermal units heat input. Compliance shall be demonstrated on a monthly average.

(b) Compliance with this limit makes the modification to combust No. 2 fuel oil in the two (2) RTOs minor with respect to 326 IAC 2-2.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.4.6 Volatile Organic Compounds (VOC) [326 IAC 2-3]

Pursuant to 326 IAC 2-3, the Permittee shall operate the RTOs to achieve compliance with Condition D.4.1.

D.4.7 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Conditions D.1.1(a)(4)(B) and D.4.2, the scrubbers (SF-511 through SF-515) and at least one (1) of the two (2) RTOs for particulate control shall be in operation and control emissions from the DDGS dryer operation (EU10) at all times that one (1) or more of the DDGS dryers are in operation.

D.4.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within one hundred eighty (180) days of the issuance of this Part 70 Operating Permit in order to demonstrate compliance with Condition D.4.1(b), the Permittee shall perform overall VOC control efficiency testing of one (1) of the two (2) RTOs on natural gas utilizing methods as approved by the Commissioner and every 2.5 years from the last valid compliance demonstration, such that each individual RTO shall be tested every five (5) years. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within ninety (90) days after startup of either RTO on fuel oil in order to demonstrate compliance with Condition D.4.1(b), the Permittee shall perform overall VOC control efficiency testing of one (1) of the two (2) oil-fired RTOs utilizing methods as approved by the Commissioner and every 2.5 years from the last valid compliance demonstration, such that each individual RTO shall be tested every five (5) years. Testing shall be conducted in accordance with Section C - Performance Testing.

(c) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Condition D.4.2, the Permittee shall perform PM testing for the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, controlled by the RTOs and scrubbers, exhausted through Stack 5002 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.4.9 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers for measuring operating temperatures. For the purposes of this condition continuous shall mean no less than once per minute. The outputs of these systems shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,600EF.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limit in Condition D.4.1(b), as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature as observed during the most recent compliant stack test.

D.4.10 Thermal Oxidizer Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with the limit in Condition D.4.1(b), as approved by IDEM.

(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

D.4.11 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance with Condition D.4.4 for the two (2) RTOs when burning fuel oil shall be determined utilizing one (1) of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal units of heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from both of the eight (8.0) million British thermal units per hour RTOs, using 40 CFR 60,

Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

(c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)]

D.4.12 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the pressure drop across the scrubber (V-424) used in conjunction with the recovery column (EU-08) at least once per day when this process is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 0.5 and 2.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the scrubber (V-230) used in conjunction with the degasser (EU-08) at least once per day when this process is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 15 and 28 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.13 Scrubber Flow Rate [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall record the flow rate of the scrubbing liquor used in conjunction with the scrubber (V-424) at least once per day when the recovery column (EU-08) is in operation. When for any one reading, the liquor flow rate is below a minimum flow of 1 gallon per minute for the scrubber exhausted to Stack BL-601 or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(b) The Permittee shall record the flow rate of the scrubbing liquor used in conjunction with the CO_2 scrubber (V-230) at least once per day when the degasser (EU-08) is in operation. When for any one reading, the liquor flow rate is below a minimum flow of 80 gallons per minute for the scrubber exhausted to Stack BL-230 or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.14 Scrubber Failure Detection

(a) For a scrubber controlling emissions from a process operated continuously, a failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a scrubber controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Scrubber failure can be indicated by a significant drop in the scrubber=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, or leaks.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.15 Record Keeping Requirements

(a) To document compliance with Condition D.4.9, the Permittee shall maintain records of the continuous operating temperature required under Condition D.4.9.

(b) To document compliance with Condition D.4.10, the Permittee shall maintain a daily record of the duct pressure or fan amperage of the thermal oxidizer controlling the degasser and recovery column, evaporation process and the DDGS dryer operation. The Permittee shall include in its daily record when a duct pressure or fan amperage is not taken and the reason for the lack of a duct pressure or fan amperage reading (e.g., the degasser and recovery column, evaporation process and the DDGS dryer operation did not operate that day).

(c) To document compliance with Condition D.4.12(a), the Permittee shall maintain a daily record of the pressure drop across the scrubber (V-424) controlling the recovery column (EU-08). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the recovery column did not operate that day).

(d) To document compliance with Condition D.4.12(b), the Permittee shall maintain a daily record of the pressure drop across the scrubber (V-230) controlling the degasser (EU-08). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the degasser did not operate that day).

(e) To document compliance with Condition D.4.13(a), the Permittee shall maintain a daily record of the water flow rate in the scrubber (V-424) controlling the recovery column (EU-08). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a water flow rate reading (e.g., the recovery column did not operate that day).

(f) To document compliance with Condition D.4.13(b), the Permittee shall maintain a daily record of the water flow rate in the scrubber (V-230) controlling the degasser (EU-08). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a water flow rate reading (e.g., the degasser did not operate that day).

(g) All records shall be maintained in accordance with Section C - General Record Keeping

Requirements, of this permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: DDGS Handling and Alcohol Load Out Handling (Continued)

(k) One (1) DDGS handling operation, identified as EU-11, installed in October 1982, consisting of two (2) bucket elevators, identified as EL-0601 and EL-0602, two (2) dust suppression nozzles, identified as DN-0601 and DN-0602, and four (4) drag conveyors, identified as CV-0600 through CV-0603, capacity: 38.98 tons of DDGS product per hour.

(l) One (1) DDGS load-out operation, identified as EU-12, installed in October 1982, equipped with a baghouse, identified as D-0601, exhausted through Stack DC-0601, consisting of five (5) drag conveyors, identified as CV-0604 through CV-0608, one (1) bucket elevator, identified as EL-0603, one (1) surge bin, identified as S-0601, one (1) belt conveyor with tripper, identified as CV-0609, one (1) dust filter, identified as D-0601, one (1) dust fan, identified as DC-0601, one (1) airlock, identified as DA-0601, one (1) winch drive, identified as H-0601, three (3) dust suspension nozzles, identified as DN-0603 through DN-0605, and one (1) shuttle belt conveyor, identified as CV-0610, maximum capacity: 83.96 tons of DDGS product per hour.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 BACT Requirements (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, BACT has been determined to be the following for the alcohol load-out operation, identified as EU-13:

(a) The VOC emissions from the alcohol load-out operation, identified as EU-13, shall be collected and controlled by the load-out natural gas-fired flare, identified as G-602.

(b) The overall efficiency of the flare, identified as G-602 (including the capture efficiency and destruction efficiency) shall be at least 98%.

(c) The VOC emissions from the load-out natural gas-fired flare, identified as G-602, shall not exceed 6.32 pounds per hour.

D.5.2 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

(a) Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the DDGS handling operation (EU-11) shall be limited to 0.03 grains per dry standard cubic foot of exhaust air.

(b) Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the DDGS load-out operation (EU-12) Stack DC-0601 exhaust shall be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the DDGS load-out operation (EU-12) and its control device.

Compliance Determination Requirements

D.5.4 Particulate Control [326 IAC 2-7-6(6)]

(a) Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, and in order to comply with Condition D.1.1(a)(4)(B), the baghouse (D-0601) for particulate control shall be in operation and control emissions from the DDGS load-out operation (EU-12) at all times that this DDGS load-out is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.5.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Condition D.5.2(b), the Permittee shall perform PM testing for the baghouse (D-0601) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.6 Visible Emissions Notations

(a) Visible emission notations of the DDGS load-out operation (EU-12) Stack DC-0601 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.5.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouse (D-0601) used in conjunction with the DDGS load-out operation (EU-12), at least once per day when this process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.9 Record Keeping Requirements

(a) To document compliance with Condition D.5.6, the Permittee shall maintain a daily record of visible emission notations of the DDGS load-out operation stack exhaust DC-0601. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the DDGS load-out operation did not operate that day).

(b) To document compliance with Condition D.5.7, the Permittee shall maintain a daily record of the pressure drop across the baghouse (D-0601) controlling the DDGS load-out operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the DDGS load-out operation did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Riley-Stoker and Package Boilers

(n) One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(o) Two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, rated at 220 million British thermal units per hour each, installed in October 1982, exhausted through Stack 001.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the Riley-Stoker coal-fired boiler (EU-14) shall not exceed six (6.0) pounds per million British thermal units heat input while combusting coal. Compliance shall be demonstrated on a monthly average.

D.6.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the two (2) 220 million British thermal units per hour package boilers (EU-15) when burning No. 2 fuel oil shall not exceed five tenths (0.5) pound per million British thermal units heat input. Compliance shall be demonstrated on a monthly average.

D.6.3 Particulate Matter (PM) [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(b)(1), the PM emissions from the Riley-Stoker coal-fired boiler exhausted through Stack 001, shall not exceed 0.10 pounds per million British thermal units.

(b) Pursuant to 326 IAC 6.5-1-2(b)(2), the PM emissions from the one or both package boilers exhausted through Stack 001, shall not exceed 0.15 pounds per million British thermal units, when combusting fuel oil.

(c) Pursuant to 326 IAC 6.5-1-2(b)(3), the PM emissions from one or both package boilers shall not exceed 0.01 grains per dry standard cubic foot of exhaust air, when combusting natural gas.

D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.6.5 Particulate Control [326 IAC 2-7-6(6)]

(a) Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, and in order to comply with Conditions D.1.1(a)(4)(B) and D.6.3(a), the baghouse for particulate control shall be in operation and control emissions from the Riley-Stoker coal-fired boiler (EU-14) at all times that the coal-fired boiler is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.6.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Condition D.6.3(a), the Permittee shall perform PM testing for the Riley-Stoker coal-fired boiler (EU-14) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.6.7 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 2-7-5(3)(A)] [326 IAC 2-7-6]

The following conditions apply to the Riley-Stoker coal-fired boiler (EU-14):

Compliance with Condition D.6.1 shall be determined utilizing one (1) of the following options:

(a) Providing vendor analysis of coal delivered, if accompanied by a certification from the fuel supplier, as described under 40 CFR 60.48c(f)(3). The certification shall include:

(1) The name of the coal supplier; and

(2) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the coal was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier=s facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected); and

(3) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(4) The methods used to determine the properties of the coal; or

(b) Sampling and analyzing the coal by using one of the following procedures:

(1) Minimum Coal Sampling Requirements and Analysis Methods:

(A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;

(B) Coal shall be sampled at least one (1) time per day;

(C) Minimum sample size shall be five hundred (500) grams;

(D) Samples shall be composited and analyzed at the end of each calendar quarter;

(E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or

(2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or

(c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(b)]

(d) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

A determination of noncompliance pursuant to any of the methods specified in (a), (b), (c) or (d) above shall not be refuted by evidence of compliance pursuant to the other method.

D.6.8 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Compliance with Condition D.6.2 for the two (2) package boilers when burning fuel oil shall be determined utilizing one (1) of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal units of heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from both of the two hundred twenty (220) million British thermal units per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

(c) Upon written notification to IDEM by a facility owner or operator, continuous emission monitoring data collected and reported pursuant to 326 IAC 3-5 may be used as the means for determining compliance with the emission limitations in 326 IAC 7. Upon such notification, the other requirements of 326 IAC 7-2 shall not apply. [326 IAC 7-2-1(g)]

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.6.9 Continuous Emissions Monitoring Requirements [326 IAC 3-5] [326 IAC 12] [326 IAC 2-2]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), a continuous monitoring system for the Riley-Stoker coal-fired boiler (EU-14) shall be calibrated, maintained, and operated for measuring SO_2, NO_X, and either CO_2 or O_2, which meets the performance specifications of 326 IAC 3-5-2.

(b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3 and 326 IAC 2-2.

(c) The Permittee shall submit to IDEM, OAQ, with one hundred eighty (180) days of issuance of T 141-6956-00033, a complete written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.

(d) The Permittee shall record the output of the continuous monitoring system(s) and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, 40 CFR 60, or 40 CFR 75.

D.6.10 Continuous Opacity Monitoring (COM) [326 IAC 3-5] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2 and 326 IAC 3-5, the Permittee shall calibrate, certify, operate, and maintain a continuous monitoring system and related equipment to measure opacity from the Riley-Stoker coal-fired boiler (EU-14) Stack 001 in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.

(b) The Permittee shall submit to IDEM, OAQ, with one hundred eighty (180) days of issuance of T 141-6956-00033, a complete written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.

(c) The Permittee shall record the output of the continuous monitoring system(s) and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.11 Baghouse Parametric Monitoring

Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS for the Riley-Stoker coal-fired boiler (EU-14) and the two (2) package boilers (EU-15) when either or both of the package boilers are combusting fuel oil, the Permittee shall record the following:

(a) The pressure drop across the baghouse used in conjunction with the Riley-Stoker coal-fired boiler (EU-14), at least twice per day, with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(b) Visible emission notations of the Riley-Stoker coal-fired boiler Stack 001 exhaust shall be performed at least twice per day during normal daylight operations with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. A trained employee shall record whether emissions are normal or abnormal.

For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.6.12 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.13 Record Keeping Requirements

(a) To document compliance with Section C - Opacity and Conditions D.1.1(a)(4)(B), D.6.3, D.6.6 and D.6.10, the Permittee shall maintain records in accordance with (1) and (2) below. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, and Conditions D.1.1(a)(4)(B) and D.6.3.

(1) Data and results from the most recent stack test.

(2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 and 40 CFR 60.42.

(b) To document compliance with Condition D.6.11(a), the Permittee shall maintain records of the pressure drop of the baghouse controlling the Riley-Stoker coal-fired boiler (EU-14). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the Riley Stoker coal-fired boiler did not operate that day).

(c) To document compliance with Condition D.6.11(b), the Permittee shall maintain a daily record of the results of all visible emission notations of the two (2) package boilers when burning No. 2 fuel oil and/or the Riley-Stoker coal-fired boiler Stack 001 exhaust. The Permittee shall include in its daily record when a visible notation reading is not taken and the reason for the lack of a visible notation reading (e.g., the two (2) package boilers and the Riley Stoker coal-fired boiler did not operate that day).

(d) To document compliance with SO_2 Conditions D.1.1(a)(1)(A and C), D.6.1, D.6.2 and D.6.8, the Permittee shall maintain records in accordance with (1) and (2) below. Records shall be complete and sufficient to establish compliance with the SO_2 limits as required in Conditions D.1.1(a)(1)(A and C), D.6.1, D.6.2 and D.6.8. The Permittee shall maintain records in accordance with (2) below during SO_2 CEM system downtime.

   (1) All SO_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6 and 40 CFR 60.45.

   (2) Actual fuel usage during each SO_2 CEM downtime.

(e) To document compliance with NO_X Condition D.1.1(a)(2)(A and C), the Permittee shall maintain records of all NO_X and CO_2 or O_2 continuous emissions monitoring data, pursuant to 326 IAC 3-5-6, 326 IAC 2-3 and 40 CFR 60.45. Records shall be complete and sufficient to establish compliance with the NO_X limits as required in Condition D.1.1(a)(2)(A and C). The Permittee shall maintain records of actual fuel usage during each NO_X CEM downtime.

(f) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(g) To document compliance with Condition D.6.8, the Permittee shall maintain records in accordance with (1) through (6) below.

   (1) Calendar dates covered in the compliance determination period;

   (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

   (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

   If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

   (4) Fuel supplier certifications;

   (5) The name of the fuel supplier; and

   (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

   The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.14 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.6.11(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

(b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:

(1) Date of downtime.

(2) Time of commencement.

(3) Duration of each downtime.

(4) Reasons for each downtime.

(5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

(c) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: DDGS Cooler System

(p) One (1) distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, installed in March 2000, exhausting through Stack DC-0503, consisting of one (1) fan, identified as BL-502, one (1) cooling coil, identified as CC-500, one (1) cooler inlet rotary valve, identified as RV-502, one (1) cooler, identified as RC-502, and four (4) conveyors, identified as CV-522, CV-530, CV-531 and CV-532, capacity: 77,967 pounds of DDGS per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the distillers dried grains and solubles (DDGS) cooler system (EU-18) Stack DC-0503 exhaust shall be limited to 0.03 grains per dry standard cubic foot of exhaust air.

D.7.2 PM PSD Minor Limit [326 IAC 2-2]

The PM emissions from the one (1) distillers dried grains and solubles (DDGS) cooler system (EU-18) shall be less than 5.70 pounds per hour. Compliance with this emission limit renders the requirements of 326 IAC 2-2 not applicable to the distillers dried grains and solubles (DDGS) cooler system.

D.7.3 PM_{10} PSD Minor Limit [326 IAC 2-2]

The PM_{10} emissions from the distillers dried grains and solubles (DDGS) cooler system (EU-18) shall be less than 3.42 pounds per hour. Compliance with this emission limit renders the requirements of 326 IAC 2-2 not applicable to the distillers dried grains and solubles (DDGS) cooler system.

D.7.4 VOC PSD Minor Limit [326 IAC 8-1-6] [326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 not applicable, the VOC emissions from the distillers dried grains and solubles (DDGS) cooler system (EU-18) shall be less than 5.70 pounds per hour. Compliance with this VOC emission limit also renders the requirements of 326 IAC 2-2 not applicable to the distillers dried grains and solubles (DDGS) cooler system.

D.7.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control device.

Compliance Determination Requirements

D.7.6 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Conditions D.7.1, D.7.2 and D.7.3, the baghouse for particulate control shall be in operation and control emissions from the distillers dried grains and solubles (DDGS) cooler system (EU-18) at all times that the distillers dried grains and solubles (DDGS) cooler system is in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.7.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Conditions D.7.1, D.7.2 and D.7.3, the Permittee shall perform PM and PM_{10} testing for the baghouse (DC-503) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with Condition D.7.4, the Permittee shall perform VOC testing utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.7.8 Visible Emissions Notations

(a) Visible emission notations of the distillers dried grains and solubles (DDGS) cooler system (EU-18) Stack DC-0503 exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.7.9 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouse (DC-503) used in conjunction with the distillers dried grains and solubles (DDGS) cooler system (EU-18), at least once per day when these processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.7.10 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.7.11 Record Keeping Requirements

(a) To document compliance with Condition D.7.8, the Permittee shall maintain a daily record of visible emission notations of the distillers dried grains and solubles (DDGS) cooler system (EU-18) Stack DC-0503 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the distillers dried grains and solubles (DDGS) cooler system did not operate that day).

(b) To document compliance with Condition D.7.9, the Permittee shall maintain a daily record of the pressure drop across the baghouse (DC-503) controlling the distillers dried grains and solubles (DDGS) cooler system (EU-18). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the distillers dried grains and solubles (DDGS) cooler system did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.8 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Storage Tanks

(q) Five (5) storage tanks, consisting of:

(1) One (1) floating roof gasoline storage tank, identified as T-601, installed in 1983, capacity: 75,000 gallons. Under NSPS, 40 CFR Part 60.110a, Subpart Ka, this tank is considered an existing volatile organic liquid storage tank.

(2) One (1) floating roof fuel ethanol storage tank, identified as T-610, installed in 1983, capacity: 750,000 gallons.

(3) One (1) ethanol internal floating roof storage tank, identified as T-611, installed in 2001, capacity: 1,250,000 gallons. Under NSPS, 40 CFR Part 60.110b, Subpart Kb, this tank is considered an existing volatile organic liquid storage tank.

(4) One (1) floating roof in-process ethanol storage tank, identified as T-612, installed in 1983, capacity: 75,000 gallons.

(5) One (1) fuel oil storage tank, identified as T-4120, installed in 1983, capacity: 250,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 Petroleum Liquid Storage Facility [326 IAC 8-4-3]

Storage tank (T-601) shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials. All openings, except stub drains, shall be equipped with covers, lids, or seals such that:

(a) the cover, lid, or seal is in the closed position at all times except when in actual use;

(b) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

(c) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer=s recommended setting.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.2 Record Keeping Requirements [326 IAC 8-4-3]

(a) Pursuant to 326 IAC 8-4-3, the Permittee will maintain records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed on the storage vessels. Such records shall be maintained for a period of two (2) years and shall be made available to the commissioner upon written request.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

(dd) Bag Dump-Process 326 IAC 6.5-1-2(a).

(gg) DDGS finishing 326 IAC 6.5-1-2(a).

(jj) Ash handling 326 IAC 6.5-1-2(a).

(kk) Ash loadout 326 IAC 6.5-1-2(a).

(ll) Coal receiving/handling and storage 326 IAC 6.5-1-2(a).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.9.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the above insignificant activities (dd) through (ll) shall be limited to 0.03 grains per dry standard cubic foot of exhaust air.

SECTION E.1 Nitrogen Oxides Budget Trading Program - NO_X Budget Permit for NO_X Budget Units Under 326 IAC 10-4-1(a)

ORIS Code: 880087

NO_X Budget Source [326 IAC 2-7-5(15)]

One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

E.1.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]

This NO_X budget permit is deemed to incorporate automatically the definitions of terms under 326 IAC 10-4-2.

E.1.2 Standard Permit Requirements [326 IAC 10-4-4(a)]

The owners and operators of the NO_X budget source and the NO_X budget unit, EU-14 (also identified as unit 003), shall operate the unit in compliance with this NO_X budget permit.

E.1.3 Monitoring Requirements [326 IAC 10-4-4(b)]

(a) The owners and operators and, to the extent applicable, the NO_X authorized account representative of the NO_X budget source and each NO_X budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12.

(b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NO_X budget emissions limitation under 326 IAC 10-4-4(c) and Condition E.1.4, Nitrogen Oxides Requirements.

E.1.4 Nitrogen Oxides Requirements [326 IAC 10-4-4(c)]

(a) The owners and operators of the NO_X budget source and each NO_X budget unit at the source shall hold NO_X allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO_X allowance transfer deadline, in each unit=s compliance account and the source=s overdraft account in an amount:

(1) Not less than the total NO_X emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;

(2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or

(3) To account for withdrawal from the NO_X budget trading program, or a change in regulatory status of a NO_X budget opt-in unit.

(b) Each ton of NO_X emitted in excess of the NO_X budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.

(c) The NO_X budget unit shall be subject to the requirements under (a) above and 326 IAC 10-4-4(c)(1) starting on May 31, 2004.

(d) NO_X allowances shall be held in, deducted from, or transferred among NO_X allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.

(e) A NO_X allowance shall not be deducted, in order to comply with the requirements under (a) above and 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NO_X allowance was allocated.

(f) A NO_X allowance allocated under the NO_X budget trading program is a limited authorization to emit one (1) ton of NO_X in accordance with the NO_X budget trading program. No provision of the NO_X budget trading program, the NO_X budget permit application, the NO_X budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.

(g) A NO_X allowance allocated under the NO_X budget trading program does not constitute a property right.

(h) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO_X allowance to or from each NO_X budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, this NO_X budget permit of the NO_X budget unit by operation of law without any further review.

E.1.5 Excess Emissions Requirements [326 IAC 10-4-4(d)]

The owners and operators of each NO_X budget unit that has excess emissions in any ozone control period shall do the following:

(a) Surrender the NO_X allowances required for deduction under 326 IAC 10-4-10(k)(5).

(b) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).

E.1.6 Record Keeping Requirements [326 IAC 10-4-4(e)] [326 IAC 2-7-5(3)]

Unless otherwise provided, the owners and operators of the NO_X budget source and each NO_X budget unit at the source shall keep, either on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years:

(a) The account certificate of representation for the NO_X authorized account representative for the source and each NO_X budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NO_X authorized account representative.

(b) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide for a three (3) year period for record keeping, the three (3) year period shall apply.

(c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_X budget trading program.

(d) Copies of all documents used to complete a NO_X budget permit application and any other submission under the NO_X budget trading program or to demonstrate compliance with the requirements of the NO_X budget trading program.

This period may be extended for cause, at any time prior to the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to IDEM, OAQ or U.S. EPA within three (3) business days following receipt of a written request. Nothing in 326 IAC 10-4-4(e) shall alter the record retention requirements for a source under 40 CFR 75. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

E.1.7 Reporting Requirements [326 IAC 10-4-4(e)]

(a) The NO_X authorized account representative of the NO_X budget source and each NO_X budget unit at the source shall submit the reports and compliance certifications required under the NO_X budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.

(b) Pursuant to 326 IAC 10-4-6(e), each submission shall include the following certification statement by the NO_X authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NO_X budget sources or NO_X budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

(c) Where 326 IAC 10-4 requires a submission to IDEM, OAQ, the NO_X authorized account representative shall submit required information to:

Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

(d) Where 326 IAC 10-4 requires a submission to U.S. EPA, the NO_X authorized account representative shall submit required information to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code 6204N
Washington, DC 20460

E.1.8 Liability [326 IAC 10-4-4(f)]

The owners and operators of each NO_X budget source shall be liable as follows:

(a) Any person who knowingly violates any requirement or prohibition of the NO_X budget trading program, a NO_X budget permit, or an exemption under 326 IAC 10-4-3 shall be subject to enforcement pursuant to applicable state or federal law.

(b) Any person who knowingly makes a false material statement in any record, submission, or report under the NO_X budget trading program shall be subject to criminal enforcement pursuant to the applicable state or federal law.

(c) No permit revision shall excuse any violation of the requirements of the NO_X budget trading program that occurs prior to the date that the revision takes effect.

(d) Each NO_X budget source and each NO_X budget unit shall meet the requirements of the NO_X budget trading program.

(e) Any provision of the NO_X budget trading program that applies to a NO_X budget source, including a provision applicable to the NO_X authorized account representative of a NO_X budget source, shall also apply to the owners and operators of the source and of the NO_X budget units at the source.

(f) Any provision of the NO_X budget trading program that applies to a NO_X budget unit, including a provision applicable to the NO_X authorized account representative of a NO_X budget unit, shall also apply to the owners and operators of the unit. Except with regard to the requirements applicable to units with a common stack under 40 CFR 75 and 326 IAC 10-4-12, the owners and operators and the NO_X authorized account representative of one (1) NO_X budget unit shall not be liable for any violation by any other NO_X budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

E.1.9 Effect on Other Authorities [326 IAC 10-4-4(g)]

No provision of the NO_X budget trading program, a NO_X budget permit application, a NO_X budget permit, or an exemption under 326 IAC 10-4-3 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_X authorized account representative of a NO_X budget source or NO_X budget unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the CAA.

SECTION F.1 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: NSPS Subpart D for Coal-Fired Boiler (EU-14)

(n) One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

F.1.1 General Provisions Relating to NSPS D [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.40, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the Riley-Stoker coal-fired boiler, identified as EU-14, described in this section except when otherwise specified in 40 CFR 60.40 through 60.46, Subpart D.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

F.1.2 New Source Performance Standards for Storage Vessels for for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 Requirements [40 CFR Part 60, Subpart D] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart D, the Permittee shall comply with the provisions of 40 CFR Part 60,40, which are incorporated by reference as 326 IAC 12-1 for the Riley-Stoker coal-fired boiler, identified as EU-14, as specified as follows:

Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971

§ 60.40 Applicability and designation of affected facility.

(a) The affected facilities to which the provisions of this subpart apply are:
(1) Each fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr)).
(2) Each fossil-fuel and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 73 MW (250 MMBtu/hr).
(b) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this subpart, shall not bring that unit under the applicability of this subpart.
(c) Except as provided in paragraph (d) of this section, any facility under paragraph (a) of this section that commenced construction or modification after August 17, 1971, is subject to the requirements of this subpart.
(d) The requirements of §§60.44 (a)(4), (a)(5), (b) and (d), and 60.45(f)(4)(vi) are applicable to lignite-fired steam generating units that commenced construction or modification after December 22, 1976.
(e) Any facility covered under subpart Da is not covered under this subpart.

§ 60.41 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, and in subpart A of this part.

Boiler operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24-hour period.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference, see §60.17).

Coal refuse means waste-products of coal mining, cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.

Fossil fuel and wood residue-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel and wood residue for the purpose of producing steam by heat transfer.

Fossil-fuel-fired steam generating unit means a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer.

Wood residue means bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing and forest management operations.

§ 60.42 Standard for particulate matter (PM).

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that:

(1) Contain PM in excess of 43 nanograms per joule (ng/J) heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue.

(2) Exhibit greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.

§ 60.43 Standard for sulfur dioxide (SO_2).(a) Except as provided under paragraph (d) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain SO_2 in excess of:

(2) 520 ng/J heat input (1.2 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue, except as provided in paragraph (e) of this section.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

(d) As an alternate to meeting the requirements of paragraphs (a) and (b) of this section, an owner or operator can petition the Administrator (in writing) to comply with §60.43Da(i)(3) of subpart Da of this part or comply with §60.42b(k) of subpart Db of this part, as applicable to the affected source. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.43Da(i)(3) of subpart Da of this part or §60.42b(k) of subpart Db of this part, as applicable to the affected source.

§ 60.44 Standard for nitrogen oxides (NOX).

(a) Except as provided under paragraph (e) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain NO_X, expressed as NO_2 in excess of:

(3) 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).

(e) As an alternate to meeting the requirements of paragraphs (a), (b), and (d) of this section, an owner or operator can petition the Administrator (in writing) to comply with §60.44Da(e)(3) of subpart Da of this part. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.44Da(e)(3) of subpart Da of this part.

§ 60.45 Emissions and fuel monitoring.

(a) Each owner or operator shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring the opacity of emissions, SO_2 emissions, NO_X emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section.
(b) Certain of the CEMS requirements under paragraph (a) of this section do not apply to owners or operators under the following conditions:
(5) An owner or operator may petition the Administrator (in writing) to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.
(c) For performance evaluations under §60.13(c) and calibration checks under §60.13(d), the following procedures shall be used:
(1) Methods 6, 7, and 3B of appendix A of this part, as applicable, shall be used for the performance evaluations of SO_2 and NO_X continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B of appendix A of this part are given in §60.46(d).
(2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of appendix B to this part.
(3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent. For a continuous monitoring system measuring sulfur oxides or NO_X the span value shall be determined using one of the following procedures:
(i) Except as provided under paragraph (c)(3)(ii) of this section, SO_2 and NO_X span values shall be determined as follows:

Fossil fuel	In parts per million	
	Span value for SO_2	Span value for NO_X
Gas	([1])	500.
Liquid	1,000	500.
Solid	1,500	1,000.
Combinations	1,000y + 1,500z	500 (x + y) + 1,000z.

[1]Not applicable.
Where:
x = Fraction of total heat input derived from gaseous fossil fuel;
y = Fraction of total heat input derived from liquid fossil fuel; and
z = Fraction of total heat input derived from solid fossil fuel.
(ii) As an alternative to meeting the requirements of paragraph (c)(3)(i) of this section, the owner or operator of an affected facility may elect to use the SO_2 and NO_X span values determined according to sections 2.1.1 and 2.1.2 in appendix A to part 75 of this chapter.
(4) All span values computed under paragraph (c)(3)(i) of this section for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm. Span values that are computed under paragraph (c)(3)(ii) of this section shall be rounded off according to the applicable procedures in section 2 of appendix A to part 75 of this chapter.
(e) For any CEMS installed under paragraph (a) of this section, the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/MMBtu):
(1) When a CEMS for measuring O_2 is selected, the measurement of the pollutant concentration and O_2 concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where E, C, F, and $\%O_2$ are determined under paragraph (f) of this section.
(2) When a CEMS for measuring CO_2 is selected, the measurement of the pollutant concentration and

CO_2 concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where E, C, F_c and $\%CO_2$ are determined under paragraph (f) of this section.
(f) The values used in the equations under paragraphs (e)(1) and (2) of this section are derived as follows:
(1) E = pollutant emissions, ng/J (lb/MMBtu).
(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^4 M ng/dscm per ppm (2.59×10^{-9}M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for SO_2 and 46.01 for NO_X.
(3) $\%O_2$, $\%CO_2$= O_2 or CO_2 volume (expressed as percent), determined with equipment specified under paragraph (a) of this section.
(4) F, F_c= a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of CO_2 generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:
(ii) For subbituminous and bituminous coal as classified according to ASTM D388 (incorporated by reference, see §60.17), F = 2.637×10^{-7}dscm/J (9,820 dscf/MMBtu) and F_c= 0.486×10^{-7}scm CO_2/J (1,810 scf CO_2/MMBtu).
(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/MMBtu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or Fc factor (scm CO_2/J, or scf CO_2/MMBtu) on either basis in lieu of the F or F_c factors specified in paragraph (f)(4) of this section:

$$F = 10^{-6}\,\frac{[227.2\ (\%H) + 95.5\ (\%C) + 35.6\ (\%S) + 8.7\ (\%N) - 28.7\ (\%O)]}{GCV}$$

$$F_c = \frac{2.0 \times 10^{-5} (\%C)}{GCV\ (\text{SI units})}$$

$$F = 10^{-6}\,\frac{[3.64\ (\%H) + 1.53\ (\%C) + 0.57\ (\%S) + 0.14\ (\%N) - 0.46\ (\%O)]}{GCV\ (\text{English units})}$$

$$F_c = \frac{20.0\ (\%C)}{GCV\ (\text{SI units})}$$

$$F_c = \frac{321 \times 10^3\ (\%C)}{GCV\ (\text{English units})}$$

(i) %H, %C, %S, %N, and %O are content by weight of hydrogen, carbon, sulfur, nitrogen, and O_2 (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D3178 or D3176 (solid fuels), or computed from results using ASTM D1137, D1945, or D1946 (gaseous fuels) as applicable. (These five methods are incorporated by reference, see §60.17.)
(ii) GVC is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015 or D5865 for solid fuels and D1826 for gaseous fuels as applicable. (These three methods are incorporated by reference, see §60.17.)
(g) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:
(1) *Opacity* . Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(2) *Sulfur dioxide* . Excess emissions for affected facilities are defined as:
(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard under §60.43, or
(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of SO_2 as measured by a CEMS exceed the applicable standard under §60.43. Facilities complying with the 30-day SO_2 standard shall use the most current associated SO_2 compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part.
(3) *Nitrogen oxides* . Excess emissions for affected facilities using a CEMS for measuring NO_X are defined as:
(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under §60.44, or
(ii) Any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of NO_X as measured by a CEMS exceed the applicable standard under §60.43. Facilities complying with the 30-day NO_X standard shall use the most current associated NO_X compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part.
(4) *Particulate matter* . Excess emissions for affected facilities using a CEMS for measuring PM are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards under §60.43. Affected facilities using PM CEMS in lieu of a CEMS for monitoring opacity emissions must follow the most current applicable compliance and monitoring provisions in §§60.48Da and 60.49Da of subpart Da of this part.

§ 60.46 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, and subsequent performance tests as requested by the EPA Administrator, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (d) of this section.
(b) The owner or operator shall determine compliance with the PM, SO_2, and NO_X standards in §§60.42, 60.43, and 60.44 as follows:
(1) The emission rate (E) of PM, SO_2, or NO_X shall be computed for each run using the following equation:

$$E = CF_d\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where:
E = Emission rate of pollutant, ng/J (1b/million Btu);
C = Concentration of pollutant, ng/dscm (1b/dscf);
$\%O_2$= O_2 concentration, percent dry basis; and
F_d= Factor as determined from Method 19 of appendix A of this part.
(2) Method 5 of appendix A of this part shall be used to determine the PM concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and Method 5B of appendix A of this part shall be used to determine the PM concentration (C) after FGD systems.
(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160±14 °C (320±25 °F).
(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration ($\%O_2$). The O_2sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of the sample O_2 concentrations at all traverse points.
(iii) If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 of appendix A of this part is used to locate the 12 O_2 traverse points.
(3) Method 9 of appendix A of this part and the procedures in §60.11 shall be used to determine opacity.
(4) Method 6 of appendix A of this part shall be used to determine the SO_2 concentration.
(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28

ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.
(ii) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration (%O_2). The O_2 sample shall be taken simultaneously with, and at the same point as, the SO_2 sample. The SO_2 emission rate shall be computed for each pair of SO_2 and O_2 samples. The SO_2 emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.
(5) Method 7 of appendix A of this part shall be used to determine the NO_X concentration.
(i) The sampling site and location shall be the same as for the SO_2 sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.
(ii) For each NO_X sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O_2 concentration (%O_2). The sample shall be taken simultaneously with, and at the same point as, the NO_X sample.
(iii) The NO_X emission rate shall be computed for each pair of NO_X and O_2 samples. The NO_X emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.
(d) The owner or operator may use the following as alternatives to the reference methods and procedures in this section or in other sections as specified:
(1) The emission rate (E) of PM, SO_2 and NO_X may be determined by using the Fc factor, provided that the following procedure is used:
(i) The emission rate (E) shall be computed using the following equation:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where:
E = Emission rate of pollutant, ng/J (lb/MMBtu);
C = Concentration of pollutant, ng/dscm (lb/dscf);
%CO_2= CO_2 concentration, percent dry basis; and
F_c= Factor as determined in appropriate sections of Method 19 of appendix A of this part.
(ii) If and only if the average Fc factor in Method 19 of appendix A of this part is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B of appendix A of this part shall be used to determine the O_2 and CO_2 concentration according to the procedures in paragraph (b)(2)(ii), (4)(ii), or (5)(ii) of this section. Then if F_o (average of three runs), as calculated from the equation in Method 3B of appendix A of this part, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19 of appendix A of this part, *i.e.* , F_{oa}= 0.209 (F_{da}/F_{ca}), then the following procedure shall be followed:
(A) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.* , if $F_o$is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.
(B) When F_o is less than 0.97 F_{oa} and when the average difference (d) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, *e.g.*, if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.
(C) When F_o is greater than 1.03 F_{oa} and when the average difference d is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, *e.g.* , if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.
(2) For Method 5 or 5B of appendix A of this part, Method 17 of appendix A of this part may be used at facilities with or without wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 16 0 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used with Method 17 of appendix A of this part only if it is used after wet FGD systems. Method 17 of appendix A of this part shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.
(3) Particulate matter and SO_2 may be determined simultaneously with the Method 5 of appendix A of this part train provided that the following changes are made:
(i) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 of appendix A of this part is

used in place of the condenser (section 2.1.7) of Method 5 of appendix A of this part.
(ii) All applicable procedures in Method 8 of appendix A of this part for the determination of SO_2(including moisture) are used:
(4) For Method 6 of appendix A of this part, Method 6C of appendix A of this part may be used. Method 6A of appendix A of this part may also be used whenever Methods 6 and 3B of appendix A of this part data are specified to determine the SO_2 emission rate, under the conditions in paragraph (d)(1) of this section.
(5) For Method 7 of appendix A of this part, Method 7A, 7C, 7D, or 7E of appendix A of this part may be used. If Method 7C, 7D, or 7E of appendix A of this part is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O_2 concentration (%O_2) for the emission rate correction factor.
(6) For Method 3 of appendix A of this part, Method 3A or 3B of appendix A of this part may be used.
(7) For Method 3B of appendix A of this part, Method 3A of appendix A of this part may be used.

SECTION F.2 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:	**NSPS Subpart Ka for: Gasoline Storage Tank (T-601)**

(r) (1) One (1) floating roof gasoline storage tank, identified as T-601, installed in 1983, capacity: 75,000 gallons. Under NSPS, 40 CFR Part 60.110a, Subpart Ka, this tank is considered an existing volatile organic liquid storage tank.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

F.2.1 General Provisions Relating to NSPS Ka [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.110a, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the floating roof gasoline storage tank, identified as T-601, described in this section except when otherwise specified in 40 CFR 60.110a through 60.115a, Subpart Ka.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

F.2.2 New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 Requirements [40 CFR Part 60, Subpart Ka] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart Ka, the Permittee shall comply with the provisions of 40 CFR Part 60,110a, which are incorporated by reference as 326 IAC 12-1 for the floating roof gasoline storage tank, identified as T-601, as specified as follows:

Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

§ 60.110a Applicability and designation of affected facility.

(a) *Affected facility.* Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978.
(c) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112a through 60.114a for storage vessels that are subject to this subpart that store petroleum liquids that, as stored, have a maximum true vapor pressure equal to or greater than 10.3 kPa (1.5 psia). Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (c)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65,

subpart A.
[45 FR 23379, Apr. 4, 1980, as amended at 65 FR 78275, Dec. 14, 2000]

§ 60.111a Definitions.

In addition to the terms and their definitions listed in the Act and subpart A of this part the following definitions apply in this subpart:
(a) *Storage vessel* means each tank, reservoir, or container used for the storage of petroleum liquids, but does not include:
(1) Pressure vessels which are designed to operate in excess of 204.9 kPa (15 psig) without emissions to the atmosphere except under emergency conditions.
(2) Subsurface caverns or porous rock reservoirs, or
(3) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.
(b) *Petroleum liquids* means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396–78, 89, 90, 92, 96, or 98, gas turbine fuel oils Nos. 2–GT through 4–GT as specified in ASTM D2880–78 or 96, gas turbine fuel oils Nos. 2–GT through 4–GT as specified in ASTM D2880–78 or 96, or diesel fuel oils Nos. 2–D and 4–D as specified in ASTM D975–78, 96, or 98a. (These three methods are incorporated by reference—see §60.17.)
(c) *Petroleum refinery* means each facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking, extracting, or reforming of unfinished petroleum derivatives.
(d) *Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.
(e) *Condensate* means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.
(f) *True vapor pressure* means the equilibrium partial pressure exerted by a petroleum liquid such as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from External Floating-Roof Tanks, Second Edition, February 1980 (incorporated by reference—see §60.17).
(g) *Reid vapor pressure* is the absolute vapor pressure of volatile crude oil and nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D323–82 or 94 (incorporated by reference—see §60.17).
(h) *Liquid-mounted seal* means a foam or liquid-filled primary seal mounted in contact with the liquid between the tank wall and the floating roof continuously around the circumference of the tank.
(i) *Metallic shoe seal* includes but is not limited to a metal sheet held vertically against the tank wall by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
(j) *Vapor-mounted seal* means a foam-filled primary seal mounted continuously around the circumference of the tank so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.
(k) *Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.
[45 FR 23379, Apr. 4, 1980, as amended at 48 FR 3737, Jan. 27, 1983; 52 FR 11429, Apr. 8, 1987; 65 FR 61756, Oct. 17, 2000]

§ 60.112a Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure equal to or greater than 10.3 kPa (1.5 psia) but not greater than 76.6 kPa (11.1 psia) shall equip the storage vessel with one of the following:
(1) An external floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in paragraph (a)(1)(ii)(D) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred

to as the secondary seal. The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
(i) The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Each seal is to meet the following requirements:
(A) The accumulated area of gaps between the tank wall and the metallic shoe seal or the liquid-mounted seal shall not exceed 212 cm^2 per meter of tank diameter (10.0 in^2 per ft of tank diameter) and the width of any portion of any gap shall not exceed 3.81 cm (11/2in).
(B) The accumulated area of gaps between the tank wall and the vapor-mounted seal shall not exceed 21.2 cm^2 per meter of tank diameter (1.0 in^2 per ft of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2in).
(C) One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 61 cm (24 in) above the stored liquid surface.
(D) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
(ii) The secondary seal is to meet the following requirements:
(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (a)(1)(ii)(B) of this section.
(B) The accumulated area of gaps between the tank wall and the secondary seal used in combination with a metallic shoe or liquid-mounted primary seal shall not exceed 21.2 cm^2 per meter of tank diameter (1.0 in^2 per ft. of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (1/2in.). There shall be no gaps between the tank wall and the secondary seal used in combination with a vapor-mounted primary seal.
(C) There are to be no holes, tears or other openings in the seal or seal fabric.
(D) The owner or operator is exempted from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal.
(iii) Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. Each opening in the roof except for automatic bleeder vents, rim space vents and leg sleeves is to be equipped with a cover, seal or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use or as described in pargraph (a)(1)(iv) of this section. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting.
(iv) Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
(3) A vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.
(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114a.
(b) The owner or operator of each storage vessel to which this subpart applies which contains a petroleum liquid which, as stored, has a true vapor pressure greater than 76.6 kPa (11.1 psia), shall equip the storage vessel with a vapor recovery system which collects all VOC vapors and gases discharged from the storage vessel, and a vapor return or disposal system which is designed to process such VOC vapors and gases so as to reduce their emission to the atmosphere by at least 95 percent by weight.
[45 FR 23379, Apr. 4, 1980, as amended at 45 FR 83229, Dec. 18, 1980]

§ 60.113a Testing and procedures.

(a) Except as provided in §60.8(b) compliance with the standard prescribed in §60.112a shall be determined as follows or in accordance with an equivalent procedure as provided in §60.114a.
(1) The owner or operator of each storage vessel to which this subpart applies which has an external floating roof shall meet the following requirements:
(i) Determine the gap areas and maximum gap widths between the primary seal and the tank wall and between the secondary seal and the tank wall according to the following frequency:

(A) For primary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every five years thereafter. All primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal shall be accomplished as rapidly as possible and the secondary seal shall be replaced as soon as possible.
(B) For secondary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every year thereafter.
(C) If any storage vessel is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill for the purposes of paragraphs (a)(1)(i)(A) and (a)(1)(i)(B) of this section.
(D) Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by paragraph (a)(1)(ii) of this section and the calculation required by paragraph (a)(1)(iii) of this section.
(E) If either the seal gap calculated in accord with paragraph (a)(1)(iii) of this section or the measured maximum seal gap exceeds the limitations specified by §60.112a of this subpart, a report shall be furnished to the Administrator within 60 days of the date of measurements. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of §60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of §60.112a.
(ii) Determine gap widths in the primary and secondary seals individually by the following procedures:
(A) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
(B) Measure seal gaps around the entire circumference of the tank in each place where a1/8&inch; diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location.
(C) The total surface area of each gap described in paragraph (a)(1)(ii)(B) of this section shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
(iii) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the appropriate ratio in the standard in §60.112a(a)(1)(i) and §60.112a(a)(1)(ii).
(iv) Provide the Administrator 30 days prior notice of the gap measurement to afford the Administrator the opportunity to have an observer present.
(2) The owner or operator of each storage vessel to which this subpart applies which has a vapor recovery and return or disposal system shall provide the following information to the Administrator on or before the date on which construction of the storage vessel commences:
(i) Emission data, if available, for a similar vapor recovery and return or disposal system used on the same type of storage vessel, which can be used to determine the efficiency of the system. A complete description of the emission measurement method used must be included.
(ii) The manufacturer's design specifications and estimated emission reduction capability of the system.
(iii) The operation and maintenance plan for the system.
(iv) Any other information which will be useful to the Administrator in evaluating the effectiveness of the system in reducing VOC emissions.
[45 FR 23379, Apr. 4, 1980, as amended at 52 FR 11429, Apr. 8, 1987]

§ 60.114a Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112a, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.
(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112a.
(e) The primary vapor-mounted seal in the “Volume-Maximizing Seal” manufactured by R.F.I. Services Corporation is approved as equivalent to the vapor-mounted seal required by §60.112a(a)(1)(i) and must meet the gap criteria specified in §60.112a(a)(1)(i)(B). There shall be no gaps between the tank wall and any secondary seal used in conjunction with the primary seal in the “Volume-Maximizing Seal”.
[52 FR 11429, Apr. 8, 1987]

§ 60.115a Monitoring of operations.

(a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
(b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
(c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).
(d) The following are exempt from the requirements of this section:
(2) The owner or operator of each storage vessel equipped with a vapor recovery and return or disposal system in accordance with the requirements of §60.112a(a)(3) and (b), or a closed vent system and control device meeting the specifications of 40 CFR 65.42(b)(4), (b)(5), or (c).
[45 FR 23379, Apr. 4, 1980, as amended at 65 FR 78275, Dec. 14, 2000]

SECTION F.3 **FACILITY CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]: **NSPS Subpart Kb for: Ethanol Storage Tank (T-611)**

(q) (3) One (1) ethanol internal floating roof storage tank, identified as T-611, installed in 2001, capacity: 1,250,000 gallons. Under NSPS, 40 CFR Part 60.110b, Subpart Kb, this tank is considered an existing volatile organic liquid storage tank.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

F.3.1 General Provisions Relating to NSPS Kb [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.110b, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the ethanol internal floating roof storage tank, identified as T-611, described in this section except when otherwise specified in 40 CFR 60.110b through 60.117b, Subpart Kb.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

F.3.2 New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 Requirements [40 CFR Part 60, Subpart Kb] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart Kb, the Permittee shall comply with the provisions of 40 CFR Part 60,110b, which are incorporated by reference as 326 IAC 12-1 for the ethanol internal floating roof storage tank, identified as T-611, as specified as follows:

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

§ 60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
(d) This subpart does not apply to the following:
(1) Vessels at coke oven by-product plants.
(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.
(5) Vessels located at bulk gasoline plants.
(6) Storage vessels located at gasoline service stations.
(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.
(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or
(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.
(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.
(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

§ 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:
Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.
Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.
Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.
Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.
Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.
Maximum true vapor pressure means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:
(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see §60.17); or
(2) As obtained from standard reference texts; or
(3) As determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17);
(4) Any other method approved by the Administrator.
Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.
Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.
Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit

operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.
Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323–82 or 94 (incorporated by reference—see §60.17).
Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:
(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;
(2) Subsurface caverns or porous rock reservoirs; or
(3) Process tanks.
Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.
Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.
[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
(1) A fixed roof in combination with an internal floating roof meeting the following specifications:
(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
(3) A closed vent system and control device meeting the following specifications:
(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).
(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.
(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:
(1) A closed vent system and control device as specified in §60.112b(a)(3).
(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.
(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):
(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or
(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.
(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in

paragraph (a)(3)(i) of this section.
(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.
(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.
(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.
(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.
(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).
(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.
[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

§ 60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.
(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
(c) Any person seeking permission under this section shall submit to the Administrator a written application including:
(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment

installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.
(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).
(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.
(b) After installing control equipment in accordance with §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.
(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).
(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:
(i) The date of measurement.
(ii) The raw data obtained in the measurement.
(iii) The calculations described in §60.113b (b)(2) and (b)(3).
(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
(i) The date of measurement.
(ii) The raw data obtained in the measurement.
(iii) The calculations described in §60.113b (b)(2) and (b)(3).
(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b (b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.
(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.
(1) A copy of the operating plan.
(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).
(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.
(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.
(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§ 60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.
(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.
(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.
(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
(3) For other liquids, the vapor pressure:
(i) May be obtained from standard reference texts, or
(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or
(iii) Measured by an appropriate method approved by the Administrator; or
(iv) Calculated by an appropriate method approved by the Administrator.
(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
(i) ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or
(ii) ASTM D323–82 or 94 (incorporated by reference—see §60.17); or
(iii) As measured by an appropriate method as approved by the Administrator.
(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.
[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 68

FR 59333, Oct. 15, 2003]

§ 60.117b Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

SECTION F.4 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: NSPS Subpart VV for:

Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07) and Alcohol Load-Out (EU-13)

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Facility Description [326 IAC 2-7-5(15)]: NSPS Subpart VV for:

Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07) and Alcohol Load-Out (EU-13)

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

F.4.1 General Provisions Relating to NSPS VV [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.480, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, and alcohol load-out operation, identified as EU-13, described in this section except when otherwise specified in 40 CFR 60.480 through 60.489 Subpart VV.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

F.4.2 New Source Performance Standards for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry Requirements [40 CFR Part 60, Subpart VV] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart VV, the Permittee shall comply with the provisions of 40 CFR Part 60.480, which are incorporated by reference as 326 IAC 12-1 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07 and alcohol load-out operation, identified as EU-13, as specified as follows:

NSPS Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

§ 60.480 Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.
(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility.
(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.
(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §60.485(d), (e), and (f), and §60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not

apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.481 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.
Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:
(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where
(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$A = Y \times (B \div 100)$;

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 1982 minus the year of construction; and
(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable for B

Subpart applicable to facility	Value of B to be used in equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.
Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.
Control device means an enclosed combustion device, vapor recovery system, or flare.
Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.
Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.
Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.
Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.
First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.
Fuel gas means gases that are combusted to derive useful work or heat.
Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007–2900).
In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.
In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.
In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485(e).
In-situ sampling systems means nonextractive samplers or in-line samplers.
In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.
In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485(d) specify how to determine that a piece of equipment is not in VOC service.)
Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.
Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.
Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.
Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.
Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.
Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.
Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.
Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.
Replacement cost means the capital needed to purchase all the depreciable components in a facility.
Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.
Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.
Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.
Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 49 FR 26738, June 29, 1984; 60 FR 43258, Aug. 18, 1995; 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.482-1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482–1 through 60.482–10 or §60.480(e) for all equipment within 180 days of initial startup.
(b) Compliance with §§60.482–1 to 60.482–10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, and 60.482–10 as provided in §60.484.
(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, or 60.482–10, an owner or operator shall comply with the requirements of that determination.
(d) Equipment that is in vacuum service is excluded from the requirements of §§60.482–2 to 60.482–10 if it is identified as required in §60.486(e)(5).
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 78276, Dec. 14, 2000]

§ 60.482-2 Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482–1(c) and paragraphs (d), (e), and (f) of this section.
(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
(2) If there are indications of liquids dripping from the pump seal, a leak is detected.
(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), *Provided* the following requirements are met:
(1) Each dual mechanical seal system is—
(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or
(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
(2) The barrier fluid system is in heavy liquid service or is not in VOC service.
(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and
(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.
(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.
(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(e) Any pump that is designated, as described in §60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:
(1) Has no externally actuated shaft penetrating the pump housing,
(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in §60.485(c), and
(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.
(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482–10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:
(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and
(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.
(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§ 60.482-3 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482–1(c) and paragraph (h) and (i) of this section.
(b) Each compressor seal system as required in paragraph (a) shall be:
(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or
(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.
(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
(e)(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.
(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.
(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of §60.482–10, except as provided in paragraph (i) of this section.
(i) Any compressor that is designated, as described in §60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)–(h) if the compressor:
(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485(c); and
(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.
(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from §60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).
(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482–9.
(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).
(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482–10 is exempted from the requirements of paragraphs (a) and (b) of this section.
(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.
(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482–9.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in §60.482–1(c). Gases displaced during filling of the sample container are not required to be collected or captured.
(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:
(1) Return the purged process fluid directly to the process line; or
(2) Collect and recycle the purged process fluid to a process; or
(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482–10; or
(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:
(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;
(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or
(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.
(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.
[60 FR 43258, Aug. 18, 1995, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

§ 60.482-6 Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482–1(c).
(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.
(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22607, May 30, 1984; 65 FR 78277, Dec. 14, 2000]

§ 60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), §60.483–1, 2, and §60.482–1(c).
(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
(c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.
(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482–9.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(e) First attempts at repair include, but are not limited to, the following best practices where practicable:
(1) Tightening of bonnet bolts;
(2) Replacement of bonnet bolts;
(3) Tightening of packing gland nuts;
(4) Injection of lubricant into lubricated packing.
(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:
(1) Has no external actuating mechanism in contact with the process fluid,
(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and
(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.
(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:
(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and
(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:
(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and
(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61762, Oct. 17, 2000]

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and

connectors, the owner or operator shall follow either one of the following procedures:
(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.
(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.
(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.
(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(d) First attempts at repair include, but are not limited to, the best practices described under §60.482–7(e).
[48 CFR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

§ 60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
(c) Delay of repair for valves will be allowed if:
(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482–10.
(d) Delay of repair for pumps will be allowed if:
(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

§ 60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.
(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.
(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.
(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.
(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.
(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.
(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:
(i) Conduct an initial inspection according to the procedures in §60.485(b); and
(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:
(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual inspections according to the procedures in §60.485(b).
(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.
(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
(2) Repair shall be completed no later than 15 calendar days after the leak is detected.
(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.
(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.
(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:
(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and
(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:
(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
(2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.
(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.
(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
(3) For each inspection during which a leak is detected, a record of the information specified in §60.486(c).
(4) For each inspection conducted in accordance with §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
[48 FR 48335, Oct. 18, 1983, as amended at 51 FR 2702, Jan. 21, 1986; 60 FR 43258, Aug. 18, 1995; 61 FR 29878, June 12, 1996; 65 FR 78277, Dec. 14, 2000]

§ 60.483-1 Alternative standards for valves—allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:
(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified

in §60.487(d).
(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.
(3) If a valve leak is detected, it shall be repaired in accordance with §60.482–7(d) and (e).
(c) Performance tests shall be conducted in the following manner:
(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485(b).
(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.
(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.483-2 Alternative standards for valves—skip period leak detection and repair.

(a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.
(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d).
(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482–7.
(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482–7 but can again elect to use this section.
(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.
(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.484 Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalance for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.
(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:
(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.
(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.
(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.
(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:
(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.
(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.
(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.
(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).
(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.
(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.
(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.
(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.
(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.
(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.
(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61762, Oct. 17, 2000]

§ 60.485 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).
(b) The owner or operator shall determine compliance with the standards in §§60.482, 60.483, and 60.484 as follows:
(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:
(i) Zero air (less than 10 ppm of hydrocarbon in air); and
(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.
(c) The owner or operator shall determine compliance with the no detectable emission standards in §§60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows:
(1) The requirements of paragraph (b) shall apply.
(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:
(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.
(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content

of the process fluid.
(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.
(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:
(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.
(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight.
(3) The fluid is a liquid at operating conditions.
(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
(g) The owner or operator shall determine compliance with the standards of flares as follows:
(1) Method 22 shall be used to determine visible emissions.
(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.
(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

Where:
V_{max}= Maximum permitted velocity, m/sec (ft/sec)
H_T= Net heating value of the gas being combusted, MJ/scm (Btu/scf).
K_1= 8.706 m/sec (metric units)
= 28.56 ft/sec (English units)
K_2= 0.7084 m^4 /(MJ-sec) (metric units)
= 0.087 ft^4 /(Btu-sec) (English units)
(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:
K = Conversion constant, 1.740 × 10^7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)
= 4.674 × 10^8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)
C_i= Concentration of sample component "i," ppm
H_i= net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole
(5) Method 18 and ASTM D2504–67, 77, or 88 (Reapproved 1993) (incorporated by reference—see §60.17) shall be used to determine the concentration of sample component "i."
(6) ASTM D2382–76 or 88 or D4809–95 (incorporated by reference—see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.
(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.
[54 FR 6678, Feb. 14, 1989, as amended at 54 FR 27016, June 27, 1989; 65 FR 61763, Oct. 17, 2000]

§ 60.486 Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.
(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply:
(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482–7(c) and no leak has been detected during those 2 months.
(3) The identification on equipment except on a valve, may be removed after it has been repaired.
(c) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
(1) The instrument and operator identification numbers and the equipment identification number.
(2) The date the leak was detected and the dates of each attempt to repair the leak.
(3) Repair methods applied in each attempt to repair the leak.
(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.
(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.
(9) The date of successful repair of the leak.
(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482–10 shall be recorded and kept in a readily accessible location:
(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
(2) The dates and descriptions of any changes in the design specifications.
(3) A description of the parameter or parameters monitored, as required in §60.482–10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
(4) Periods when the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5 are not operated as designed, including periods when a flare pilot light does not have a flame.
(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5.
(e) The following information pertaining to all equipment subject to the requirements in §§60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location:
(1) A list of identification numbers for equipment subject to the requirements of this subpart.
(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482–2(e), 60.482–3(i) and 60.482–7(f).
(ii) The designation of equipment as subject to the requirements of §60.482–2(e), §60.482–3(i), or §60.482–7(f) shall be signed by the owner or operator.
(3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482–4.
(4)(i) The dates of each compliance test as required in §§60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f).
(ii) The background level measured during each compliance test.
(iii) The maximum instrument reading measured at the equipment during each compliance test.
(5) A list of identification numbers for equipment in vacuum service.
(f) The following information pertaining to all valves subject to the requirements of §60.482–7(g) and (h) and to all pumps subject to the requirements of §60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:
(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.
(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with §60.483–2:
(1) A schedule of monitoring.
(2) The percent of valves found leaking during each monitoring period.
(h) The following information shall be recorded in a log that is kept in a readily accessible location:
(1) Design criterion required in §§60.482–2(d)(5) and 60.482–3(e)(2) and explanation of the design criterion; and
(2) Any changes to this criterion and the reasons for the changes.
(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):
(1) An analysis demonstrating the design capacity of the affected facility,
(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and
(3) An analysis demonstrating that equipment is not in VOC service.
(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.
(k) The provisions of §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.
[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

§ 60.487 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.
(b) The initial semiannual report to the Administrator shall include the following information:
(1) Process unit identification.
(2) Number of valves subject to the requirements of §60.482–7, excluding those valves designated for no detectable emissions under the provisions of §60.482–7(f).
(3) Number of pumps subject to the requirements of §60.482–2, excluding those pumps designated for no detectable emissions under the provisions of §60.482–2(e) and those pumps complying with §60.482–2(f).
(4) Number of compressors subject to the requirements of §60.482–3, excluding those compressors designated for no detectable emissions under the provisions of §60.482–3(i) and those compressors complying with §60.482–3(h).
(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:
(1) Process unit identification.
(2) For each month during the semiannual reporting period,
(i) Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483–2,
(ii) Number of valves for which leaks were not repaired as required in §60.482–7(d)(1),
(iii) Number of pumps for which leaks were detected as described in §60.482–2(b) and (d)(6)(i),
(iv) Number of pumps for which leaks were not repaired as required in §60.482–2(c)(1) and (d)(6)(ii),
(v) Number of compressors for which leaks were detected as described in §60.482–3(f),
(vi) Number of compressors for which leaks were not repaired as required in §60.482–3(g)(1), and
(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.
(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.
(d) An owner or operator electing to comply with the provisions of §§60.483–1 or 60.483–2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.
(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.
(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by

the State.
[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61763, Oct. 17, 2000]

§ 60.488 Reconstruction.

For the purposes of this subpart:
(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital costs that would be required to construct a comparable new facility” under §60.15: pump seals, nuts and bolts, rupture disks, and packings.
(b) Under §60.15, the “fixed capital cost of new components” includes the fixed capital cost of all depreciable components (except components specified in §60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the “Applicability and designation of affected facility” section of the appropriate subpart.) For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.
[49 FR 22608, May 30, 1984]

§ 60.489 List of chemicals produced by affected facilities.

The following chemicals are produced, as intermediates or final products, by process units covered under this subpart. The applicability date for process units producing one or more of these chemicals is January 5, 1981.

CAS No.[a]	Chemical
105–57–7	Acetal.
75–07–0	Acetaldehyde.
107–89–1	Acetaldol.
60–35–5	Acetamide.
103–84–4	Acetanilide.
64–19–7	Acetic acid.
108–24–7	Acetic anhydride.
67–64–1	Acetone.
75–86–5	Acetone cyanohydrin.
75–05–8	Acetonitrile.
98–86–2	Acetophenone.
75–36–5	Acetyl chloride.
74–86–2	Acetylene.
107–02–8	Acrolein.
79–06–1	Acrylamide.
79–10–7	Acrylic acid.
107–13–1	Acrylonitrile.
124–04–9	Adipic acid.
111–69–3	Adiponitrile.
([b])	Alkyl naphthalenes.
107–18–6	Allyl alcohol.
107–05–1	Allyl chloride.
1321–11–5	Aminobenzoic acid.

CAS No.[a]	Chemical
111–41–1	Aminoethylethanolamine.
123–30–8	p-Aminophenol.
628–63–7, 123–92–2	Amyl acetates.
71–41–0[c]	Amyl alcohols.
110–58–7	Amyl amine.
543–59–9	Amyl chloride.
110–66–7[c]	Amyl mercaptans.
1322–06–1	Amyl phenol.
62–53–3	Aniline.
142–04–1	Aniline hydrochloride.
29191–52–4	Anisidine.
100–66–3	Anisole.
118–92–3	Anthranilic acid.
84–65–1	Anthraquinone.
100–52–7	Benzaldehyde.
55–21–0	Benzamide.
71–43–2	Benzene.
98–48–6	Benzenedisulfonic acid.
98–11–3	Benzenesulfonic acid.
134–81–6	Benzil.
76–93–7	Benzilic acid.
65–85–0	Benzoic acid.
119–53–9	Benzoin.
100–47–0	Benzonitrile.
119–61–9	Benzophenone.
98–07–7	Benzotrichloride.
98–88–4	Benzoyl chloride.
100–51–6	Benzyl alcohol.
100–46–9	Benzylamine.
120–51–4	Benzyl benzoate.
100–44–7	Benzyl chloride.
98–87–3	Benzyl dichloride.
92–52–4	Biphenyl.
80–05–7	Bisphenol A.
10–86–1	Bromobenzene.
27497–51–4	Bromonaphthalene.
106–99–0	Butadiene.
106–98–9	1-butene.
123–86–4	n-butyl acetate.
141–32–2	n-butyl acrylate.
71–36–3	n-butyl alcohol.

CAS No.[a]	Chemical
78–92–2	s-butyl alcohol.
75–65–0	t-butyl alcohol.
109–73–9	n-butylamine.
13952–84–6	s-butylamine.
75–64–9	t-butylamine.
98–73–7	p-tert-butyl benzoic acid.
107–88–0	1,3-butylene glycol.
123–72–8	n-butyraldehyde.
107–92–6	Butyric acid.
106–31–0	Butyric anhydride.
109–74–0	Butyronitrile.
105–60–2	Caprolactam.
75–1–50	Carbon disulfide.
558–13–4	Carbon tetrabromide.
56–23–5	Carbon tetrachloride.
9004–35–7	Cellulose acetate.
79–11–8	Chloroacetic acid.
108–42–9	m-chloroaniline.
95–51–2	o-chloroaniline.
106–47–8	p-chloroaniline.
35913–09–8	Chlorobenzaldehyde.
108–90–7	Chlorobenzene.
118–91–2, 535–80–8, 74–11–3[c]	Chlorobenzoic acid.
2136–81–4, 2136–89–2, 5216–25–1[c]	Chlorobenzotrichloride.
1321–03–5	Chlorobenzoyl chloride.
25497–29–4	Chlorodifluoromethane.
75–45–6	Chlorodifluoroethane.
67–66–3	Chloroform.
25586–43–0	Chloronaphthalene.
88–73–3	o-chloronitrobenzene.
100–00–5	p-chloronitrobenzene.
25167–80–0	Chlorophenols.
126–99–8	Chloroprene.
7790–94–5	Chlorosulfonic acid.
108–41–8	m-chlorotoluene.
95–49–8	o-chlorotoluene.
106–43–4	p-chlorotoluene.
75–72–9	Chlorotrifluoromethane.
108–39–4	m-cresol.
95–48–7	o-cresol.
106–44–5	p-cresol.

CAS No.[a]	Chemical
1319–77–3	Mixed cresols.
1319–77–3	Cresylic acid.
4170–30–0	Crotonaldehyde.
3724–65–0	Crotonic acid.
98–82–8	Cumene.
80–15–9	Cumene hydroperoxide.
372–09–8	Cyanoacetic acid.
506–77–4	Cyanogen chloride.
108–80–5	Cyanuric acid.
108–77–0	Cyanuric chloride.
110–82–7	Cyclohexane.
108–93–0	Cyclohexanol.
108–94–1	Cyclohexanone.
110–83–8	Cyclohexene.
108–91–8	Cyclohexylamine.
111–78–4	Cyclooctadiene.
112–30–1	Decanol.
123–42–2	Diacetone alcohol.
27576–04–1	Diaminobenzoic acid.
95–76–1, 95–82–9, 554–00–7, 608–27–5, 608–31–1, 626–43–7, 27134–27–6, 57311–92–9[c]	Dichloroaniline.
541–73–1	m-dichlorobenzene.
95–50–1	o-dichlorobenzene.
106–46–7	p-dichlorobenzene.
75–71–8	Dichlorodifluoromethane.
111–44–4	Dichloroethyl ether.
107–06–2	1,2-dichloroethane (EDC).
96–23–1	Dichlorohydrin.
26952–23–8	Dichloropropene.
101–83–7	Dicyclohexylamine.
109–89–7	Diethylamine.
111–46–6	Diethylene glycol.
112–36–7	Diethylene glycol diethyl ether.
111–96–6	Diethylene glycol dimethyl ether.
112–34–5	Diethylene glycol monobutyl ether.
124–17–4	Diethylene glycol monobutyl ether acetate.
111–90–0	Diethylene glycol monoethyl ether.
112–15–2	Diethylene glycol monoethyl ether acetate.
111–77–3	Diethylene glycol monomethyl ether.

CAS No.[a]	Chemical
64–67–5	Diethyl sulfate.
75–37–6	Difluoroethane.
25167–70–8	Diisobutylene.
26761–40–0	Diisodecyl phthalate.
27554–26–3	Diisooctyl phthalate.
674–82–8	Diketene.
124–40–3	Dimethylamine.
121–69–7	N,N-dimethylaniline.
115–10–6	N,N-dimethyl ether.
68–12–2	N,N-dimethylformamide.
57–14–7	Dimethylhydrazine.
77–78–1	Dimethyl sulfate.
75–18–3	Dimethyl sulfide.
67–68–5	Dimethyl sulfoxide.
120–61–6	Dimethyl terephthalate.
99–34–3	3,5-dinitrobenzoic acid.
51–28–5	Dinitrophenol.
25321–14–6	Dinitrotoluene.
123–91–1	Dioxane.
646–06–0	Dioxilane.
122–39–4	Diphenylamine.
101–84–8	Diphenyl oxide.
102–08–9	Diphenyl thiourea.
25265–71–8	Dipropylene glycol.
25378–22–7	Dodecene.
28675–17–4	Dodecylaniline.
27193–86–8	Dodecylphenol.
106–89–8	Epichlorohydrin.
64–17–5	Ethanol.
141–43–5[c]	Ethanolamines.
141–78–6	Ethyl acetate.
141–97–9	Ethyl acetoacetate.
140–88–5	Ethyl acrylate.
75–04–7	Ethylamine.
100–41–4	Ethylbenzene.
74–96–4	Ethyl bromide.
9004–57–3	Ethylcellulose.
75–00–3	Ethyl chloride.
105–39–5	Ethyl chloroacetate.
105–56–6	Ethylcyanoacetate.
74–85–1	Ethylene.

CAS No.[a]	Chemical
96–49–1	Ethylene carbonate.
107–07–3	Ethylene chlorohydrin.
107–15–3	Ethylenediamine.
106–93–4	Ethylene dibromide.
107–21–1	Ethylene glycol.
111–55–7	Ethylene glycol diacetate.
110–71–4	Ethylene glycol dimethyl ether.
111–76–2	Ethylene glycol monobutyl ether.
112–07–2	Ethylene glycol monobutyl ether acetate.
110–80–5	Ethylene glycol monoethyl ether.
111–15–9	Ethylene glycol monethyl ether acetate.
109–86–4	Ethylene glycol monomethyl ether.
110–49–6	Ethylene glycol monomethyl ether acetate.
122–99–6	Ethylene glycol monophenyl ether.
2807–30–9	Ethylene glycol monopropyl ether.
75–21–8	Ethylene oxide.
60–29–7	Ethyl ether
104–76–7	2-ethylhexanol.
122–51–0	Ethyl orthoformate.
95–92–1	Ethyl oxalate.
41892–71–1	Ethyl sodium oxalacetate.
50–00–0	Formaldehyde.
75–12–7	Formamide.
64–18–6	Formic acid.
110–17–8	Fumaric acid.
98–01–1	Furfural.
56–81–5	Glycerol.
26545–73–7	Glycerol dichlorohydrin.
25791–96–2	Glycerol triether.
56–40–6	Glycine.
107–22–2	Glyoxal.
118–74–1	Hexachlorobenzene.
67–72–1	Hexachloroethane.
36653–82–4	Hexadecyl alcohol.
124–09–4	Hexamethylenediamine.
629–11–8	Hexamethylene glycol.
100–97–0	Hexamethylenetetramine.
74–90–8	Hydrogen cyanide.
123–31–9	Hydroquinone.

CAS No.[a]	Chemical
99–96–7	p-hydroxybenzoic acid.
26760–64–5	Isoamylene.
78–83–1	Isobutanol.
110–19–0	Isobutyl acetate.
115–11–7	Isobutylene.
78–84–2	Isobutyraldehyde.
79–31–2	Isobutyric acid.
25339–17–7	Isodecanol.
26952–21–6	Isooctyl alcohol.
78–78–4	Isopentane.
78–59–1	Isophorone.
121–91–5	Isophthalic acid.
78–79–5	Isoprene.
67–63–0	Isopropanol.
108–21–4	Isopropyl acetate.
75–31–0	Isopropylamine.
75–29–6	Isopropyl chloride.
25168–06–3	Isopropylphenol.
463–51–4	Ketene.
([b])	Linear alkyl sulfonate.
123–01–3	Linear alkylbenzene (linear dodecylbenzene).
110–16–7	Maleic acid.
108–31–6	Maleic anhydride.
6915–15–7	Malic acid.
141–79–7	Mesityl oxide.
121–47–1	Metanilic acid.
79–41–4	Methacrylic acid.
563–47–3	Methallyl chloride.
67–56–1	Methanol.
79–20–9	Methyl acetate.
105–45–3	Methyl acetoacetate.
74–89–5	Methylamine.
100–61–8	n-methylaniline.
74–83–9	Methyl bromide.
37365–71–2	Methyl butynol.
74–87–3	Methyl chloride.
108–87–2	Methylcyclohexane.
1331–22–2	Methylcyclohexanone.
75–09–2	Methylene chloride.
101–77–9	Methylene dianiline.

CAS No.[a]	Chemical
101–68–8	Methylene diphenyl diisocyanate.
78–93–3	Methyl ethyl ketone.
107–31–3	Methyl formate.
108–11–2	Methyl isobutyl carbinol.
108–10–1	Methyl isobutyl ketone.
80–62–6	Methyl methacrylate.
77–75–8	Methylpentynol.
98–83–9	a-methylstyrene.
110–91–8	Morpholine.
85–47–2	a-naphthalene sulfonic acid.
120–18–3	b-naphthalene sulfonic acid.
90–15–3	a-naphthol.
135–19–3	b-naphthol.
75–98–9	Neopentanoic acid.
88–74–4	o-nitroaniline.
100–01–6	p-nitroaniline.
91–23–6	o-nitroanisole.
100–17–4	p-nitroanisole.
98–95–3	Nitrobenzene.
27178–83–2[c]	Nitrobenzoic acid (o,m, and p).
79–24–3	Nitroethane.
75–52–5	Nitromethane.
88–75–5	2-Nitrophenol.
25322–01–4	Nitropropane.
1321–12–6	Nitrotoluene.
27215–95–8	Nonene.
25154–52–3	Nonylphenol.
27193–28–8	Octylphenol.
123–63–7	Paraldehyde.
115–77–5	Pentaerythritol.
109–66–0	n-pentane.
109–67–1	1-pentene
127–18–4	Perchloroethylene.
594–42–3	Perchloromethyl mercaptan.
94–70–2	o-phenetidine.
156–43–4	p-phenetidine.
108–95–2	Phenol.
98–67–9, 585–38–6, 609–46–1, 1333–39–7[c]	Phenolsulfonic acids.
91–40–7	Phenyl anthranilic acid.
([b])	Phenylenediamine.
75–44–5	Phosgene.

CAS No.[a]	Chemical
85–44–9	Phthalic anhydride.
85–41–6	Phthalimide.
108–99–6	b-picoline.
110–85–0	Piperazine.
9003–29–6, 25036–29–7[c]	Polybutenes.
25322–68–3	Polyethylene glycol.
25322–69–4	Polypropylene glycol.
123–38–6	Propionaldehyde.
79–09–4	Propionic acid.
71–23–8	n-propyl alcohol.
107–10–8	Propylamine.
540–54–5	Propyl chloride.
115–07–1	Propylene.
127–00–4	Propylene chlorohydrin.
78–87–5	Propylene dichloride.
57–55–6	Propylene glycol.
75–56–9	Propylene oxide.
110–86–1	Pyridine.
106–51–4	Quinone.
108–46–3	Resorcinol.
27138–57–4	Resorcylic acid.
69–72–7	Salicylic acid.
127–09–3	Sodium acetate.
532–32–1	Sodium benzoate.
9004–32–4	Sodium carboxymethyl cellulose.
3926–62–3	Sodium chloroacetate.
141–53–7	Sodium formate.
139–02–6	Sodium phenate.
110–44–1	Sorbic acid.
100–42–5	Styrene.
110–15–6	Succinic acid.
110–61–2	Succinonitrile.
121–57–3	Sulfanilic acid.
126–33–0	Sulfolane.
1401–55–4	Tannic acid.
100–21–0	Terephthalic acid.
79–34–5[c]	Tetrachloroethanes.
117–08–8	Tetrachlorophthalic anhydride.
78–00–2	Tetraethyl lead.
119–64–2	Tetrahydronaphthalene.
85–43–8	Tetrahydrophthalic anhydride.

CAS No.[a]	Chemical
75–74–1	Tetramethyl lead.
110–60–1	Tetramethylenediamine.
110–18–9	Tetramethylethylenediamine.
108–88–3	Toluene.
95–80–7	Toluene-2,4-diamine.
584–84–9	Toluene-2,4-diisocyanate.
26471–62–5	Toluene diisocyanates (mixture).
1333–07–9	Toluenesulfonamide.
104–15–4[c]	Toluenesulfonic acids.
98–59–9	Toluenesulfonyl chloride.
26915–12–8	Toluidines.
87–61–6, 108–70–3, 120–82–1[c]	Trichlorobenzenes.
71–55–6	1,1,1-trichloroethane.
79–00–5	1,1,2-trichloroethane.
79–01–6	Trichloroethylene.
75–69–4	Trichlorofluoromethane.
96–18–4	1,2,3-trichloropropane.
76–13–1	1,1,2-trichloro-1,2,2-trifluoroethane.
121–44–8	Triethylamine.
112–27–6	Triethylene glycol.
112–49–2	Triethylene glycol dimethyl ether.
7756–94–7	Triisobutylene.
75–50–3	Trimethylamine.
57–13–6	Urea.
108–05–4	Vinyl acetate.
75–01–4	Vinyl chloride.
75–35–4	Vinylidene chloride.
25013–15–4	Vinyl toluene.
1330–20–7	Xylenes (mixed).
95–47–6	o-xylene.
106–42–3	p-xylene.
1300–71–6	Xylenol.
1300–73–8	Xylidine.

[a]CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[b]No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

[c]CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000]

SECTION G.1 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:

Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13)

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:

Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13)

as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:
Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13)

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1st thru 4th stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5th and 6th stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1) evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

G.1.1 General Provisions Relating to NESHAP FFFF [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.2540, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the yeast propagation operation, identified as EU-04, fermentation operation, identified as EU-05, APV column, identified as EU-06, beerwell, identified as EU-07, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, and alcohol load-out operation, identified as EU-13, as specified in Table 12 of 40 CFR 63, Subpart FFFF in accordance with the schedule in 40 CFR 63, Subpart FFFF.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

G.1.2 National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing Requirements [40 CFR 63, Subpart FFFF] [326 IAC 20-84]

Pursuant to 40 CFR Part 63, Subpart FFFF, the Permittee shall comply with the provisions of 40 CFR Part 63.2430, which are incorporated by reference as 326 IAC 20-84 for the yeast propagation operation, identified as EU-04, fermentation operation, identified as EU-05, APV column, identified as EU-06, beerwell, identified as EU-07, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, and alcohol load-out operation, identified as EU-13, as specified as follows:

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

Source: 68 FR 63888, Nov. 10, 2003, unless otherwise noted.

What This Subpart Covers

§ 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

§ 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).
(b) An MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in §63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of this section. An MCPU also includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of this section.
(1) The MCPU produces material or family of materials that is described in paragraph (b)(1)(i), (ii), (iii), (iv), or (v) of this section.
(i) An organic chemical(s) classified using the 1987 version of SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(5) of this section.

(ii) An organic chemical(s) classified using the 1997 version of NAICS code 325, except as provided in paragraph (c)(5) of this section.
(iii) Quaternary ammonium compounds and ammonium sulfate produced with caprolactam.
(iv) Hydrazine.
(v) Organic solvents classified in any of the SIC or NAICS codes listed in paragraph (b)(1)(i) or (ii) of this section that are recovered using nondedicated solvent recovery operations.
(2) The MCPU processes, uses, or generates any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in §63.2550.
(3) The MCPU is not an affected source or part of an affected source under another subpart of this part 63, except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in §63.100(j)(4). For this situation, the MCPU is the same as the CMPU as defined in §63.100, and you are subject only to the requirements for batch process vents in this subpart.
(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to this subpart. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in §63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.
(e) For nondedicated equipment used to create at least one MCPU, you may elect to develop process unit groups (PUG), determine the primary product of each PUG, and comply with the requirements of the subpart in 40 CFR part 63 that applies to that primary product as specified in §63.2535(l).
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40331, July 14, 2006]

§ 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.
(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in §63.2435(b)(1).
(d) An MCPU that is also a CMPU under §63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in §63.100(l)(2).

Compliance Dates

§ 63.2445 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.
(1) If you startup your new affected source before November 10, 2003, then you must comply with the requirements for new sources in this subpart no later than November 10, 2003.
(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than May 10, 2008.
(c) You must meet the notification requirements in §63.2515 according to the dates specified in that section and in subpart A of this part 63. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.
(d) If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
(e) If, after the compliance date for your affected source, hydrogen halide and halogen HAP emissions from process vents in a process increase to more than 1,000 lb/yr, or HAP metals emissions from a

process at a new affected source increase to more than 150 lb/yr, you must comply with the applicable emission limits specified in Table 3 to this subpart and the associated compliance requirements beginning on the date the emissions exceed the applicable threshold. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
(f) If you have a small control device for process vent or transfer rack emissions that becomes a large control device, as defined in §63.2550(i), you must comply with monitoring and associated recordkeeping and reporting requirements for large control devices beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 10442, Mar. 1, 2006; 71 FR 40332, July 14, 2006]

Emission Limits, Work Practice Standards, and Compliance Requirements

§ 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in Tables 1 through 7 to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in §§63.2455 through 63.2490 (or the alternative means of compliance in §63.2495, §63.2500, or §63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§63.2515, 63.2520, and 63.2525.
(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in §63.2550, by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.
(c) *Requirements for combined emission streams.* When organic HAP emissions from different emission types (*e.g.,* continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either paragraph (c)(1) or (2) of this section.
(1) Comply with the applicable requirements of this subpart for each kind of organic HAP emissions in the stream (*e.g.,* the requirements of Table 1 to this subpart for continuous process vents and the requirements of Table 4 to this subpart for emissions from storage tanks).
(2) Determine the applicable requirements based on the hierarchy presented in paragraphs (c)(2)(i) through (vi) of this section. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements in paragraph (c)(2)(i) of this section for the combined stream; compliance with the requirements in paragraph (c)(2)(i) of this section constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in Table 3 to this subpart and §63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (*e.g.,* the requirement in §63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).
(i) The requirements of Table 2 to this subpart and §63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.
(ii) The requirements of Table 1 to this subpart and §63.2455 for continuous process vents that are routed to a control device, as defined in §63.981, including applicable monitoring, recordkeeping, and reporting.
(iii) The requirements of Table 5 to this subpart and §63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.
(iv) The requirements of Table 7 to this subpart and §63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.
(v) The requirements of Table 4 to this subpart and §63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.
(vi) The requirements of Table 1 to this subpart and §63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) [Reserved]
(e) *Requirements for control devices.* (1) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of §63.982(c) and the requirements referenced therein.
(2) Except when complying with §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of §63.982(b) and the requirements referenced therein.
(3) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of §63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in §63.115(d)(2)(v).
(f) *Requirements for flare compliance assessments.* (1) As part of a flare compliance assessment required in §63.987(b), you have the option of demonstrating compliance with the requirements of §63.11(b) by complying with the requirements in either §63.11(b)(6)(i) or §63.987(b)(3)(ii).
(2) If you elect to meet the requirements in §63.11(b)(6)(i), you must keep flare compliance assessment records as specified in paragraphs (f)(2)(i) and (ii) of this section.
(i) Keep records as specified in §63.998(a)(1)(i), except that a record of the heat content determination is not required.
(ii) Keep records of the flare diameter, hydrogen content, exit velocity, and maximum permitted velocity. Include these records in the flare compliance report required in §63.999(a)(2).
(g) *Requirements for performance tests.* The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.
(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.
(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.
(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.
(i) If you elect to comply with the percent reduction emission limits in Tables 1 through 7 to this subpart, and carbon disulfide is the principal organic HAP component (*i.e.,* greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.
(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in Tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.
(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in Tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.
(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in §63.2520(d)(1).
(h) *Design evaluation.* To determine the percent reduction of a small control device that is used to comply with an emission limit specified in Table 1, 2, 3, or 5 to this subpart, you may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For transfer racks, the design evaluation must demonstrate that the control device achieves

the required control efficiency during the reasonably expected maximum transfer loading rate.
(i) *Outlet concentration correction for combustion devices.* When §63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either paragraph (i)(1) or (2) of this section apply for the purposes of this subpart.
(1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in §63.2550, to the vent stream, or;
(2) You must correct the measured concentration for supplemental gases using Equation 1 of §63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.
(j) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in §63.8 and paragraphs (j)(1) through (5) of this section.
(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph (j)(2) of this section, except as specified in paragraph (j)(1)(i) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.
(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in §63.8.
(ii) [Reserved]
(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (j)(2)(i), (ii), or (iii) of this section.
(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.
(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.
(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C_1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.
(3) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in §63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.
(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in §63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.
(5) If you add supplemental gases, you must correct the measured concentrations in accordance with paragraph (i) of this section and §63.2460(c)(6).
(k) *Continuous parameter monitoring.* The provisions in paragraphs (k)(1) through (6) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.
(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in §63.998(c)(1)(ii)(A).
(2) When subpart SS of this part 63 uses the term “a range” or “operating range” of a monitored parameter, it means an “operating limit” for a monitored parameter for the purposes of this subpart.
(3) As an alternative to continuously measuring and recording pH as specified in §§63.994(c)(1)(i) and

63.998(a)(2)(ii)(D), you may elect to continuously monitor and record the caustic strength of the effluent. For halogen scrubbers used to control only batch process vents you may elect to monitor and record either the pH or the caustic strength of the scrubber effluent at least once per day.
(4) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in §63.988(c)(2) and the related recordkeeping requirements specified in §63.998(a)(2)(ii)(B)(*2*) and (c)(2)(ii), you may elect to comply with the requirements specified in paragraphs (k)(4)(i) through (iv) of this section.
(i) Monitor and record the inlet temperature as specified in subpart SS of this part 63.
(ii) Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.
(iii) Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.
(iv) Recording the downstream temperature and temperature difference across the catalyst bed as specified in §63.998(a)(2)(ii)(B)(*2*) and (b)(2)(ii) is not required.
(5) For absorbers that control organic compounds and use water as the scrubbing fluid, you must conduct monitoring and recordkeeping as specified in paragraphs (k)(5)(i) through (iii) of this section instead of the monitoring and recordkeeping requirements specified in §§63.990(c)(1), 63.993(c)(1), and 63.998(a)(2)(ii)(C).
(i) You must use a flow meter capable of providing a continuous record of the absorber influent liquid flow.
(ii) You must determine gas stream flow using one of the procedures specified in §63.994(c)(1)(ii)(A) through (D).
(iii) You must record the absorber liquid-to-gas ratio averaged over the time period of any performance test.
(6) For a control device with total inlet HAP emissions less than 1 tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.
(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.
(m) *Reporting.* (1) When §§63.2455 through 63.2490 reference other subparts in this part 63 that use the term “periodic report,” it means “compliance report” for the purposes of this subpart. The compliance report must include the information specified in §63.2520(e), as well as the information specified in referenced subparts.
(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.
(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
(n) [Reserved]
(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.
(p) Opening a safety device, as defined in §63.2550, is allowed at any time conditions require it to avoid unsafe conditions.
(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.
(r) *Surge control vessels and bottoms receivers.* For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart.
(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in §§63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40332, July 14, 2006]

§ 63.2455 What requirements must I meet for continuous process vents?

(a) You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section.
(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in §63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of §63.2450(c)(2)(i) apply to the combined stream.
(2) When a TRE index value of 4.0 is referred to in §63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.
(3) When §63.115(d) refers to “emission reductions specified in §63.113(a),” the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.
(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of §63.982(e) and the requirements referenced therein, except as specified in §63.2450 and paragraph (c)(1) of this section.
(1) When §63.993 uses the phrase “the TRE index value is between the level specified in a referencing subpart and 4.0,” the phrase “the TRE index value is >1.9 but ≤5.0” applies for an existing affected source, and the phrase “the TRE index value is >5.0 but ≤8.0” applies for a new and reconstructed affected source, for the purposes of this subpart.
(2) [Reserved]

§ 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.
(b) *Group status.* If a process has batch process vents, as defined in §63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (7) of this section.
(1) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, you must use the procedures in §63.1257(d)(2)(i)(C)(*3*).
(2) To calculate emissions from depressurization of a vessel without a process condenser, you must use the procedures in §63.1257(d)(2)(i)(D)(*10*).
(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:
P_{system}= absolute pressure of the receiving vessel;
P_i= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;
P_j= partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;
MW_{HAP}= molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.
(4) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, you must use the procedures in §63.1257(d)(3)(i)(B), except as specified in paragraphs (b)(4)(i) through (vii) of this section.
(i) You must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MW_{HAP}) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

(ii) You must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).
(iii) You must perform a material balance for each component.
(iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR part 63, subpart GGG.
(v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR part 63, subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.
(vi) You must conduct an engineering assessment as specified in §63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging. The requirements of paragraphs (b)(3) through (4) of this section shall apply.
(vii) You may elect to conduct an engineering assessment if you can demonstrate to the Administrator that the methods in §63.1257(d)(3)(i)(B) are not appropriate.
(5) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations in paragraph (b)(5)(i), (ii), or (iii) of this section.
(i) If you comply with the alternative standard specified in §63.2505.
(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in §63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in §63.1257(b)(8)(ii)(C).
(iii) If you comply with an emission limit using a flare that meets the requirements specified in §63.987.
(6) You may change from Group 2 to Group 1 in accordance with either paragraph (b)(6)(i) or (ii) of this section. You must comply with the requirements of this section and submit the test report in the next Compliance report.
(i) You may switch at any time after operating as Group 2 for at least 1 year so that you can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. You may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in your next compliance report in accordance with §63.2520(e)(10)(i).
(ii) If the conditions in paragraph (b)(6)(i) of this section are not applicable, you must provide a 60-day advance notice in accordance with §63.2520(e)(10)(ii) before switching.
(7) As an alternative to determining the uncontrolled organic HAP emissions as specified in §63.1257(d)(2)(i) and (ii), you may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000 lb/yr. You must provide data and supporting rationale in your notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. You must keep records of the non-reactive organic HAP usage as specified in §63.2525(e)(2) and include information in compliance reports as specified in §63.2520(e)(5)(iv).
(c) Exceptions to the requirements in subparts SS and WW of this part 63 are specified in paragraphs (c)(1) through (9) of this section.
(1) *Process condensers.* Process condensers, as defined in §63.2550(i), are not considered to be control devices for batch process vents. You must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.
(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart FFFF, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to this subpart FFFF by using a flare that meets the requirements of §63.987.
(ii) When you conduct a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to §63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in §63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of

this subpart FFFF, references in §63.997(b)(1) to "methods specified in §63.997(e)" include the methods specified in §63.1257(b)(8).
(iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, you may determine controlled emissions using the procedures specified in §63.1257(d)(3)(i)(B) and paragraphs (b)(3) through (4) of this section.
(iv) When §63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.
(v) If a process condenser is used for any boiling operations, you must demonstrate that it is properly operated according to the procedures specified in §63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in §63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.
(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.
(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.
(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.
(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to §63.2525(c).
(4) *Averaging periods.* As an alternative to the requirement for daily averages in §63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.
(5) [Reserved]
(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left(\frac{Q_s + Q_a}{Q_a} \right) \qquad (Eq.\ 1)$$

Where:
C_a= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;
C_m= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;
Q_a= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;
Q_s= total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.
(8) *Terminology.* When the term "storage vessel" is used in subpart WW of this part 63, the term "process tank," as defined in §63.2550(i), applies for the purposes of this section.
(9) *Requirements for a biofilter.* If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 to this subpart, you must meet the requirements specified in paragraphs (c)(9)(i) through (iv) of this section.
(i) *Operational requirements.* The biofilter must be operated at all times when emissions are vented to it.
(ii) *Performance tests.* To demonstrate initial compliance, you must conduct a performance test according to the procedures in §63.997 and paragraphs (c)(9)(ii)(A) through (D) of this section. The design evaluation option for small control devices is not applicable if you use a biofilter.
(A) Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in your notification of compliance status report as required by §63.999(b)(3)(ii).
(B) Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in §63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in §63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.
(C) If you monitor the biofilter bed temperature, you may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating limits for the biofilter. If you use multiple thermocouples, include your rationale for their site selection in your notification of compliance status report.
(D) Submit a performance test report as specified in §63.999(a)(2)(i) and (ii). Include the records from paragraph (c)(9)(ii)(B) of this section in your performance test report.
(iii) *Monitoring requirements.* Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in §63.998(b) and (c), as applicable. General requirements for monitoring are contained in §63.996. If you monitor temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in §63.999(b)(3)(ii)(A). If you establish the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with §63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under §63.997(b)(1). You may expand your biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.
(iv) *Repeat performance tests.* You must conduct a repeat performance test using the applicable methods specified in §63.997 within 2 years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40333, July 14, 2006]

§ 63.2465 What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or HAP metals?

(a) You must meet each emission limit in Table 3 to this subpart that applies to you, and you must meet each applicable requirement in paragraphs (b) through (d) of this section.
(b) If any process vents within a process emit hydrogen halide and halogen HAP, you must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in §63.1257(d)(2)(i) and/or (ii), as appropriate. When §63.1257(d)(2)(ii)(E) requires documentation to be submitted in the precompliance report, it means the notification of compliance status report for the purposes of this paragraph.
(c) If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), you must comply with §63.994 and the

requirements referenced therein, except as specified in paragraphs (c)(1) through (3) of this section.
(1) When §63.994(b)(1) requires a performance test, you may elect to conduct a design evaluation in accordance with §63.1257(a)(1).
(2) When §63.994(b)(1) refers to “a combustion device followed by a halogen scrubber or other halogen reduction device,” it means any combination of control devices used to meet the emission limits specified in Table 3 to this subpart.
(3) Section 63.994(b)(2) does not apply for the purposes of this section.
(d) To demonstrate compliance with the emission limit in Table 3 to this subpart for HAP metals at a new source, you must comply with paragraphs (d)(1) through (3) of this section.
(1) Determine the mass emission rate of HAP metals based on process knowledge, engineering assessment, or test data.
(2) Conduct an initial performance test of each control device that is used to comply with the emission limit for HAP metals specified in Table 3 to this subpart. Conduct the performance test according to the procedures in §63.997. Use Method 29 of appendix A of 40 CFR part 60 to determine the HAP metals at the inlet and outlet of each control device, or use Method 5 of appendix A of 40 CFR part 60 to determine the total particulate matter (PM) at the inlet and outlet of each control device. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM from the process is greater than or equal to 97 percent by weight.
(3) Comply with the monitoring requirements specified in §63.1366(b)(1)(xi) for each fabric filter used to control HAP metals.
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40333, July 14, 2006]

§ 63.2470 What requirements must I meet for storage tanks?

(a) You must meet each emission limit in Table 4 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in paragraphs (b) through (e) of this section.
(b) [Reserved]
(c) *Exceptions to subparts SS and WW of this part 63.* (1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).
(2) When the term “storage vessel” is used in subparts SS and WW of this part 63, the term “storage tank,” as defined in §63.2550 applies for the purposes of this subpart.
(d) *Planned routine maintenance.* The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.
(e) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with §63.1253(f), except as specified in paragraphs (e)(1) through (3) of this section.
(1) When §63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.
(2) To comply with §63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with §§63.2445 through 63.2550 instead of complying with §63.1253(f)(7)(ii), except as specified in paragraph (e)(2)(i) or (ii) of this section.
(i) The reporting requirements in §63.2520 do not apply to the owner or operator of the offsite cleaning or reloading facility.
(ii) As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in §§63.2445 through 63.2550, the owner or operator of an offsite cleaning or reloading facility may comply as specified in §63.2535(a)(2) with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in §63.2535(a)(2).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in §63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.
(4) You may comply with the vapor balancing alternative in §63.1253(f) when your storage tank is filled from a barge. All requirements for tank trucks and railcars specified in §63.1253(f) also apply to barges, except as specified in §63.2470(e)(4)(i).
(i) When §63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges.
(ii) [Reserved]
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40335, July 14, 2006]

§ 63.2475 What requirements must I meet for transfer racks?

(a) You must comply with each emission limit and work practice standard in Table 5 to this subpart that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.
(b) When the term "high throughput transfer rack" is used in subpart SS of this part 63, the term "Group 1 transfer rack," as defined in §63.2550, applies for the purposes of this subpart.
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40335, July 14, 2006]

§ 63.2480 What requirements must I meet for equipment leaks?

(a) You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section.
(b) If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
(1) The requirements for pressure testing in §63.179(b) or §63.1036(b) may be applied to all processes, not just batch processes.
(2) For the purposes of this subpart, pressure testing for leaks in accordance with §63.179(b) or §63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.
(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §63.1022(b)(1) or §63.181(b)(1)(i).
(4) For connectors in gas/vapor and light liquid service at an existing source, you may elect to comply with the requirements in §63.169 or §63.1029 for connectors in heavy liquid service, including all associated recordkeeping and reporting requirements, rather than the requirements of §63.174 or §63.1027.
(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in §63.1026(b)(2)(i) through (iii) or §63.163(b)(2).
(c) If you comply with 40 CFR part 65, subpart F, you may elect to comply with the provisions in paragraphs (c)(1) through (9) of this section as an alternative to the referenced provisions in 40 CFR part 65, subpart F.
(1) The requirements for pressure testing in §65.117(b) may be applied to all processes, not just batch processes.
(2) For the purposes of this subpart, pressure testing for leaks in accordance with §65.117(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.
(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §65.103(b)(1).
(4) You may elect to comply with the monitoring and repair requirements specified in §65.108(e)(3) as an alternative to the requirements specified in §65.108(a) through (d) for any connectors at your affected source.
(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 ppm or

greater as an alternative to the values specified in §65.107(b)(2)(i) through (iii).
(6) When 40 CFR part 65, subpart F refers to the implementation date specified in §65.1(f), it means the compliance date specified in §63.2445.
(7) When §§65.105(f) and 65.117(d)(3) refer to §65.4, it means §63.2525.
(8) When §65.120(a) refers to §65.5(d), it means §63.2515.
(9) When §65.120(b) refers to §65.5(e), it means §63.2520.
(d) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.
[71 FR 40335, July 14, 2006]

§ 63.2485 What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?

(a) You must meet each requirement in Table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (o) of this section.
(b) *Wastewater HAP.* Where §63.105 and §§63.132 through 63.148 refer to compounds in Table 9 of subpart G of this part 63, the compounds in Tables 8 and 9 to this subpart apply for the purposes of this subpart.
(c) *Group 1 wastewater.* Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes of this subpart, a process wastewater stream is Group 1 for compounds in Tables 8 and 9 to this subpart if any of the conditions specified in paragraphs (c) (1) through (3) of this section are met.
(1) The total annual average concentration of compounds in Table 8 to this subpart is greater than or equal to 10,000 ppmw at any flowrate, and the total annual load of compounds in Table 8 to this subpart is greater than or equal to 200 lb/yr.
(2) The total annual average concentration of compounds in Table 8 to this subpart is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.
(3) The combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in Tables 8 and 9 to this subpart is greater than or equal to 1 tpy.
(d) *Wastewater tank requirements.* (1) When §§63.133 and 63.147 reference floating roof requirements in §§63.119 and 63.120, the corresponding requirements in subpart WW of this part 63 may be applied for the purposes of this subpart.
(2) When §63.133(a) refers to Table 10 of subpart G of this part 63, the maximum true vapor pressure in the table shall be limited to the HAP listed in Tables 8 and 9 of this subpart FFFF.
(3) For the purposes of this subpart, the requirements of §63.133(a)(2) are satisfied by operating and maintaining a fixed roof if you demonstrate that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged.
(4) The emission limits specified in §§63.133(b)(2) and 63.139 for control devices used to control emissions from wastewater tanks do not apply during periods of planned routine maintenance of the control device(s) of no more than 240 hr/yr. You may request an extension to a total of 360 hr/yr in accordance with the procedures specified in §63.2470(d).
(e) *Individual drain systems.* The provisions of §63.136(e)(3) apply except as specified in paragraph (e)(1) of this section.
(1) A sewer line connected to drains that are in compliance with §63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in §63.136(e)(2)(ii)(A).
(2) [Reserved]
(f) *Closed-vent system requirements.* When §63.148(k) refers to closed vent systems that are subject to the requirements of §63.172, the requirements of either §63.172 or §63.1034 apply for the purposes of this subpart.
(g) *Halogenated vent stream requirements.* For each halogenated vent stream from a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream that is vented through a closed-vent system to a combustion device to reduce organic HAP emissions, you must meet the same emission limits as specified for batch process vents in item 2 of Table 2 to this subpart.

(h) *Alternative test methods.* (1) As an alternative to the test methods specified in §63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in §63.1257(b)(10)(iii).
(2) As an alternative to using the methods specified in §63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136 and comply with the sampling protocol requirements specified in §63.144(b)(5)(ii). The validation requirements specified in §63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136.
(3) As an alternative to using Method 18 of 40 CFR part 60, as specified in §§63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in §63.997.
(i) *Offsite management and treatment option.* (1) If you ship wastewater to an offsite treatment facility that meets the requirements of §63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of §63.138(h) as an alternative to having the offsite facility submit the certification specified in §63.132(g)(2).
(2) As an alternative to the management and treatment options specified in §63.132(g)(2), any affected wastewater stream (or residual removed from an affected wastewater stream) with a total annual average concentration of compounds in Table 8 to this subpart less than 50 ppmw may be transferred offsite in accordance with paragraphs (i)(2) (i) and (ii) of this section.
(i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to this subpart is emitted from the waste management units up to the activated sludge unit.
(ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with §§63.138 and 63.145 and the requirements referenced therein.
(j) You must determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in §63.144 (b) and (c) do not apply for the purposes of this subpart.
(k) The requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in §§63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor recovery system as specified in §63.139(c)(2), you must correct for supplemental gases as specified in §63.2460(c)(6).
(l) *Requirements for liquid streams in open systems.* (1) References in §63.149 to §63.100(b) mean §63.2435(b) for the purposes of this subpart.
(2) When §63.149(e) refers to 40 CFR 63.100(l) (1) or (2), §63.2445(a) applies for the purposes of this subpart.
(3) When §63.149 uses the term “chemical manufacturing process unit,” the term “MCPU” applies for the purposes of this subpart.
(4) When §63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraphs (c) (1) through (3) of this section apply for the purposes of this subpart.
(5) When §63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraph (c)(2) of this section apply for the purposes of this subpart.
(m) When §63.132(f) refers to “a concentration of greater than 10,000 ppmw of Table 9 compounds,” the phrase “a concentration of greater than 30,000 ppmw of total partially soluble HAP (PSHAP) and soluble HAP (SHAP) or greater than 10,000 ppmw of PSHAP” shall apply for the purposes of this subpart.
(n) *Alternative requirements for wastewater that is Group 1 for soluble HAP only.* The option specified in this paragraph (n) applies to wastewater that is Group 1 for soluble HAP in accordance with paragraph (c)(3) of this section and is discharged to biological treatment. Except as provided in paragraph (n)(4) of this section, this option does not apply to wastewater that is Group 1 for partially soluble HAP in accordance with paragraph (c)(1), (c)(2), or (c)(4) of this section. For wastewater that is Group 1 for SHAP, you need not comply with §§63.133 through 63.137 for any equalization unit, neutralization unit, and/or clarifier prior to the activated sludge unit, and you need not comply with the venting requirements in §63.136(e)(2)(ii)(A) for lift stations with a volume larger than 10,000 gal, provided you comply with the requirements specified in paragraphs (n)(1) through (3) of this section and all otherwise applicable requirements specified in Table 7 to this subpart. For this option, the treatment requirements in §63.138 and the performance testing requirements in §63.145 do not apply to the biological treatment unit, except as specified in paragraphs (n)(2)(i) through (iv) of this section.
(1) Wastewater must be hard-piped between the equalization unit, clarifier, and activated sludge unit. This

requirement does not apply to the transfer between any of these types of units that are part of the same structure and one unit overflows into the next.
(2) Calculate the destruction efficiency of the biological treatment unit using Equation 1 of this section in accordance with the procedures described in paragraphs (n)(2)(i) through (vi) of this section. You have demonstrated initial compliance if E is greater than or equal to 90 percent.

$$E = \frac{(QMW_a - QMG_e - QMG_n - QMG_c)(F_{bio})}{QMW_a} \times 100 \qquad (Eq.\ 1)$$

Where:
E = destruction efficiency of total PSHAP and SHAP for the biological treatment unit including the equalization unit, neutralization unit, and/or clarifier, percent;
QMW_a= mass flow rate of total PSHAP and SHAP compounds entering the equalization unit (or whichever of the three types of units is first), kilograms per hour (kg/hr);
QMG_e= mass flow rate of total PSHAP and SHAP compounds emitted from the equalization unit, kg/hr;
QMG_n= mass flow rate of total PSHAP and SHAP compounds emitted from the neutralization unit, kg/hr;
QMG_c= mass flow rate of total PSHAP and SHAP compounds emitted from the clarifier, kg/hr
F_{bio}= site-specific fraction of PSHAP and SHAP compounds biodegraded in the biological treatment unit.
(i) Include all PSHAP and SHAP compounds in both Group 1 and Group 2 wastewater streams from all MCPU, except you may exclude any compounds that meet the criteria specified in §63.145(a)(6)(ii) or (iii).
(ii) Conduct the demonstration under representative process unit and treatment unit operating conditions in accordance with §63.145(a)(3) and (4).
(iii) Determine PSHAP and SHAP concentrations and the total wastewater flow rate at the inlet to the equalization unit in accordance with §63.145(f)(1) and (2). References in §63.145(f)(1) and (2) to required mass removal and actual mass removal do not apply for the purposes of this section.
(iv) Determine $F_{bio}$for the activated sludge unit as specified in §63.145(h), except as specified in paragraph (n)(2)(iv)(A) or paragraph (n)(2)(iv)(B) of this section.
(A) If the biological treatment process meets both of the requirements specified in §63.145(h)(1)(i) and (ii), you may elect to replace the F_{bio}term in Equation 1 of this section with the numeral "1."
(B) You may elect to assume $f_{bio}$is zero for any compounds on List 2 of Table 36 in subpart G.
(v) Determine QMG_e, QMG_n, and QMG_c using EPA's WATER9 model or the most recent update to this model, and conduct testing or use other procedures to validate the modeling results.
(vi) Submit the data and results of your demonstration, including both a description of and the results of your WATER9 modeling validation procedures, in your notification of compliance status report as specified in §63.2520(d)(2)(ii).
(3) As an alternative to the venting requirements in §63.136(e)(2)(ii)(A), a lift station with a volume larger than 10,000 gal may have openings necessary for proper venting of the lift station. The size and other design characteristics of these openings may be established based on manufacturer recommendations or engineering judgment for venting under normal operating conditions. You must describe the design of such openings and your supporting calculations and other rationale in your notification of compliance status report.
(4) For any wastewater streams that are Group 1 for both PSHAP and SHAP, you may elect to meet the requirements specified in Table 7 to this subpart for the PSHAP and then comply with paragraphs (n)(1) through (3) of this section for the SHAP in the wastewater system. You may determine the SHAP mass removal rate, in kg/hr, in treatment units that are used to meet the requirements for PSHAP and add this amount to both the numerator and denominator in Equation 1 of this section.
(o) *Compliance records.* For each CPMS used to monitor a nonflare control device for wastewater emissions, you must keep records as specified in §63.998(c)(1) in addition to the records required in §63.147(d).
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005; 71 FR 40335, July 14, 2006]

§ 63.2490 What requirements must I meet for heat exchange systems?

(a) You must comply with each requirement in Table 10 to this subpart that applies to your heat exchange systems, except as specified in paragraphs (b) and (c) of this section.
(b) The phrase "a chemical manufacturing process unit meeting the conditions of §63.100 (b)(1) through (b)(3) of this section" in §63.104(a) means "an MCPU meeting the conditions of §63.2435" for the

purposes of this subpart.
(c) The reference to §63.100(c) in §63.104(a) does not apply for the purposes of this subpart.

Alternative Means of Compliance

§ 63.2495 How do I comply with the pollution prevention standard?

(a) You may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a) (1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.
(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.
(2) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.
(3) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.
(b) *Exclusions.* (1) You must comply with the emission limitations and work practice standards contained in Tables 1 through 7 of this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in §63.2550. If any vent stream routed to the combustion control is a halogenated vent stream, as defined in §63.2550, then hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of §63.994 and the requirements referenced therein.
(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.
(c) *Initial compliance procedures.* To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c) (1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c) (2) and (3) of this section.
(1) *Demonstration plan.* You must prepare a pollution prevention demonstration plan that contains, at a minimum, the information in paragraphs (c)(1) (i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section.
(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.
(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).
(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1) (i) and (ii) of this section including, but not limited to, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.
(2) *Baseline factors.* You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years.
(3) *Target annual factors.* You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a

VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.
(d) *Continuous compliance requirements.* You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures specified in paragraphs (d) (1) through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.
(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d) (2) or (3) of this section, as applicable.
(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.
(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (*i.e.,* annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3) (i) and (ii) of this section.
(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.
(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.
(e) *Records.* You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.
(f) *Reporting.* (1) You must include the pollution prevention demonstration plan in the precompliance report required by §63.2520(c).
(2) You must identify all days when the annual factors were above the target factors in the compliance reports.
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40336, July 14, 2006]

§ 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in §63.150, except as specified in paragraphs (b) through (f) of this section.
(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of §63.150(d)(5).
(c) References in §63.150 to §§63.112 through 63.130 mean the corresponding requirements in §§63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.
(d) References to “periodic reports” in §63.150 mean “compliance report” for the purposes of this subpart.
(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in §63.1257(d)(2)(i) and (ii) instead of the procedures in §63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.
(f) References to “storage vessels” in §63.150 mean “storage tank” as defined in §63.2550 for the purposes of this subpart.

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in §§63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.
(a) *Emission limits and work practice standards.* (1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.
(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 parts per million by volume (ppmv) or less.
(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.
(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.
(ii) If you use a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less.
(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to this subpart.
(b) *Compliance requirements.* To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of §63.1258(b)(5) beginning no later than the initial compliance date specified in §63.2445, except as specified in paragraphs (b)(1) through (9) of this section.
(1) You must comply with the requirements in §63.983 and the requirements referenced therein for closed-vent systems.
(2) When §63.1258(b)(5)(i) refers to §§63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart FFFF.
(3) When §63.1258(b)(5)(i)(B) refers to "HCl," it means "total hydrogen halide and halogen HAP" for the purposes of this subpart FFFF.
(4) When §63.1258(b)(5)(ii) refers to §63.1257(a)(3), it means §63.2450(j)(5) for the purposes of this subpart FFFF.
(5) You must submit the results of any determination of the target analytes of predominant HAP in the notification of compliance status report.
(6) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(6)(i) and (ii) of this section.
(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with §63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.
(ii) Install, operate, and maintain CPMS for the scrubber as specified in §§63.994(c) and 63.2450(k), instead of as specified in §63.1258(b)(5)(i)(C).
(7) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in §63.2460(c)(7).
(8) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.
(9) The requirements in paragraph (a) of this section do not apply to emissions from storage tanks during periods of planned routine maintenance of the control device that do not exceed 240 hr/yr. You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr in accordance with the procedures specified in §63.2470(d). You must comply with the recordkeeping and reporting specified in §§63.998(d)(2)(ii) and 63.999(c)(4) for periods of planned routine maintenance.
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38559, July 1, 2005]

Notification, Reports, and Records

§ 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
(b) *Initial notification.* As specified in §63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.
(2) As specified in §63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.
(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is

scheduled to begin as required in §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to this subpart, you must also submit the test plan required by §63.7(c) and the emission profile with the notification of the performance test.

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to this subpart that applies to you.
(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first 6 months after the compliance date that is specified for your affected source in §63.2445.
(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.
(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
(4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.
(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.
(c) *Precompliance report.* You must submit a precompliance report to request approval for any of the items in paragraphs (c)(1) through (7) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.
(1) Requests for approval to set operating limits for parameters other than those specified in §§63.2455 through 63.2485 and referenced therein. Alternatively, you may make these requests according to §63.8(f).
(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to §63.2460(c)(5) are operating as designed.
(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to §63.2460(c)(3).
(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with §63.1257(d)(2)(ii). This requirement does not apply to calculations of hydrogen halide and halogen HAP emissions as specified in §63.2465(b), to determinations that the total HAP concentration is less than 50 ppmv, or if you use previous test data to establish the uncontrolled emissions.
(5) The pollution prevention demonstration plan required in §63.2495(c)(1), if you are complying with the pollution prevention alternative.
(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in Tables 1 through 7 to this subpart would create an undue safety hazard.
(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.
(d) *Notification of compliance status report.* You must submit a notification of compliance status report

according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.
(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in §63.2445.
(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) of this section.
(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP usage or HAP emissions from the affected source.
(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to §§63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.
(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.
(iv) All operating scenarios.
(v) Descriptions of worst-case operating and/or testing conditions for control devices.
(vi) Identification of parts of the affected source subject to overlapping requirements described in §63.2535 and the authority under which you will comply.
(vii) The information specified in §63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to this subpart.
(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in §63.2470(e).
(ix) Records as specified in §63.2535(l)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.
(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.
(1) Company name and address.
(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
(3) Date of report and beginning and ending dates of the reporting period.
(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.
(5) The compliance report must contain the information on deviations, as defined in §63.2550, according to paragraphs (e)(5)(i), (ii), (iii), and (iv) of this section.
(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.
(A) The total operating time of the affected source during the reporting period.
(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.
(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.
(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
(B) The date, time, and duration that each CEMS was out-of-control, including the information in §63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.
(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.
(G) An identification of each HAP that is known to be in the emission stream.
(H) A brief description of the process units.
(I) A brief description of the CMS.
(J) The date of the latest CMS certification or audit.
(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.
(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.
(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.
(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.
(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.
(8) Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).
(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.
(10) *Notification of process change.* (i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.
(A) A description of the process change.
(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.
(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.
(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.
(A) Any change to the information contained in the precompliance report.
(B) A change in the status of a control device from small to large.
(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in §63.2460(b)(6)(i).

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40336, July 14, 2006]

§ 63.2525 What records must I keep?

You must keep the records specified in paragraphs (a) through (k) of this section.
(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
(1) A description of the process and the type of process equipment used.
(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in §63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.
(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.
(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.
(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).
(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.
(7) Calculations and engineering analyses required to demonstrate compliance.
(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.
(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.
(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.
(1) Records of whether each batch operated was considered a standard batch.
(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
(e) The information specified in paragraph (e)(2), (3), or (4) of this section, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph (e)(1) of this section.
(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in paragraph (e)(1)(i), (ii), or (iii) of this section.
(i) The MCPU does not process, use, or generate HAP.
(ii) You control the Group 2 batch process vents using a flare that meets the requirements of §63.987.
(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.
(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.
(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in paragraph (e)(4) of this section. After 1

year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.
(4) If you meet none of the conditions specified in paragraphs (e)(1) through (3) of this section, you must keep records of the information specified in paragraphs (e)(4)(i) through (iv) of this section.
(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
(ii) A record of whether each batch operated was considered a standard batch.
(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with §63.2450(s).
(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in §63.2450(k)(1).
(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.
(1) Descriptions of the MCPU and other process units in the initial PUG required by §63.2535(l)(1)(v).
(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.,* identify the overlapping equipment between process units) required by §63.2535(l)(1)(v).
(3) Calculations used to determine the primary product for the initial PUG required by §63.2535(l)(2)(iv).
(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by §63.2535(l)(1)(v).
(5) The calculation of each primary product redetermination required by §63.2535(l)(2)(iv).
(j) In the SSMP required by §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.
(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40337, July 14, 2006]

Other Requirements and Information

§ 63.2535 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

For any equipment, emission stream, or wastewater stream subject to the provisions of both this subpart and another rule, you may elect to comply only with the provisions as specified in paragraphs (a) through (l) of this section. You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by §63.2520(d).
(a) *Compliance with other subparts of this part 63.* (1) If you have an MCPU that includes a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63, you must comply with the emission limits; operating limits; work practice standards; and the compliance, monitoring, reporting, and recordkeeping requirements for batch process vents in this subpart, and you must continue to comply with the requirements in subparts F, G, and H of this part 63 that are applicable to the CMPU and associated equipment.
(2) After the compliance dates specified in §63.2445, at an offsite reloading or cleaning facility subject to §63.1253(f), as referenced from §63.2470(e), compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 constitutes compliance with the monitoring, recordkeeping, and reporting provisions of §63.1253(f)(7)(ii) or §63.1253(f)(7)(iii). You must identify in your notification of compliance status report required by §63.2520(d) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.

(b) *Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.* (1) After the compliance dates specified in §63.2445, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described in this paragraph (b)(1), which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information described in §63.2520(e).
(2) After the compliance dates specified in §63.2445, if you have an affected source with equipment that is also subject to 40 CFR part 264, subpart BB, or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR parts 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of this subpart, to the extent that the requirements of 40 CFR parts 264 and/or 265 duplicate the requirements of this subpart.
(c) *Compliance with 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y.* After the compliance dates specified in §63.2445, you are in compliance with the provisions of this subpart FFFF for any storage tank that is assigned to an MCPU and that is both controlled with a floating roof and in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y. You are in compliance with this subpart FFFF if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. Alternatively, if a storage tank assigned to an MCPU is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements for Group 1 storage tanks in this subpart FFFF.
(d) *Compliance with subpart I, GGG, or MMM of this part 63.* After the compliance dates specified in §63.2445, if you have an affected source with equipment subject to subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.
(e) *Compliance with subpart GGG of this part 63 for wastewater.* After the compliance dates specified in §63.2445, if you have an affected source subject to this subpart and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in §63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams.
(f) *Compliance with subpart MMM of this part 63 for wastewater.* After the compliance dates specified in §63.2445, if you have an affected source subject to this subpart, and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in §63.1362(d), you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams (except that the 99 percent reduction requirement for streams subject to §63.1362(d)(10) still applies).
(g) *Compliance with other regulations for wastewater.* After the compliance dates specified in §63.2445, if you have a Group 1 wastewater stream that is also subject to provisions in 40 CFR parts 260 through 272, you may elect to determine whether this subpart or 40 CFR parts 260 through 272 contain the more stringent control requirements (*e.g.,* design, operation, and inspection requirements for waste management units; numerical treatment standards; etc.) and the more stringent testing, monitoring, recordkeeping, and reporting requirements. Compliance with provisions of 40 CFR parts 260 through 272 that are determined to be more stringent than the requirements of this subpart constitute compliance with this subpart. For example, provisions of 40 CFR parts 260 through 272 for treatment units that meet the conditions specified in §63.138(h) constitute compliance with this subpart. You must identify in the notification of compliance status report required by §63.2520(d) the information and procedures that you used to make any stringency determinations.
(h) *Compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR.* After the compliance dates specified in §63.2445, if you have an MCPU that contains equipment subject to the provisions of this subpart that are also subject to the provisions of 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If an MCPU subject to the provisions of this subpart has equipment to which this subpart does not apply but which is subject to a standard in 40 CFR part 60,

subpart DDD, III, NNN, or RRR, you may elect to comply with the requirements for Group 1 process vents in this subpart for such equipment. If you elect any of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.

(i) *Compliance with 40 CFR part 61, subpart BB.* (1) After the compliance dates specified in §63.2445, a Group 1 transfer rack, as defined in §63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, you are required to comply only with the provisions of this subpart.

(2) After the compliance dates specified in §63.2445, a Group 2 transfer rack, as defined in §63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, is required to comply with the provisions of either paragraph (l)(2)(i) or (ii) of this section.

(i) If the transfer rack is subject to the control requirements specified in §61.302 of 40 CFR part 61, subpart BB, then you may elect to comply with either the requirements of 40 CFR part 61, subpart BB, or the requirements for Group 1 transfer racks under this subpart FFFF.

(ii) If the transfer rack is subject only to reporting and recordkeeping requirements under 40 CFR part 61, subpart BB, then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 transfer racks, and you are exempt from the reporting and recordkeeping requirements in 40 CFR part 61, subpart BB.

(j) *Compliance with 40 CFR part 61, subpart FF.* After the compliance date specified in §63.2445, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), you may elect to comply only with the requirements for Group 1 wastewater streams in this subpart FFFF. If a Group 2 wastewater stream is exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 wastewater streams, and you are exempt from the requirements in 40 CFR part 61, subpart FF.

(k) *Compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V.* After the compliance date specified in §63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. After the compliance date specified in §63.2445, if you have an affected source with equipment to which this subpart does not apply, but which is subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. If you elect either of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (k), will constitute compliance with 40 CFR part 60, subpart VV and 40 CFR part 61, subpart V, as applicable.

(l) *Applicability of process units included in a process unit group.* You may elect to develop and comply with the requirements for PUG in accordance with paragraphs (l)(1) through (3) of this section.

(1) *Procedures to create process unit groups.* Develop and document changes in a PUG in accordance with the procedures specified in paragraphs (l)(1)(i) through (v) of this section.

(i) Initially, identify an MCPU that is created from nondedicated equipment that will operate on or after November 10, 2003 and identify all processing equipment that is part of this MCPU, based on descriptions in operating scenarios.

(ii) Add to the group any other nondedicated MCPU and other nondedicated process units expected to be operated in the 5 years after the date specified in paragraph (l)(1)(i) of this section, provided they satisfy the criteria specified in paragraphs (l)(1)(ii)(A) through (C) of this section. Also identify all of the processing equipment used for each process unit based on information from operating scenarios and other applicable documentation.

(A) Each process unit that is added to a group must have some processing equipment that is also part of one or more process units in the group.

(B) No process unit may be part of more than one PUG.

(C) The processing equipment used to satisfy the requirement of paragraph (l)(1)(ii)(A) of this section may not be a storage tank or control device.

(iii) The initial PUG consists of all of the processing equipment for the process units identified in

paragraphs (l)(1)(i) and (ii) of this section. As an alternative to the procedures specified in paragraphs (l)(1)(i) and (ii) of this section, you may use a PUG that was developed in accordance with §63.1360(h) as your initial PUG.
(iv) Add process units developed in the future in accordance with the conditions specified in paragraphs (l)(1)(ii)(A) and (B) of this section.
(v) Maintain records that describe the process units in the initial PUG, the procedure used to create the PUG, and subsequent changes to each PUG as specified in §63.2525(i). Submit the records in reports as specified in §63.2520(d)(2)(ix) and (e)(8).
(2) *Determine primary product.* You must determine the primary product of each PUG created in paragraph (l)(1) of this section according to the procedures specified in paragraphs (l)(2)(i) through (iv) of this section.
(i) The primary product is the type of product (*e.g.,* organic chemicals subject to §63.2435(b)(1), pharmaceutical products subject to §63.1250, or pesticide active ingredients subject to §63.1360) expected to be produced for the greatest operating time in the 5-year period specified in paragraph (l)(1)(ii) of this section.
(ii) If the PUG produces multiple types of products equally based on operating time, then the primary product is the type of product with the greatest production on a mass basis over the 5-year period specified in paragraph (l)(1)(ii) of this section.
(iii) At a minimum, you must redetermine the primary product of the PUG following the procedure specified in paragraphs (l)(2)(i) and (ii) of this section every 5 years.
(iv) You must record the calculation of the initial primary product determination as specified in §63.2525(i)(3) and report the results in the notification of compliance status report as specified in §63.2520(d)(8)(ix). You must record the calculation of each redetermination of the primary product as specified in §63.2525(i)(5) and report the calculation in a compliance report submitted no later than the report covering the period for the end of the 5th year after cessation of production of the previous primary product, as specified in §63.2520(e)(8).
(3) *Compliance requirements.* (i) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material described in §63.2435(b)(1), then you must comply with this subpart for each MCPU in the PUG. You may also elect to comply with this subpart for all other process units in the PUG, which constitutes compliance with other part 63 rules.
(ii) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material not described in §63.2435(b)(1), then you must comply with paragraph (l)(3)(ii)(A), (B), or (C) of this section, as applicable.
(A) If the primary product is subject to subpart GGG of this part 63, then comply with the requirements of subpart GGG for each MCPU in the PUG.
(B) If the primary product is subject to subpart MMM of this part 63, then comply with the requirements of subpart MMM for each MCPU in the PUG.
(C) If the primary product is subject to any subpart in this part 63 other than subpart GGG or subpart MMM, then comply with the requirements of this subpart for each MCPU in the PUG.
(iii) The requirements for new and reconstructed sources in the alternative subpart apply to all MCPU in the PUG if and only if the affected source under the alternative subpart meets the requirements for construction or reconstruction.
[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40337, July 14, 2006]

§ 63.2540 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.
(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.2450(a) under §63.6(g).
(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.2550 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in §63.981, except as specified in §§63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.
(b) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F have the meaning given to them in §65.2.
(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in §63.1020.
(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in §63.1061, except as specified in §§63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.
(e) For an affected source complying with the requirements in §§63.132 through 63.149, the terms used in this subpart and §§63.132 through 63.149 have the meaning given them in §§63.101 and 63.111, except as specified in §63.2450(m) and paragraph (i) of this section.
(f) For an affected source complying with the requirements in §§63.104 and 63.105, the terms used in this subpart and in §§63.104 and 63.105 of this subpart have the meaning given them in §63.101, except as specified in §§63.2450(m), 63.2490(b), and paragraph (i) of this section.
(g) For an affected source complying with requirements in §§63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§63.1253, 63.1257, and 63.1258 have the meaning given them in §63.1251, except as specified in §63.2450(m) and paragraph (i) of this section.
(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart F, have the meaning given them in 40 CFR 65.2.
(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in §63.2, §63.101, §63.111, §63.981, §63.1020, §63.1061, §63.1251, or §65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.
Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (*i.e.,* they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.
Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.
Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:
(1) Continuous process vents;
(2) Bottoms receivers;
(3) Surge control vessels;
(4) Gaseous streams routed to a fuel gas system(s);
(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission

limits and work practice standards in Tables 4, 6, and 7 to this subpart;
(6) Drums, pails, and totes;
(7) Flexible elephant trunk systems that draw ambient air (*i.e.,* the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and
(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. A vent from a unit operation, or a vent from multiple unit operations that are manifolded together, from which total uncontrolled HAP emissions are less than 200 lb/yr is not a batch process vent; emissions for all emission episodes associated with the unit operation(s) must be included in the determination of the total mass emitted. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in §63.1257(d)(2)(ii), except that you do not need to demonstrate that the equations in §63.1257(d)(2)(i) do not apply, and the precompliance reporting requirements specified in §63.1257(d)(2)(ii)(E) do not apply for the purposes of this demonstration; equations specified in §63.1257(d)(2)(i), as applicable; test data using Method 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part.
Biofilter means an enclosed control system such as a tank or series of tanks with a fixed roof that contact emissions with a solid media (such as bark) and use microbiological activity to transform organic pollutants in a process vent stream to innocuous compounds such as carbon dioxide, water, and inorganic salts. Wastewater treatment processes such as aeration lagoons or activated sludge systems are not considered to be biofilters.
Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.
Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in §63.2.
Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.
Continuous operation means any operation that is not a batch operation.
Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in §63.107(b) through (h), or meets the criteria specified in §63.107(i), except:
(1) The reference in §63.107(e) to a chemical manufacturing process unit that meets the criteria of §63.100(b) means an MCPU that meets the criteria of §63.2435(b);
(2) The reference in §63.107(h)(4) to §63.113 means Table 1 to this subpart;
(3) The references in §63.107(h)(7) to §§63.119 and 63.126 mean Tables 4 and 5 to this subpart; and
(4) For the purposes of §63.2455, all references to the characteristics of a process vent (*e.g.,* flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.
(5) The reference to “total organic HAP” in §63.107(d) means “total HAP” for the purposes of this subpart FFFF.
(6) The references to an “air oxidation reactor, distillation unit, or reactor” in §63.107 mean any continuous operation for the purposes of this subpart.
(7) A separate determination is required for the emissions from each MCPU, even if emission streams from two or more MCPU are combined prior to discharge to the atmosphere or to a control device.
Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in §63.2435(d) also may be shared by other processes.
Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:
(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or
(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this

subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.
Emission point means each continuous process vent, batch process vent, storage tank, transfer rack, and wastewater stream.
Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.
Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.
Excess emissions means emissions greater than those allowed by the emission limit.
Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (*e.g.,* blue, black, and red resins).
Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.
Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.
Group 1 continuous process vent means a continuous process vent for which the flow rate is greater than or equal to 0.005 standard cubic meter per minute, and the total resource effectiveness index value, calculated according to §63.2455(b), is less than or equal to 1.9 at an existing source and less than or equal to 5.0 at a new source.
Group 2 continuous process vent means a continuous process vent that does not meet the definition of a Group 1 continuous process vent.
Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.
Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.
Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in §63.111, greater than or equal to 1.5 pound per square inch absolute.
Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.
Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in §63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in §63.132(d) for compounds in Table 8 to subpart G of this part 63.
Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.
Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in §63.115(d)(2)(v).
Halogen atoms mean chlorine and fluorine.
HAP metals means the metal portion of antimony compounds, arsenic compounds, beryllium compounds, cadmium compounds, chromium compounds, cobalt compounds, lead compounds, manganese compounds, mercury compounds, nickel compounds, and selenium compounds.
Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.
In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of §63.180(d). The provisions of §63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.
Isolated intermediate means a product of a process that is stored before subsequent processing. An

isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage. The storage equipment is part of the MCPU that produces the isolated intermediate and is not assigned as specified in §63.2435(d).

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in §63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in §63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the extruder, die plate, or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual HAP monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in §63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o-structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Point of determination means each point where process wastewater exits the MCPU or control device. Note to definition for point of determination: The regulation allows determination of the characteristics of a wastewater stream: At the point of determination; or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of soluble HAP and partially soluble HAP compounds as determined according to procedures in §63.144 of subpart G in this part 63. Such changes include losses by air emissions; reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process condenser means a condenser whose primary purpose is to recover material as an integral part of an MCPU. All condensers recovering condensate from an MCPU at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers. Typically, a primary condenser or condensers in series are considered to be integral to the MCPU if they are capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse or for sale for fuel value, use, or reuse. This definition does not apply to a condenser that is used to remove materials that would hinder performance of a downstream recovery device as follows:

(1) To remove water vapor that would cause icing in a downstream condenser, or

(2) To remove water vapor that would negatively affect the adsorption capacity of carbon in a downstream carbon adsorber, or

(3) To remove high molecular weight organic compounds or other organic compounds that would be difficult to remove during regeneration of a downstream carbon adsorber.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams and from wastewater streams for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. For the purposes of meeting requirements in Table 2 to this subpart, the recovery device must not be a process condenser and must recover chemicals to be reused in a process on site. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard

batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.
Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.
Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.
Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.
Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in §63.2435(d). The following are not considered storage tanks for the purposes of this subpart:
(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;
(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;
(3) Vessels storing organic liquids that contain HAP only as impurities;
(4) Wastewater storage tanks;
(5) Bottoms receivers;
(6) Surge control vessels; and
(7) Process tanks.
Supplemental gases means the air that is added to a vent stream after the vent stream leaves the unit operation. Air that is part of the vent stream as a result of the nature of the unit operation is not considered supplemental gases. Air required to operate combustion device burner(s) is not considered supplemental gases.
Surge control vessel means feed drums, recycle drums, and intermediate vessels as part of any continuous operation. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous operations.
Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.
Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in §63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.
Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.
Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.
Wastewater means water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in Tables 8 and 9 to this subpart of at

least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in Tables 8 and 9 to this subpart of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater. The following are not considered wastewater for the purposes of this subpart:
(1) Stormwater from segregated sewers;
(2) Water from fire-fighting and deluge systems, including testing of such systems;
(3) Spills;
(4) Water from safety showers;
(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;
(6) Equipment leaks;
(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and
(8) Noncontact cooling water.
Wastewater stream means a stream that contains only wastewater as defined in this paragraph (i).
Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.
[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40338, July 14, 2006]

Table 1 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Continuous Process Vents

As required in §63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

For each . . .	For which . . .	Then you must . . .
1. Group 1 continuous process vent	a. Not applicable	i. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
		ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or
		iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream	a. You use a combustion control device to control organic HAP emissions	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.
3. Group 2 continuous process vent at an existing source	You use a recovery device to maintain the TRE level >1.9 but ≤5.0	Comply with the requirements in §63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source	You use a recovery device to maintain the TRE level >5.0 but ≤8.0	Comply with the requirements in §63.993 and the requirements referenced therein.

Table 2 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Batch Process Vents

As required in §63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

For each . . .	Then you must . . .	And you must . . .
1. Process with Group 1 batch process vents	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of recovery devices or a biofilter, except you may elect to comply with the requirements of subpart WW of this part for any process tank; or	Not applicable.
	c. Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through a closed-vent system to a flare or by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration ≤20 ppmv as TOC or total organic HAP.	For all other batch process vents within the process, reduce collective organic HAP emissions as specified in item 1.a and/or item 1.b of this table.
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration ≤20 ppmv.
	b. Use a halogen reduction device before the combustion control device	Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40339, July 14, 2006]

Table 3 to Subpart FFFF of Part 63—Emission Limits for Hydrogen Halide and Halogen HAP Emissions or HAP Metals Emissions From Process Vents

As required in §63.2465, you must meet each emission limit in the following table that applies to your process vents that contain hydrogen halide and halogen HAP emissions or PM HAP emissions:

For each . . .	You must . . .
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥1,000 lb/yr	a. Reduce collective hydrogen halide and halogen HAP emissions by ≥99 percent by weight or to an outlet concentration ≤20 ppmv by venting through one or more closed-vent systems to any combination of control devices, or
	b. Reduce the halogen atom mass emission rate from the sum of all batch process vents and each individual continuous process vent to ≤0.45 kg/hr by venting through one or more closed-vent systems to a halogen reduction device.
2. Process at a new source with uncontrolled emissions from process vents ≥150 lb/yr of HAP metals	Reduce overall emissions of HAP metals by ≥97 percent by weight.

[71 FR 40340, July 14, 2006]

Table 4 to Subpart FFFF of Part 63—Emission Limits for Storage Tanks

As required in §63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

For each . . .	For which . . .	Then you must . . .
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
	b. The maximum true vapor pressure of total HAP at the storage temperature is <76.6 kilopascals	i. Comply with the requirements of subpart WW of this part, except as specified in §63.2470; or
		ii. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
2. Halogenated vent stream from a Group 1 storage tank	You use a combustion control device to control organic HAP emissions	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40340, July 14, 2006]

Table 5 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Transfer Racks

As required in §63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

For each . . .	You must . . .
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or
	c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein; or
	d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40341, July 14, 2006]

Table 6 to Subpart FFFF of Part 63—Requirements for Equipment Leaks

As required in §63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

For all . . .	And that is part of . . .	You must . . .
1. Equipment that is in organic HAP service	a. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	
	b. Comply with the requirements of subpart H of this part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	
	c. Comply with the requirements of 40 CFR part 65, subpart F and the requirements referenced therein, except as specified in §63.2480(c) and (d).	
2. Equipment that is in organic HAP service at a new source	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

[68 FR 63888, Nov. 10, 2003, as amended at 71 FR 40341, July 14, 2006]

Table 7 to Subpart FFFF of Part 63—Requirements for Wastewater Streams and Liquid Streams in Open Systems Within an MCPU

As required in §63.2485, you must meet each requirement in the following table that applies to your wastewater streams and liquid streams in open systems within an MCPU:

For each . . .	You must . . .
1. Process wastewater stream	Comply with the requirements in §§63.132 through 63.148 and the requirements referenced therein, except as specified in §63.2485.
2. Maintenance wastewater stream	Comply with the requirements in §63.105 and the requirements referenced therein, except as specified in §63.2485.
3. Liquid streams in an open system within an MCPU	Comply with the requirements in §63.149 and the requirements referenced therein, except as specified in §63.2485.

Table 8 to Subpart FFFF of Part 63—Partially Soluble Hazardous Air Pollutants

As specified in §63.2485, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart FFFF are listed in the following table:

Chemical name . . .	CAS No.
1. 1,1,1–Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2–Tetrachloroethane	79345
3. 1,1,2–Trichloroethane	79005
4. 1,1–Dichloroethylene (vinylidene chloride)	75354
5. 1,2–Dibromoethane	106934
6. 1,2–Dichloroethane (ethylene dichloride)	107062
7. 1,2–Dichloropropane	78875
8. 1,3–Dichloropropene	542756
9. 2,4,5–Trichlorophenol	95954
10. 1,4–Dichlorobenzene	106467
11. 2–Nitropropane	79469
12. 4–Methyl-2-pentanone (MIBK)	108101
13. Acetaldehyde	75070
14. Acrolein	107028
15. Acrylonitrile	107131
16. Allyl chloride	107051
17. Benzene	71432
18. Benzyl chloride	100447
19. Biphenyl	92524
20. Bromoform (tribromomethane)	75252
21. Bromomethane	74839
22. Butadiene	106990
23. Carbon disulfide	75150
24. Chlorobenzene	108907
25. Chloroethane (ethyl chloride)	75003

Chemical name . . .	CAS No.
26. Chloroform	67663
27. Chloromethane	74873
28. Chloroprene	126998
29. Cumene	98828
30. Dichloroethyl ether	111444
31. Dinitrophenol	51285
32. Epichlorohydrin	106898
33. Ethyl acrylate	140885
34. Ethylbenzene	100414
35. Ethylene oxide	75218
36. Ethylidene dichloride	75343
37. Hexachlorobenzene	118741
38. Hexachlorobutadiene	87683
39. Hexachloroethane	67721
40. Methyl methacrylate	80626
41. Methyl-t-butyl ether	1634044
42. Methylene chloride	75092
43. N-hexane	110543
44. N,N-dimethylaniline	121697
45. Naphthalene	91203
46. Phosgene	75445
47. Propionaldehyde	123386
48. Propylene oxide	75569
49. Styrene	100425
50. Tetrachloroethylene (perchloroethylene)	127184
51. Tetrachloromethane (carbon tetrachloride)	56235
52. Toluene	108883
53. Trichlorobenzene (1,2,4-)	120821
54. Trichloroethylene	79016
55. Trimethylpentane	540841
56. Vinyl acetate	108054
57. Vinyl chloride	75014
58. Xylene (m)	108383
59. Xylene (o)	95476
60. Xylene (p)	106423

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38560, July 1, 2005; 71 FR 40341, July 14, 2006]

Table 9 to Subpart FFFF of Part 63—Soluble Hazardous Air Pollutants

As specified in §63.2485, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart FFFF are listed in the following table:

Chemical name . . .	**CAS No.**
1. Acetonitrile	75058
2. Acetophenone	98862
3. Diethyl sulfate	64675
4. Dimethyl hydrazine (1,1)	57147
5. Dimethyl sulfate	77781
6. Dinitrotoluene (2,4)	121142
7. Dioxane (1,4)	123911
8. Ethylene glycol dimethyl ether	110714
9. Ethylene glycol monobutyl ether acetate	112072
10. Ethylene glycol monomethyl ether acetate	110496
11. Isophorone	78591
12. Methanol	67561
13. Nitrobenzene	98953
14. Toluidine (o-)	95534
15. Triethylamine	121448

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38561, July 1, 2005]

Table 10 to Subpart FFFF of Part 63—Work Practice Standards for Heat Exchange Systems

As required in §63.2490, you must meet each requirement in the following table that applies to your heat exchange systems:

For each . . .	**You must . . .**
Heat exchange system, as defined in §63.101	Comply with the requirements of §63.104 and the requirements referenced therein, except as specified in §63.2490.

Table 11 to Subpart FFFF of Part 63—Requirements for Reports

As required in §63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

You must submit a(n)	**The report must contain . . .**	**You must submit the report . . .**
1. Precompliance report	The information specified in §63.2520(c)	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report	The information specified in §63.2520(d)	No later than 150 days after the compliance date specified in §63.2445.
3. Compliance report	The information specified in §63.2520(e)	Semiannually according to the requirements in §63.2520(b).

Table 12 to Subpart FFFF of Part 63—Applicability of General Provisions to Subpart FFFF

As specified in §63.2540, the parts of the General Provisions that apply to you are shown in the following table:

Citation	Subject	Explanation
§63.1	Applicability	Yes.
§63.2	Definitions	Yes.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities	Yes.
§63.5	Construction/Reconstruction	Yes.
§63.6(a)	Applicability	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources	Yes.
§63.6(b)(5)	Notification	Yes.
§63.6(b)(6)	[Reserved]	
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Yes.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Yes.
§63.6(c)(3)–(4)	[Reserved]	
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Yes
§63.6(d)	[Reserved]	
§63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§63.6(e)(3)(i), (ii), and (v) through (viii)	Startup, Shutdown, Malfunction Plan (SSMP)	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in §63.2525(j).
§63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During SSM	No, §63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and §63.2520(e)(4) specifies reporting requirements.
§63.6(e)(3)(ix)	SSMP incorporation into title V permit	Yes.
§63.6(f)(1)	Compliance Except During SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Yes.
§63.6(h)	Opacity/Visible Emission (VE) Standards	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§63.6(i)(1)–(14)	Compliance Extension	Yes.
§63.6(j)	Presidential Compliance Exemption	Yes.
§63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.

Citation	Subject	Explanation
§63.7(a)(3)	Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under §63.997(b)(2).
§63.7(b)(1)	Notification of Performance Test	Yes.
§63.7(b)(2)	Notification of Rescheduling	Yes.
§63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.
§63.7(d)	Testing Facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Yes, except that performance tests for batch process vents must be conducted under worst-case conditions as specified in §63.2460.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Yes.
§63.7(e)(3)	Test Run Duration	Yes.
§63.7(f)	Alternative Test Method	Yes.
§63.7(g)	Performance Test Data Analysis	Yes.
§63.7(h)	Waiver of Tests	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§63.8(a)(2)	Performance Specifications	Yes.
§63.8(a)(3)	[Reserved]	
§63.8(a)(4)	Monitoring with Flares	Yes.
§63.8(b)(1)	Monitoring	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Yes.
§63.8(c)(1)(i)	Routine and Predictable SSM	Yes.
§63.8(c)(1)(ii)	SSM not in SSMP	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	Yes.
§63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§63.8(c)(4)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part 63. Requirements for COMS do not apply because subpart FFFF does not require continuous opacity monitoring systems (COMS).
§63.8(c)(4)(i)	COMS Measurement and Recording Frequency	No; subpart FFFF does not require COMS.
§63.8(c)(4)(ii)	CEMS Measurement and Recording Frequency	Yes.
§63.8(c)(5)	COMS Minimum Procedures	No. Subpart FFFF does not contain opacity or VE limits.
§63.8(c)(6)	CMS Requirements	Only for CEMS; requirements for CPMS are

Citation	Subject	Explanation
		specified in referenced subparts G and SS of this part 63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(c)(7)–(8)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subparts G and SS of part 63. Requirements for COMS do not apply because subpart FFFF does not require COMS.
§63.8(d)	CMS Quality Control	Only for CEMS.
§63.8(e)	CMS Performance Evaluation	Only for CEMS. Section 63.8(e)(5)(ii) does not apply because subpart FFFF does not require COMS.
§63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Only applicable when using CEMS to demonstrate compliance, including the alternative standard in §63.2505.
§63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, including for the alternative standard in §63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and §63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in §63.2450(j).
§63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in §63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.9(a)	Notification Requirements	Yes.
§63.9(b)(1)–(5)	Initial Notifications	Yes.
§63.9(c)	Request for Compliance Extension	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Source	Yes.
§63.9(e)	Notification of Performance Test	Yes.
§63.9(f)	Notification of VE/Opacity Test	No. Subpart FFFF does not contain opacity or VE limits.
§63.9(g)	Additional Notifications When Using CMS	Only for CEMS. Section 63.9(g)(2) does not apply because subpart FFFF does not require COMS.
63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except subpart FFFF has no opacity or VE limits, and 63.9(h)(2)(i)(A) through (G) and (ii) do not apply because 63.2520(d) specifies the required contents and due date of the notification of compliance status report.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.
§63.9(j)	Change in Previous Information	No, §63.2520(e) specifies reporting requirements for process changes.
§63.10(a)	Recordkeeping/Reporting	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	Yes.

Citation	Subject	Explanation
§63.10(b)(2)(i)–(ii), (iv), (v)	Records related to SSM	No, §§63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment	Yes.
§63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(b)(2)(vii)–(ix)	Records	Yes.
§63.10(b)(2)(xii)	Records	Yes.
§63.10(b)(2)(xiii)	Records	Only for CEMS.
§63.10(b)(2)(xiv)	Records	Yes.
§63.10(b)(3)	Records	Yes.
§63.10(c)(1)–(6),(9)–(15)	Records	Only for CEMS. Recordkeeping requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in §63.2525.
§63.10(d)(1)	General Reporting Requirements	Yes.
§63.10(d)(2)	Report of Performance Test Results	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(d)(4)	Progress Reports	Yes.
§63.10(d)(5)(i)	Periodic Startup, Shutdown, and Malfunction Reports	No, §63.2520(e)(4) and (5) specify the SSM reporting requirements.
§63.10(d)(5)(ii)	Immediate SSM Reports	No.
§63.10(e)(1)	Additional CEMS Reports	Yes.
§63.10(e)(2)(i)	Additional CMS Reports	Only for CEMS.
§63.10(e)(2)(ii)	Additional COMS Reports	No. Subpart FFFF does not require COMS.
§63.10(e)(3)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in §63.2520.
§63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	No. Reporting requirements are specified in §63.2520.
§63.10(e)(4)	Reporting COMS data	No. Subpart FFFF does not contain opacity or VE limits.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes.

Citation	Subject	Explanation
§63.11	Flares	Yes.
§63.12	Delegation	Yes.
§63.13	Addresses	Yes.
§63.14	Incorporation by Reference	Yes.
§63.15	Availability of Information	Yes.

[68 FR 63888, Nov. 10, 2003, as amended at 70 FR 38561, July 1, 2005; 71 FR 20463, Apr. 20, 2006; 71 FR 40341, July 14, 2006]

G.1.3 One-Time Deadlines Relating to Miscellaneous Organic Chemical Manufacturing Notifications [40 CFR Part 63, Subpart FFFF]

The Permittee shall comply with the following notification requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Initial Notification	40 CFR 63.2515(b)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	March 10, 2004
Pre Compliance Report Date	40 CFR 63.2520(c)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	November 10, 2007
Initial Compliance Date	40 CFR 63.2505(b) 40 CFR 63.2445(b)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	May 10, 2008
Notification of Compliance Status Report	40 CFR 63.2450(g)(5)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	October 8, 2008
1st Compliance Report	40 CFR 63.2520(b)(2)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	August 31, 2008
Compliance Reports	40 CFR 63.2520(b)(4)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, and EU-13	Semi-annual on August 31 and February 28

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify) ____________________

☐ Report (specify ____________________

☐ Notification (specify) ____________________

☐ Affidavit (specify ____________________

☐ Other (specify ____________________

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- X The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- X The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: ____________________

Title / Position: ____________________

Date: ____________________

Phone: ____________________

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS-FIRED BOILER CERTIFICATION

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033

☐ Natural Gas Only
☐ Alternate Fuel burned

From ____________________ To: ____________________

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033
Facilities: Coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
Parameter: SO_2 emissions
Limit: A total of 1,630 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _______________

Month	SO_2 Emissions (tons/month)	SO_2 Emissions (tons/month)	SO_2 Emissions (tons/month)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on: _________________________

Submitted by: ____
Title/Position: ____
Signature: ____
Date: ____
Phone: ____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033
Facilities: Coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
Parameter: NO_X emissions
Limit: A total of 960 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _______________

Month	NO_X Emissions (tons/month)	NO_X Emissions (tons/month)	NO_X Emissions (tons/month)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on: _________________________

Submitted by: ____

Title/Position: ____

Signature: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033
Facilities: Coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
Parameter: CO emissions
Limit: A total of 54 tons per twelve (12) consecutive month period with compliance determined at the end of each month (as calculated by Condition D.1.2(c).

YEAR: _______________

Month	CO Emissions (tons/month)	CO Emissions (tons/month)	CO Emissions (tons/month)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on: ____________________

Submitted by: ____________________
Title/Position: ____________________
Signature: ____________________
Date: ____________________
Phone: ____________________

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033
Facilities: Corn receiving (EU-01), corn handling (EU-02), corn milling (EU-03) Five (5) DDGS dryers (EU-10), DDGS handling (EU-11), alcohol load-out (EU-13), coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
Parameter: PM emissions
Limit: A total of 70 tons per twelve (12) consecutive month period with compliance determined at the end of each month (as calculated by Condition D.1.2(c).

YEAR: _______________

Month	PM Emissions (tons/month)	PM Emissions (tons/month)	PM Emissions (tons/month)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on: _________________________

Submitted by: ____
Title/Position: ____
Signature: ____
Date: ____
Phone: ____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: New Energy Corp.
Source Address: 3201 West Calvert Street, South Bend, Indiana 46613
Mailing Address: P.O. Box 2289, South Bend, Indiana 46680
Part 70 Permit No.: T 141-6956-00033

Months: __________ to _________ Year: ____________

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name:	New Energy Corporation
Source Location:	3201 West Calvert Street, South Bend, Indiana 46613
County:	St Joseph
SIC Code:	2869
Operation Permit No.:	T141-6956-00033
Permit Reviewer:	Aida De Guzman

On September 30, 2007, the Office of Air Quality (OAQ) had a notice published in the South Bend Tribune, South Bend, Indiana, stating that New Energy Corporation (NEC) applied for a Part 70 Operating permit to operate the existing plant that is manufacturing fuel-grade ethanol. The notice also stated that OAQ proposed to issue permit and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 30, 2007, Barnes and Thornburg, on behalf of New Energy Corporation, submitted the following comments to the proposed Part 70 Operating Permit:

Comment 1:

The testing requirements, including those for initial testing and repeat testing, in Conditions D.1.3, D.2.4, D.3.5, D.4.8, D.5.5, D.6.6 and D.7.7, are unreasonable and unnecessary, and unduly burdensome, and therefore arbitrary and capricious. As an example, Condition D.6.6 requires PM testing on the Riley Stoker Boiler every 2.5 years. However, in the TSD, at p. 33 of 52, IDEM acknowledges that prior testing reveals an emission rate of 0.007 lbs./mmBtu, which is 93% below the limit of 0.1 lbs/mmBtu. NEC could increase its emission rate by more than an order of magnitude and still be below the limit. Repeat testing of this stack is ludicrous.

Response 1:

It is appropriate to require repeat stack testing as required in Conditions D.1.3, D.3.5, D.4.8, D.5.5, D.6.6 and D.7.7 because the emission units and their corresponding control devices in these conditions must demonstrate continuous compliance with the requirements of the PSD BACT, LAER, state rule requirements, including PSD minor limits, and Agreed Order No. 2000-9526-A signed on January 16, 2004, for the CO_2 scrubber, and V-230 with the testing requirements in Condition D.3.5. As the control device gets older the control efficiency diminishes. This problem can only be determined through repeat testing. In addition, for PSD minor limits, it is the control device that keeps the emission units from being subject to PSD. Therefore, its performance must be verified periodically. Therefore, no changes have been made to this condition.

Comment 2:

The proposed permit has a number of provisions which blatantly violate 40 CFR § 70.1(b) which states that Title V does not impose substantive new requirements. By way of example, Condition D.5.1 imposes an overall efficiency requirement of 98% and a lbs/hour VOC limit on the alcohol loadout flare. There is no applicable requirement for these limits and IDEM has just made them up. Similarly, Conditions D.7.2, D.7.3 and D.7.4 impose hourly limit on the DDGS cooler system for which there is no authority.

Response 2:

The BACT limits as written in the St. Joseph County Health Department construction permit/PSD approval issued on February 12, 1982 are not practically enforceable as written because there are no means to directly measure the emissions in tons per year, unless the Permittee installs CEMS on all emission units for all criteria pollutants. Therefore, in order for IDEM to verify and for NEC to demonstrate continuous compliance with the plant-wide annual emission limits (BACT limits) set forth in the 1982 PSD construction permit by St. Joseph County Health Department, IDEM has incorporated hourly limits on individual emission units into the proposed D Sections of the permit.

A ton per year emission rate can not be verified without the addition of a throughput limit and an associated pound per ton emission rate that is based upon a stack test for each emission unit. If that alternative were implemented, additional record keeping and reporting would be added to the proposed Part 70 Operating Permit, unless a CEMS was installed on each emission unit for each pollutant.

Indiana=s Part 70 Operating Program approved by U.S. EPA is a combined New Source Review (NSR) and Part 70 Operating Permit Program. This allows IDEM, OAQ to change NSR requirements through the Part 70 Operating Permit. IDEM has established a U.S. EPA-approved protocol for the procedures to be used when incorporating the provisions of previously issued permits into Part 70 Operating Permits and for combining NSR permits with Part 70 Operating Permits. Individual provisions of previously issued permits may be incorporated as originally stated, revised, or deleted as described by these procedures. IDEM may supersede previously issued permits in whole or in part under these procedures as long as the Technical Support Document identifies the previously established applicable requirements that will be revised or deleted and the basis for the revisions or deletions. In this case, the source-wide BACT limits have not changed. Therefore, the short-term and annual throughput limits may be viewed as operational requirements and limitations that assure compliance with the source-wide BACT limits as authorized by 326 IAC 2-7-5(1). Further discussion on this matter was included in the Part 70 Operating Permit Technical Support Document on pages 9, 10 and 11.

The alcohol loadout operation has been constructed after 1980 with potential VOC emissions of 25 tons per year or greater. However, issued permits did not have any requirements under 326 IAC 8-1-6 (General Reduction Requirements) for this operation. Therefore, a BACT analysis was made in the proposed Part 70 permit and BACT requirements including control efficiency of 98% were included in the permit which were based on previous BACT determinations for similar operations.

Therefore, no changes have been made to the proposed permit as a result of this comment.

Comment 3:

In Sections 60.43 and 60.44 (p. 76 of 195) and 60.112a (p. 84 of 195), subparagraphs have been erroneously numbered or left out. Section 60.43 is missing subsection (b), 60.44 is missing subsections (b), (c) and (d), and 60.112a is missing subsection (a)(2).

Response 3:

IDEM has incorporated only applicable portions of the NSPS into the permit. Section 60.43 (b), including Section 60.44 subsections (b), (c) and (d) of Subpart D - Standards of Performance for Fossil Fuel-Fired Steam Generators have been intentionally excluded since they are not applicable to the Riley-Stoker coal-fired Boiler EU-14. These deleted sections only apply to boilers using multiple fossil fuels being burned simultaneously in any combination.

Comment 4:

Where the permit requires an instrument to be calibrated semi-annually (Conditions C.11(d)(1), D.2.6, D.3.6, D.3.7, D.4.12, D.4.13, D.5.7, D.6.11, and D.7.9), NEC requests that the phrase “or per manufacturer’s recommendation” be added to the end of these requests.

Response 4:

IDEM requires sources to calibrate instrument used to monitor operations at the facility to ensure they are operating properly. If the source can provide recommendations from the instrument vendor, IDEM will revise the condition to reflect a frequency more consistent with vendor recommendations. Therefore, no changes have been made to the semi-annual calibration requirement in Section C.11 (d)(1), D.2.6, D.3.6, D.3.7, D.4.12, D.4.13, D.5.7, D.6.11, and D.7.9.

Comment 5:

Preventive Maintenance Plans - The requirement for preventive maintenance plans should apply only to control devices, not the emitting facilities. It was never the intent of this rule to apply these requirements to the emission units. Therefore, the phrase “for these facilities and their control devices” should be changed to “for these facilities’ control devices” in Conditions D.2.2, D.3.3, D.4.5, D.5.3, D.6.4, and D.7.5.

Response 5:

The Preventive Maintenance Plan requirement must be included in every applicable Title V permit pursuant to 326 IAC 2-7-5(13). This rule refers back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

(1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),

(2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and

(3) The identification and quantification of the replacement parts for the facility which the Permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. 326 IAC 1-6-3(b) provides that "...as deemed necessary by the commissioner, any person operating a facility shall comply with the requirements of subsection (a) of this section."

Many types of facilities require maintenance in order to prevent excess emissions. If No. 2 fuel oil-fired boilers are not maintained, smoking and increased PM emissions will eventually result. Electrostatic application equipment needs proper maintenance in order to maintain maximum transfer efficiency. However, the equipment used at the two (2) plant-wide miscellaneous sealers and adhesives operations does not need maintenance to operate properly and minimize emissions.

Comment 6:

Condition A.2 (Part 70 Source Definition) - NEC and BOC are not one “source” because, among other things, they are not under common control. They should be classified as separate sources.

Response 6:

326 IAC 2-7-1 (22) sets out the definition of the term “major source”. In order for these two (2) plants to be considered one (1) major source, they must meet all three (3) of the following criteria:

(a) the plants must be under common control;

(b) the plants must have the same Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,

(c) the plants must be located on contiguous or adjacent properties.

IDEM first looked at whether the two (2) plants are under common control.

In 1996, IDEM adopted a nonrule policy document, Air-005-NPD, titled Guidance on Definition of “Source” for Collocated Activities. The guidance endorses two (2) tests for determining whether common control exists when there is no common ownership. The tests consider the total relationship between the two (2) plants. Common control exists if either test is satisfied.

NEC and BOC Gases (BOC) meet the criteria of the second test, the “but/for” test. This test examines whether the auxiliary plant would exist absent the needs of the primary plant. This is an analysis of whether the auxiliary plant is dependent on the primary plant, in that if the primary plant were to cease operations, then the auxiliary would also shut down as a result.

BOC purchases carbon dioxide (CO_2) gas and steam from NEC. BOC produces liquid CO_2 from the CO_2 gas which travels from NEC to BOC via a sixteen-inch pipeline. BOC sells the liquid CO_2 to its customers. There is no other source that could supply BOC with sufficient quantities of CO_2 gas. If NEC were to cease operations, BOC could not continue to operate. Therefore, common control exists under the “but/for” test.

NEC and BOC also meet the two (2) other criteria of the major source definition. The plants have the same two (2) digit SIC Code. The two (2) digit SIC Code for both plants is 28, which is the major group for chemical and allied products. They also meet the third criteria since the plants are located on contiguous properties.

Therefore, IDEM, OAQ confirms that NEC and BOC Gases are one (1) major source, however, Condition A.2 has been revised for clarification as follows:

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This fuel-grade ethanol production source consists of two (2) plants:

(a) New Energy Corp. (NEC) located at 3201 West Calvert Street, South Bend, Indiana, and

(b) BOC Gases located at 3809 West Calvert Street, South Bend, Indiana.

Although the two (2) plants do not share common ownership or management, IDEM, OAQ has determined that since the two (2) plants are located on contiguous property that is owned by NEC and if it were not for the existence of NEC, the BOC plant would not be there, the two (2) plants are considered one (1) source. BOC Gases is totally dependant on NEC for its feedstock of CO_2 gas. Therefore, the term Asource@ in the Part 70 documents refers to both New Energy Corp and BOC Gases as one (1) **major** source.

Separate Part 70 Operating Permits will be issued to New Energy Corp. with Permit No.: T 141-6956-00033 and BOC Gases with Permit No.: T 141-17344B00548 solely for administrative purposes.

Comment 7:

Condition C.5(b) (Fugitive Particulate Matter Emission Limitations) - Tarping of grain trucks onsite is unnecessary, and this requirement should be removed. Truck traffic is limited to 10 mph, which is slow enough to prevent any significant dust emissions.

Response 7:

Speed limits for trucks coming in and out of the plant does not prevent dust emissions especially during windy condition, but tarping of grain trucks will prevent the grains and particulate in the grains from getting into the atmosphere when it is windy. Therefore, no changes have been made to the permit as a result of this comment.

Comment 8:

Condition C.11(d)(1) (Maintenance of Continuous Opacity Monitoring Equipment) and Condition D.6.11(a) (Visible Emissions Notations) - The requirement to monitor the differential pressure of the baghouse is not useful and should be removed. Visible emission notations should be the method designated for determining that emissions are being captured during periods when the continuous opacity monitor is down.

Response 8:

326 IAC 2-7-5(3) requires that the permit includes conditions that assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. Therefore, to reasonably conclude that a source is in compliance or not with an applicable requirement during the COMS downtime two or more compliance demonstration methods have been required in the permit, which in this case is the visible emission notation and baghouse pressure drop monitoring. No changes have been made to the permit as a result of this comment.

Comment 9:

Condition C.12(c) (Maintenance of Continuous Emission Monitoring Equipment) - Backup data substitution methods for time periods when the continuous emission monitors are malfunctioning should be triggered 24 hours after the malfunction begins, instead of four hours.

Response 9:

IDEM believes that four hours is reasonable to trigger the procedure in 40 CFR 75 Subpart D in order to minimize information lost when the continuous emission monitors are malfunctioning or down. Therefore, no changes have been made to Condition C.12(c) as a result of this comment.

Comment 10:

Condition D.1.2(d) (Emission Determination) - TDGS11 calculation uses emissions factor 0.061 lb PM/ton which is an uncontrolled factor. The equation needs a control efficiency factor (1-CE) to account for the fact that the DDGS is transferred into a building via enclosed conveyors and elevators. NEC estimates the overall control 96%.

In addition, the PM calculation from the Dryers requires a DDGS flowrate (FR) through each dryer. Due to the large unmeasured recycle stream, there is no way to determine dryer throughput. Emission calculation should be based on initial RTO stack test.

Further, the PM calculation includes insignificant activities. Assuming these are the activities listed in Condition D.9.1, NEC has no reliable way of quantifying emissions from these sources. Since they are, by definition, insignificant, they should not be included.

Response 10:

The equation for the TDGS11 calculation is correct. The source will not be credited for the DDGS tranfer into the building for storage via enclosed conveyors and elevators as control because demonstration through compliance testing for the 96% control efficiency is not possible. Therefore, the worse case PTE calculation equation was required in the permit.

Since the drying process is controlled by a regenerative thermal oxidizer (RTO), the air flow rate required in equation ∑ [FR x OGL x MO x 1 lb/ 7,000 grains] x 1 ton/ 2,000 pounds of Condition D.1.2 is the air flow rate measured from the outlet of the RTO. This air flow rate shall be determined during compliance performance test using the worst case scenario that all DDGS dryers are operating or by measuring the actual air flow from the RTO using an IDEM approved air measuring device.

The insignificant activities in SECTION D.9 were subject to PSD review, since they were part of the source initial construction. Their inclusion in the equation is correct because the equations in Condition D.1.2 are for emission units that are subject to PSD BACT limits.

Therefore, no changes have been made to the permit as a result of these comments.

Comment 11:

Condition D.1.3(b) (Testing Requirements) - This condition requires that carbon monoxide testing of the package boilers be conducted while combusting fuel oil every 2.5 years. Since these boilers have not combusted fuel oil in the past five years, NEC requests that a provision be provided in the permit which would require the testing only if fuel oil is being combusted at the source.

Response 11:

Since the package boilers do not combust fuel oil regularly or continuously, Condition D.1.3(b) has been revised to require the carbon monoxide (CO) testing for the package boilers while combusting fuel oil. Revision is as follows:

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(b) Within one hundred eighty (180) days after issuance of this Part 70 Operating Permit, in order to demonstrate compliance with the emission rate of 5.0 pounds of CO per kilogallon of No. 2 **fuel** oil in Condition D.1.2(c), the Permittee shall perform CO testing for the two (2) package boilers when burning No. 2 fuel oil (EU-15**). If No. 2 fuel oil is not combusted within one hundred eighty (180) days of issuance of this Part 70 Operating Permit, testing must be completed within ninety (90) days upon initial combustion of No. 2 fuel oil,** utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Comment 12:

Condition D.1.4(a)(3), (a)(10), and (b) (Record Keeping Requirements) - NEC requests that the requirement to record the hours of operation for the emergency generator and the diesel fire pump be removed from the Permit as these pieces of equipment operate extremely infrequently, therefore generating insignificant emissions. This requirement is unnecessary and burdensome. NEC cannot quantify "insignificant" sources of emissions as required in subsection (a)(10). Therefore, NEC requests this provision be removed from the permit. In addition, NEC believes that documenting when the boiler is not in operation in subsection (b) serves no purpose and is unnecessary and burdensome and should be removed.

Response 12:

Condition D.1.1, a PSD BACT requirement under 326 IAC 2-2, limits the entire source, which included emergency generators and fire pumps. Therefore, although the emergency generators and fire pumps are insignificant activities, these units have to demonstrate compliance with the PSD BACT limit through record keeping of their hours of operation and heat input. Section A.4 and Section D.1 description box have been revised to include the emergency generators and fire pumps and were re-numbered to be consistent with the numbering in the TSD:

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(b) **Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, rated at a total of 2.431 million British thermal units per hour, consisting of:**

(1) **One (1) emergency diesel-fired generator, rated at 1.8 million British thermal units per hour heat input and 500 kilowatts, limited to five hundred (500) hours of operation per year, and**

(2) **One (1) back-up diesel-fired fire pump, rated at 0.631 million British thermal units per hour and 250 horsepower.**

(~~a~~ **r**) Paved and unpaved roads and parking lots with public access, identified as EU-17 [326 IAC 6-4].

(~~b~~ **t**) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6.5-1-2(a)].

(~~c~~ **dd**) Bag Dump-Process [326 IAC 6.5-1-2(a)].

(~~d~~ **gg**) DDGS finishing [326 IAC 6.5-1-2(a)].

(~~e~~ **jj**) Ash handling [326 IAC 6.5-1-2(a)].

(~~f~~ **kk**) Ash loadout [326 IAC 6.5-1-2(a)].

(~~g~~ **ll**) Coal receiving/handling and storage [326 IAC 6.5-1-2(a)].

SECTION D.1 FACILITY OPERATION CONDITIONS

Emissions Unit Description: PSD Emission Units

(a) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, consisting of one (1) rail hopper, identified as RH-0001, two (2) truck dumpers, identified as TD-0001 & TD-0002, and two (2) truck hoppers, identified as TH-0001 and TH-0002, two (2) belt conveyors, identified as CV-0001 and CV-0002, five (5) drag conveyors, identified as CV-0003, CV-0004, CV-0005, CV-0006, and CV-0008, one (1) elevator, identified as EL-0001, and one (1) elevator, identified as EL-0002, installed in December 2003, capacity: 840 tons of yellow dent corn per hour.

Insignificant Activities:

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, rated at a total of 2.431 million British thermal units per hour, consisting of:

(1) One (1) emergency diesel-fired generator, rated at 1.8 million British thermal units per hour heat input and 500 kilowatts, limited to five hundred (500) hours of operation per year, and

(2) One (1) back-up diesel-fired fire pump, rated at 0.631 million British thermal units per hour and 250 horsepower.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Comment 13:

Condition D.2.4 (Testing Requirements) - Testing of baghouses every five years is unreasonable, unnecessary and unduly burdensome. Parametric monitoring is sufficient to verify compliance.

Response 13:

326 IAC 2-7-5(3) requires that the permit includes conditions that assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. Stack testing is required to be repeated every five years since this is the only way to determine if an emission unit and its control device are in compliance with the applicable requirements. Since stack testing is not done continuously, surrogate parameters are established during stack testing and are required to be monitored on a continuous basis to demonstrate continuous compliance.

Comment 14:

Conditions D.2.6 (Baghouse Parametric Monitoring) and D.2.8(b) (Record Keeping Requirements) - Visible emissions monitoring of the corn receiving and milling baghouses (EU-01, 02, 03) is sufficient to monitor performance of the baghouse. Pressure drop across the baghouse is not a reliable indicator of performance therefore is unnecessary and unduly burdensome and should be removed from the permit.

Response 14:

326 IAC 2-7-5(3) requires that the permit includes conditions that assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. Therefore, to reasonably conclude that a source is in compliance or not with an applicable requirement two or more compliance demonstration methods are being required in the permit, which in this case is the visible emission notation and baghouse pressure drop monitoring. No changes have been made to the permit as a result of this comment.

Comment 15:

Condition D.4.7 (Particulate Control) - Condition D.4.7 requires the old scrubbers to be operated at all times when the DDGS dryers are in operation. These scrubbers are useless, as their function has been assumed by the RTOs and NEC can meet the 0.03 gr./dscf. limit without them. This requirement should be eliminated. The word “dyers” should be changed to “dryers.” This is a typographical error.

Response 15:

Page 4 of 16 of the spreadsheet calculations noted " 0.014 gr/dscf outlet loading from stack testing conducted by Envisage in October 1996, controlled to 0.0007 by additional 95% RTO control."

Based on this statement the 0.014 gr/dscf was measured at the scrubber's outlet and not at the RTO's outlet. Since there is no demonstration through stack testing that the RTO alone can meet the 0.03 gr./dscf limit, the requirement to operate the scrubbers in Condition D.4.7 will remain. The word "dyers" has been changed to "dryers" as follows:

D.4.7 Particulate Control [326 IAC 2-7-6(6)]

In order to comply with Conditions D.1.1(a)(4)(B) and D.4.2, the scrubbers (SF-511 through SF-515) and at least one (1) of the two (2) RTOs for particulate control shall be in operation and control emissions from the DDGS dryer operation (EU10) at all times that one (1) or more of the DDGS ~~dyers~~ **dryers** are in operation.

Comment 16:

Condition D.4.8(a) and (c) (Testing Requirements) - Re-testing of the RTOs, required by Condition D.4.8 is unnecessary and unduly burdensome. EPA MACT standards which require or allow RTOs to control VOC emissions require only an initial test and monitoring of temperature thereafter. IDEM has no authority in any applicable requirement to require this repeat testing.

Comment 17:

Condition D.4.10 (Thermal Oxidizer Parametric Monitoring) - Maintaining an RTO temperature greater than 1600°F is sufficient to demonstrate performance. In addition, the dryers are hard piped into the RTOs. Therefore, NEC requests removal of the requirement to monitor duct pressure/fan amperage and repeated testing of the RTOs.

Responses 16, 17:

The RTOs were determined to be LAER for a group of emission units in Section D.4. LAER can be more stringent than the MACT requirements. Stack testing is required to be repeated every five years since this is the only way to determine if an emission unit and its control device are in compliance with the applicable requirements. Since stack testing is not done continuously, surrogate parameters like operating temperature are established during stack testing and are required to be monitored on a continuous basis to demonstrate continuous compliance with the LAER emissions limit.

Comment 18:

Condition D.5.5 (Testing Requirements) - Testing of the DDGS baghouse every five years is unreasonable, unnecessary and unduly burdensome. Parametric monitoring is sufficient to verify compliance.

Response 18:

Stack testing is required to be repeated every five years since this is the only way to determine if an emission unit and its control device are in compliance with the applicable requirements. Caking and holes in the baghouse can affect its control efficiency. Since stack testing is not done continuously, surrogate parameters like pressure drop for baghouses are established during stack testing and are required to be monitored on a continuous basis to demonstrate continuous compliance.

Comment 19:

Conditions D.5.7 (Baghouse Parametric Monitoring) and 5.9 (Record Keeping Requirements) - Visible emissions monitoring of the DDGS load-out operation (EU-12) is sufficient to monitor performance of the baghouse. Pressure drop across the baghouse is not a reliable indicator of performance and therefore is unnecessary and unduly burdensome and should be removed from the Permit.

Response 19:

326 IAC 2-7-5(3) requires that the permit includes conditions that assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. Therefore, to reasonably conclude that a source is in compliance or not with an applicable requirement two or more compliance demonstration methods are being required in the permit, which in this case is the visible emission notations and baghouse pressure drop monitoring. No changes have been made to the permit as a result of this comment.

Comment 20:

Condition D.6.1 (Sulfur Dioxide (SO_2) - This limit of 6.0 lbs SO_2/mmBtu heat input to the Riley Stoker boiler (EU-14) while combusting coal is not necessary since the SO_2 emissions from this unit are regulated elsewhere in the Permit, and should be removed.

Response 20:

The Permittee is required to comply with all the state and federal rules applicable to the source, based on this, permits issued by the IDEM must cite conditions pertaining to all of these applicable rules.

Comment 21:

Condition D.6.6 (Testing Requirements) - Testing the Riley baghouse every 2.5 years is unreasonable, unnecessary and unduly burdensome. Parametric monitoring is sufficient to verify compliance.

Response 21:

The 311 MMBtu/hr Riley Stoker boiler is one of the 28 listed source categories because of its size. Based on this criteria, stack testing is required to be repeated every two and a half (2.5) years since this is the only way to determine if an emission unit and its control device are in compliance with the applicable requirements. Since stack testing is not done continuously, surrogate parameters like pressure drop for baghouses, operating temperature for RTOs are established during stack testing and are required to be monitored on a continuous basis to demonstrate continuous compliance.

Comment 22:

Condition D.6.7(c) and (d) (Sulfur Dioxide Emissions and Sulfur Content) - Notification to IDEM that CEMs are being used for SO_2 compliance is unnecessary in Condition D.6.7(d), especially when Condition D.6.9 requires the use of CEMs and therefore, this subsection should be removed from the Permit. In addition, Condition D.6.7(d) requires NEC to provide written notice to IDEM if it wants to perform continuous monitoring, while Condition D.6.9(a) requires continuous monitoring. Condition D.6.7(d) should be removed.

Comment 23:

Condition D.6.8(c) (Sulfur Dioxide Emissions and Sulfur Content) - Notification to IDEM that CEMs are being used for SO_2 compliance for the package boilers on fuel oil is also unnecessary.

Responses 22, 23:

Since the source has the option to use either the CEMS data collected or coal sampling to determine compliance with the SO_2 emissions limit for the Riley-Stoker coal-fired boiler, EU-14, and the option to use either CEMS data collected or oil sampling to determine compliance with the SO_2 emissions limit for the package boilers, EU-15, it is appropriate to require the source to notify IDEM, OAQ when CEMS data collected will be used as the option to demonstrate compliance with the SO_2 emissions limits, in order to avoid confusion. This will also allow for IDEM to determine if CEMS reports are due.

Comment 24:

Condition D.6.12 (Baghouse Parametric Monitoring) - NEC believes that the requirement to monitor the differential pressure of the baghouse associated with the Riley-Stoker coal-fired boiler, EU-14 is not necessary since a continuous opacity monitor (COMS) is installed to monitor opacity from this unit. Based on these conditions, NEC requests the following language be added: "When during any such period that the COM associated with the Riley-Stoker coal-fired boiler, EU-14 is not in operation, the facility shall monitor the visible emissions from the baghouse associated with the Riley-Stoker coal-fired boiler, EU-14 daily until such time as the COM is brought back into service in accordance with Condition D.6.11."

Response 24:

Condition D.6.11 already specifies that the pressure drop of the baghouse that controls the Riley-Stoke coal-fired boiler, EU-14, and visible emission notations of this baghouse exhaust must be performed when the COM is malfunctioning and down for maintenance and repair. Therefore, Condition D.6.12, which is a duplication of D.6.11(a) has been deleted, Condition D.6.14, now D.6.13 and D.6.11 condition title have been revised:

~~D.6.12 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]~~

~~The Permittee shall record the pressure drop across the baghouse used in conjunction with the Riley-Stoker coal-fired boiler (EU-14), at least once per day when the boiler is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~

~~The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.~~

D.6.11 ~~Visible Emissions Notations~~ **Baghouse Parametric Monitoring**

****

(a) ****

(b) ****

D.6.~~14~~ **13** Record Keeping Requirements

(a) ****

(b) ****

(c) ****

~~(d) To document compliance with Condition D.6.12, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the Riley-Stoker coal-fired boiler (EU-14). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the Riley-Stoker coal-fired boiler did not operate that day).~~

(~~e~~ **d**) ****

(~~f~~ **e**) ****

(~~g~~ **f**) ****

(~~h~~ **g**)) ****

(~~i~~ **h**) ****

Comment 25:

Condition D.6.14(e)(2) and (h)(3) (Record Keeping Requirements) - Recording fuel usage during SO_2 monitor downtime serves no purpose and should be removed from the Permit. Subsection (h)(3) requires maintaining fuel use records when burning natural gas only to demonstrate compliance with Condition D.6.8. However, Condition D.6.8 covers operation of the package boilers on fuel oil. Condition D.6.14(h)(3) is not applicable and should be removed.

Response 25:

New Energy utilizes CEMS to demonstrate compliance with the SO_2 emission limits for both the Riley-Stoker coal-fired boiler and the package boilers in Conditions D.6.1, D.6.2, and D.1.1(a)(1). However, when the CEMS is down, the only way to determine if the boilers comply with the SO_2 limits during this CEMS downtime time is through manual calculation of SO_2 emissions which requires the fuel usage.

Since the package boilers are capable of burning both natural gas and fuel oil, it is assumed that these boilers comply with the SO_2 emission limits (which is based on the worst case fuel) when burning natural gas. In order for IDEM to know that natural gas was combusted at a certain period of time is by means of certification that these boilers combusted natural gas. Therefore, no changes have been made to the permit as a result of this comment.

Comment 26:

Condition D.6.18(a) and (c) (Reporting Requirements) - The only quarterly report for the boiler is to document compliance with the visible emission monitoring when the COM is down. There is no mention of quarterly CEMs exceedance/downtime reporting. NEC assumes the requirement for natural gas boiler certification in subsection (c) refers to the form on page 189 of the Permit. NEC would like clarification what is required.

Response 26:

IDEM, OAQ agrees with the source interpretation, that the only quarterly reporting required in Condition D.6.18(a) is the visible emission notations when the COM is down, and there is no reporting requirement for CEMS exceedances as written in the permit. However, there is a reporting requirement of the CEMS downtime in Condition D.6.18(b).

Comment 27:

Condition D.7.2 (PM PSD Minor Limit) - The lb/hr PM limit for DDGS cooler (5.7 lb/hr) is illegal since it was not in the original permit and there is no authority for it.

Comment 28:

Condition D.7.3 (PM_{10} PSD Minor Limit) - The lb/hr PM_{10} limit for DDGS cooler (3.42 lb/hr) is illegal since it was not in the original permit and there is no authority for it.

Comment 29:

Condition D.7.4 (VOC PSD Minor Limit) - The lb/hr VOC limit for DDGS cooler (5.7 lb/hr) is illegal since it was not in the original permit and there is no authority for it.

Responses 27, 28, 29:

The tons per year PSD minor limits in Conditions D.7.2, D.7.3 and D.7.4 are not federally enforceable as a practical matter because there are no means to directly measure these individual limits. Therefore, in order to ensure these limits are enforceable, equivalent short term limits have been added in the permit.

Indiana=s Part 70 Operating Program approved by U.S. EPA is a combined New Source Review (NSR) and Part 70 Operating Permit Program. This allows IDEM, OAQ to change NSR requirements through the Part 70 Operating Permit. IDEM has established a U.S. EPA-approved protocol for the procedures to be used when incorporating the provisions of previously issued permits into Part 70 Operating Permits and for combining NSR permits with Part 70 Operating Permits. Individual provisions of previously issued permits may be incorporated as originally stated, revised, or deleted as described by these procedures. IDEM may supersede previously issued permits in whole or in part under these procedures as long as the Technical Support Document identifies the previously established applicable requirements that will be revised or deleted and the basis for the revisions or deletions. Therefore, no changes have been made to the permit as a result of this comment.

Comment 30:

Condition D.7.7 (Testing Requirements) - PM, PM_{10}, and VOC testing on the DDGS cooler is excessive and unreasonable and is also illegal to the extent that the underlying limits are improper.

Response 30:

The DDGS cooler levels of uncontrolled PM and PM10 emissions are at 512.2 tons per year and 128.1 tons per year, respectively, which are greater than the PSD significant levels of 25 tons per year for PM and 15 tons per year for PM10. It is the control equipment that limits the DDGS cooler out of PSD review, under 326 IAC 2-2. Therefore, it is appropriate to require stack testing for PM and PM_{10}, testing on the DDGS cooler to verify if its control device achieves the control efficiency used in the emissions calculation. Also, in order to demonstrate compliance with the grain loading limit required under 326 IAC 6.5-1-2.

See related Responses 27, 28, 29 on the source's comment regarding the pound per hour limits.

Comment 31:

Condition D.7.11(b) (Record Keeping Requirements) - Visible emissions monitoring of the DDGS cooler baghouse (EU-18) is sufficient to monitor performance of the baghouse. Pressure drop across the baghouse is not a reliable indicator of performance and therefore is unnecessary and unduly burdensome and should be removed from the Permit.

Response 31:

326 IAC 2-7-5(3) requires that the permit includes conditions that assure that all reasonable information is provided to evaluate continuous compliance with applicable requirements. Therefore, to reasonably conclude that a source is in compliance or not with an applicable requirement two or more compliance demonstration methods are being required in the permit, which in this case is the visible emission notations and baghouse pressure drop monitoring. No changes have been made to the permit as a result of this comment.

Comment 32:

Section D.9 (Facility Description) - The coal bunker and scales are totally enclosed and the exhaust point is the boiler exhausts. Therefore, this unit should be removed from the Facility Description of this section.

Response 32:

Item (a) of the facility Description in SECTION D.9 has been deleted since these emission units exhaust to the boiler exhausts which is regulated in Condition D.6.3.

SECTION D.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities
~~(b) Coal bunker and coal scale exhausts and associated dust collector vents 326 IAC 6.5-1-2(a~~).
(~~c~~ **dd**) Bag Dump-Process 326 IAC 6.5-1-2(a).
(~~d~~ **gg**) DDGS finishing 326 IAC 6.5-1-2(a).
(~~e~~ **jj**) Ash handling 326 IAC 6.5-1-2(a).
(~~f~~ **kk**) Ash loadout 326 IAC 6.5-1-2(a).
(~~g~~ **ll**) Coal receiving/handling and storage 326 IAC 6.5-1-2(a).
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.9.1 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a), particulate matter (PM) emissions from the above insignificant activities (~~b~~ **dd**) through (~~g~~ **ll**) shall be limited to 0.03 grains per dry standard cubic foot of exhaust

Comment 33:

Section G.1 (Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Alcohol Load-Out (EU-13) and Equipment leak losses (EU-16) - NEC does not operate any equipment in vHAP service. Therefore, Section G.1 should be removed from the Permit.

Response 33:

IDEM agrees that SECTION G.1, the requirements of NESHAP, 40 CFR 61, Subpart V, is no longer applicable to the source, since Benzene (a volatile hazardous air pollutant (VHAP)) storage has been removed from operation. Furthermore, New Energy does not have a VHAP service or have a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10% by weight a volatile HAP. Therefore, Section G.1 has been deleted from the permit and all references to this NESHAP CFR 61, Subpart V has been deleted throughout the permit. Subsequent Sections have been re-numbered accordingly:

~~SECTION G.1 FACILITY CONDITIONS~~

~~Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart V for:~~

~~Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Alcohol Load-Out (EU-13) and Equipment leak losses (EU-16)~~

~~(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1)~~ CO_2 ~~scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

~~(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to~~ CO_2 ~~scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

~~(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to~~ CO_2 ~~scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

~~**Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart V for:**~~

~~**Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Alcohol Load-Out (EU-13) and Equipment leak losses (EU-16)**~~

~~(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

~~(p) Equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions. Under NSPS, 40 CFR Part 60.480, Subpart VV, these facilities are in the synthetic organic chemicals manufacturing industry. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with equipment leaks. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

~~(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)~~

~~**National Emission Standard Requirements [326 IAC 2-7-5(1)]**~~

~~G.1.1 General Provisions Relating to NESHAP V [326 IAC 14-1] [40 CFR Part 61, Subpart A]~~

~~(a) Pursuant to 40 CFR 61.240, the Permittee shall comply with the provisions of 40 CFR Part 61, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 14-1 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, alcohol load-out operation, identified as EU-13 and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, described in this section except when otherwise specified in 40 CFR 61.240 through 61.247 Subpart V.~~

~~(b) Pursuant to 40 CFR 61.04, the Permittee shall submit all required notifications and reports to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Branch, Office of Air Quality~~
~~100 North Senate Avenue~~
~~MC 61-53 IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

~~and~~

~~United States Environmental Protection Agency, Region V~~
~~Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)~~
~~77 West Jackson Boulevard~~
~~Chicago, Illinois 60604-3590~~

~~G.1.2 National Emission Standard for Equipment Leaks (Fugitive Emission Sources) Requirements [40 CFR Part 61, Subpart V] [326 IAC 14-8]~~

~~Pursuant to 40 CFR Part 61, Subpart V, the Permittee shall comply with the provisions of 40 CFR Part 61.240, which are incorporated by reference as 326 IAC 14-8 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, alcohol load-out operation, identified as EU-13 and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, as specified as follows:~~

~~Subpart V—National Emission Standard for Equipment Leaks (Fugitive Emission Sources)~~

~~§ 61.240 Applicability and designation of sources.~~

~~(a) The provisions of this subpart apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems required by this subpart.~~
~~(b) The provisions of this subpart apply to the sources listed in paragraph (a) after the date of promulgation of a specific subpart in part 61.~~
~~(c) While the provisions of this subpart are effective, a source to which this subpart applies that is also subject to the provisions of 40 CFR part 60 only will be required to comply with the provisions of this subpart.~~
~~(d) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65 to satisfy the requirements of §§61.242–1 through 61.247 for equipment that is subject to this subpart and that is part of the same process unit. When choosing to comply with 40 CFR part 65, the requirements of §§61.245(d) and 61.246(i) and (j) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.~~
~~(2) *Part 65, subpart C or F.* For owners or operators choosing to comply with 40 CFR part 65, each surge control vessel and bottoms receiver subject to this subpart that meets the conditions specified in table 1 or table 2 of this subpart shall meet the requirements for storage vessels in 40 CFR part 65, subpart C; all other equipment subject to this subpart shall meet the requirements in 40 CFR part 65, subpart F.~~
~~(3) *Part 61, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C or F, must also comply with §§61.01, 61.02, 61.05 through 61.08, 61.10(b) through (d), 61.11, and 61.15 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(3) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart C or F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C or F, must comply with 40 CFR part 65, subpart A.~~
~~(4) *Rules referencing this subpart.* Owners or operators referenced to this subpart from subpart F or J of this part may choose to comply with 40 CFR part 65 for all equipment listed in paragraph (a) of this section.~~
~~[49 FR 23513, June 6, 1984, as amended at 65 FR 78280, Dec. 14, 2000]~~

~~§ 61.241 Definitions.~~

~~As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, in subpart A of part 61, or in specific subparts of part 61; and the following terms shall have~~

~~specific meaning given them:~~

~~*Bottoms receiver* means a tank that collects distillation bottoms before the stream is sent for storage or for further downstream processing.~~

~~*Closed-vent system* means a system that is not open to atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.~~

~~*Connector* means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. For the purpose of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.~~

~~*Control device* means an enclosed combustion device, vapor recovery system, or flare.~~

~~*Double block and bleed system* means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.~~

~~*Duct work* means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.~~

~~*Equipment* means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver in VHAP service, and any control devices or systems required by this subpart.~~

~~*First attempt at repair* means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.~~

~~*In gas/vapor service* means that a piece of equipment contains process fluid that is in the gaseous state at operating conditions.~~

~~*Fuel gas* means gases that are combusted to derive useful work or heat.~~

~~*Fuel gas system* means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.~~

~~*Hard-piping* means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007–2900).~~

~~*In liquid service* means that a piece of equipment is not in gas/vapor service.~~

~~*In-situ* sampling systems means nonextractive samplers or in-line samplers.~~

~~*In vacuum service* means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa) (0.7 psia) below ambient pressure.~~

~~*In VHAP service* means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight a volatile hazardous air pollutant (VHAP) as determined according to the provisions of §61.245(d). The provisions of §61.245(d) also specify how to determine that a piece of equipment is not in VHAP service.~~

~~*In VOC service* means, for the purposes of this subpart, that (a) the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight (see 40 CFR 60.2 for the definition of volatile organic compound or VOC and 40 CFR 60.485(d) to determine whether a piece of equipment is not in VOC service) and (b) the piece of equipment is not in heavy liquid service as defined in 40 CFR 60.481.~~

~~*Maximum true vapor pressure* means the equilibrium partial pressure exerted by the total VHAP in the stored or transferred liquid at the temperature equal to the highest calendar-month average of the liquid storage or transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined:~~

~~(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss From External Floating-Roof Tanks (incorporated by reference as specified in §61.18); or~~

~~(2) As obtained from standard reference texts; or~~

~~(3) As determined by the American Society for Testing and Materials Method D2879–83, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition~~

~~Temperature of Liquids by Isoteniscope (incorporated by reference as specified in §61.18); or~~
~~(4) Any other method approved by the Administrator.~~
~~*Open-ended valve or line* means any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.~~
~~*Pressure release* means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.~~
~~*Process unit* means equipment assembled to produce a VHAP or its derivatives as intermediates or final products, or equipment assembled to use a VHAP in the production of a product. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient product storage facilities.~~
~~*Process unit shutdown* means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.~~
~~*Repaired* means that equipment is adjusted, or otherwise altered, to eliminate a leak.~~
~~*Sampling connection system* means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.~~
~~*Semiannual* means a 6-month period; the first semiannual period concludes on the last day of the last month during the 180 days following initial startup for new sources; and the first semiannual period concludes on the last day of the last full month during the 180 days after the effective date of a specific subpart that references this subpart for existing sources.~~
~~*Sensor* means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.~~
~~*Stuffing box pressure* means the fluid (liquid or gas) pressure inside the casing or housing of a piece of equipment, on the process side of the inboard seal.~~
~~*Surge control vessel* means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within a process unit when in-process storage, mixing, or management of flow rates of volumes is needed on a recurring or ongoing basis to assist in production of a product.~~
~~*Volatile hazardous air pollutant* or *VHAP* means a substance regulated under this part for which a standard for equipment leaks of the substance has been proposed and promulgated. Benzene is a VHAP. Vinyl chloride is a VHAP.~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984, as amended at 51 FR 34915, Sept. 30, 1986; 54 FR 38076, Sept. 14, 1989; 65 FR 62158, Oct. 17, 2000; 65 FR 78280, Dec. 14, 2000]~~

~~§ 61.242-1 Standards: General.~~

~~(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§61.242–1 to 61.242–11 for each new and existing source as required in 40 CFR 61.05, except as provided in §§61.243 and 61.244.~~
~~(b) Compliance with this subpart will be determined by review of records, review of performance test results, and inspection using the methods and procedures specified in §61.245.~~
~~(c)(1) An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§61.242–2, 61.242–3, 61.242–5, 61.242–6, 61.242–7, 61.242–8, 61.242–9 and 61.242–11 as provided in §61.244.~~
~~(2) If the Administrator makes a determination that a means of emission limitation is at least a permissible alternative to the requirements of §61.242–2, 61.242–3, 61.242–5, 61.242–6, 61.242–7, 61.242–8, 61.242–9 or 61.242–11, an owner or operator shall comply with the requirements of that determination.~~
~~(d) Each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.~~
~~(e) Equipment that is in vacuum service is excluded from the requirements of §61.242–2, to §61.242–11 if it is identified as required in §61.246(e)(5).~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984]~~

~~§ 61.242-2 Standards: Pumps.~~

~~(a)(1) Each pump shall be monitored monthly to detect leaks by the methods specified in §61.245(b), except as provided in §61.242–1(c) and paragraphs (d), (e), (f) and (g) of this section.~~
~~(2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.~~
~~(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.~~
~~(2) If there are indications of liquids dripping from the pump seal, a leak is detected.~~
~~(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §61.242–10.~~
~~(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.~~
~~(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraphs (a) and (b) of this section, provided the following requirements are met:~~
~~(1) Each dual mechanical seal system is:~~
~~(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or~~
~~(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §61.242–11; or~~
~~(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere.~~
~~(2) The barrier fluid is not in VHAP service and, if the pump is covered by standards under 40 CFR part 60, is not in VOC service.~~
~~(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.~~
~~(4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.~~
~~(i) If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in §61.245 to determine the presence of VOC and VHAP in the barrier fluid.~~
~~(ii) If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator.~~
~~(iii) If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.~~
~~(5) Each sensor as described in paragraph (d)(3) of this section is checked daily or is equipped with an audible alarm.~~
~~(6)(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.~~
~~(ii) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (d)(6)(i) of this section, or if, based on the criteria established in paragraph (d)(6)(i) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.~~
~~(iii) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §61.242–10.~~
~~(iv) A first attempt at repair shall be made no later than five calendar days after each leak is detected.~~
~~(e) Any pump that is designated, as described in §61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) if the pump:~~
~~(1) Has no externally actuated shaft penetrating the pump housing,~~
~~(2) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument~~

~~reading of less than 500 ppm above background, as measured by the method specified in §61.245(c), and~~
~~(3) Is tested for compliance with paragraph (e)(2) initially upon designation, annually, and at other times requested by the Administrator.~~
~~(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the requirements of §61.242–11, it is exempt from the requirements of paragraphs (a) through (e) of this section.~~
~~(g) Any pump that is designated, as described in §61.246(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:~~
~~(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and~~
~~(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.~~
~~(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.~~
~~[49 FR 23513, June 6, 1984, as amended at 49 FR 38946, Oct. 2, 1984; 55 FR 28349, July 10, 1990; 65 FR 78281, Dec. 14, 2000]~~

~~§ 61.242-3 Standards: Compressors.~~

~~(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to atmosphere, except as provided in §61.242–1(c) and paragraphs (h) and (i) of this section.~~
~~(b) Each compressor seal system as required in paragraph (a) shall be:~~
~~(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or~~
~~(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §61.242–11; or~~
~~(3) Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere.~~
~~(c) The barrier fluid shall not be in VHAP service and, if the compressor is covered by standards under 40 CFR part 60, shall not be in VOC service.~~
~~(d) Each barrier fluid system as described in paragraphs (a)–(c) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.~~
~~(e)(1) Each sensor as required in paragraph (d) of this section shall be checked daily or shall be equipped with an audible alarm unless the compressor is located within the boundary of an unmanned plant site.~~
~~(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.~~
~~(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.~~
~~(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §61.242–10.~~
~~(2) A first attempt at repair shall be made no later than 5 calendar days after eack leak is detected.~~
~~(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the~~

~~requirements of §61.242–11, except as provided in paragraph (i) of this section.~~
~~(i) Any Compressor that is designated, as described in §61.246(e)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of paragraphs (a)–(h) if the compressor:~~
~~(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in §61.245(c); and~~
~~(2) Is tested for compliance with paragraph (i)(1) initially upon designation, annually, and at other times requested by the Administrator.~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984, as amended at 65 FR 78281, Dec. 14, 2000]~~

~~§ 61.242-4 Standards: Pressure relief devices in gas/vapor service.~~

~~(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in §61.245(c).~~
~~(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §61.242–10.~~
~~(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in §61.245(c).~~
~~(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in §61.242–11 is exempt from the requirements of paragraphs (a) and (b) of this section.~~
~~(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.~~
~~(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §61.242–10.~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984, as amended at 65 FR 78281, Dec. 14, 2000]~~

~~§ 61.242-5 Standards: Sampling connecting systems.~~

~~(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in §61.242–1(c). Gases displaced during filling of the sample container are not required to be collected or captured.~~
~~(b) Each closed-purge, closed-loop, or closed vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:~~
~~(1) Return the purged process fluid directly to the process line; or~~
~~(2) Collect and recycle the purged process fluid; or~~
~~(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §61.242–11; or~~
~~(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:~~
~~(i) A waste management unit as defined in 40 CFR 63.111 if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams; or~~
~~(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or~~

~~(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.~~
~~(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.~~
~~[65 FR 78281, Dec. 14, 2000]~~

~~§ 61.242-6 Standards: Open-ended valves or lines.~~

~~(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §61.242–1(c).~~
~~(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.~~
~~(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.~~
~~(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.~~
~~(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.~~
~~(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.~~
~~[49 FR 23513, June 6, 1984, as amended at 65 FR 78282, Dec. 14, 2000]~~

~~§ 61.242-7 Standards: Valves.~~

~~(a) Each valve shall be monitored monthly to detect leaks by the method specified in §61.245(b) and shall comply with paragraphs (b)–(e), except as provided in paragraphs (f), (g), and (h) of this section, §61.243–1 or §61.243–2, and §61.242–1(c).~~
~~(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.~~
~~(c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.~~
~~(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.~~
~~(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §61.242–10.~~
~~(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.~~
~~(e) First attempts at repair include, but are not limited to, the following best practices where practicable:~~
~~(1) Tightening of bonnet bolts;~~
~~(2) Replacement of bonnet bolts;~~
~~(3) Tightening of packing gland nuts; and~~
~~(4) Injection of lubricant into lubricated packing.~~
~~(f) Any valve that is designated, as described in §61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:~~
~~(1) Has no external actuating mechanism in contact with the process fluid;~~
~~(2) Is operated with emissions less than 500 ppm above background, as measured by the method specified in §61.245(c); and~~
~~(3) Is tested for compliance with paragraph (f)(2) initially upon designation, annually, and at other times requested by the Administrator.~~
~~(g) Any valve that is designated, as described in §61.246(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:~~
~~(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because~~

~~monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a); and~~
~~(2) The owner or operator of the valve has a written plan that requires monitoring of the valve as frequent as practicable during safe-to-monitor times.~~
~~(h) Any valve that is designated, as described in §61.246(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:~~
~~(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;~~
~~(2) The process unit within which the valve is located is an existing process unit; and~~
~~(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.~~

~~§ 61.242-8 Standards: Pressure relief services in liquid service and connectors.~~

~~(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pressure relief devices in liquid service and connectors, the owner or operator shall follow either one of the following procedures, except as provided in §61.242–1(c):~~
~~(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §61.245(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.~~
~~(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.~~
~~(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.~~
~~(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §61.242–10.~~
~~(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.~~
~~(d) First attempts at repair include, but are not limited to, the best practices described under §61.242–7(e).~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984, as amended at 65 FR 78282, Dec. 14, 2000]~~

~~§ 61.242-9 Standards: Surge control vessels and bottoms receivers.~~

~~Each surge control vessel or bottoms receiver that is not routed back to the process and that meets the conditions specified in table 1 or table 2 of this subpart shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel back to the process or to a control device as described in §61.242–11, except as provided in §61.242–1(c); or comply with the requirements of 40 CFR 63.119(b) or (c).~~
~~[65 FR 78282, Dec. 14, 2000]~~

~~§ 61.242-10 Standards: Delay of repair.~~

~~(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.~~
~~(b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VHAP service.~~
~~(c) Delay of repair for valves will be allowed if:~~
~~(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and~~
~~(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §61.242–11.~~
~~(d) Delay of repair for pumps will be allowed if:~~
~~(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and~~
~~(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.~~

~~(e) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. [49 FR 23513, June 6, 1984, as amended at 65 FR 78282, Dec. 14, 2000]~~

~~§ 61.242-11 Standards: Closed-vent systems and control devices.~~

~~(a) Owners or operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section, except as provided in §61.242–1(c).~~
~~(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.~~
~~(c) Enclosed combustion devices shall be designed and operated to reduce the VHAP emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C.~~
~~(d) Flares shall used to comply with this subpart shall comply with the requirements of §60.18.~~
~~(e) Owners or operators of control devices that are used to comply with the provisions of this supbart shall monitor these control devices to ensure that they are operated and maintained in conformance with their design.~~
~~(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraph (f)(1) or (2) of this section, as applicable.~~
~~(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the following requirements:~~
~~(i) Conduct an initial inspection according to the procedures in §61.245(b); and~~
~~(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.~~
~~(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:~~
~~(i) Conduct an initial inspection according to the procedures in §61.245(b); and~~
~~(ii) Conduct annual inspections according to the procedures in §61.245(b).~~
~~(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.~~
~~(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.~~
~~(2) Repair shall be completed no later than 15 calendar days after the leak is detected.~~
~~(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.~~
~~(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (2) of this section.~~
~~(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe-to-inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (2) of this section if they comply with the following requirements:~~
~~(1) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (f)(1)(i) or (2) of this section; and~~
~~(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.~~
~~(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult-to-inspect are exempt from the inspection requirements of paragraphs~~

~~(f)(1)(i) and (2) of this section if they comply with the following requirements:~~
~~(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and~~
~~(2) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.~~
~~(l) The owner or operator shall record the following information:~~
~~(1) Identification of all parts of the closed vent system that are designated as unsafe-to-inspect, an explanation of why the equipment is unsafe-to-inspect, and the plan for inspecting the equipment.~~
~~(2) Identification of all parts of the closed vent system that are designated as difficult-to-inspect, an explanation of why the equipment is difficult-to-inspect, and the plan for inspecting the equipment.~~
~~(3) For each inspection during which a leak is detected, a record of the information specified in §61.246(c).~~
~~(4) For each inspection conducted in accordance with §61.245(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.~~
~~(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.~~
~~(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.~~
~~[49 FR 23513, June 6, 1984; 49 FR 38946, Oct. 2, 1984, as amended at 51 FR 2702, Jan. 21, 1986; 65 FR 62158, Oct. 17, 2000; 65 FR 78282, Dec. 14, 2000]~~

~~§ 61.243-1 Alternative standards for valves in VHAP service—allowable percentage of valves leaking.~~

~~(a) An owner or operator may elect to have all valves within a process unit to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.~~
~~(b) The following requirements shall be met if an owner or operator decides to comply with an allowable percentage of valves leaking:~~
~~(1) An owner or operator must notify the Administrator that the owner or operator has elected to have all valves within a process unit to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §61.247(d).~~
~~(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.~~
~~(3) If a valve leak is detected, it shall be repaired in accordance with §61.242–7(d) and (e).~~
~~(c) Performance tests shall be conducted in the following manner:~~
~~(1) All valves in VHAP service within the process unit shall be monitored within 1 week by the methods specified in §61.245(b).~~
~~(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.~~
~~(3) The leak percentage shall be determined by dividing the number of valves in VHAP service for which leaks are detected by the number of valves in VHAP service within the process unit.~~
~~(d) Owner or operators who elect to have all valves comply with this alternative standard shall not have a process unit with a leak percentage greater than 2.0 percent.~~
~~(e) If an owner or operator decides no longer to comply with §61.243–1, the owner or operator must notify the Administrator in writing that the work practice standard described in §61.242–7(a)-(e) will be followed.~~

~~§ 61.243-2 Alternative standards for valves in VHAP service—skip period leak detection and repair.~~

~~(a)(1) An owner or operator may elect for all valves within a process unit to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.~~
~~(2) An owner or operator must notify the Administrator before implementing one of the alternative~~

~~work practices, as specified in §61.247(d).~~
~~(b)(1) An owner or operator shall comply initially with the requirements for valves, as described in §61.242–7.~~
~~(2) After 2 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves in VHAP service.~~
~~(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves in VHAP service.~~
~~(4) If the percentage of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §61.242–7 but may again elect to use this section.~~
~~[49 FR 23513, June 6, 1984, as amended at 65 FR 62158, Oct. 17, 2000]~~

~~§ 61.244 Alternative means of emission limitation.~~

~~(a) Permission to use an alternative means of emission limitation under section 112(e)(3) of the Clean Air Act shall be governed by the following procedures:~~
~~(b) Where the standard is an equipment, design, or operational requirement:~~
~~(1) Each owner or operator applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation to test data for the equipment, design, and operational requirements.~~
~~(2) The Administrator may condition the permission on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.~~
~~(c) Where the standard is a work practice:~~
~~(1) Each owner or operator applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation.~~
~~(2) For each source for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.~~
~~(3) For each source for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.~~
~~(4) Each owner or operator applying for permission shall commit in writing each source to work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.~~
~~(5) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).~~
~~(6) The Administrator may condition the permission on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practices of this subpart.~~
~~(d) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.~~
~~(e)(1) Manufacturers of equipment used to control equipment leaks of a VHAP may apply to the Administrator for permission for an alternative means of emission limitation that achieves a reduction in emissions of the VHAP achieved by the equipment, design, and operational requirements of this subpart.~~
~~(2) The Administrator will grant permission according to the provisions of paragraphs (b), (c), and (d).~~
~~[49 FR 23513, June 6, 1984, as amended at 65 FR 62158, Oct. 17, 2000]~~

~~§ 61.245 Test methods and procedures.~~

~~(a) Each owner or operator subject to the provisions of this subpart shall comply with the test methods and procedures requirements provided in this section.~~
~~(b) Monitoring, as required in §§61.242, 61.243, 61.244, and 61.135, shall comply with the following requirements:~~
~~(1) Monitoring shall comply with Method 21 of appendix A of 40 CFR part 60.~~

~~(2) The detection instrument shall meet the performance criteria of Method 21.~~
~~(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21.~~
~~(4) Calibration gases shall be:~~
~~(i) Zero air (less than 10 ppm of hydrocarbon in air); and~~
~~(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.~~
~~(5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21.~~
~~(c) When equipment is tested for compliance with or monitored for no detectable emissions, the owner or operator shall comply with the following requirements:~~
~~(1) The requirements of paragraphs (b) (1) through (4) shall apply.~~
~~(2) The background level shall be determined, as set forth in Method 21.~~
~~(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21.~~
~~(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.~~
~~(d)(1) Each piece of equipment within a process unit that can conceivably contain equipment in VHAP service is presumed to be in VHAP service unless an owner or operator demonstrates that the piece of equipment is not in VHAP service. For a piece of equipment to be considered not in VHAP service, it must be determined that the percent VHAP content can be reasonably expected never to exceed 10 percent by weight. For purposes of determining the percent VHAP content of the process fluid that is contained in or contacts equipment, procedures that conform to the methods described in ASTM Method D–2267 (incorporated by the reference as specified in §61.18) shall be used.~~
~~(2)(i) An owner or operator may use engineering judgment rather than the procedures in paragraph (d)(1) of this section to demonstrate that the percent VHAP content does not exceed 10 percent by weight, provided that the engineering judgment demonstrates that the VHAP content clearly does not exceed 10 percent by weight. When an owner or operator and the Administrator do not agree on whether a piece of equipment is not in VHAP service, however, the procedures in paragraph (d)(1) of this section shall be used to resolve the disagreement.~~
~~(ii) If an owner or operator determines that a piece of equipment is in VHAP service, the determination can be revised only after following the procedures in paragraph (d)(1) of this section.~~
~~(3) Samples used in determining the percent VHAP content shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.~~
~~(e)(1) Method 22 of appendix A of 40 CFR part 60 shall be used to determine compliance of flares with the visible emission provisions of this subpart.~~
~~(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.~~
~~(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:~~

$$\cancel{H_T = K\left(\sum_{i=1}^{n} C_i H_i\right)}$$

~~Where:~~
~~H_T= Net heating value of the sample, MJ/scm (BTU/scf); where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg (77 °F and 14.7 psi), but the standard temperature for determining the volume corresponding to one mole is 20 °C (68 °F).~~
~~K = conversion constant, 1.740×10^{7} (g-mole) (MJ)/(ppm-scm-kcal) (metric units); or 4.674×10^{8} ((g-mole) (Btu)/(ppm-scf-kcal)) (English units)~~
~~C_i = Concentration of sample component “i” in ppm, as measured by Method 18 of appendix A to 40 CFR part 60 and ASTM D2504–67, 77, or 88 (Reapproved 1993) (incorporated by reference as specified in §61.18).~~
~~H_i= net heat of combustion of sample component “i” at 25 °C and 760 mm Hg (77 °F and 14.7~~

~~psi), kcal/g-mole. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in §61.18) if published values are not available or cannot be calculated.~~
~~(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Method 2, 2A, 2C, or 2D, as appropriate, by the unobstructed (free) cross section area of the flare tip.~~
~~(5) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:~~
~~$V_{max} = K_1 + K_2 H_T$~~
~~Where:~~
~~V_{max}= Maximum permitted velocity, m/sec (ft/sec).~~
~~H_T= Net heating value of the gas being combusted, as determined in paragraph (e)(3) of this section, MJ/scm (Btu/scf).~~
~~K_1= 8.706 m/sec (metric units)~~
~~= 28.56 ft/sec (English units)~~
~~K_2= 0.7084 m^4/(MJ-sec) (metric units)~~
~~= 0.087 ft^4/(Btu-sec) (English units)~~
~~[49 FR 23513, June 6, 1984, as amended at 49 FR 38946, Oct. 2, 1984; 49 FR 43647, Oct. 31, 1984; 53 FR 36972, Sept. 23, 1988; 54 FR 38077, Sept. 14, 1989; 65 FR 62158, Oct. 17, 2000]~~

~~§ 61.246 Recordkeeping requirements.~~

~~(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.~~
~~(2) An owner or operator of more than one process unit subject to the provisions of this subpart may comply with the recordkeeping requirements for these process units in one recordkeeping system if the system identifies each record by each process unit.~~
~~(b) When each leak is detected as specified in §§61.242–2, 61.242–3, 61.242–7, 61.242–8, and 61.135, the following requirements apply:~~
~~(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.~~
~~(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §61.242–7(c) and no leak has been detected during those 2 months.~~
~~(3) The identification on equipment, except on a valve, may be removed after it has been repaired.~~
~~(c) When each leak is detected as specified in §§61.242–2, 61.242–3. 61.242–7, 61.242–8, and 61.135, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:~~
~~(1) The instrument and operator identification numbers and the equipment identification number.~~
~~(2) The date the leak was detected and the dates of each attempt to repair the leak.~~
~~(3) Repair methods applied in each attempt to repair the leak.~~
~~(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in §61.245(a) after each repair attempt is equal to or greater than 10,000 ppm.~~
~~(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.~~
~~(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.~~
~~(7) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.~~
~~(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.~~
~~(9) The date of successful repair of the leak.~~
~~(d) The following information pertaining to the design requirements for closed-vent systems and control devices described in §61.242–11 shall be recorded and kept in a readily accessible location:~~
~~(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.~~
~~(2) The dates and descriptions of any changes in the design specifications.~~

~~(3) A description of the parameter or parameters monitored, as required in §61.242–11(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.~~
~~(4) Periods when the closed-vent systems and control devices required in §§61.242–2, 61.242–3, 61.242–4, 61.242–5 and 61.242–9 are not operated as designed, including periods when a flare pilot light does not have a flame.~~
~~(5) Dates of startups and shutdowns of the closed-vent systems and control devices required in §§61.242–2, 61.242–3, 61.242–4, 61.242–5 and 61.242–9.~~
~~(e) The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location:~~
~~(1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this subpart.~~
~~(2)(i) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background.~~
~~(ii) The designation of this equipment for no detectable emissions shall be signed by the owner or operator.~~
~~(3) A list of equipment identification numbers for pressure relief devices required to comply with §61.242–4(a).~~
~~(4)(i) The dates of each compliance test required in §§61.242–2(e), 61.242–3(i), 61.242–4, 61.242–7(f), and 61.135(g).~~
~~(ii) The background level measured during each compliance test.~~
~~(iii) The maximum instrument reading measured at the equipment during each compliance test.~~
~~(5) A list of identification numbers for equipment in vacuum service.~~
~~(f) The following information pertaining to all valves subject to the requirements of §61.242–7(g) and (h) and to all pumps subject to the requirements of §61.242–2(g) shall be recorded in a log that is kept in a readily accessible location:~~
~~(1) A list of identification numbers for valves and pumps that are designated as unsafe to monitor, an explanation for each valve or pump stating why the valve or pump is unsafe to monitor, and the plan for monitoring each valve or pump.~~
~~(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.~~
~~(g) The following information shall be recorded for valves complying with §61.243–2:~~
~~(1) A schedule of monitoring.~~
~~(2) The percent of valves found leaking during each monitoring period.~~
~~(h) The following information shall be recorded in a log that is kept in a readily accessible location:~~
~~(1) Design criterion required in §§61.242–2(d)(5), 61.242–3(e)(2), and 61.135(e)(4) and an explanation of the design criterion; and~~
~~(2) Any changes to this criterion and the reasons for the changes.~~
~~(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in the applicability section of this subpart and other specific subparts:~~
~~(1) An analysis demonstrating the design capacity of the process unit, and~~
~~(2) An analysis demonstrating that equipment is not in VHAP service.~~
~~(j) Information and data used to demonstrate that a piece of equipment is not in VHAP service shall be recorded in a log that is kept in a readily accessible location.~~
~~[49 FR 23513, June 6, 1984, as amended at 49 FR 38946, Oct. 2, 1984; 54 FR 38077, Sept. 14, 1989; 65 FR 78283, Dec. 14, 2000]~~

~~§ 61.247 Reporting requirements.~~

~~(a)(1) An owner or operator of any piece of equipment to which this subpart applies shall submit a statement in writing notifying the Administrator that the requirements of §§61.242, 61.245, 61.246, and 61.247 are being implemented.~~

~~(2) In the case of an existing source or a new source which has an initial startup date preceding the effective date, the statement is to be submitted within 90 days of the effective date, unless a waiver of compliance is granted under §61.11, along with the information required under §61.10. If a waiver of compliance is granted, the statement is to be submitted on a date scheduled by the Administrator.~~

~~(3) In the case of new sources which did not have an initial startup date preceding December 14, 2000, the statement required under paragraph (a)(1) of this section shall be submitted with the application for approval of construction, as described in §61.07.~~

~~(4) For owners and operators complying with 40 CFR part 65, subpart C or F, the statement required under paragraph (a)(1) of this section shall notify the Administrator that the requirements of 40 CFR part 65, subpart C or F, are being implemented.~~

~~(5) The statement is to contain the following information for each source:~~

~~(i) Equipment identification number and process unit identification.~~

~~(ii) Type of equipment (for example, a pump or pipeline valve).~~

~~(iii) Percent by weight VHAP in the fluid at the equipment.~~

~~(iv) Process fluid state at the equipment (gas/vapor or liquid).~~

~~(v) Method of compliance with the standard (for example, “monthly leak detection and repair” or “equipped with dual mechanical seals”).~~

~~(b) A report shall be submitted to the Administrator semiannually starting 6 months after the initial report required in paragraph (a) of this section, that includes the following information:~~

~~(1) Process unit identification.~~

~~(2) For each month during the semiannual reporting period,~~

~~(i) Number of valves for which leaks were detected as described in §61.242–7(b) of §61.243–2.~~

~~(ii) Number of valves for which leaks were not repaired as required in §61.242–7(d).~~

~~(iii) Number of pumps for which leaks were detected as described in §61.242–2 (b) and (d)(6).~~

~~(iv) Number of pumps for which leaks were not repaired as required in §61.242–2 (c) and (d)(6).~~

~~(v) Number of compressors for which leaks were detected as described in §61.242–3(f).~~

~~(vi) Number of compressors for which leaks were not repaired as required in §61.242–3(g).~~

~~(vii) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.~~

~~(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.~~

~~(4) Revisions to items reported according to paragraph (a) if changes have occurred since the initial report or subsequent revisions to the initial report.~~

~~Note: Compliance with the requirements of §61.10(c) is not required for revisions documented under this paragraph.~~

~~(5) The results of all performance tests and monitoring to determine compliance with no detectable emissions and with §§61.243–1 and 61.243–2 conducted within the semiannual reporting period.~~

~~(c) In the first report submitted as required in paragraph (a) of this section, the report shall include a reporting schedule stating the months that semiannual reports shall be submitted. Subsequent reports shall be submitted according to that schedule, unless a revised schedule has been submitted in a previous semiannual report.~~

~~(d) An owner or operator electing to comply with the provisions of §§61.243–1 and 61.243–2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.~~

~~(e) An application for approval of construction or modification, §§61.05(a) and 61.07, will not be required if—~~

~~(1) The new source complies with the standard, §61.242;~~

~~(2) The new source is not part of the construction of a process unit; and~~

~~(3) In the next semiannual report required by paragraph (b) of this section, the information in paragraph (a)(5) of this section is reported.~~

~~(f) For owners or operators choosing to comply with 40 CFR part 65, subpart C or F, an application for approval of construction or modification, as required under §§61.05 and 61.07 will not be required if:~~

~~(1) The new source complies with 40 CFR 65.106 through 65.115 and with 40 CFR part 65, subpart C, for surge control vessels and bottoms receivers;~~

~~(2) The new source is not part of the construction of a process unit; and~~
~~(3) In the next semiannual report required by 40 CFR 65.120(b) and 65.48(b), the information in paragraph (a)(5) of this section is reported.~~
~~[49 FR 23513, June 6, 1984, as amended at 49 FR 38947, Oct. 2, 1984; 54 FR 38077, Sept. 14, 1989; 65 FR 78283, Dec. 14, 2000]~~

~~Table 1 to Subpart V of Part 61—Surge Control Vessels and Bottoms Receivers at Existing Sources~~

~~Vessel capacity (cubic meters)~~	~~Vapor pressure[1] (kilopascals)~~
~~75 ≤ capacity < 151~~	~~≥ 13.1~~
~~151 ≤ capacity~~	~~≥ 5.2~~

~~[1]Maximum true vapor pressure as defined in §61.241.~~
~~[65 FR 78283, Dec. 14, 2000]~~

~~Table 2 to Subpart V of Part 61—Surge Control Vessels and Bottoms Receivers at New Sources~~

~~Vessel capacity (cubic meters)~~	~~Vapor pressure[1] (kilopascals)~~
~~38 ≤ capacity < 151~~	~~≥ 13.1~~
~~151 ≤ capacity~~	~~≥ 0.7~~

~~[1]Maximum true vapor pressure as defined in §61.241.~~
~~[65 FR 78283, Dec. 14, 2000]~~

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

D.1.1 PSD Limitations [326 IAC 2-2]

Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, and in order to satisfy the requirements of PSD BACT:

(a) The following emission limitations apply to the emission units listed in Section D.1 as the corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, the corn milling operation, identified as EU-03, the yeast propagation operation, identified as EU-04, the fermentation operation, identified as EU-05, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, the DDGS handling operation, identified as EU-11, the DDGS load-out operation, identified as EU-12, the alcohol load-out operation, identified as EU-13, the Riley-Stoker coal-fired boiler, identified as EU-14, **and** the two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15~~, and equipment leak losses, identified as EU-16~~:

SECTION G.~~2~~ 1 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:

Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13) ~~and Equipment Leak Losses, (EU-16)~~

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities~~. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:

Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13) ~~and Equipment Leak Losses, (EU-16)~~

as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems~~. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-

423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:
Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13) ~~and Equipment Leak Losses, (EU-16)~~

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1^{st} thru 4^{th} stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5^{th} and 6^{th} stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1) evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to

manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, with fuel-oil back-up approved for construction in 2007, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-

605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430,~~ Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

~~Facility Description [326 IAC 2-7-5(15)]: NESHAP Subpart FFFF for:~~

~~Yeast Propagation Operation (EU-04), Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07), Degasser and Recovery Column (EU-08), Evaporation Process (EU-09), DDGS Dryer Operation (EU-10) and Alcohol Load-out Operation (EU-13) and Equipment Leak Losses, (EU-16)~~

~~(p) Equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions. Under NSPS, 40 CFR Part 60.480, Subpart VV, these facilities are in the synthetic organic chemicals manufacturing industry. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

G.~~2~~**1**.1 General Provisions Relating to NESHAP FFFF [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.2540, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the yeast propagation operation, identified as EU-04, fermentation operation, identified as EU-05, APV column, identified as EU-06, beerwell, identified as EU-07, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, **and** alcohol load-out operation, identified as EU-13~~, and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions~~, as specified in Table 12 of 40 CFR 63, Subpart FFFF in accordance with the schedule in 40 CFR 63, Subpart FFFF.

G.~~2~~**.1**.2 National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing Requirements [40 CFR 63, Subpart FFFF] [326 IAC 20-84]

Pursuant to 40 CFR Part 63, Subpart FFFF, the Permittee shall comply with the provisions of 40 CFR Part 63.2430, which are incorporated by reference as 326 IAC 20-84 for the yeast propagation operation, identified as EU-04, fermentation operation, identified as EU-05, APV column, identified as EU-06, beerwell, identified as EU-07, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as

EU-10~~,~~ **and** alcohol load-out operation, identified as EU-13~~, and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions~~ as specified as follows:

G.~~2.~~**1**.3 One-Time Deadlines Relating to Miscellaneous Organic Chemical Manufacturing Notifications [40 CFR Part 63, Subpart FFFF]

The Permittee shall comply with the following notification requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
Initial Notification	40 CFR 63.2515(b)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	March 10, 2004
Pre Compliance Report Date	40 CFR 63.2520(c)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	November 10, 2007
Initial Compliance Date	40 CFR 63.2505(b) 40 CFR 63.2445(b)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	May 10, 2008
Notification of Compliance Status Report	40 CFR 63.2450(g)(5)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	October 8, 2008
1st Compliance Report	40 CFR 63.2520(b)(2)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	August 31, 2008
Compliance Reports	40 CFR 63.2520(b)(4)	EU-04, EU-05, EU-06, EU-08, EU-09, EU-10, **and** EU-13~~, and EU-16~~	Semi-annual on August 31 and February 28

SECTION F.4 **FACILITY CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]: NSPS Subpart VV for:

Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07) and Alcohol Load-Out (EU-13)~~ and Equipment Leak Losses (EU-16)~~

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities~~. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems~~. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems.~~ Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Facility Description [326 IAC 2-7-5(15)]: NSPS Subpart VV for:

Fermentation Operation (EU-05), APV Column (EU-06), Beerwell (EU-07 and Alcohol Load-Out (EU-13)~~ and Equipment Leak Losses (EU-16)~~

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. ~~Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430,~~ Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

~~(p) Equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions. Under NSPS, 40 CFR Part 60.480, Subpart VV, these facilities are in the synthetic organic chemicals manufacturing industry. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.~~

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

F.4.1 General Provisions Relating to NSPS VV [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.480, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07~~,~~ **and** alcohol load-out operation, identified as EU-13 ~~and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions~~, described in this section except when otherwise specified in 40 CFR 60.480 through 60.489 Subpart VV.

F.4.2 New Source Performance Standards for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry Requirements [40 CFR Part 60, Subpart VV] [326 IAC 12-1]

Pursuant to 40 CFR Part 60, Subpart VV, the Permittee shall comply with the provisions of 40 CFR Part 60.480, which are incorporated by reference as 326 IAC 12-1 for the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07~~,~~ **and** alcohol load-out operation, identified as EU-13 ~~and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions,~~ as specified as follows:

Technical Support Document

Comment 1:

Technical Support Document, section (s) (page 6 of 51) - The corn receiving elevator EL-0002 has no potential to increase emissions. The new elevator resulted in no increase in annual corn throughput and no new dust collection points were added to the baghouse.

Response 1:

This TSD Addendum is part of the TSD. It serves to document the changes being made to the permit and the TSD. IDEM, OAQ prefers not to change the TSD in order to preserve the original information from the issued permit.

The total PTE from the corn handling includes the emissions from the new elevator. NEC has indicated that it has an actual corn handling capacity of 420 tons per hour. However, with the addition of the new elevator the source can now potentially handle corn of 840 tons per year. Therefore, there is an increase as a result of this addition. No changes have been noted in this addendum as a result of this comment.

Comment 2:

Technical Support Document, section (t) (page 7 of 51) - The RTOs were installed under an Agreed Order and therefore should not be considered unpermitted source.

Response 2:

Since the RTOs were installed under an Agreed Order, this addendum has noted their deletion from the "Unpermitted Emission Units and Pollution Control Equipment" section of the original TSD as follows.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following emission units that were constructed and/or operating without a permit:

~~(t) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003 and rated at 8.0 million British thermal units per hour each.~~

Comment 3:

Technical Support Document (page 7 of 51) - The Ethanol Dehydration System using benzene as entrainer is no longer in operation, and should be included as a new subsection under “Processes No Longer in Operation and Equipment Removed From Service.”

Response 3:

This addendum will document that the "Ethanol Dehydration System using benzene as entrainer" has been added into the original TSD under “Processes No Longer in Operation and Equipment Removed From Service” and numbered as (w). The subsequent item has been renumbered as (x).

Processes No Longer in Operation and Equipment Removed From Service

(u) Chlorine injection into the five (5) dryer stacks discontinued after the RTOs became operational in 2004.

(v) Scrubber blowers, identified as BL-511 through BL-515.

(w) Ethanol Dehydration System using benzene as entrainer.

New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

(~~w~~ **x**) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003 with fuel-oil back-up approved for construction in 2007, and rated at 8.0 million British thermal units per hour each.

Comment 4:

Technical Support Document, item (t) (page 8 of 51) - NEC has no exhaust from the coal scales.

Response 4:

See related Response 32. This addendum will document the change to Item (t) on page 8 of 51 under the Insignificant Activities as follows:

(t) Coal bunker and coal scale ~~exhausts and associated dust collector vents~~ [326 IAC 6.5-1-2 (a)].

Comment 5 and Comment 6:

Technical Support Document, section (ee) (page 9 of 51) - Benzene storage is out of service.
Technical Support Document, section (ff) (page 9 of 51) - Entrainer/Dehydration Column is out of service.

Responses 5 and 6:

This addendum will document that Item (ee) and (ff) on page 9 of 51 under Insignificant Activities of the original TSD have been deleted. Subsequent items have been renumbered accordingly.

~~(ee) Benzene storage.~~

~~(ff) Entrainer/Dehydration Column~~

Comment 7:

Technical Support Document (page 13 of 51) - Since NEC is not allowed by permit to operate the dryers without the RTO and dust collection baghouses in service, the potential to emit for both pollutant and HAPs should be determined after the control device. Chlorine, benzene, and hexane should be removed from the HAPs list.

Response 7:

The table on Page 13 of 51 reflects the PTE of the source before controls to determine the appropriate permit level. Several rule applicability determinations were necessary as part of this permit and so these PTE values are necesssary to complete those determinations. This information is documented in the TSD for informational purposes.

Comment 8:

Technical Support Document (page 21 of 51) - NEC no longer has benzene on site and therefore is not subject to 40 CFR 61, Subpart V.

Response 8:

This addendum have noted the deletion of the applicability of NESHAP, 40 CFR 61, Subpart V found on page 21 of 51 of the original TSD:

~~(n) This source is subject to the requirements of National Emission Standard for Equipment Leaks (Fugitive Emission Sources) (40 CFR 61.240, Subpart V), which is incorporated by reference as 326 IAC 14-8 because the source is a major source of hazardous air pollutants (HAPs) and the following facilities are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Therefore, the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, are subject to the requirements of Subpart V.~~

~~Nonapplicable portions of the NESHAP will not be included in the permit. This emission unit is subject to the following portions of Subpart V.~~

~~(1) 40 CFR 61.240~~

~~(2) 40 CFR 61.241~~

~~(3) 40 CFR 61.242-1~~

~~(4) 40 CFR 61.242-2~~

~~(5) 40 CFR 61.242-3~~

~~(6) 40 CFR 61.242-4~~

~~(7) 40 CFR 61.242-5~~

~~(8) 40 CFR 61.242-6~~

~~(9) 40 CFR 61.242-6~~

~~(10) 40 CFR 61.242-7~~

~~(11) 40 CFR 61.242-8~~

~~(12) 40 CFR 61.242-9~~

~~(13) 40 CFR 61.242-10~~

~~(14) 40 CFR 61.242-11~~

~~(15) 40 CFR 61.243-1~~

~~(16) 40 CFR 61.243-2~~

~~(17) 40 CFR 61.244~~

~~(18) 40 CFR 61.245~~

~~(19) 40 CFR 61.246~~

~~(20) 40 CFR 61.247~~

~~Table 1~~

~~Table 2~~

~~The provisions of 40 CFR Part 61 Subpart A - General Provisions, which are incorporated as 326 IAC 14-1 apply to the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, except when otherwise specified in 40 CFR Part 61, Subpart V.~~

Comment 9:

Technical Support Document (Emission Reporting) (page 31 of 51) - Per 326 IAC 2-6-3(2)(b)(1), NEC need only report triennially.

Response 9:

The 326 IAC 2-6 applicability determination made on page 32 of 51 of the TSD for "annual" emissions reporting requirement is correct, because the source is required to have an operating permit under 326 IAC 2-7, Part 70 program and the source has the potential to emit of more than 2,500 tons per year of SO_2 and more than 250 tons per year of VOC and PM_{10}. Therefore, no changes to the original TSD has been documented in this ATSD.

Comment 10:

Appendix A (page 1) - Potential emission calculations for corn receiving assumes 8,760 hr/year operation. This is incorrect. Emissions should be based on actual throughput at maximum production levels.

Response 10:

In calculating the potential to emit of the corn receiving, its maximum capacity under its physical and operational design must be considered. In this case, the source submitted 840 tons/hour as the maximum capacity of the corn handling. Therefore, this data was used in the calculation which is multiplied by the emission factor and 8760 hours per year to determine the yearly potential to emit. Therefore, no changes to the corn receiving PTE calculation have been made as a result of this comment.

Comment 11:

Appendix A (page 4) - No chlorine is being used at EU-10.

Response 11:

The emissions calculation for the DDGS Drying operation, EU-10 operation on Page 4 Appendix A have been revised to remove the chlorine emissions from the spreadsheet.

Comment 12:

Appendix A (page 10) - No benzene is possible at EU-16.

Response 12:

Since the Benzene operation has been removed from service the emission leak calculation from flanges, pumps and joints from this operation has been deleted from the spreadsheet. Its deletion has also result in the revision of the "Potential to Emit After Issuance for the Entire Source" table found on page 16 through 17 of 51 of the original TSD:

~~Benzene~~

~~EU-16~~ **~~Pumps, Valves and Flanges (Fugitive Emissions)~~**

					~~Benzene~~
~~Equipment Type~~	~~# of Items~~	~~Screen Value~~	~~Emission Factor~~	~~# of Hrs~~	**~~tons/yr~~**
-	-	-	~~lbs/item/hr~~	-	-
~~Gas Valves~~	~~0~~	~~<10000~~	~~2.89E-04~~	~~8760~~	~~0.000~~
~~Light Valves~~	~~117~~	~~<10000~~	~~3.64E-04~~	~~8760~~	~~0.187~~
~~Pumps~~	~~6~~	~~<10000~~	~~4.12E-03~~	~~8760~~	~~0.108~~
~~PSVs~~	~~2~~	~~<10000~~	~~9.85E-02~~	~~8760~~	~~0.863~~
~~Flanges~~	~~331~~	~~<10000~~	~~1.79E-04~~	~~8760~~	~~0.260~~
				~~Subtotal~~	~~1.417~~

~~Note: Most PSVs are not included as they are equipped with rupture disks and other safety devices and not likely to emit.~~

~~VOC~~

~~EU-16~~ **~~Pumps, Valves and Flanges (Fugitive Emissions)~~**

					~~VOC~~
~~Equipment Type~~	~~# of Items~~	~~Screen Value~~	~~Emission Factor~~	~~# of Hrs~~	**~~tons/yr~~**
-	-	-	~~lbs/item/hr~~	-	-
~~Gas Valves~~	~~0~~	~~<10000~~	~~2.89E-04~~	~~8760~~	~~0.000~~
~~Light Valves~~	~~343~~	~~<10000~~	~~3.64E-04~~	~~8760~~	~~0.547~~
~~Pumps~~	~~17~~	~~<10000~~	~~4.12E-03~~	~~8760~~	~~0.307~~
~~PSVs~~	~~0~~	~~<10000~~	~~9.85E-02~~	~~8760~~	~~0.000~~
~~Flanges~~	~~950~~	~~<10000~~	~~1.79E-04~~	~~8760~~	~~0.745~~
				~~Subtotal~~	~~1.598~~

Potential to Emit After Issuance for the Entire Source

The table below summarizes the potential to emit, reflecting all limits, of all the significant emission units at this source after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit.

	Limited Potential to Emit (tons/year)						
Process (Year Installed)	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Corn Receiving EU-01 (1982 & 2003)		17.5		0.000			0.000
Corn Handling EU-02 (1982)		0.229		0.000			0.000
Corn Milling EU-03 (1982)		7.36		0.000			0.000
Yeast Propagation EU-04 (1982)		0.000		0.251			0.000
Fermentation EU-05 (1982)		0.000		9.47			0.107
Degasser and Recovery Column EU-08 (1982)	Less than 70	0.000	Less than 1,630	2.02	Less than 54	Less than 960	0.003
Evaporation EU-09 (1982)		0.000		3.25			0.069
DDGS Dryers EU-10 (1982)		0.550		20.3			10.0
DDGS Handling EU-11 (1982)		5.80		0.000			0.000
DDGS Load-Out EU-12 (1982)		1.15		0.000			0.000
Alcohol Load-Out EU-13 (1982)		0.004		27.7			1.62
Coal Boiler EU-14 (1982) at 342.6 mmBtu/hr		2.23		3.46			0.524
Package Boilers EU-15 (1982) at a Total of 342.6 mmBtu/hr, Worst Case Natural Gas or No. 2 Fuel Oil		35.4		8.25			2.83
~~Fugitive Equipment Leak Losses EU-16~~ (1982)	Less than 70	0.000	Less than 1,630	~~1.60~~	Less than 54	Less than 960	~~1.42~~
Fugitive Truck Traffic EU-17 (1982)		1.88		0.000			0.000
APV Column EU-06 (1989)	0.000	0.000	0.000	0.442	0.000	0.000	0.006
Beerwell EU-07 (1986)	0.000	0.000	0.000	0.056	0.000	0.000	0.000
RTOs (2003) Worst Case Natural Gas or No. 2 Fuel Oil Combustion	1.00	1.65	35.5	0.385	5.89	10.0	0.015
DDGS Cooler EU-18 (2000)	Less than 25	Less than 15	0.000	Less than 25	0.000	0.000	0.341
Natural Gas Combustion (Insignificant)	0.129	0.518	0.041	0.375	5.72	6.81	0.015
Oil Fired Emergency Engines (Insignificant)	0.188	0.188	0.176	0.219	0.577	2.68	-
Other Insignificant Activities	7.00	3.50	0.000	2.00	0.000	0.000	0.8
Total Emissions	**Less than 103.5**	**Less than 104.9**	**Less than 1,666**	**Less than ~~107.1~~ 105.5**	**Less than 68.7**	**Less than 986.5**	**~~17.8~~ 16.38**

Comment 13:

General Comment - NEC requests that all recordkeeping and reporting requirements be modified in a manner to be consistent with the proposed modifications set out above.

Response 13:

Comments made by the source that resulted in any changes have been incorporated in the permit.

Upon further review, IDEM has made the following changes to the permit:

(1) On January 22, 2008 U.S. EPA promulgated a rule to address the remand, by the U.S. Court of Appeals for the District of Columbia on June 25, 2005, of the reasonable possibility provisions of the December 31, 2002 major NSR reform rule. IDEM has agreed, with U.S. EPA, to interpret "reasonable possibility" in 326 IAC 2-2 and 326 IAC 2-3 consistent with the January 22, 2008 U.S. EPA rule. To implement this interpretation, IDEM is revising Section C - General Record Keeping Requirements and Section C - General Reporting Requirements.

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

****

(c) If there is **a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that** a “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) **may result in significant emissions increase** and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(~~2~~**1**) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(~~3~~**2**) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

***

(f) If the Permittee is required to comply with the recordkeeping provisions of (~~c~~ **d**) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with **(d)(1)** and **(2)** in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and Part 70 Operating Permit

Source Background and Description

Source Name:	**New Energy Corp.**
Source Location:	**3201 West Calvert Street, South Bend, Indiana 46613**
County:	**St. Joseph**
SIC Code:	**2869**
Operation Permit No.:	**T 141-6956-00033**
Permit Reviewer:	**Frank P. Castelli**

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit application from New Energy Corp. relating to the operation of a fuel-grade ethanol production plant.

This Part 70 Operating Permit contains provisions intended to satisfy the requirements of the construction permit rules.

Source Definition

This ethanol production/carbon dioxide processing source consists of two (2) plants:

(a) New Energy Corp. located at 3201 West Calvert Street, South Bend, Indiana, and

(b) BOC Gases located at 3809 West Calvert Street, South Bend, Indiana.

The relationship between the two (2) plants is described below:

(a) The BOC plant is contiguous to the New Energy Corp. (NEC) plant and is on property owned by NEC, but leased to BOC Gases.

(b) NEC and BOC Gases have the same two (2) digit SIC codes (28) but do not have common ownership defined as:

(1) A third person/business that owns more than fifty percent (50%) of each of the plants; or

(2) The plants share common corporate officers or managers, in whole or in part, who are responsible for day to day operations; or

(3) One (1) plant owns more than fifty percent (50%) of the other plant.

(c) The two (2) plants are not under common control and there are no employees common to both NEC and BOC.

(d) Approximately 50 - 55% of the CO_2 produced at NEC is piped to BOC where it is purified and liquefied for sale to BOC customers. CO_2 from NEC is one hundred percent (100%) of BOC feed stock.

(e) There is a physical connection between the plants, NEC sells CO_2 to BOC via a sixteen (16)-inch pipeline. NEC sells 150 psig steam to BOC via a four (4)-inch pipeline for heat tracing.

(f) NEC sells CO_2 to BOC under a sales agreement, which sets minimum quantity and gas specifications and provides for price adjustments based on selling price of liquid CO_2.

Therefore, although the two (2) plants do not share common ownership or management, IDEM, OAQ has determined that since the two (2) plants are located on contiguous property that is owned by NEC and if it were not for the existence of NEC, the BOC plant would not be there, the two (2) plants are considered one (1) source. BOC Gases is totally dependant on NEC for its feedstock of CO_2 gas. Therefore, the term “source” in the Part 70 documents refers to both New Energy Corp. and BOC Gases as one (1) major source.

Separate Part 70 Operating Permits will be issued to New Energy Corp. and BOC Gases solely for administrative purposes. The Part 70 Operating Permit for BOC Gases, T 141-17344-00548, was issued on December 8, 2006.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

New Energy Corp. consists of the following permitted emission units and pollution control devices:

(a) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, consisting of one (1) rail hopper, identified as RH-0001, two (2) truck dumpers, identified as TD-0001 & TD-0002, and two (2) truck hoppers, identified as TH-0001 and TH-0002, two (2) belt conveyors, identified as CV-0001 and CV-0002, five (5) drag conveyors, identified as CV-0003, CV-0004, CV-0005, CV-0006, and CV-0008, and one (1) elevator, identified as EL-0001, capacity: 387.49 tons of yellow dent corn per hour.

(b) One (1) corn handling operation, identified as EU-02, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0002, installed in 1982, consisting of one (1) pneumatic pump, identified as P-0001, seven (7) drag conveyors, identified as CV-0007, CV-0009, CV-0010 and CV-0013 through CV-0016, one (1) distributor, identified as DD-0001, two (2) bucket elevators, identified as EL-0001 and EL-0003, two (2) corn storage bins, identified as S-0005 & S-0006, capacity: 320,000 bushels of corn total, four (4) corn storage silos, identified as S-0007 through S-0010, capacity: 98,000 bushels of corn each, and two (2) sweep augers, identified as SD-0009 and SD-0010, capacity: 140 tons of yellow dent corn per hour.

(c) One (1) corn milling operation, identified as EU-03, installed in October 1982, equipped with a baghouse, identified as D-0112, exhausted through Stacks DC-0112 and BV-0112, consisting of one (1) belt conveyor, identified as CV-0018, one (1) pneumatic pump, identified as P-0111, one (1) scalper, identified as CS-0011, two (2) surge bins, identified as B-0011 and B-0112, one (1) drag conveyor, identified as CV-0011, five (5) rotary feeders, identified as RF-0111 through RF-0115, five (5) hammermills, identified as M-0050 through M-0054, three (3) screw conveyors, identified as CV-0111, CV-0101 and CV-0117, one (1) weigh hopper, identified as WH-0111, one (1) bag dump hopper, identified as B-0111, three (3) bucket elevators, identified as EL-0111, EL-0112 and EL-0113, one (1) weigh-feeder, identified as W-0121, one (1) airlock, identified as DA-0112, capacity: 140 tons of yellow corn per hour.

(d) One (1) yeast propagation operation, identified as EU-04, installed in October 1982, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) yeast mixing tank, identified as T-320, one (1) agitator yeast tank, identified as A-320, four (4) yeast preparation tanks, identified as T-321 through T-324, four (4) agitators, identified as A-321 through A-324, one (1) cooler, identified as E-321 and three (3) pumps, identified as P-320 through P-322, capacity: 16,000 gallons per tank and 2,100 tank turnovers per year. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(e) One (1) fermentation operation, identified as EU-05, installed in October 1982, exhausted through Stacks VT-005 through VT-019, VT-019a and BL-230, consisting of sixteen (16) fermenter agitators, identified as A-202 through A-215, A-220 and A-221, eight (8) fermenter coolers, identified as E-210 through E-217, seventeen (17) pumps, identified as P-202 through P-215, P-220, P-221 and P-231, sixteen (16) fermenters, identified as T-202 through T-215, T-220 and T-221, one (1) blower, identified as BL-230, one (1) foam trap, identified as FT-230, one (1) CO_2 scrubber, identified as V-230 installed in 1984, exhausted to Stack BL-230, one (1) scrubber pump, identified as P-230, capacity: 319,000 gallons per tank and 2,100 tank turnovers per year. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this operation are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(f) One (1) APV column, identified as EU-06, installed in May 1989, exhausted through Stack VT-020, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) stripper column, identified as V-2402, two (2) reflux pumps, identified as P-2404 A and P-2404 B, two (2) feed preheaters, identified as E-2410 and E-2412, one (1) stripper column reboiler, identified as E-2414, one (1) stripper column overhead condenser, identified as E-2416, one (1) stripper column reflux drum, identified as V-2404, and one (1) stripper column vent condenser, identified as E-2418, maximum capacity: 150 gallons of scrubber water per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(g) One (1) beerwell, identified as EU-07, installed in December 1986, routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, consisting of one (1) beerwell, identified as T-222, two (2) beerwell pumps, identified as P-222A and P-222B and two (2) beerwell agitators, identified as A-222A and A-222B, capacity: 1,750 gallons of beer per minute. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(h) One (1) degasser and recovery column, identified as EU-08, installed in October 1982, exhausted through Stacks VT-022, VT-023 and BL-601. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Stack VT-022 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, rated at 8.0 million British thermal units per hour each, to control VOC emissions from the one (1) recovery column vent condenser, identified as E-409. The associated equipment consists of:

> One (1) recovery column, identified as V-402, one (1) recovery column reflux tank, identified as V-404, three (3) beer preheaters, identified as E-400 A, E-400 B and E-400 C, one (1) recovery column condenser, identified as E-404, one (1) recovery column reboiler #2, identified as E-408, one (1) recovery column vent condenser, identified as E-409, equipped with a scrubber installed in April 1997, one (1) preheater #2, identified as E-412, one (1) recovery column reboiler #1, identified as E-413, one (1) preheater #3, identified as E-418, one (1) auxiliary product cooler, identified as E-419, one (1) duplex strainer, identified as F-401, two (2) recovery column feed pumps, identified as P-401 A & P-401 B, two (2) recovery column bottoms pumps, identified as P-402 A and P-402 B, two (2) recovery column reflux pumps, identified as P-404 A and P-404 B, one (1) fusel oil transfer pump, identified as P-405, one (1) heads transfer pump, identified as P-406, three (3) recovery column recirculation pumps #2, identified as P-407 A, P-407 B and P-408, and one (1) wet scrubber, identified as V-424.

Stack VT-023 associated equipment consists of:

> One (1) aqueous alcohol return pump, identified as P-403, one (1) fusel oil extraction pump, identified as P-414, one (1) heads extraction pump, identified as P-423, one (1) fusel oil decanter tank, identified as V-403, fusel oil accumulator tank, identified as V-422, and one (1) heads accumulator tank, identified as V-423. V-403, V-422 and V-423 vent to VT-023.

Stack BL-601 routed to CO_2 scrubber, identified as V-230, exhausted to Stack BL-230, associated equipment consists of:

> One (1) degasser condenser, identified as E-403, one (1) degasser vent condenser, identified as E-410, one (1) preheater #4, identified as E-414, two (2) beer preheaters, identified as E-415 A and E-415 B, one (1) duplex strainer, identified as F-400, and one (1) degasser, identified as V-401, capacity: 1,750 gallons of beer per minute.

(i) One (1) evaporation process, identified as EU-09, installed in October 1982, exhausted through Stack VT-024 routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, exhausted through Stack 5002, consisting of: one (1) stillage preheater, identified as E-503, four (4) 1st thru 4th stage heaters, identified as E-501, E-502, E-504, and E-505, five (5) vapor bodies, identified as T-504 and T-507 through T-510, one (1) 5th and 6th stage heater, identified as E-506, one (1) evaporation condensate tank, identified as T-506, one (1) lube oil console, identified as C-501C, one (1) gland seal condenser, identified as C-501E, one (1) evaporator concentrates tank, identified as T-505, one (1) compressor, identified as C-501A, one (1) turbine, identified as C-501B, one (1) lube oil head tank, identified as C-501D, one (1) gland seal ejector, identified as C-501F, one (1) evaporator concentrates tank agitator, identified as A-505, four (4) stage 1 thru stage 4 circulation pumps, identified as P-504, P-505, P-507 and P-508, one (1) scrubber pump, identified as P-511, two (2) stage 5 and 6 circulation pumps, identified as

P-509 and P-510, two (2) evaporator condensate pumps, identified as P-506 and P-521(spare), and two (2) evaporator concentrates pump, identified as P-516 and P-516A, capacity: 910 gallons per minute. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(j) One (1) distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, installed in October 1982, exhausted through Stacks BL-511 through BL-515, routed to two (2) natural gas-fired regenerative thermal oxidizers (RTOs) installed in 2003, exhausted through Stack 5002, consisting of five (5) DDGS dryers, identified as D-511 through D-515, each equipped with a scrubber, identified as SF-511 through SF-515, and a DDGS dryer steam trap, identified as TR-511, TR-521, TR-531, TR-541 and TR-551, five (5) dryer feed screw conveyors, identified as CV-511 through CV-515, one (1) wet conveyor, identified as CV-501, one (1) inclined wet conveyor, identified as CV-502, one (1) dryer feed conveyor, identified as CV-516, one (1) recycle conveyor, identified as CV-517, one (1) product conveyor, identified as CV-518, one (1) cooler cross-over conveyor, identified as CV-519, one (1) pug mill, identified as M-511, and five (5) scrubber pumps, identified as P-523 through P-527, capacity: 38.98 tons of DDGS product per hour. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(k) One (1) DDGS handling operation, identified as EU-11, installed in October 1982, consisting of two (2) bucket elevators, identified as EL-0601 and EL-0602, two (2) dust suppression nozzles, identified as DN-0601 and DN-0602, and four (4) drag conveyors, identified as CV-0600 through CV-0603, capacity: 38.98 tons of DDGS product per hour.

(l) One (1) DDGS load-out operation, identified as EU-12, installed in October 1982, equipped with a baghouse, identified as D-0601, exhausted through Stack DC-0601, consisting of five (5) drag conveyors, identified as CV-0604 through CV-0608, one (1) bucket elevator, identified as EL-0603, one (1) surge bin, identified as S-0601, one (1) belt conveyor with tripper, identified as CV-0609, one (1) dust filter, identified as D-0601, one (1) dust fan, identified as DC-0601, one (1) airlock, identified as DA-0601, one (1) winch drive, identified as H-0601, three (3) dust suspension nozzles, identified as DN-0603 through DN-0605, and one (1) shuttle belt conveyor, identified as CV-0610, maximum capacity: 83.96 tons of DDGS product per hour.

(m) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982, exhausted through Stack G-602, equipped with a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, two (2) bottom transfer loading arms, identified as G-604 and G-607, two (2) bottom transfer vapor recovery arms, identified as G-605 and G-608, two (2) truck/rail vapor recovery loading arms, identified as G-603 and G-606, two (2) product filters, identified as F-660 and F-661, and two (2) fuel grade alcohol load-out pumps, identified as P-610 and P-611, capacity: 72,000 gallons of ethanol per hour. Under NSPS, 40 CFR Part 60.480, Subpart VV, the pumps, compressors, pressure relief devices in gas/vapor service, sampling connection systems, open-ended valves or lines, and valves of this process are considered to be affected facilities. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(n) One (1) Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour, installed in 1982, identified as EU-14, modified with low NO_X burners in October 2003, exhausted through Stack 001. Under NSPS, 40 CFR Part 60.40, Subpart D, the boiler is considered an affected facility.

(o) Two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, rated at 220 million British thermal units per hour each, installed in October 1982, exhausted through Stack 001.

(p) Equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions. Under NSPS, 40 CFR Part 60.480, Subpart VV, these facilities are in the synthetic organic chemicals manufacturing industry. Under NESHAP, 40 CFR Part 61.240, Subpart V, these facilities are at an existing source with pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Under NESHAP, 40 CFR Part 63.2430, Subpart FFFF, these facilities are miscellaneous organic chemical manufacturing process units used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

(q) One (1) distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, installed in March 2000, exhausting through Stack DC-0503, consisting of one (1) fan, identified as BL-502, one (1) cooling coil, identified as CC-500, one (1) cooler inlet rotary valve, identified as RV-502, one (1) cooler, identified as RC-502, and four (4) conveyors, identified as CV-522, CV-530, CV-531 and CV-532, capacity: 77,967 pounds of DDGS per hour.

(r) Five (5) storage tanks, consisting of:

(1) One (1) floating roof gasoline storage tank, identified as T-601, installed in 1983, capacity: 75,000 gallons. Under NSPS, 40 CFR Part 60.110a, Subpart Ka, this tank is considered an existing volatile organic liquid storage tank.

(2) One (1) floating roof fuel ethanol storage tank, identified as T-610, installed in 1983, capacity: 750,000 gallons.

(3) One (1) ethanol internal floating roof storage tank, identified as T-611, installed in 2001, capacity: 1,250,000 gallons. Under NSPS, 40 CFR Part 60.110b, Subpart Kb, this tank is considered an existing volatile organic liquid storage tank.

(4) One (1) floating roof in-process ethanol storage tank, identified as T-612, installed in 1983, capacity: 75,000 gallons.

(5) One (1) fuel oil storage tank, identified as T-4120, installed in 1983, capacity: 250,000 gallons.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following emission units that were constructed and/or operating without a permit:

(s) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001, installed in 1982, addition of one (1) elevator, identified as EL-0002, installed in December 2003, and capacity increased from 387.49 to 840 tons of yellow dent corn per hour.

(t) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003 and rated at 8.0 million British thermal units per hour each.

Processes No Longer in Operation and Equipment Removed From Service

(u) Chlorine injection into the five (5) dryer stacks discontinued after the RTOs became operational in 2004.

(v) Scrubber blowers, identified as BL-511 through BL-515

New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

(w) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003 with fuel-oil back-up approved for construction in 2007, and rated at 8.0 million British thermal units per hour each.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, rated at a total of 15.550 million British thermal units per hour, consisting of:

    (1) Four (4) space heaters, rated at 0.550 million British thermal units per hour total, and

    (2) Twelve (12) coal thaw burners, rated at 1.25 million British thermal units per hour each (total 15.0 million British thermal units per hour).

(b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour, rated at a total of 2.431 million British thermal units per hour, consisting of:

    (1) One (1) emergency diesel-fired generator, rated at 1.8 million British thermal units per hour heat input and 500 kilowatts, limited to five hundred (500) hours of operation per year, and

    (2) One (1) back-up diesel-fired fire pump, rated at 0.631 million British thermal units per hour and 250 horsepower.

(c) Combustion source flame safety purging on startup.

(d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(f) The following VOC and HAP storage containers: storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

(g) Equipment used exclusively for the following: filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.

(h) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

(i) Closed loop heating and cooling systems.

(j) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

(k) Water runoff ponds for petroleum coke-cutting and coke storage piles.

(l) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.

(m) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.

(n) Noncontact cooling tower systems with either of the following: forced and induced draft cooling tower system not regulated under a NESHAP.

(o) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(p) Heat exchanger cleaning and repair.

(q) Process vessel degassing and cleaning to prepare for internal repairs.

(r) Paved and unpaved roads and parking lots with public access, identified as EU-17 [326 IAC 6-4].

(s) Conveyors as follows: underground conveyors.

(t) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6.5-1-2 (a)].

(u) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(v) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(w) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(x) On-site fire and emergency response training approved by the department.

(y) Other emergency equipment as follows: stationary fire pumps.

(z) Purge double block and bleed valves.

(aa) Filter or coalescer media changeout.

(bb) Vents from ash transport systems not operated at positive pressure.

(cc) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(dd) Bag Dump-Process [326 IAC 6.5-1-2(a)].

(ee) Benzene storage.

(ff) Entrainer/Dehydration Column.

(gg) DDGS finishing [326 IAC 6.5-1-2(a)].

(hh) VOC storage.

(ii) Fuel storage.

(jj) Ash handling [326 IAC 6.5-1-2(a)].

(kk) Ash loadout [326 IAC 6.5-1-2(a)].

(ll) Coal receiving/handling and storage [326 IAC 6.5-1-2(a)]

Existing Approvals

The source has constructed and/or has been operating under the following previous approvals:

(a) St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982;

(b) St. Joseph County Health Department, Air Pollution Control Division, Air Pollution Operation Permit Registration, Nos. NE 33 1 through NE 33-20, issued on December 12, 1993;

(c) St. Joseph County Health Department, Air Pollution Control Division, Air Pollution Operation Permit Registration, Nos. NE 33 1 through NE 33-20, issued on December 12, 1995;

(d) First Significant Source Modification 141-10558-00033, issued on May 13, 1999; and

(e) First Minor Source Modification 141-14580-00033, issued on August 10, 2001.

All terms and conditions from previous approvals issued pursuant to the permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous approvals are superseded by this permit.

The following terms and conditions from previous approvals have been determined to be no longer applicable, and, therefore, are not incorporated into this Part 70 permit:

(a) St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982;

(1) Condition 8: Prior to start-up of the coal-fired boiler, combined stack emissions from the gas and oil-fired boilers shall not exceed a total of 216.5 tons per year of sulfur dioxide and 909 tons per year of nitrogen oxides.

Reason not incorporated: The coal-fired boiler started operation in 1982. Therefore, this condition that only applied Aprior to start-up@ of the coal-fired boiler is no longer applicable.

(2) Condition 3: VOC emissions from all process, storage, mixing and transfer equipment shall not exceed 20 pounds per hour, and 46 tons per twelve (12) consecutive month period.

Reason not incorporated: The original VOC emission estimates supporting the St. Joseph County Health Department construction permit/PSD approval significantly underestimated the potential to emit VOC from this plant, and therefore, new limits have been established by the Agreed Order No. 2000-9526-A signed on January 16, 2004.

(3) Condition 14: The CO_2 scrubber (V-230) associated with the fermentation operation (EU-05) shall be maintained at a minimum of ninety-eight percent (98%) control efficiency for VOC.

Reason not incorporated: The original VOC emission estimates supporting the St. Joseph County Health Department construction permit/PSD approval significantly underestimated the potential to emit VOC from this plant, and therefore, new limits have been established by the Agreed Order No. 2000-9526-A signed on January 16, 2004.

(b) St. Joseph County Health Department, Air Pollution Control Division, Air Pollution Operation Permit Registration, NE 33 5 through NE 33 9, issued on December 12, 1995;

Condition 1: the particulate emissions from each of the five (5) DDGS Dryers shall not exceed 0.51 pounds per hour and 2.0 tons per year.

Reason not incorporated: Since the DDGS dryers now have RTOs, new emission limits have been established as part of this permit.

(c) St. Joseph County Health Department, Air Pollution Control Division, Air Pollution Operation Permit Registration, NE 33 2 and NE 33 3, issued on December 12, 1995;

(1) Special Condition 1: Total particulate emissions from the two (2) natural gas-fired package boilers with No. 2 fuel oil backup (EU-15) (formerly identified as package boilers AA@ and AB@) shall not exceed 13.9 tons per year;

(2) Special Condition 2: Total sulfur dioxide emissions for the two (2) natural gas-fired package boilers with No. 2 fuel oil backup (EU-15) (formerly identified as package boilers AA@ and AB@) shall not exceed 216.5 tons per year; and

(3) Special Condition 3: Total nitrogen oxide emissions from the two (2) natural gas-fired package boilers with No. 2 fuel oil backup (EU-15) (formerly identified as package boilers AA@ and AB@) shall not exceed 909 tons per year.

Reason not incorporated: The SO_2 and NO_X limits in Special Conditions 2 and 3 only applied Aprior to start-up@ of the coal-fired boiler in the St. Joseph County Health Department construction permit/PSD approval issued on February 12, 1982. Therefore, these conditions incorporated into St. Joseph County Health Department, Air Pollution Control Division, Air Pollution Operation Permit Registration, NE 33 2 and NE 33 3, issued on December 12, 1995 also applied prior to start-up of the coal-fired boiler in 1982. Therefore, these conditions are no longer applicable.

(d) All construction conditions from all previous permits.

Reason not incorporated: All facilities previously permitted have already been constructed. Therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted, but have not yet been constructed, would need new pre-construction approval before beginning construction.

Enforcement Issue

The source has the following enforcement actions pending:

(a) IDEM is aware that the total heat input of any operating boiler or combination of operation boilers at this plant may not be in compliance with the following limitation:

St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, Condition 7 stated that the total heat input to any operating boiler or combination of operating boilers shall be limited to 342.6 million British thermal units per hour.

IDEM is reviewing this matter and will take appropriate action.

(b) IDEM is aware that the April 4, 1989 stack test results were not in compliance with the limit of 0.10 pounds of PM per million British thermal units for the Riley-Stoker coal-fired boiler.

Pursuant to 326 IAC 6.5-1-2(b)(1), particulate matter emissions from the Riley-Stoker coal-fired boiler shall not exceed 0.10 pounds per million British thermal units. The PM emission rate of 0.185 pounds of per million British thermal units was not in compliance with the rule.

IDEM is reviewing this matter and will take appropriate action.

(c) IDEM is aware that an additional corn receiving elevator, identified as EL-0002, has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled AUnpermitted Emission Units and Pollution Control Equipment@.

IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 Operating Permit application for the purposes of this review was received on October 18, 1996. Additional information received on August 16, 2000, April 17, July 17, September 30, October 21 and October 30, 2003, February 9 and March 15, 2004 as well as November 10 and December 21, 2005 and May 7, 2007.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Note that all potential to emit calculations assume that the emission units operated at the short-term hourly capacity for a full 8,760 hours of operation per year. Actual annual production was not considered to limit the potential to emit calculations.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
$PM_{2.5}$	Attainment
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

On September 6, 2007 the Indiana Air Pollution Control Board finalized a temporary emergency rule to redesignate St. Joseph as attainment for the 8-hour ozone standard.

(a) Volatile organic compounds (VOC) and nitrogen oxides (NO_X) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to ozone. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_X emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) St. Joseph County has been classified as unclassifiable or attainment for $PM_{2.5}$. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for $PM_{2.5}$ emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for $PM_{2.5}$ emissions, it has directed states to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions.

(c) St. Joseph County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Unrestricted Potential Emissions

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, inclulding air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	6,727
PM_{10}	2,165
SO_2	2,597
VOC	5,859
CO	167
NO_X	1,355

HAPs	Potential to Emit (tons/yr)
Methanol	26.2
Acetaldehyde	28.1
Chlorine	9.26
Benzene	5.70
Hexane	75.7
Acrolein	0.108
Vinyl Acetate	0.010
Arsenic	0.030
Chromium Compounds	0.020
Lead Compounds	0.038
All Other HAPs Including Insignificant Activities	9.34
Total	154.8

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM_{10}, VOC, NO_X, CO, and SO_2, are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and 326 IAC 2-3, the fugitive emissions are not counted toward determination of Part 70 Applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
$PM_{2.5}$	19
PM_{10}	58
SO_2	1,243
VOC	1,186
CO	35
NO_x	810
Lead	0.02
Methanol	17.3
Benzene	1.42
Acetaldehyde	11.8
Chlorine	7.10

NSR Permit Level Determination – Part 70

The following pertains to the proposed addition of the fuel-oil backup capability in the two (2) natural gas-fired regenerative thermal oxidizers (RTOs), installed in 2003, rated at 8.0 million British thermal units per hour each.

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as Athe maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, IDEM, or the appropriate local air pollution control agency.@

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the unrestricted Potential to Emit before controls for the RTOs on the proposed back-up fuel oil. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	1.00
PM_{10}	1.65
SO_2	35.5
VOC	0.170
CO	2.50
NO_x	10.0

HAPs	Potential To Emit (tons/year)
Lead	0.0006
TOTAL	0.003

Pollutant	PTE Before Modification of the RTOs on Natural Gas (tons/year)	PTE After Modification of the RTOs on Natural Gas or Fuel-Oil (Worst Case) (tons/year)	Net Difference (tons/year)
PM	0.133	1.00	0.867
PM10	0.533	1.65	1.12
SO_2	0.042	35.5	35.5
VOC	0.385	0.385	0.00
CO	5.89	5.89	0.00
NO_X	7.01	10.0	2.99
HAPs	0.015	0.015	0.00

This source modification is subject to 326 IAC 2-7-10.5(f)(4), since the net difference of the potential to emit of SO_2 from this modification on fuel oil is greater than twenty-five (25) tons per year. This modification will be incorporated into the Part 70 Operating Permit.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the RTOs on the back-up fuel oil. Any control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)						
Process/Emission Unit	PM	PM_{10}	SO_2	VOC	CO	NO_X	Lead
RTOs on Fuel Oil	1.00	1.65	35.5	0.170	2.50	10.0	0.0006
Significant Level	25	15	40	40	100	40	5

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD and Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-2 and IAC 2-3, the PSD and Emission Offset requirements do not apply.

Potential to Emit After Issuance for the Entire Source

The table below summarizes the potential to emit, reflecting all limits, of all the significant emission units at this source after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit.

	Limited Potential to Emit (tons/year)						
Process (Year Installed)	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Corn Receiving EU-01 (1982 & 2003)	Less than 70	17.5	Less than 1,630	0.000	Less than 54	Less than 960	0.000
Corn Handling EU-02 (1982)		0.229		0.000			0.000
Corn Milling EU-03 (1982)		7.36		0.000			0.000
Yeast Propagation EU-04 (1982)		0.000		0.251			0.000
Fermentation EU-05 (1982)		0.000		9.47			0.107
Degasser and Recovery Column EU-08 (1982)		0.000		2.02			0.003
Evaporation EU-09 (1982)		0.000		3.25			0.069
DDGS Dryers EU-10 (1982)		0.550		20.3			10.0
DDGS Handling EU-11 (1982)		5.80		0.000			0.000
DDGS Load-Out EU-12 (1982)		1.15		0.000			0.000
Alcohol Load-Out EU-13 (1982)		0.004		27.7			1.62
Coal Boiler EU-14 (1982) at 342.6 mmBtu/hr		2.23		3.46			0.524

	Limited Potential to Emit (tons/year)						
Process (Year Installed)	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Package Boilers EU-15 (1982) at a Total of 342.6 mmBtu/hr, Worst Case Natural Gas or No. 2 Fuel Oil	Less than 70	35.4	Less than 1,630	8.25	Less than 54	Less than 960	2.83
Fugitive Equipment Leak Losses EU-16 (1982)		0.000		1.60			1.42
Fugitive Truck Traffic EU-17 (1982)		1.88		0.000			0.000
APV Column EU-06 (1989)	0.000	0.000	0.000	0.442	0.000	0.000	0.006
Beerwell EU-07 (1986)	0.000	0.000	0.000	0.056	0.000	0.000	0.000
RTOs (2003) Worst Case Natural Gas or No. 2 Fuel Oil Combustion	1.00	1.65	35.5	0.385	5.89	10.0	0.015
DDGS Cooler EU-18 (2000)	Less than 25	Less than 15	0.000	Less than 25	0.000	0.000	0.341
Natural Gas Combustion (Insignificant)	0.129	0.518	0.041	0.375	5.72	6.81	0.015
Oil Fired Emergency Engines (Insignificant)	0.188	0.188	0.176	0.219	0.577	2.68	-
Other Insignificant Activities	7.00	3.50	0.000	2.00	0.000	0.000	0.8
Total Emissions	**Less than 103.5**	**Less than 104.9**	**Less than 1,666**	**Less than 107.1**	**Less than 68.7**	**Less than 986.5**	**17.8**

(a) Pursuant to St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982, all emission units constructed under the PSD permit were subject to total PM, SO_2, NO_X and CO emission limitations.

(b) The distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, was installed in March 2000. The emission limitations for the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, of less than twenty-five (25) tons of particulate per year and fifteen (15) tons of PM_{10} per year renders the requirements of 326 IAC 2-2 not applicable to this modification. In addition, the VOC emission limitation for the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, of less than twenty-five (25) tons per year renders the requirements of 326 IAC 8-1-6 not applicable. This VOC limitation also makes this modification minor with respect to 326 IAC 2-2 since the VOC emissions are limited to less than forty (40) tons per year.

Part 70 Operating Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 Operating Permits.

(b) Monitoring and related record keeping requirements which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) IDEM, OAQ received the NEC's Part 70 Operating Permit application on October 18, 1996 from NEC which is before the April 20, 1998 applicability date for CAM plans with initial Title V permits. Therefore at this time, CAM has not been included in this Part 70 Operating Permit.

When the Part 70 Operating Permit is renewed, a CAM Plan for certain emission units at this plant may be required since specific emission units use control devices to comply with a standard and/or emission limitations. These emission units at NEC have an uncontrolled potential to emit greater than the major source levels.

(b) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40, Subpart D) are not included in this permit for the two (2) package boilers (EU-15), each rated at 220 million British thermal units per hour, installed in 1982, because although each boiler is a fossil fuel steam generating unit, each boiler is rated at less than 250 million British thermal units per hour.

(c) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40b, Subpart Db) are not included in this permit for the two (2) package boilers (EU-15) because both were constructed prior to the June 19, 1984 applicability date of this rule.

(d) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc) are not included in this permit for two (2) package boilers (EU-15) because both were constructed prior to the June 9, 1989 applicability date of this rule.

(e) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110a, Subpart Ka) are not included in this permit for the two (2) ethanol storage tanks (T-610 and T-612) because although the storage tanks were constructed after May 18, 1978, and each has a capacity greater than 40,000 gallons, each tank does not store a petroleum liquid.

(f) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110a, Subpart Ka) are not included in this permit for the one (1) fuel oil storage tank (T-4120), installed in 1983 with a capacity of 250,000 gallons because the fuel oil stored in this tank is not considered a Apetroleum liquid@ as defined in 40 CFR Part 60.111a. Petroleum liquids in the definition contained in this subpart do not include Nos. 2 through 6 fuel oils as specified in ASTM D396-78.

(g) The requirements of the New Source Performance Standards, 326 IAC 12 (40 CFR 60.300, Subpart DD) AStandards of Performance for Grain Elevators@ are not included in this permit for this ethanol plant because this plant is not considered a grain terminal elevator nor is it considered a grain storage elevator pursuant to 40 CFR 60.301(c) and (f). The total grain storage capacity for New Energy Corp. is less than 2.5 million bushels, and therefore the plant is not a grain terminal. The total grain storage capacity for New Energy Corp. is also less than 1.0 million bushels, and therefore the plant is not a grain storage elevator.

(h) The requirements of the New Source Performance Standards, 326 IAC 12 (40 CFR 60.4200 - 4209, Subpart IIII) for Stationary Compression Ignition Internal Combustion Engines are not included in this permit because the emergency diesel-fired generator (deemed an insignificant activity) was constructed before the January 1, 2007 applicability date and the back-up diesel-fired fire pump (deemed an insignificant activity) commenced construction before July 11, 2005.

(i) The Riley-Stoker coal-fired boiler, rated at 311 million British thermal units per hour, identified as EU-14, is subject to the New Source Performance Standard for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 (40 CFR Part 60.40, Subpart D), which is incorporated by reference as 326 IAC 12. This coal-fired boiler is subject to the requirements of Subpart D because it is a fossil fuel steam generating unit rated at greater than 250 million British thermal units per hour and was constructed after the August 17, 1971 applicability date of this rule

Nonapplicable portions of the NSPS will not be included in the permit. The coal-fired boiller is subject to the following portions of Subpart D.

(1) 40 CFR 60.40

(2) 40 CFR 60.41

(3) 40 CFR 60.42(a)

(4) 40 CFR 60.43(a)(2), (c) and (d)

(5) 40 CFR 60.44(a)(3), (e)

(6) 40 CFR 60.45(a), (b)(5), (c)(1 - 4), (e), (f)(1 - 3), (f)4(ii), (f)(5)(i and ii) and (g)(1 - 4)

(7) 40 CFR 60.46(a), (b) and (d)

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the Riley-Stoker coal-fired boiler, identified as EU-14, except when otherwise specified in 40 CFR Part 60, Subpart D.

(j) The floating roof gasoline storage tank, identified as T-601, installed in 1983 with a capacity of 75,000 gallons is subject to the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, (40 CFR Part 60.110a, Subpart Ka) which is incorporated by reference as 326 IAC 12. This gasoline storage tank is subject to the requirements of Subpart Ka because it was constructed after May 18, 1978 and prior to July 23, 1984 and has a capacity greater than 40,000 gallons that is used to store petroleum liquids.

Nonapplicable portions of the NSPS will not be included in the permit. This tank is subject to the following portions of Subpart Ka.

(1) 40 CFR 60.110a (a) and (c)

(2) 40 CFR 60.111a

(3) 40 CFR 60.112a (a)(1, 3 and 4) and (b)

(4) 40 CFR 60.113a

(5) 40 CFR 60.114a

(6) 40 CFR 60.115a (a), (b), (c) and (d)(2)

The provisions of 40 CFR Part 60 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the gasoline storage tank, identified T-601, except when otherwise specified in 40 CFR Part 60, Subpart Ka.

(k) The ethanol internal floating roof storage tank, identified as T-611, installed in 2001 with a capacity of 1,250,000 gallons is subject to the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR Part 60.110b, Subpart Kb), which is incorporated by reference as 326 IAC 12. This ethanol storage tank is subject to requirements of Subpart Kb because it was constructed after July 23, 1984 and has a capacity of greater than 75 cubic meters that is used to store volatile organic liquids with a vapor pressure less than 15.0 kiloPascals, but greater than 5.2 kiloPascals.

Nonapplicable portions of the NSPS will not be included in the permit. This tank is subject to the following portions of Subpart Kb.

(1) 40 CFR 60.110b(a), (d) and (e)(1, 2 and 3)

(2) 40 CFR 60.111b

(3) 40 CFR 60.112b(a)(1, 3 and 4) and (b)

(4) 40 CFR 60.113b(a) and (c)

(5) 40 CFR 60.114b

(6) 40 CFR 60.115b

(7) 40 CFR 60.116b

(8) 40 CFR 60.117b

The provisions of 40 CFR Part 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1 apply to the ethanol storage tank, identified T-611 except when otherwise specified in 40 CFR Part 60, Subpart Kb.

(l) The source is subject to New Source Performance Standards for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (40 CFR Part 60.480, Subpart VV) which is incorporated by reference as 326 IAC 12 because ethanol produced by this source is a listed organic chemical pursuant to 40 CFR 60.489. Therefore, the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, are subject to requirements of Subpart VV.

Nonapplicable portions of the NSPS will not be included in the permit. This emission unit is subject to the following portions of Subpart VV.

(1) 40 CFR 60.480(a), (b) (c) and (e)

(2) 40 CFR 60.481

(3) 40 CFR 60.482-1

(4) 40 CFR 60.482-2

(5) 40 CFR 60.482-3

(6) 40 CFR 60.482-4

(7) 40 CFR 60.482-5

(8) 40 CFR 60.482-6

(9) 40 CFR 60.482-7

(10) 40 CFR 60.482-8

(11) 40 CFR 60.482-9

(12) 40 CFR 60.482-10

(13) 40 CFR 60.483-1

(14) 40 CFR 60.483-2

(15) 40 CFR 60.484

(16) 40 CFR 60.485

(17) 40 CFR 60.486

(18) 40 CFR 60.487

(19) 40 CFR 60.488

(20) 40 CFR 60.489

The provisions of 40 CFR Part 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1 apply to the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, except when otherwise specified in 40 CFR Part 60, Subpart VV.

(m) The requirements of 40 CFR 63, Subpart DD, National Emission Standard for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations are not included for the entire source in this permit because although the source is a major source of hazardous air pollutant (HAP) emissions, the source is not regulated as a hazardous waste treatment, storage, and disposal source which receives off-site material as specified in paragraph 40 CFR 63.680(b).

(n) This source is subject to the requirements of National Emission Standard for Equipment Leaks (Fugitive Emission Sources) (40 CFR 61.240, Subpart V), which is incorporated by reference as 326 IAC 14-8 because the source is a major source of hazardous air pollutants (HAPs) and the following facilities are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems. Therefore, the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, are subject to the requirements of Subpart V.

Nonapplicable portions of the NESHAP will not be included in the permit. This emission unit is subject to the following portions of Subpart V.

(1) 40 CFR 61.240

(2) 40 CFR 61.241

(3) 40 CFR 61.242-1

(4) 40 CFR 61.242-2

(5) 40 CFR 61.242-3

(6) 40 CFR 61.242-4

(7) 40 CFR 61.242-5

(8) 40 CFR 61.242-6

(9) 40 CFR 61.242-6

(10) 40 CFR 61.242-7

(11) 40 CFR 61.242-8

(12) 40 CFR 61.242-9

(13) 40 CFR 61.242-10

(14) 40 CFR 61.242-11

(15) 40 CFR 61.243-1

(16) 40 CFR 61.243-2

(17) 40 CFR 61.244

(18) 40 CFR 61.245

(19) 40 CFR 61.246

(20) 40 CFR 61.247

Table 1

Table 2

The provisions of 40 CFR Part 61 Subpart A - General Provisions, which are incorporated as 326 IAC 14-1 apply to the fermentation operation, identified as EU-05, the APV column, identified as EU-06, the beerwell, identified as EU-07, the alcohol load-out operation, identified as EU-13 and the equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions, except when otherwise specified in 40 CFR Part 61, Subpart V.

(o) The yeast propagation operation, identified as EU-04, fermentation operation, identified as EU-05, APV column, identified as EU-06, beerwell, identified as EU-07, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, alcohol load-out operation, identified as EU-13, and equipment leak losses, identified as EU-16, consisting of pumps, valves, flanges and fugitive emissions are subject to the requirements of National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing, (40 CFR 63, Subpart FFFF), which is incorporated by reference as 326 IAC 20-84 because the Permittee operates miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants. An MCPU includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture an organic chemical classified using the 1987 version of SIC code 286.

Nonapplicable portions of the NESHAP will not be included in the permit. This emission unit is subject to the following portions of Subpart FFFF.

(1) 40 CFR 63.2430

(2) 40 CFR 63.2435(a), (b), (d) and (e)

(3) 40 CFR 63.2440(a), (b) and (d)

(4) 40 CFR 63.2445(a)(1), (b), (c), (d), (e) and (f)

(5) 40 CFR 63.2450

(6) 40 CFR 63.2455

(7) 40 CFR 63.2460

(8) 40 CFR 63.2465

(9) 40 CFR 63.2470

(10) 40 CFR 63.2475

(11) 40 CFR 63.2480

(12) 40 CFR 63.2485

(13) 40 CFR 63.2490

(14) 40 CFR 63.2495

(15) 40 CFR 63.2500

(16) 40 CFR 63.2505

(17) 40 CFR 63.2515

(18) 40 CFR 63.2520

(19) 40 CFR 63.2525

(20) 40 CFR 63.2535

(21) 40 CFR 63.2540

(22) 40 CFR 63.2545

(23) 40 CFR 63.2550

Tables 1 - 12

Table 2

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1 apply to the organic chemical manufacturing emission units at this source except when otherwise specified in 40 CFR Part 63, Subpart FFFF.

(p) The Riley-Stoker coal-fired boiler and the two (2) package boilers, identified as EU-14 and EU-15, respectively, would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, No. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(a) Source-Wide in 1982

This source was initially issued a major source PSD construction permit by St. Joseph County in 1982. The source has remained a major source pursuant to this rule. The St. Joseph County Health Department construction permit/PSD approval, issued on February 12, 1982 predates the promulgation of the PM_{10} rules. Hence there were no specific PM_{10} emission limits on any facilities in the St. Joseph County Health Department construction permit/PSD approval.

Note the five (5) DDGS dryers were constructed under the original PSD construction permit issued in 1982. The VOC emissions from these DDGS dryers were the subject of a previous enforcement action and were not the result of any subsequent modification after 1982.

An Agreed Order was signed by New Energy Corp. on January 16, 2004. The terms of the Order have been met by the Respondent as follows:

(1) The Respondent installed, commenced operation, and completed compliance testing of the two (2) natural gas-fired Regenerative Thermal Oxidizers (RTOs) to control VOC emissions from the five (5) DDGS dryers, the evaporator and the recovery column vent condenser, identified as E-409.

As result of the Agreed Order, New Energy Corp. installed the RTOs in October/November 2003. The RTOs were brought online in November/December 2003, but did not become fully operational until January 2004. The additional emission units exhausts were vented to the RTO in February 2004. An approved IDEM, OAQ compliance stack test of each of the two (2) RTOs was conducted on June 30 and July 1, 2004. These tests demonstrated a VOC destruction efficiency of 98.8% for RTO #1 and a VOC destruction efficiency of 99.2% for RTO #2. The average operating rate during the tests was 47,000 pounds per hour of DDGS from three (3) of the five (5) DDGS dryers operating with one (1) of the RTOs. Therefore, if one (1) of the RTOs is out-of-service, New Energy Corp. shall operate no more than three (3) of the five (5) DDGS dryers at that time.

(2) The Respondent completed the CO_2 scrubber modifications necessary to vent the additional exhaust streams from the yeast propagator tanks and the beerwell to this scrubber. This modification resulted in an overall VOC control efficiency for the CO_2 scrubber equal to or greater than ninety-five percent (95%), including the existing exhaust stream from fermentation as well as the additional exhaust from propagation and the beerwell.

An approved IDEM, OAQ compliance stack test of the CO_2 scrubber was conducted on October 14, 2004. The stack test verified that this scrubber was in compliance with the required ninety-five percent (95%) VOC control efficiency, after the modifications that added the exhaust streams from the yeast propagator tanks and the beerwell.

(3) The LAER requirements specified in Order paragraphs 3 and 4 shall be incorporated into Respondent=s Part 70 Operating Permit. As a condition of this Agreed Order, Respondent agrees to the terms and conditions of Order paragraphs 3 and 4 and waives its right to appeal the operating condition which

establishes the LAER requirements for the DDGS dryers, evaporator, fermentation, yeast propagator tanks and the beerwell.

(b) Modification Facility Limitations

The distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, exhausting through Stack DC-0503, was installed in March 2000 and shall be limited as follows:

(1) PM

PM emissions from the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18 shall be less than 5.70 pounds per hour; and

(2) PM_{10}

PM_{10} emissions from the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18 shall be less than 3.42 pounds per hour.

Compliance with these emission limits, equivalent to less than twenty-five (25) tons per year of particulate and fifteen (15) tons per year of PM_{10}, renders the requirements of 326 IAC 2-2 not applicable to this modification. These PM and PM_{10} emission limits are incorporated in the proposed permit to keep the addition of the cooler system installed in March 2000 a minor modification to a major PSD source.

(3) VOC

The potential to emit VOC is calculated to be 22.7 tons per year from the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18. The potential to emit VOC has been limited to less than twenty-five (25) tons per year to render the requirements of 326 IAC 8-1-6 not applicable, which also limits this modification to less than the PSD significant level of forty (40) tons per year. Therefore, this modification is a minor PSD modification.

(c) PSD BACT

(1) Facility Limitations

(A) Pursuant to St. Joseph County Health Department construction permit/ PSD approval, issued on February 12, 1982, the following conditions apply to the Riley Stoker coal-fired boiler (EU-14) and/or the two (2) natural gas-fired package boilers with No. 2 fuel oil backup (EU-15):

(i) The total heat input to any operating boiler or combination of operating boilers shall be limited to 342.6 million British thermal units per hour. Therefore, the operation of the Riley-Stoker coal-fired boiler and/or either or both of the package natural gas-fired boilers with No. 2 fuel oil backup shall be limited to a total heat input of 342.6 million British thermal units per hour.

(ii) The Permittee shall maintain continuous accurate operation records of boiler usages and outages. This requirement is also pursuant to Air Pollution Operation Permit Registration, NE 33 1, issued on December 12, 1995.

(B) Pursuant to St. Joseph County Health Department construction permit/ PSD approval, issued on February 12, 1982, the following conditions apply to the Riley Stoker coal-fired boiler (EU-14):

(i) The sulfur content of coal used to fire the coal-fired boiler shall not exceed 0.75% sulfur based upon a heating value of 25.6 million British thermal units per ton, or other combinations which will not exceed an emission rate of 1.2 pounds per million British thermal units heat input. These limitations are also pursuant to Air Pollution Operation Permit Registration, NE 33 1, issued on December 12, 1995.

(ii) The Permittee shall calibrate, maintain, and operate continuous emission monitoring equipment for opacity and nitrogen oxide from the coal-fired boiler in accordance with Appendix B of 40 CFR Part 60. This requirement is also pursuant to Air Pollution Operation Permit Registration, NE 33 1, issued on December 12, 1995.

(iii) The Permittee shall sample and analyze the coal according to the applicable parts of 40 CFR Part 60, Method 19. The coal samples shall be analyzed for sulfur, ash and moisture content, and heating value, on an as-fired basis. This requirement is also pursuant to Air Pollution Operation Permit Registration, NE 33 1, issued on December 12, 1995.

(2) Emission Limitations for Emission Units Approved for Construction under the 1982 PSD Permit

(A) Pursuant to St. Joseph County Health Department construction permit/ PSD approval, issued on February 12, 1982 and pursuant to Air Pollution Operation Permit Registration, NE 33 1, issued on December 12, 1995, the following limitations apply to the corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, the corn milling operation, identified as EU-03, the yeast propagation operation, identified as EU-04, the fermentation operation, identified as EU-05, the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, the DDGS handling operation, identified as EU-11, the DDGS load-out operation, identified as EU-12, the alcohol load-out operation, identified as EU-13, the Riley-Stoker coal-fired boiler, identified as EU-14, the two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, and equipment leak losses, identified as EU-16 as well as the insignificant activities including the natural gas-fired space heaters and coal thaw burners and diesel-fired emergency generator and fire pump:

(i) SO_2 emissions shall be limited to:

(a) 1.2 pounds per million British thermal units,

(b) 412 pounds per hour, and

(c) 1,630 tons per year*.

(ii) NO_X emissions shall be limited to:

(a) 0.7 pounds per million British thermal units,

(b) 240 pounds per hour, and

(c) 960 tons per year*.

(iii) CO emissions shall be limited to:

(a) 14 pounds per hour, and

(b) 54 tons per year*.

(iv) Particulate (PM) emissions shall be limited to:

(a) 20 pounds per hour, and

(b) 70 tons per year*.

* year = twelve (12) consecutive month period with compliance determined at the end of each month.

(B) Compliance with the above limitations shall be determined by calculating the SO_2, NO_X, CO and PM emissions associated with the specified emission units, using the following equations:

(i) PSD SO_2 emissions = CEM + CEMD + (TTNG x 0.6 pounds of SO_2/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.29 pounds of SO_2/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.29 pounds of SO_2/mmBtu x 1 ton/2,000 pounds).

(ii) PSD NO_X emissions = CEM + CEMD + (TTNG x 100.0 pounds of NO_X/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 4.41 pounds of NO_X/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 4.41 pounds of NO_X/mmBtu x 1 ton/2,000 pounds).

(iii) PSD CO emissions = [(TC x 0.50 pounds of CO/ton of coal) + (TNG x 84.0 pounds of CO/mmcf of natural gas) + (TO x 5.0 pounds of CO/ kilogallon of No. 2 fuel oil)] x 1 ton/2,000 pounds + (TTNG x 84.0 pounds of CO/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.95 pounds of CO/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.95 pounds of CO/mmBtu x 1 ton/2,000 pounds).

(iv) PSD PM emissions = [(TC x 88.9 pounds of PM/ton of coal x (1 - CE)) + (TNG x 1.9 pounds of PM/mmcf of natural gas) + (TO x 2.0 pounds of PM/kilogallon of No. 2 fuel oil)] x 1 ton/2,000 pounds +

[TCR x 0.079 pounds of PM/ton of corn x (1 - CE)] x 1 ton/2,000 pounds +

[TCH x 0.061 pounds of PM/ton of corn x (1 - CE)] x 1 ton/2,000 pounds +

[TCM x 0.012 pounds of PM/ton of corn (emission factor is after control)] x 1 ton/2,000 pounds +

∑ [FR x OGL x MO x 1 lb/ 7,000 grains] x 1 ton/ 2,000 pounds +

[TDGS11 x 0.061 pounds of PM/ton of DDGS handled] x 1 ton/2,000 pounds +

[TDGS12 x 0.0057 pounds of PM/ton of DDGS loaded out x (1 - CE)] x 1 ton/2,000 pounds +

K +

(TTNG x 1.9 pounds of PM/mmcf x 1 ton/2,000 pounds) + (HEGO x 1.80 mmBtu/hr x 0.31 pounds of PM/mmBtu x 1 ton/2,000 pounds) + (HFPO x 0.631 mmBtu/hr x 0.31 pounds of PM/mmBtu x 1 ton/2,000 pounds) + INSIG.

where:

CEM	=	Continuous emissions monitoring (CEMs) Emissions for SO_2 or NO_X (tons) for EU-14 and EU-15
CEMD	=	Emissions during continuous emissions monitoring (CEMs) downtimes for SO_2 or NO_X, (tons) for the Riley-Stoker coal-fired boiler (EU-14) and two (2) package boilers (EU-15)
TTNG	=	Total throughput of natural gas (mmcf) to the space heaters and coal thaw burners
HEGO	=	Number of hours the emergency generator operated
HFPO	=	Number of hours the backup emergency fire pump operated
TC	=	Throughput of coal to the Riley-Stoker coal-fired boiler (EU-14) (tons/month)
TNG	=	Throughput of natural gas (mmcf) to the two (2) package boilers (EU-15)
TO	=	Throughput of No. 2 fuel oil (kilogallons) to the two (2) package boilers (EU-15)

CE	=	Overall control efficiency (fraction) of the control device
TCR	=	Throughput of corn received (tons/month) to corn receiving operation (EU-01)
TCH	=	Throughput of corn handled (tons/month) to the corn handling operation (EU-02)
TCM	=	Throughput of corn milled (tons/month) to the corn milling operation (EU-03)
FR	=	Flow rate of each DDGS dryer (cubic feet per minute)
OGL	=	Outlet grain loading of 0.0007 grains/cubic foot or that established by the most recent IDEM, OAQ approved stack test emission rate for each DDGS dryer.
MO	=	Number of minutes per month in operation of each DDGS dryer
∑	=	The sum for five (5) DDGS dryers (EU-10)
TDGS11	=	Throughput of DDGS (tons/month) to DDGS handling operation (EU-11)
TDGS12	=	Throughput of DDGS (tons/month) to DDGS load-out operation (EU-12)
K	=	0.0001 tons/month for alcohol load-out operation (EU-13)
INSIG	=	PM emissions from other insignificant activities

The Permittee shall use the emission rates measured during the most recent compliant stack test in place of the emission rates given in the above equation.

326 IAC 2-3 (Emission Offset)

(a) Variance

St. Joseph County was designated as nonattainment for ozone, and the emissions were subject to 325 IAC 2-1-8 (now 326 IAC 2-3) and on April 2, 1980, the St. Joseph Board granted a variance from the requirements of 325 IAC 2-1-8 provided that the NEC comply with the requirements of 326 IAC 2-2 (PSD). See the discussion of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) in this section.

(b) LAER

At the time that this source was constructed in 1983, St. Joseph County was classified as nonattainment for ozone. The source was issued a major source PSD permit by St. Joseph County in 1982. Pursuant to 326 IAC 2-3, the source was subject the Lowest Achievable Emission Rate (LAER). LAER is defined as follows taken directly from the State rule:

ALowest achievable emission rate@ or ALAER@ means, for any source, the more stringent rate of emissions based on the following:

- The most stringent emissions limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable.

- The most stringent emissions limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions unit within the stationary source. In no event shall the application of the lowest achievable emission rate allow a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance.

LAER was established through the Agreed Order No. 2000-9526-A signed on January 16, 2004 and therefore, no evaluation was performed as part of this Part 70 Operating Permit.

Pursuant to 326 IAC 2-3, the LAER requirements are applicable to the DDGS dryers, evaporator, fermentation, yeast propagator tanks and the beer well. The operation of the RTOs and the CO_2 scrubber, V-230, constitute LAER as follows:

(1) RTOs

(A) Pursuant to 326 IAC 2-3, the Permittee shall operate the regenerative thermal oxidizers (RTOs) to control VOC emissions from the five (5) DDGS dryers (EU-10), the evaporation process (EU-09) and the recovery column vent condenser, identified as E-409 (part of EU-08).

(B) The Permittee shall ensure that these RTOs achieve an overall VOC control efficiency of greater than or equal to ninety-eight percent (98%).

(C) This modification was implemented in accordance with the requirements of 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7 and 326 IAC 8-1-6.

(D) In accordance with 326 IAC 2-3, operation of these two (2) RTOs within the prescribed overall control efficiency shall constitute compliance with the lowest achievable emission reduction (LAER) requirements for the five (5) DDGS dryers (EU-10), the evaporation process (EU-09) and the recovery column vent condenser, identified as E-409 (part of EU-08).

(2) CO_2 Scrubber

(A) Pursuant to the 326 IAC 2-3, the Permittee shall vent the additional exhaust streams from the yeast propagator tanks (EU-04) and the beerwell (EU-07) to the CO_2 scrubber (V-230).

(B) The CO_2 scrubber (V-230) shall achieve an overall VOC control efficiency equal to or greater than ninety-five percent (95%), including the existing exhaust stream from the fermentation operation (EU-05).

(C) This modification was implemented in accordance with the requirements of 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, and 326 IAC 2-7.

(D) In accordance with 326 IAC 2-3, operation of the CO_2 scrubber consistent with the requirements of this condition shall constitute compliance with the LAER requirements for the VOC emissions from the yeast propagator tanks (EU-04) and the beerwell (EU-07) to be vented to the CO_2 scrubber (V-230).

(c) On September 6, 2007 the Indiana Air Pollution Control Board finalized a temporary emergency rule to redesignate St. Joseph as attainment for the 8-hour ozone standard. Therefore, any future changes in VOC and NO_X emissions will be reviewed pursuant to the requirements of 326 IAC 2-2 (PSD).

326 IAC 2-4.1-1 (New source toxics control)

The Permittee has constructed the following emission units which emit HAPs after the July 27, 1997 applicability date of this rule:

(a) One (1) distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, installed in March 2000.

(b) One (1) ethanol internal floating roof storage tank, identified as T-611, installed in 2001, capacity: 1,250,000 gallons.

(c) Two (2) natural gas-fired regenerative thermal oxidizers (RTOs) with fuel-oil back-up approved for construction in 2007, rated at 8.0 million British thermal units per hour each, installed in 2003.

None of these emission units have the potential to emit any single HAP equal to or greater than ten (10) tons per year or a combination of HAPs greater than or equal to twenty-five (25) tons per year. In addition, these emission units can not produce intermediate or final products by themselves. Therefore, the requirements of this rule are not applicable to any of these emission units.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This source has the potential to emit more than 2,500 tons per year of SO_2 and more than 250 tons per year of VOC and PM_{10}. Therefore, pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

This source, which is not specifically listed in 326 IAC 6.5-7, but is located in St. Joseph County, has a potential to emit more than one hundred (100) tons per year of particulate. Therefore, the requirements of 326 IAC 6.5 are applicable to this source. The emission units that emit particulate which are subject to the requirements 326 IAC 6.5 include the corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, the corn milling operation, identified as EU-03, the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, the DDGS handling operation, identified as EU-11, the DDGS load-out operation, identified as EU-12, the Riley-Stoker coal-fired boiler, identified as EU-14, the two (2) natural gas-fired package boilers with No. 2 fuel oil backup, identified as EU-15, and the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18.

(a) Pursuant to 326 IAC 6.5-1-2(a), the particulate from the corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, and the corn milling operation, identified as EU-03, shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (three-hundredths (0.03) grain per dry standard cubic foot). The corn receiving operation, identified as EU-01, the corn handling operation, identified as EU-02, and the corn milling operation, identified as EU-03, can all comply with the 0.03 grain loading requirements of 326 IAC 6.5-1-2(a) as shown on page 16 of 16 of Appendix A to this document.

(b) Distillers Dried Grain and Solubles (DDGS) Dryer Operation (EU-10)

Pursuant to 326 IAC 6.5-1-2(a), the distillers dried grain and solubles (DDGS) dryer operation, exhausted through Stack 5002 from the two (2) regenerative thermal oxidizers (RTOs) shall not exceed 0.03 grains per dry standard cubic foot of exhaust air. Page 4 of 17 of Appendix A, shows that this stack has a grain loading of 0.0007 grains per dry standard cubic foot of exhaust air and therefore can comply with the rule.

(c) DDGS Handling Operation (EU-11)

Pursuant to 326 IAC 6.5-1-2(a), the particulate from the DDGS handling operation, identified as EU-11, shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (three-hundredths (0.03) grain per dry standard cubic foot).

(d) DDGS Load-Out Operation (EU-12)

Pursuant to 326 IAC 6.5-1-2(a), the particulate from the DDGS load-out operation, identified as EU-12, shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (three-hundredths (0.03) grain per dry standard cubic foot). The DDGS load-out operation, identified as EU-12, can comply with the 0.03 grain loading requirements of 326 IAC 6.5-1-2(a) as shown on page 16 of 16 of Appendix A to this document.

(e) Riley-Stoker Coal-fired Boiler (EU-14)

Pursuant to 326 IAC 6.5-1-2(b)(1), the Riley-Stoker coal-fired boiler, equipped with a baghouse, rated at 311 million British thermal units per hour exhausted through Stack 001, particulate matter content shall not exceed 0.10 pounds per million British thermal units. Based on the potential to emit after controls, the potential of 9.68 tons per year (2.21 pounds per hour) is equivalent to 0.007 pounds per million British thermal units. Therefore, the Riley-Stoker coal-fired boiler can comply with this rule.

(f) Package Boilers

(1) Natural Gas (EU-15)

Pursuant to 326 IAC 6.5-1-2(b)(3), the two (2) natural gas-fired package boilers, rated at a total of 440 million British thermal units per hour, also exhausted through Stack 001, particulate matter content shall not exceed 0.01 grains per dry standard cubic foot of exhaust air. The potential to emit of 2.85 tons per year (0.651 pounds per hour) on natural gas from the two (2) natural gas-fired package boilers limited to 342.6 million British thermal units per hour is equivalent to 0.00076 grains per dry standard cubic foot as shown on page 16 of 16 of Appendix A. Therefore, the package boilers can comply with this rule.

(2) No. 2 Fuel Oil

Pursuant to 326 IAC 6.5-1-2(b)(2), the package boilers with No. 2 fuel oil backup, identified as EU-15, rated at a total of 440 million British thermal units per hour, also exhausted through Stack 001, particulate matter content shall not exceed 0.15 pounds per million British thermal units. Based on the potential to emit of 21.4 tons per year total (4.89 pounds per hour) limited to 342.6 million British thermal units per hour is equivalent to 0.014 pounds per million British thermal units. Therefore, the package boilers can comply with this rule.

(g) DDGS Cooler Operation (EU-18)

Pursuant to 326 IAC 6.5-1-2(a), the particulate from the distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (three-hundredths (0.03) grain per dry standard cubic foot). The distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, can comply with the 0.03 grain loading requirements of 326 IAC 6.5-1-2(a), as shown on page 16 of 16 of Appendix A to this document.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on October 18, 1996 and consists of:

(a) Housekeeping practices, including sweeping and shoveling, to control overspills in corn and coal unloading as well as ash and DDGS loading areas, and

(b) All grain carrying vehicles shall be tarped.

326 IAC 8-5-6 (Fuel grade ethanol production at dry mills)

Since this fuel grade ethanol production plant was constructed prior to April 1, 2007 and the plant has not been modified after April 1, 2007, the requirements of this rule are not applicable.

State Rule Applicability - Individual Facilities

326 IAC 7-1.1 (SO_2 Emissions Limitations)

The Riley-Stoker coal-fired boiler (EU-14), the two (2) package boilers (EU-15) burning fuel oil and the two (2) regenerative thermal oxidizers (RTOs) burning fuel oil have a potential to emit sulfur dioxide of greater than twenty-five (25) tons per year each. Therefore, the three (3) boilers and the two (2) RTOs are subject to the requirements of this rule.

(a) Riley-Stoker Coal-Fired Boiler

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from the Riley-Stoker coal-fired boiler (EU-14) shall not exceed six (6.0) pounds per million British thermal units heat input while combusting coal. Compliance shall be demonstrated on a monthly average.

The Riley-Stoker coal-fired boiler (EU-14) complies with this SO_2 emission limitation by complying with the content limit of 1.2 pounds per million British thermal units heat input of the NSPS Subpart D.

(b) Two (2) Package Boilers With Backup Fuel Oil

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from each of the two hundred twenty (220) million British thermal units per hour package boilers (EU-15) shall not exceed five tenths (0.5) pounds per million British thermal units heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

(c) Two (2) Regenerative Thermal Oxidizers (RTOs) With Backup Fuel Oil

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from each of the eight (8) million British thermal units per hour RTOs shall not exceed five tenths (0.5) pounds per million British thermal units heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

326 IAC 8-1-6 (New facilities; general reduction requirements)

(a) Each of the following emission units has the potential to emit VOC emissions of greater than twenty-five (25) tons per year and was constructed after the applicability date of January 1, 1980 and there are no other Article 8 rules applicable to these emission units. Therefore, each of the following emission units is subject to this rule:

(1) One (1) yeast propagation operation, EU-04, installed in October 1982;

(2) One (1) fermentation operation, EU-05, installed in October 1982;

(3) One (1) APV column, EU-06, installed in May 1989;

(4) One (1) degasser and recovery column, EU-08, installed in October 1982;

(5) One (1) evaporation process, EU-09, installed in October 1982;

(6) One (1) distillers dried grain and solubles (DDGS) dryer operation, EU-10, installed in October 1982; and

(7) One (1) alcohol load-out operation, identified as EU-13, installed in October 1982.

(b) The best available control technology (BACT) for each of these emission units has been determined to be the following add on controls:

(1) Regenerative Thermal Oxidizers (RTOs)

(A) Pursuant to 326 IAC 8-1-6, the Permittee shall operate the two (2) regenerative thermal oxidizers (RTOs) to control VOC emissions from the five (5) DDGS dryers (EU-10), the evaporation process (EU-09) and the recovery column vent condenser, identified as E-409 (part of EU-08).

(B) The Permittee shall ensure that these RTOs achieve an overall VOC control efficiency of greater than or equal to ninety-eight percent (98%).

(2) CO_2 Scrubber, identified as V-230

(A) Pursuant to the 326 IAC 8-1-6, the Permittee shall vent the additional exhaust streams from the yeast propagator tanks (EU-04) and the beerwell (EU-07) to the CO_2 scrubber (V-230).

(B) The CO_2 scrubber (V-230) shall achieve an overall VOC control efficiency equal to or greater than ninety-five percent (95%).

(3) Flare

The alcohol load-out operation, identified as EU-13, constructed after January 1, 1980 has potential VOC emissions of greater than twenty-five (25) tons per year. Therefore, this emission unit is subject to 326 IAC 8-1-6 and the Permittee is required to control VOC emissions with the best available control technology (BACT). According to the BACT analysis in Appendix B to this document BACT has been determined to be the following for the alcohol load-out operation, identified as EU-13:

(A) The VOC emissions from the alcohol load-out operation, identified as EU-13, shall be collected and controlled by the load-out natural gas-fired flare, identified as G-602.

(B) The overall efficiency of the flare, identified as G-602 (including the capture efficiency and destruction efficiency) shall be at least 98%.

(C) The VOC emissions from the load-out natural gas-fired flare, identified as G-602, shall not exceed 6.32 pounds per hour.

(c) The distillers dried grains and solubles (DDGS) cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, installed in March 2000, has a potential to emit VOC of less than twenty-five (25) tons per year based on an emission factor of 0.133 pounds of VOC per ton of DDGS. The VOC emissions have been limited to less than twenty-five (25) tons per year to render the requirements of 326 IAC 8-1-6 not applicable.

326 IAC 8-4-2 (Petroleum Refineries)

New Energy Corp. is not a petroleum refining source and therefore, the requirements of this rule are not applicable to any of the storage tanks.

326 IAC 8-4-3 (Petroleum liquid storage facilities)

All petroleum liquid storage vessels built after January 1, 1980 with a capacity greater than 39,000 gallons containing volatile organic compounds with a true vapor pressure greater than 10.5 kPa (1.52 psi) are subject to the requirements of this rule. At New Energy Corp. the floating roof gasoline storage tank (T-601) installed in 1983 with a capacity of 75,000 gallons of gasoline is subject to the requirement of this rule.

Storage tank (T-601) which is an external fixed roof tank has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall.

The facility will be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials.

All openings, except stub drains, will be equipped with covers, lids, or seals such that:

(a) the cover, lid, or seal is in the closed position at all times except when in actual use;

(b) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

(c) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer=s recommended setting.

All other storage tanks (T-610, T-611, T-612 and T-4120) are not subject to the requirements of this rule because they contain either ethanol or fuel oil with a vapor pressure of less than 10.5 kPa.

The Permittee shall maintain records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed on the storage vessels. Such records shall be maintained for a period of two (2) years and shall be made available to the commissioner upon written request.

326 IAC 8-4-4 (Bulk gasoline terminals)

New Energy Corp. is not subject to the requirements of 326 IAC 8-4-4 because this source is not a bulk gasoline terminal.

326 IAC 8-4-5 (Bulk gasoline plants)

New Energy Corp. is not subject to the requirements of 326 IAC 8-4-5 because this source is not a bulk gasoline plant.

326 IAC 8-4-6 (Gasoline dispensing facilities)

New Energy Corp. is not subject to the requirements of 326 IAC 8-4-6 because the gasoline storage tank (T-601) is not used to dispense gasoline into motor vehicle fuel tanks.

326 IAC 8-4-7 (Gasoline transports)

New Energy Corp. is not subject to the requirements of 326 IAC 8-4-7 because the source does not operate gasoline transport vehicles.

326 IAC 8-4-8 (Leaks from Petroleum refineries; monitoring; reports)

New Energy Corp. is not a petroleum refining source and therefore, the requirements of this rule are not applicable.

326 IAC 8-4-9 (Leaks from transports and vapor collection systems; records)

Since New Energy Corp. is not subject to the requirements of 326 IAC 8-4-4, 326 IAC 8-4-5, 326 IAC 8-4-6, or 326 IAC 8-4-7, then the requirements of 326 IAC 8-4-9 are not applicable to this source.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

Pursuant to 326 IAC 8-7-2, this rule does not apply to any of the storage tanks at New Energy Corp. located in St. Joseph County since the source is not located in Lake, Porter, Clark or Floyd Counties.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

This rule does not apply to the any of the storage tanks at New Energy Corp. since it is not located in Lake, Porter, Clark or Floyd Counties.

326 IAC 10-4 (NO_X Budget Trading Program)

The coal fired boiler, EU-14, rated at 414 million British thermal units per hour, is subject to the requirements of 326 IAC 10-4. The source submitted an application to address this rule on October 21, 2003.

Pursuant to 326 IAC 10-4-2(27), the unit is considered a Alarge affected unit@ because it commenced operation before January 1, 1997, has a maximum design heat input greater than two hundred fifty million (250,000,000) British thermal units per hour and did not serve during 1995 or 1996 a generator producing electricity for sale under a firm contract to the electric grid. Pursuant to 326 IAC 10-4-1(a)(2), a Alarge affected unit@ is a NO_X budget unit. Because this source meets the criteria of having one (1) or more NO_X budget units, it is a NO_X budget source. The Permittee shall be subject to the requirements of this rule.

The NO_X budget permit is in Section E.1 of the Part 70 permit. The Technical Support Document for the NO_X budget permit is provided as Appendix B to this Technical Support Document.

326 IAC 12 (New Source Performance Standards)

Certain facilities at the source as described in the Federal Rule Applicability section of this TSD are subject to the following New Source Performance Standards, 40 CFR 60 for:

(a) Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971 - Subpart D,

(b) Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 - Subpart Ka,

(c) Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 - Subpart Kb, and

(d) Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry - Subpart VV.

Therefore, the requirements of 326 IAC 12-1 are applicable because the rule incorporates by reference the provisions of 40 CFR 60.

326 IAC 14-8 (Emission Standard for Equipment Leaks (Fugitive Emission Sources))

Certain facilities at the source as described in the Federal Rule Applicability section of this TSD are subject to the provisions of this rule. The provisions of this rule apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems required by 326 IAC 14-8. The National Emission Standard for Equipment Leaks (Fugitive Emission Sources) (40 CFR 61.240, Subpart V) is incorporated by reference as 326 IAC 14-8.

326 IAC 20-84 (Miscellaneous Organic Chemical Manufacturing)

Certain facilities at the source as described in the Federal Rule Applicability section of this TSD are subject to the provisions of this rule which incorporates the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing, (40 CFR 63, Subpart FFFF).

326 IAC 20-95 (Industrial, Commercial, and Institutional Boilers and Process Heaters)

The Riley-Stoker coal-fired boiler and the two (2) package boilers, identified as EU-14 and EU-15, respectively, would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, No. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.

State Rule Applicability - Insignificant Activities

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)

Pursuant to 326 IAC 6.5-1-2(a), the PM from the ash handling, ash loadout, coal bunker and coal scale exhausts and associated dust collector vents, bag dump process, DDGS finishing as well as the coal receiving/handling operations shall not exceed 0.03 grains per dry standard cubic foot of exhaust air.

Testing Requirements

(a) Previous Stack Tests

The stack tests for this source were conducted on:

(1) April 3, 1985

SO_2 stack testing of Riley-Stoker coal-fired boiler was performed on April 23, 1985. The coal-fired boiler was tested at 6.149 pounds of SO_2 per million British thermal units. The St. Joseph PSD permit issued on February 12, 1982 stated that the SO_2 emission rate from this boiler should not exceed 1.2 pounds per million British thermal units.

(2) April 4, 1989

PM, SO_2 and NO_X stack testing of Riley-Stoker coal-fired boiler, rated at 311 million British thermal units per hour, was performed on April 4, 1989. The coal-fired boiler was tested at 0.185, 0.967 and 0.711 pounds of PM, SO_2 and NO_X per million British thermal units.

The PM emission rate of 0.185 pounds per million British thermal units is equivalent to 0.185 pounds per million British thermal units x 311 million British thermal units per hour = 57.5 pounds per hour. This PM emission rate was not in compliance with the 20 pounds per hour emission limit stated in the St. Joseph PSD permit issued on February 12, 1982.

Pursuant to 326 IAC 6.5-1-2(b)(1), particulate matter content from the Riley-Stoker coal-fired boiler shall not exceed 0.10 pounds per million British thermal units. The PM emission rate of 0.185 pounds of per million British thermal units was not in compliance with the rule.

The boiler with an SO_2 emission rate of 0.967 pounds per million British thermal units complies with the 1.2 pounds per million British thermal units limit stated in the St. Joseph PSD permit issued on February 12, 1982.

The boiler with an NO_X emission rate of 0.711 pounds per million British thermal units was deemed not in compliance with the 0.7 pounds per million British thermal units limit stated in the St. Joseph PSD permit issued on February 12, 1982.

(3) June 5, 1989

NO_X stack testing of Riley-Stoker coal-fired boiler, rated at 311 million British thermal units per hour, was performed on June 5, 1989. The coal-fired boiler was tested at 0.53 pounds of NO_X per million British thermal units.

The boiler with an NO_X emission rate of 0.53 pounds per million British thermal units was in compliance with the 0.7 pounds per million British thermal units limit stated in the St. Joseph PSD permit issued on February 12, 1982.

(4) June 6, 1989

PM stack testing of Riley-Stoker coal-fired boiler, rated at 311 million British thermal units per hour, was performed on April 4, 1989. The coal-fired boiler was tested at 0.057 pounds of PM per million British thermal units.

Pursuant to 326 IAC 6.5-1-2(b)(1), particulate matter content shall not exceed 0.10 pounds per million British thermal units. The boiler with a PM emission rate of 0.057 pounds of per million British thermal units was in compliance with 326 IAC 6.5-1-2(b)(1) and the St. Joseph PSD permit issued on February 12, 1982.

(5) June 4, 1990

PM stack testing of Riley-Stoker coal-fired boiler, rated at 311 million British thermal units per hour, was performed on June 4, 1990. The coal-fired boiler was tested at 0.023 pounds of PM per million British thermal units.

Pursuant to 326 IAC 6.5-1-2(b)(1), particulate matter content shall not exceed 0.10 pounds per million British thermal units. The boiler with a PM emission rate of 0.023 pounds of per million British thermal units was in compliance with 326 IAC 6.5-1-2(b)(1) and the St. Joseph PSD permit issued on February 12, 1982.

(6) November 14, 2000

PM stack testing of the DDGS cooler operation to show compliance with the 0.03 grains per dry standard cubic foot of exhaust air was conducted on November 14, 2000. The stack test results showed a grain loading of 0.003 grains per dry standard cubic foot of exhaust air and was in compliance with 326 IAC 6.5-1-2.

(7) December 28, 2000

IDEM Enforcement requested VOC stack testing of the five (5) DDGS dryers, equipped with five (5) scrubbers. A stack test was conducted on December 28, 2000. The stack test documented a total of 26.96 pounds of VOC per hour from the five (5) DDGS dryers. This 26.96 pounds of VOC per hour emission rate exceeded the plant-wide VOC emission limit of 20 pounds of VOC per hour stated in the St. Joseph PSD permit issued on February 12, 1982 for all process, storage, mixing, and transfer equipment.

(8) June 30 and July 1, 2004

Stack testing for the VOC destruction efficiencies were conducted on RTOs #1 and #2. RTO #1 achieved a VOC destruction efficiency of 98.8% and RTO #2 achieved a VOC destruction efficiency of 99.2%. The average operating rate during the tests was 47,000 pounds per hour of DDGS from three (3) of the five (5) DDGS dryers operating with one (1) of the RTOs.

(9) October 14, 2004

An approved IDEM, OAQ compliance stack test of the additional exhaust streams from the yeast propagator tanks (EU-04), and the beerwell to the CO_2 scrubber was conducted on October 14, 2004 and demonstrated that this scrubber was in compliance with the required ninety-five percent (95%) VOC control efficiency, after the modifications that added the yeast propagator tanks, and the beerwell to this scrubber.

(10) July 12, 2006

An approved IDEM, OAQ compliance stack test of the coal boiler was conducted on July 12, 2006. The stack height is 250 feet (76.2 meters) and is located approximately 387 feet (118 meters) from the nearest property line.

On July 12, 2006, the bituminous coal-fired boiler, equipped with a baghouse, operated with a pressure drop in a range of 8.0 - 13.0 inches of water. The coal-fired boiler rated at 311 million British thermal units per hour heat input is classified as being in the large subcategory (>10 mmBtu/hr heat input). The boiler operated at a heat input rate of 401.2 million British thermal units per hour (297,900 lbs steam per hour) and an input of coal of 350.5 tons per day (at a high heat value of 13,737 Btu/lb).

The stack test showed an HCL equivalent of 119.2 pounds per hour.

The stack test showed an Mn of 0.00328 pounds per hour (0.00000793 pounds per million British thermal units).

A coal analysis from the stack test indicated a chloride content of 0.14% and a manganese content of 14.67 milligrams per kilogram.

The following table summarizes the above test results compared to the emission limits:

Date	Emission Unit/Facility	Test Result(s)	Limit(s)
4/3/85	Coal-Fired Boiler (EU-14)	SO_2 = 6.149 lbs/mmBtu	SO_2 = 1.2 lbs/mmBtu
4/4/89	Coal-Fired Boiler (EU-14)	PM = 57.5 lbs/hr SO_2 = 0.967 lbs/mmBtu NO_X = 0.711 lbs/mmBtu	PM = 20 lbs/hr SO_2 = 1.2 lbs/mmBtu NO_X = 0.70 lbs/mmBtu
6/5/89	Coal-Fired Boiler (EU-14)	NO_X = 0.53 lbs/mmBtu	NO_X = 0.70 lbs/mmBtu
6/6/89	Coal-Fired Boiler (EU-14)	PM = 0.057 lbs/mmBtu	PM = 0.10 lbs/mmBtu
6/4/90	Coal-Fired Boiler (EU-14)	PM = 0.023 lbs/mmBtu	PM = 0.10 lbs/mmBtu
11/14/00	DGGS Cooler (EU-18)	PM = 0.003 grains/dscf	PM = 0.03 grains/dscf
12/28/00	DDGS Dryers (EU-10)	VOC = 26.96 lbs/hr	VOC = 20 lbs/hr
6/30-7/1/04	Two (2) RTOs	Control efficiency = 98.8% & 99.2% for the two (2) RTOs, respectively	Control efficiency of at least 95%
10/14/04	CO_2 Scrubber	Control efficiency greater than 95%	Control efficiency of at least 95%

(b) The following stack testing requirements are included in this permit for the control equipment:

(1) Riley-Stoker coal-fired boiler, identified as EU-14

PM stack tests are required for the Riley-Stoker coal-fired boiler, identified as EU-14, exhausted through Stack 001 to verify compliance with the PSD PM emission limits as well as compliance with 326 IAC 6.5.

(2) Package Boilers, identified as EU-15

PM stack tests are required for the two (2) package boilers, identified as EU-15, exhausted through Stack 001 to verify compliance with the PSD PM emission limits as well as compliance with 326 IAC 6.5 when burning No. 2 fuel oil (EU-15).

(3) Baghouses

PM stack tests are required for all baghouses (D-001, D-0112, D-0601, and DC-503) controlling the corn receiving (EU-01), corn handling (EU-02), corn milling (EU-03), DDGS load-out (EU-12) and DDGS cooler (EU-18) to verify compliance with PSD PM emission limits as well as compliance with the 326 IAC 6.5 limit of 0.03 grains per dry standard cubic foot of exhaust air.

A PM_{10} stack test is required for baghouse (DC-503) controlling the DDGS cooler (EU-18) to verify compliance with the PM_{10} emission rate of 3.42 pounds per hour limit.

(4) DDGS Dryers

PM stack tests are required for the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10, controlled by the RTOs and scrubbers, exhausted through Stack 5002, to verify compliance with the PSD PM emission limit as well as compliance with 326 IAC 6.5.

(5) RTOs

(A) Neither RTO was tested for overall VOC control efficiency after July 1, 2004. This is more than two and a half (2.5) years from the last valid compliance demonstration of June 30 and July 1, 2004. Therefore, within one hundred eighty (180) days of the issuance of this Part 70 Operating Permit in order to demonstrate compliance with the VOC control efficiency, the Permittee shall perform overall VOC control efficiency testing of one (1) of the two (2) natural gas-fired RTOs utilizing methods as approved by the Commissioner and every 2.5 years from the last valid compliance demonstration, such that each individual RTO shall be tested every five (5) years. Testing shall be conducted in accordance with Section C - Performance Testing.

(B) Within ninety (90) days after startup of either RTO on fuel oil in order to demonstrate compliance with overall VOC control efficiency, the Permittee shall perform overall VOC control efficiency testing of one (1) of the two (2) oil-fired RTOs utilizing methods as approved by the Commissioner and every 2.5 years from the last valid compliance demonstration, such that each individual RTO shall be tested every five (5) years. Testing shall be conducted in accordance with Section C - Performance Testing.

(6) CO_2 Scrubber

Since the CO_2 scrubber was tested on October 14, 2004 the CO_2 scrubber shall be tested every five (5) years which requires that the test be repeated by October 14, 2009.

(7) DDGS Cooler System (EU-18)

A VOC stack test is required for the DDGS cooler system (EU-18) to verify compliance with the VOC emission rate of 5.70 pounds per hour limit. This test will not have to be repeated if compliance with the stated limit is demonstrated.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source’s failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The emissions units with baghouses controlling particulate emissions are as follows:

(1) One (1) corn receiving operation, identified as EU-01, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0001;

(2) One (1) corn handling operation, identified as EU-02, equipped with a baghouse, identified as D-0001, exhausting through Stack DC-0002;

(3) One (1) corn milling operation, identified as EU-03, equipped with a baghouse, identified as D-0112, exhausted through Stacks DC-0112 and BV-0112;

(4) One (1) DDGS load-out operation, identified as EU-12, equipped with a baghouse, identified as D-0601, exhausted through Stack DC-0601; and

(5) One (1) DDGS cooler system, identified as EU-18, equipped with a baghouse, identified as DC-503, exhausted through Stack DC-0503.

(b) The emissions units equipped with baghouses have applicable compliance monitoring conditions as specified below:

(1) Visible emissions notations of the corn receiving, handling, milling as well as DDGS load-out and cooler system facilities Stack DC-0001, DC-0002, DC-0112, BV-0112, DC-0601 and DC-0503 exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(2) The Permittee shall record the pressure drop across the baghouses D-0001, D-0112, D-0601 and DC-503 used in conjunction with the corn receiving, handling, milling as well as DDGS load-out and cooler system operations, at least once per day when these processes are in operation. When for any one reading, the pressure drop across the baghouses D-0001, D-0112 and D-0601 are outside the normal range of 3.0 and 8.0 inches of water and across the baghouse DC-503 is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(3) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).

For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the baghouses must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6.5 (Particulate Emission Limitations Except Lake County), 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2-7 (Part 70).

(c) The emissions units equipped with scrubbers controlling PM and VOC emissions are as follows:

(1) One (1) yeast propagation operation, identified as EU-04, equipped with a scrubber, identified as V-230, exhausting through Stack BL-230;

(2) One (1) fermentation process, identified as EU-05, equipped with a scrubber, identified as V-230, exhausting through Stack BL-230;

(3) One (1) APV column, identified as EU-06, equipped with a scrubber, identified as V-230, exhausting through Stack BL-230;

(4) One (1) beerwell, identified as EU-07, equipped with a scrubber, identified as V-230, exhausting through Stack BL-230;

(5) One (1) degasser and recovery column, identified as EU-08, equipped with a scrubber, identified as V-424, exhausting through Stack BL-601; and

(6) One (1) DDGS dryer operation, identified as EU-10, equipped with five (5) scrubbers, identified as SF-511 through SF-515, exhausting through Stacks BL511 through BL-515.

(d) The scrubber (V-230) has applicable compliance monitoring conditions as specified below:

(1) The Permittee shall record the pressure drop across the scrubber (V-230) used in conjunction with the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06), the beerwell (EU-07) and the degasser (EU-08) at least once per day when these operations and processes are in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 15 and 28 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in

accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(2) The Permittee shall record the flow rate of the scrubbing liquor used in conjunction with the CO_2 scrubber (V-230) at least once per day when the yeast propagation operation (EU-04), the fermentation process (EU-05), the APV column (EU-06), the beerwell (EU-07) and the degasser (EU-08) are in operation. When for any one reading, the liquor flow rate is below a minimum flow of 80 gallons per minute for the scrubber exhausted to Stack BL-230 or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(3) For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

For a scrubber controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Scrubber failure can be indicated by a significant drop in the scrubber=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, or leaks.

These monitoring conditions are necessary because the scrubbers must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6.5 (Particulate Matter Limitations except Lake County), 326 IAC 8-1-6 (New facilities; general reduction requirements), 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2-7 (Part 70).

(e) In addition, the degasser and recovery column, identified as EU-08, equipped with a scrubber (V-424) exhausting through Stack BL-601, controlling VOC has applicable alternative compliance monitoring conditions as specified below:

(1) The Permittee shall record the pressure drop across the scrubber (V-424) used in conjunction with the degasser and recovery column (EU-08) at least once per day when this process is in operation. When for any one reading, the pressure

drop across the scrubber is outside the normal range of 0.5 and 2.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(2) The Permittee shall record the flow rate of the scrubbing liquor used in conjunction with the scrubber (V-424) at least once per day when the degasser and recovery column (EU-08) is in operation. When for any one reading, the liquor flow rate is below a minimum flow of 1 gallon per minute for the scrubber exhausted to Stack BL-601 or a minimum established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is less than the above mentioned minimum is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(3) For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

For a scrubber controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Scrubber failure can be indicated by a significant drop in the scrubber=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, or leaks.

These monitoring conditions are necessary because the scrubbers must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6.5 (Particulate Emission Limitations Except Lake County), 326 IAC 8-1-6 (New facilities; general reduction requirements) and 326 IAC 2-7 (Part 70).

(f) The two (2) RTOs controlling emissions from the degasser and recovery column, identified as EU-08, the evaporation process, identified as EU-09, and the distillers dried grain and solubles (DDGS) dryer operation, identified as EU-10 have applicable compliance monitoring conditions as specified below:

(1) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1,600EF as observed during the most recent compliant stack test.

(2) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test.

(3) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature as observed during the most recent compliant stack test.

(4) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test.

(5) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizers are in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

These monitoring conditions are necessary because the RTOs must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6.5 (Particulate Emission Limitations Except Lake County), 326 IAC 8-1-6 (New facilities; general reduction requirements) and 326 IAC 2-7 (Part 70).

(g) The Riley-Stoker coal-fired boiler (EU-14) has applicable compliance monitoring conditions as specified below:

(1) The Permittee shall record the pressure drop across the baghouse used in conjunction with the Riley-Stoker coal-fired boiler (EU-14), at least once per day when the boiler is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 8.0 and 13.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(2) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS for the Riley-Stoker coal-fired boiler (EU-14) and the two (2) package boilers (EU-15) when either or both of the package boilers are combusting fuel oil, the Permittee shall record the following:

(A) The pressure drop across the baghouse used in conjunction with the Riley-Stoker coal-fired boiler (EU-14), at least twice per day, with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(B) Visible emission notations of the Riley-Stoker coal-fired boiler Stack 001 exhaust shall be performed at least twice per day during normal daylight operations with at least four (4) hours between each set of readings, until a COM is online when the boiler is in operation. A trained employee shall record whether emissions are normal or abnormal.

For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(3) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(4) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse=s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

(5) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 40 CFR 60 Subpart D, a continuous monitoring system for the Riley-Stoker coal-fired boiler (EU-14) shall be calibrated, maintained, and operated for measuring opacity, SO_2, NO_X, and either CO_2 or O_2, which meets the performance specifications of 326 IAC 3-5-2 and 40 CFR 60.45.

(6) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3, 326 IAC 2-3 and 326 IAC 2-2.

(7) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, 40 CFR 60, or 40 CFR 75.

(8) Whenever the SO_2 continuous emission monitoring (CEM) system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 emissions:

(A) If the CEM system is down for less than eight (8) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(B) If the CEM system is down for eight (8) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b), except that all samples shall be collected after the bunker. Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

These monitoring conditions are necessary because the baghouse and CEMs must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6.5 (Particulate Emission Limitations Except Lake County), 326 IAC 5-1 and 326 IAC 2-7 (Part 70).

(h) The two (2) package boilers (EU-15) have applicable compliance monitoring conditions as specified below:

(1) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS for the two (2) package boilers (EU-15) when either or both boilers are combusting fuel oil, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

(A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.

(B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of reading, until a COM is online.

(C) Method 9 readings may be discontinued once a COMS is online.

(D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.

(2) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), a continuous monitoring system for the two (2) package boilers (EU-15) shall be calibrated, maintained, and operated for measuring opacity, SO_2, NO_X, and either CO_2 or O_2, which meets the performance specifications of 326 IAC 3-5-2.

(3) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3 and 326 IAC 2-2.

(4) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 326 IAC 10-4.

(5) Whenever the SO_2 and NO_X continuous emission monitoring (CEM) system is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO_2 and NO_X emissions:

(A) If the CEM system is down for less than eight (8) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

(B) If the CEM system is down for eight (8) hours or more, fuel sampling shall be conducted as specified in 326 IAC 3-7-2(a) or (b), except that all samples shall be collected after the bunker. Fuel sample preparation and analysis shall be conducted as specified in 326 IAC 3-7-2(c), 326 IAC 3-7-2(d), and 326 IAC 3-7-2(e). Pursuant to 326 IAC 3-7-3, manual or other non-ASTM automatic sampling and analysis procedures may be used upon a demonstration, submitted to the department for approval, that such procedures provide sulfur dioxide and nitrogen dioxide emission estimates representative either of estimates based on coal sampling and analysis procedures specified in 326 IAC 3-7-2 or of continuous emissions monitoring.

(6) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million British thermal units heat input for the two (2) package boilers (EU-15) by:

(A) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(B) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(i) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(ii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (A) or (B) above shall not be refuted by evidence of compliance pursuant to the other method.

These monitoring conditions are necessary because the boilers and CEMS must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), 326 IAC 6.5 (Particulate Emission Limitations Except Lake County), 326 IAC 3-7-4 (Fuel oil sampling; analysis methods) and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this fuel-grade ethanol production source shall be subject to the conditions of the attached Part 70 Operating Permit No. T 141-6956-00033.

Appendix A: Potential Emission Calculations

Company Name: New Energy Corp.
Address City IN Zip: 3201 West Calvert Street, South Bend, Indiana 46613
Part 70: T 141-6956-00033
Reviewer: Frank P. Castelli
Date: July 4, 2007

EU-01 Corn Receiving — **Dustiness Ratio 1** — **Baghouse D-0001**; **Capture Efficiency 80.0%**; **Control Efficiency 99.9%**

Pollutant	Maximum Rate (tons/hr)	Weighted Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Overall Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	840	0.079	66.60	291.72	79.9%	13.374	58.58
PM-10	840	0.024	19.88	87.09	79.9%	3.993	17.5
SO2	840	0.00	0.00	0.00	0.0%	0.00	0.00
NOx	840	0.00	0.00	0.00	0.0%	0.00	0.00
VOC	840	0.00	0.00	0.00	0.0%	0.00	0.00
CO	840	0.00	0.00	0.00	0.0%	0.00	0.00

Weighted Emission Factors from AP-42, Chapter 9.9.1, Grain Elevators and Processes, Table 9.9.1-1
PM EF = 31% straight trucks * (0.18 lbs/ton) + 47% hopper trucks * (0.035 lbs/ton) + 22% rail * (0.032 lbs/ton) = 0.092 lbs/ton
PM-10 EF = 31% straight trucks* (0.059 lbs/ton) + 47% hopper trucks * (0.0078 lbs/ton) + 22% rail * (0.0078 lbs/ton) = 0.028 lbs/ton
Uncontrolled Emission Rate (lbs/hr) = Maximum Rate * Emission Factor * Dustiness Ratio
Controlled Emission Rate (lbs/hr) = Uncontrolled Emission Rate * Capture Efficiency * Control Efficiency

EU-02 Corn Handling (SCC 03-02-005-30) — **Dustiness Ratio 1** — **Baghouse D-0001**; **Capture Efficiency 99.0%**; **Control Efficiency 99.9%**

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Overall Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	
PM	140	0.061	8.54	37.41	98.9%	0.094	0.411	AP-42, Table 9.9.1-1
PM-10	140	0.034	4.76	20.85	98.9%	0.052	0.229	AP-42, Table 9.9.1-1
SO2	140	0.00	0.00	0.00	0.0%	0.000	0.000	
NOx	140	0.00	0.00	0.00	0.0%	0.000	0.000	
VOC	140	0.00	0.00	0.00	0.0%	0.000	0.000	
CO	140	0.00	0.00	0.00	0.0%	0.000	0.000	

Uncontrolled Emission Rate (lbs/hr) = Maximum Rate * Emission Factor * Dustiness Ratio
Controlled Emission Rate (lbs/hr) = Uncontrolled Emission Rate * (1 - Capture Efficiency * Control Efficiency)

EU-03 Corn Milling (SCC 03-02-008-17) — Dustiness Ratio 1 — Capture Efficiency 99.0%; Control Efficiency 99.9%; Baghouse D-0112

Pollutant	Maximum Rate (tons/hr)	Emission Factor (after control) (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Overall Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	
PM	140	0.012	152.87	669.55	98.9%	1.680	7.36	AP-42, Table 9.9.1-2
PM-10	140	0.012	152.87	669.55	98.9%	1.680	7.36	AP-42, Table 9.9.1-2
SO2	140	0.00	0.00	0.00	0.0%	0.000	0.000	
NOx	140	0.00	0.00	0.00	0.0%	0.000	0.000	
VOC	140	0.00	0.00	0.00	0.0%	0.000	0.000	
CO	140	0.00	0.00	0.00	0.0%	0.000	0.000	

Uncontrolled Emission Rate (lbs/hr) = Controlled Emission Rate (lbs/hr) / (1 - Control Efficiency * Capture Efficiency)
Controlled Emission Rate (lbs/hr) = Controlled Emission Factor * Maximum Rate * Dustiness Ratio

EU-04 **Yeast Propagation**

Liquid v% ETOH = -0.0019*hrs^^3 + 0.081*hrs^^2 - 0.0394* hrs - 1.0E-13
Vapor m% ETOH = -1E-8* lw%^^4 + 2E-5* lw%^^3 - 0.0037*lw%^^2 + 0.2454*lw% + 0.0056

Scrubber	Efficiency	99.27%

	Propogators		Den Produced
	Avg Age Hrs	#	Gallons
Dec 1995	10.33	222	7865664
Nov 1995	9.41	209	7388481
Oct 1995	10.30	215	7564473
Qtr Total	10.0133	646	22818618

Propagators per year =	95000000 / 22818618	gallons Den Produced/Yr * / gallons Den Produced/quarter		646	Props/quarter		
Propagators per year =	2689.5						
ETOH Emission =	25.53	lbs ETOH/Prop	* 1 ton * / 2000 lbs	2689.470502	Props/yr =	34.33	tons/yr
					Controlled VOC =	0.251	tons/yr

Calculations based on data from International Critical Tables

EU-05 **Fermentation**

Detected Compounds	MW	PPM (v/v)	Weight %		HAPs Potential to Emit (tons/yr)	Controlled HAPs (tons/yr)	Release By BOC Controlled HAPs (tons/yr)	Release By NEC Controlled HAPs (tons/yr)
Acetaldehyde	44.05	31	0.0031%	Acetaldehyde	**9.81**	**0.0716**	0.0413	0.0303
Methanol	32.04	5	0.0004%	Methanol	**1.14**	**0.008**	0.005	0.004
Ethanol	46.07	9100	0.9521%					
Ethyl Acetate	88.11	14	0.0028%					
n-Propanol	60.09	4	0.0006%					
isobutanol	74.12	8	0.0014%					
n-Pentanol	88.14	36	0.0072%					
2,2,5-Trimethyl Hexane	128.26	4	0.0012%	Hexane	**3.70**	**0.027**	0.016	0.011
Carbon Dioxide	44.01	990798	99.03%	**Total HAPs**	**14.65**	**0.107**	**0.062**	**0.045**
Total VOC			0.9687%					
CO2 Generation	303454	tons/yr	Based on 350 days/yr		**867.01**	**tons/day**		
CO2 Generation	**316459**	**tons/yr**	**Based on 365 days/yr**					
VOC	**3065**	tons/yr	Scrubber feed gas					
Scrubber	Efficiency	**99.27%**	CO2 Scrubber V-230					

Controlled Total	**VOC**	**22.38**	tons/yr

Claims bottleneck because of shipping to BOC		
However, BOC can only handle	**500**	tons/day of CO2
Therefore must vent from the scrubber	367	tons/day of CO2
	133959	tons/yr of CO2
Amount of CO2 Released at BOC	***12.91***	***tons/yr***
Amount of CO2 Released at NEC	**9.47**	**tons/yr**

EU-06 **APV Column**

Detected Compounds	MW	PPM (v/v)	Weight %		HAPs Potential to Emit (tons/yr)	Controlled HAPs (tons/yr)
Acetaldehyde	44.05	1120	0.112%		0.583	0.0058
Methanol	32.04	50	0.004%		0.019	0.0002
Ethanol	46.07	75200	7.831%			
Ethyl Formate	74.08	80	0.013%			
Ethyl Acetate	88.11	820	0.163%			
Diethylmethylsilane	60.17	2100	0.286%			
1-Propanamine	59.11	260	0.035%			
Carbon Dioxide	44.01	920332	91.552%			
Total VOC			8.443%	**Total HAPs**	**0.602**	**0.006**

VOC	44.16	tons/yr	at 95,000,000 gallons per year		
Scrubber	Efficiency	99.00%	Controlled VOC =	0.4416	tons/yr

EU-07 **Beerwell**

From Applicant Supplied TANKS Output				**Tank T-222**	**Scrubber**	**Efficiency**	**99.27%**
Working Loss	15345	pounds/yr		**7.67**	tons/yr	of VOC (Ethyl Alcohol)	
Standing Loss	0		Controlled VOC =	**0.056**	tons/yr		

EU-08 **Degasser & Recovery Column**

Detected Compounds	**MW**	**BL-601 PPM (v/v)**	**E-409 PPM (v/v)**	**BL-601 Weight %**	**E-409 Weight %**	**BL-601 HAPs Potential to Emit** (tons/yr)	**E-409 HAPs Potential to Emit** (tons/yr)	**BL-601 Controlled HAPs** (tons/yr)	**E-409 Controlled HAPs** (tons/yr)
Acetaldehyde	44.05	17	480	0.0017%	0.0477%	0.004	0.111	0.0001	0.0022
Methanol	32.04	4	170	0.0003%	0.0123%	0.001	0.029	0.0000	0.0006
Ethanol	46.07	23900	44300	2.4985%	4.6036%				
Isopropanol	60.09	6	0	0.0008%	0.0000%				
Ethyl Formate	74.08	18	450	0.0030%	0.0752%				
Ethyl Acetate	88.11	160	3440	0.0320%	0.6837%				
n-Propanol	60.09	6	0	0.0008%	0.0000%				
Isobutanol	74.12	17	0	0.0029%	0.0000%				
n-Pentanol	88.14	26	0	0.0052%	0.0000%				
2,2,5, trimethylhexane	128.26	4	0	0.0012%	0.0000%	0.003	0.000	0.0001	0.0000
Hydrogen Sulfide	34.08	0	500	0.0000%	0.0384%				
Methyl Mercaptan	48.11	0	170	0.0000%	0.0185%				
Acrolein	56.07	0	45	0.0000%	0.0057%	0.000	0.013	0.0000	0.0003
Furnan	68.07	0	13	0.0000%	0.0020%				
Methyl Sulfide	62.14	0	46	0.0000%	0.0065%				
Methyl Acetate	74.08	0	21	0.0000%	0.0004%				
isoButyraldehyde	72.11	0	18	0.0000%	0.0029%				
Vinyl Acetate	86.09	0	21	0.0000%	0.0041%	0.000	0.009	0.0000	0.0002
Diethylmethylsilane	60.17	0	270	0.0000%	0.0367%				
CO2	44.01	975841	948036	97.4530%	94.1140%				
Total VOC				2.5464%	5.5376%				
					Total HAPs	0.007	0.162	0.0001	0.0032
VOC	**BL-601**	**E-409**							
Before Control	**5.91**	**88.3**	tons/yr	at 95,000,000 gallons per year			RTOs	Control Efficiency	98.00%
After Control	**0.1182**	**1.77**	tons/yr	at 95,000,000 gallons per year					

Tank V-422	Fusel Oil Accumulator				
VOC	Standing Loss	4.47	pounds/yr	0.00224	tons/yr of VOC
	Working Loss	2.33	pounds/yr	0.00117	tons/yr of VOC
			Subtotal	0.0034	tons/yr of VOC

Tank V-403	Fusel Oil Decanter				
VOC	Standing Loss	3.82	pounds/yr	0.00191	tons/yr of VOC
	Working Loss	5.49	pounds/yr	0.00275	tons/yr of VOC
			Subtotal	0.004655	tons/yr of VOC

Tank V-423	Heads Accumulator				
VOC	Standing Loss	185.97	pounds/yr	0.09299	tons/yr of VOC
	Working Loss	78.1	pounds/yr	0.03905	tons/yr of VOC
			Subtotal	0.132035	tons/yr of VOC
			Subtotal Tanks VOC	**0.14009**	tons/yr of VOC

EU-09 **Evaporation Process (Including Whole Stillage, Condensate and Backset Stream)**

RTOs	Control Efficiency	98.00%

	VOC	VOC	Methanol	Acetaldehyde
	lbs/hr	tons/yr	tons/yr	tons/yr
Stream (Before Control)	**38.6**	**162.3**	**0.173**	**0.612**
Stream (After Control)	**0.771**	**3.25**	**0.003**	**0.012**

VOC from January 23, 1997 Envisage Stack Test Report ratioed for a daily production test rate of 230,488 to 271,429 gallons per day
HAPs from October 24, 1996 Envisage Stack Test Report ratioed for a daily production test rate of 204,057 to 271,429 gallons per day
Methodology: Mass Balance Calculation by Applicant

RTO flow = 71,000 at 1,500 F
5 Scrubbers SF-511 through SF-515 and 2 RTOs in series
Note scrubber efficiency is 50.0% and RTO efficiency is 95%

EU-10 **DDGS Dryer Operation**
PM & PM-10 Emissions

	Unit ID	Combined Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (dcfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Per Dryer								
Allowable (w/acfm)	EU-10	97.5%	0.030	4187.0	43.07	188.63	1.077	4.72
Per Dryer	EU-10	97.5%	0.00070	4187.0	1.00	4.40	0.025	0.110
Total 5 Dryers	EU-10	97.5%	0.00070	20935.00	5.02	22.01	0.126	0.550
RTO Allowable	EU-10	97.5%	0.030	19199.0	197.48	864.94	4.94	21.6

0.014 g/dscft outlet loading from stack testing conducted by Envisage in October 1996, controlled to 0.0007 by additional 95% RTO control.

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

EU-10 **DDGS Dryer Operation**

					RTO Control Efficiency	**98.00%**	
	VOC	VOC	VOC	Methanol	Acetaldehyde	Methanol	Acetaldehyde
	From Test	at Full Capacity	at Full Capacity	From Test	From Test	at Full Capacity	at Full Capacity
	(lbs/hr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(lbs/hr)	(tons/yr)	(tons/yr)
Per Dryer	39.37	46.36	203.07	0.870	0.576	4.97	3.29
Total 5 Dryers	**196.9**	**231.8**	**1015.4**	**4.35**	**2.88**	**24.86**	**16.46**
After Controls			**20.31**			**0.497**	**0.329**

VOC from January 23, 1997 Envisage Stack Test Report
Others from October 1996 Envisage Stack Test Report

Methanol & Acetaldehyde = 208,056 gallons/day with 271,429 gallons full capacity

To Control EU-09 and EU-10
Natural Gas Combustion From 2 RTOs rated at 8.0 mmBtu/hr each

Heat Input Capacity	Potential Throughput
MMBtu/hr	MMCF/yr
16.00	140

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.133	0.533	0.042	7.01	0.385	5.89

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00002	0.00001	0.0006	0.0144	0.00003

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	0.001	0.001	0.001	0.0004	0.002	**Total**
Potential Emission in tons/yr	0.000004	0.00001	0.00001	0.000003	0.00002	**0.015**

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

NSR No. 2 Fuel Oil Combustion From 2 RTOs rated at 8.0 mmBtu/hr each

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
16.00	1001	0.500

	Pollutant					
	PM	PM-10	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.00	3.3	71.0 (142.0S)	20.0	0.340	5.00
Potential Emission in tons/yr	1.00	1.65	35.5	10.0	0.170	2.50

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	0.000004	0.000003	0.000003	0.000003	0.000009
Potential Emission in tons/yr	0.0003	0.0002	0.0002	0.0002	0.0006

	HAPs - Metals (continued)				Total
	Mercury	Manganese	Nickel	Selenium	HAPs
Emission Factor in lb/mmBtu	0.000003	0.000006	0.000003	0.00002	
Potential Emission in tons/yr	0.0002	0.0004	0.0002	0.0011	**0.0034**

Methodology

No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

EU-11 **DDGS Handling Operation (SCC 03-02-005-30)**

No credit given for warehouse as an enclosed building.
2 Dust Suppression Nozzles DN-0601 and DN-0602

Dustiness Ratio 1

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Emission Rate (lbs/hr)	Emission Rate (tons/yr)	Control Efficiency (%)	Emission Rate (lbs/hr)	Emission Rate (tons/yr)	
PM	38.98	0.061	2.38	10.41	0.0%	2.378	10.415	AP-42, Table 9.9.1-1
PM-10	38.98	0.034	1.33	5.80	0.0%	1.325	5.805	AP-42, Table 9.9.1-1

EU-12 **DDGS Load-out**

Capture	Efficiency	80.0%
Control	Efficiency	99.9%

Dustiness Ratio 1

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	3 Dust Suppression Nozzles DN-0603 through DN-0605 Baghouse D-0601 Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
		Weighted					
PM	83.96	0.057	4.74	20.78	79.9%	0.953	4.17
PM-10	83.96	0.0156	1.31	5.74	79.9%	0.263	1.15

		EFs 50% truck & 50% rail PM (lbs/ton)	PM-10 (lbs/ton)
AP-42, Table 9.9.1-1	**Truck**	0.086	0.029
AP-42, Table 9.9.1-1	**Rail**	0.027	0.0022
	Weighted	**0.057**	**0.0156**

EU-13 **Alcohol Load-out Operation**
Supplemental Natural Gas for Flare

Heat Input Capacity
MMBtu/hr

0.134				MMCF/yr
	Potential Throughput		Natural Gas	0.88
	MMCF/yr		Pilot Gas	0.296
			Total	1.176
	1.176			

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.001	0.004	0.0004	0.059	0.003	0.049

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Assumed emission Factors the same for natural gas and pilot gas (ethanol)

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

EU-13 **Alcohol Load-out Operation**

AP-42 Emission Factors, Chapter 5-2
Assume that ethanol is shipped by either truck or rail and will be controlled by a natural gas -fired flare with a 98% control efficiency.
Trucks may be used to carry gasoline prior to filling with ethanol.
The VOC emission factors for truck and rail loading racks can be estimated from the following equation:

L =12.46 x (SPM/T) where
L = loading loss (lbs/kg)
S = Saturation Factor AP-=42, Table 5.2-1
P = True Vapor Pressure of Liquid Loaded (psia)
M = Molecular Weight of Vapors (lbs/mole lb)
T = Temperature of Temperature of Liquid Loaded (degrees R)

Previously Stored Liquid	S	P (psia)	M (lbs/mole lbs)	T (degrees R)	L (lbs/kgal)
Gasoline (normal)	1.0	4.9722	66	515.72	7.929
Gasoline (clean cargo)	0.5	4.9722	66	515.72	3.964
Ethanol (normal)	0.6	0.72	49.6	515.72	0.518
Ethanol (clean cargo)	0.5	0.72	49.6	515.72	0.431

The emission factor for loading ethanol to trucks which carried gasoline previously = L (gasoline (nomal)) - L (gasoline (clean cargo)) + L (ethanol (clean cargo)) = 4.40

Potential to Emit Before Control:

If all ethanol is loaded out by trucks

Loading rate for Trucks =	72,000	gallons/ hr or	630720	kgal/yr	
PTE of VOC before controls (tons/yr =	630720	kgal/yr x 4.40 lbs/kgal x 1 ton/2,000 lbs =		**1386**	tons/yr
Loading rate for Railcars =	72,000	gallons/ hr or	630720	kgal/yr	
PTE of VOC before controls (tons/yr =	630720	kgal/yr x 0.52 lbs/kgal x 1 ton/2,000 lbs =		163	tons/yr

Worst Case is Truck Loading:

Therefore, PTE of VOC after control = PTE before Control * (1 -Control Efficiency) = **27.7** tons per year

Potential to Emit HAPs from Loading of Trucks which may have been used for shipping gasoline previously

HAP	HAP Fraction	PTE of HAP Before Control (TPY)	PTE of HAP After Control (TPY)
Benzene	0.0025	3.466	0.069
Ethylbenzene	0.00005	0.069	0.001
Cumene	0.0001	0.139	0.003
Xylenes	0.0005	0.693	0.014
Toluene	0.005	6.931	0.139
Carbon Disulfide	0.00002	0.028	0.001
Hexane	0.05	69.312	1.386
Acetaldehyde	0.0002	0.277	0.006
Methanol	0.0002	0.277	0.006
Total		**81.2**	**1.62**

HAPs fractions are from gasoline vapors with the addition of acetaldehyde and methanol which are from ethanol vapors
PTE of HAP Before Control (TPY) = PTE of VOC Before Control (TPY) * HAP Fraction
PTE of HAP After Control (TPY) = PTE of HAP Before Control (TPY) * (1 - Control Efficiency)

EU-14 **Coal-Fired Boiler Bituminous Coal - Pulverized Dry Bottom**

Riley-Stoker Coal-Fired Boiler

Heat Input Capacity	**Heat Content of Coal**	**Ash Content**	**Potential Throughput**		Weight %
MMBtu/hr	Btu/lb of Coal	Percent	tons/year		Sulfur in Fuel
342.6	13023.0	8.89	115,226	S =	0.75 %

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/ton	88.90	20.45			0.06	0.50
Emission Factor in lb/mmBtu	*(10A)*	*(2.3A)*	1.2	0.7		
Baghouse for PM control						
Potential Emission in tons/yr	5121.8	1178.0	1800.7	1050.4	3.46	28.8
With control: 99.81% efficiency	**9.68**	2.226				
Limited as per PSD Permit (tons/yr)	45.0		1630.0	960.0		54.0
Emission Factor in lbs/mmBtu Stack Test	0.00645					
Potential Emission in tons/yr after control	**9.68**					
Potential Emission in tons/yr before control based on Stack Test	5121.8					

Methodology

342.6 mmBtu/hr is the total heat input rate to any operating boiler or combination of operating boilers pursuant to PSD permit issued February 12, 1982.

The after control PM emission rate from the July 12, 2006 stack test was 0.00645 lbs of PM/mmBtu and the control efficiency was back calculated versus the 99.9% stated on Form CE-01.

*The PM emission factor is filterable PM only. The PM10 emission factor is filterable and condensable PM10 combined.

Limited PM to 0.03 lbs/mmbtu, SO2 to 1630 TPY, NOx to 960 TPY,. CO to 54 TPY as per PSD Approval issued February 12, 1982.

VOC emission factor is from AP-42, Table 1.1-19 (Total non-methane organic carbon). CO emission factor is from AP-42, Table 1.1-3.

Potential Throughput (tons/year) = Heat Input Capacity (MMBtu/hr) x 10^6 Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2000 lb/ton x 8,760 hrs/yr

HAPs emission factors are available in AP-42, Chapter 1.1.

Emission (tons/yr) = Throughput tons per year x Emission Factor (lb/ton) / 2,000 lb/ton

Emissions (lbs/MMBtu) = 10^6 Btu/MMBtu / Heat Content of Coal (Btu/lb) / 2000 lb/ton x Emission Factor (lb/ton)

EU-14 **Coal-Fired Boiler Bituminous Coal - Pulverized Dry Bottom**

Potential Throughput	**HAP**	**HAP Emission Factors**	**Potential HAP Emissions**	**Controlled HAP Emissions**	**HAP**	**HAP Emission Factor**	**Potential HAP Emissions**	**Controlled HAP Emissions**
(tons/year)		(lbs/ton)	(tons/yr)	(tons/yr)		(lbs/ton)	(tons/yr)	(tons/yr)
115,226	Antimony	1.8E-05	0.00104	0.000002	Dimethyl Sulfate	4.8E-05	0.00277	0.002765
	Arsenic	4.1E-04	0.02362	0.023621	Ethyl Benzene	9.4E-05	0.00542	0.005416
	Beryllium	2.1E-05	0.00121	0.000002	Ethyl Chloride	4.2E-05	0.00242	0.002420
	Cadmium	5.1E-05	0.00294	0.000006	Ethylene Dichloride	4.0E-05	0.00230	0.002305
	Chromium	2.6E-04	0.01498	0.000028	Ethylene Dibromide	1.2E-06	0.00007	0.000069
	Colbalt	1.0E-04	0.00576	0.000011	Formaldehyde	2.4E-04	0.01383	0.013827
	Lead	4.2E-04	0.02420	0.000046	Hexane	6.7E-05	0.00386	0.003860
	Maganese	4.9E-04	0.02823	0.000053	Isophorone	5.8E-05	0.00334	0.003342
	Mercury	8.3E-05	0.00478	0.000009	Methyl Bromide	1.6E-04	0.00922	0.009218
	Nickel	2.8E-04	0.01613	0.000030	Methyl Chloride	5.3E-04	0.03053	0.030535
	Selenium	1.3E-03	0.07490	0.000142	MEK	3.9E-04	0.02247	0.022469
	Biphenyl	1.7E-06	0.00010	0.000098	Methyl Hydrazine	1.7E-04	0.00979	0.009794
	Naphthalene	1.3E-05	0.00075	0.000749	Methyl Methacrylate	2.0E-05	0.00115	0.001152
	Acetaldehyde	5.7E-04	0.03284	0.032839	Methyl Tert Butyl Ether	3.5E-05	0.00202	0.002016
	Acetophonenone	1.5E-05	0.00086	0.000864	Methylene Chloride	2.9E-04	0.01671	0.016708
	Acrolein	2.9E-04	0.01671	0.016708	Phenol	1.6E-05	0.00092	0.000922
	Benzene	1.3E-03	0.07490	0.074897	Propionaldehyde	3.8E-04	0.02189	0.021893
	Benzyl Chloride	7.0E-04	0.04033	0.040329	Tetra Chloroethylene	4.3E-05	0.00248	0.002477
	DEHP	7.3E-05	0.00421	0.004206	Toluene	2.4E-04	0.01383	0.013827
	Bromoform	3.9E-05	0.00225	0.002247	1,1,1-Trichloroethane	2.0E-05	0.00115	0.001152
	Carbon Disulfide	1.3E-04	0.00749	0.007490	Styrene	2.5E-05	0.00144	0.001440
	Chlorobenzene	2.2E-05	0.00127	0.001267	Xylene	3.7E-05	0.00213	0.002132
	Chloroform	5.9E-05	0.00340	0.003399	Vinyl Acetate	7.6E-06	0.00044	0.000438
	Cumene	5.3E-06	0.00031	0.000305	**Total HAPs**		**0.697**	**0.524**
	Cyanide	2.5E-03	0.14403	0.144032				

EU-15 **Two (2) Package Boilers rated at 220 MMBtu/hr each**

On Natural Gas **342.6 mmBtu/hr is the total heat input rate to any operating boiler or combination of operating boilers pursuant to PSD permit issued February 12, 1982.**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
342.6	3001.2

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	190.0 **see below	5.5	84.0
Potential Emission in tons/yr	2.85	11.4	0.90	285.1	8.3	126.0
Limited Pursuant to PSD Permit - All Combustion	45.0		1630.0	960.0		54.0

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	0.0032	0.0018	0.1125	2.7011	0.0051

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	0.0008	0.0017	0.0021	0.0006	0.0032	**2.83**

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

EU-15 **Two (2) Package Boilers rated at 220 MMBtu/hr each**

On No. 2 Oil **342.6 mmBtu/hr is the total heat input rate to any operating boiler or combination of operating boilers pursuant to PSD permit issued February 12, 1982.**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
		0.50
342.6	21436.97	

	Pollutant					
	PM*	PM-10	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	3.3	71 *(142.0S)*	24.00	0.2	5.0
Potential Emission in tons/yr	21.4	35.4	761.0	257.2	2.1	53.6

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Sulfur content of oil not to exceed 0.5%.

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-02-005-01/02/03) Supplement E 9/98

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

342.6 mmBtu/hr is the total heat input rate to any operating boiler or combination of operating boilers pursuant to PSD permit issued February 12, 1982.

EU-15 **Two (2) Package Boilers rated at 220 MMBtu/hr each**

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	0.006002352	0.004501764	0.004501764	0.004501764	0.013505292

	HAPs - Metals (continued)				
	Mercury	Manganese	Nickel	Selenium	Total HAPs
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05	
Potential Emission in tons/yr	0.005	0.009	0.005	0.023	**0.074**

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Note: Most PSVs are not included as they are equipped with rupture disks and other safety devices and not likely to emit.

EU-17 **Fugitive Dust/Truck Traffic**

	Vehicle Miles/Yr	
Total Vehicle Miles Travelled Per Year	28528	Supplied by NEC

PM Emission Factor of 0.78 lbs/vehicle mile travelled SCC 3-03-0008-34

PM10 Emission Factor of 0.44 lbs/vehicle mile travelled SCC 3-03-008-34

Before Control	PM =	**11.1**	tons/year
Before Control	PM10 =	**6.28**	tons/year
Control Efficiency	**70%**		
After Control	PM =	**3.34**	tons/year
After Control	PM10 =	**1.88**	tons/year

Insignificant Natural Gas Combustion Activities

	Total Rating mmBtu/hr
4 Space Heater	0.55
12 Coal Thaw Burners	15.00
Total	**15.55**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
15.55	136.2

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.129	0.518	0.041	6.81	0.375	5.72

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-2, 1-01-006-02, 1-03-006-02, 1-03-006-03
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Insignificant Natural Gas Combustion Activities

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.00210	0.00120	0.07500	1.80000	0.00340
Potential Emission in tons/yr	0.000016	0.000009	0.000583	0.013995	0.000026

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	0.00110	0.00140	0.00038	0.00210	
Potential Emission in tons/yr	0.000004	0.000009	0.000011	0.000003	0.000016	**0.015**

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Diesel-Fired Emergency Generator Based 500 Hours of Operation - 1.80 mmBtu/hr - Insignificant Activity
Backup Diesel-Fired Emergency Fire Pump Based 500 Hours of Operation - 0.631 mmBtu/hr - Insignificant Activity
Heat Input Capacity
MMBtu/hr

2.431

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.31	0.31	0.29	4.41	0.4	0.95
Potential Emission in tons/yr	0.188	0.188	0.176	2.680	0.219	0.577

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

EU-18 **DDGS Cooler**

					Capture Efficiency	Control Efficiency
	PM Emission Factor		**PM-10 Emission Factor**		99.0%	99.9%
	pounds per ton		pounds per ton			
Throughput Capacity	3.00	AP-42 Table 9.9.1-1	0.75			
77,967	**Uncontrolled PM**		**Uncontrolled PM-10**			
pounds/hr	**Emissions**		**Emissions**			
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
	117.0	**512.2**	**29.2**	**128.1**		
	Controlled PM		**Controlled PM-10**			
	Emissions		**Emissions**			
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
	1.29	**5.63**	**0.321**	**1.41**		
	Limited PM		**Limited PM-10**			
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
	Less than 5.70	**Less than 25**	**Less than 3.42**	**Less than 15**		

VOC Emission Factor From F 135-23226-00033, issued 1/26/07	
pounds per ton	
0.133	
Uncontrolled VOC	
Emissions	
(lbs/hr)	(tons/yr)
5.18	22.7
Limited VOC	
(lbs/hr)	(tons/yr)
Less than 5.70	**Less than 25**

HAPs Emissions			
Emission Factor For			
Acetaldehyde	Acrolein	Formaldehyde	Methanol
pounds per ton	pounds per ton	pounds per ton	pounds per ton
0.00105	0.000455	0.000245	0.000245
Emissions	**Emissions**	**Emissions**	**Emissions**
(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
0.179	0.078	0.042	0.042
Total HAPs			
(tons/yr)			
0.341			

PM and PM-10 limits make the requirements of 326 IAC 2-2 not applicable to the 2003 modification
VOC limit makes the requirements of 326 IAC 8-1-6 not applicable to the 2003 modification and also makes the requirements of 326 IAC 2-2 not applicable to the 2003 modification

Methodology
Emissions before control (tons/yr) = Throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lbs/ton)/2,000 lbs/ton x 8,760 hrs/yr
Emissions after control (tons/yr) = Emissions before control * (1- (Control Efficiency * Capture Efficiency))

Significant	Summary of Uncontrolled Potential Emissions					
Emission	**PM**	**PM-10**	**SO2**	**NOx**	**VOC**	**CO**
Unit	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
EU-01	291.7	87.1	0.000	0.000	0.000	0.000
EU-02	37.4	20.8	0.000	0.000	0.000	0.000
EU-03	669.6	669.6	0.000	0.000	0.000	0.000
EU-04	0.000	0.000	0.000	0.000	34.3	0.000
EU-05	0.000	0.000	0.000	0.000	3065.4	0.000
EU-06	0.000	0.000	0.000	0.000	44.2	0.000
EU-07	0.000	0.000	0.000	0.000	7.67	0.000
EU-08	0.000	0.000	0.000	0.000	94.4	0.000
EU-09	0.000	0.000	0.000	0.000	162.3	0.000
EU-10	22.0	22.0	0.000	0.000	1015.4	0.000
EU-09 & 10 RTOs Nat Gas	0.133	0.533	0.042	7.01	0.385	5.89
EU-09 & 10 RTOs No. 2 Fuel Oil	1.00	1.65	35.5	10.0	0.170	2.50
EU-11	10.4	5.80	0.000	0.000	0.000	0.000
EU-12	20.8	5.74	0.000	0.000	0.000	0.000
EU-13	0.001	0.004	0.0004	0.059	1386.2	0.049
EU-14	5121.8	1178.0	1800.7	1050.4	3.46	28.8
EU-15 (Gas)	2.85	11.4	0.900	285.1	8.25	126.0
EU-15 (Oil)	21.4	35.4	761.0	257.2	2.1	53.6
EU-17	11.1	6.28	0.000	0.000	0.000	0.000
EU-18	512.2	128.1	0.000	0.000	22.7	0.000
Subtotal (Worst Case Fuel)	**6719.5**	**2160.4**	**2597.3**	**1345.6**	**5844.6**	**160.8**
Insig Act: Natural Gas	0.129	0.518	0.041	6.811	0.375	5.721
Oil -Fired Emerg Engs.	0.188	0.188	0.176	2.680	0.219	0.577
Other Insignificant Activities	7.00	3.50	0.000	0.000	2.00	0.000
Total	**6727**	**2165**	**2597**	**1355**	**5847**	**167**

Significant	Summary of Controlled Potential Emissions					
Emission	**PM**	**PM-10**	**SO2**	**NOx**	**VOC**	**CO**
Unit	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
EU-01	58.6	17.5	0.000	0.000	0.000	0.000
EU-02	0.411	0.229	0.000	0.000	0.000	0.000
EU-03	7.36	7.36	0.000	0.000	0.000	0.000
EU-04	0.000	0.000	0.000	0.000	0.251	0.000
EU-05	0.000	0.000	0.000	0.000	9.473	0.000
EU-06	0.000	0.000	0.000	0.000	0.442	0.000
EU-07	0.000	0.000	0.000	0.000	0.056	0.000
EU-08	0.000	0.000	0.000	0.000	2.02	0.000
EU-09	0.000	0.000	0.000	0.000	3.25	0.000
EU-10	0.550	0.550	0.000	0.000	20.3	0.000
EU-09 & 10 RTOs Gas	0.133	0.533	0.042	7.01	0.385	5.89
EU-09 & 10 RTOs No. 2 Fuel Oil	1.001	1.65	35.54	10.0	0.170	2.50
EU-11	10.4	5.80	0.000	0.000	0.000	0.000
EU-12	4.17	1.15	0.000	0.000	0.000	0.000
EU-13	0.001	0.004	0.0004	0.059	27.728	0.049
EU-14	9.68	2.23	1800.7	1050.4	3.46	28.8
EU-15 (Gas)	2.85	11.4	0.900	285.1	8.25	126.0
EU-15 (Oil)	21.4	35.4	761.0	257.2	2.14	53.6
EU-17	3.338	1.883	0.000	0.000	0.000	0.000
EU-18	5.63	1.41	0.000	0.000	22.7	0.000
Subtotal (Worst Case Fuel)	**122.6**	**75.1**	**2597.3**	**1345.6**	**98.3**	**167.6**
Insig Act: Natural Gas	0.129	0.518	0.041	6.81	0.375	5.72
Oil -Fired Emerg Engs.	0.188	0.188	0.176	2.68	0.219	0.577
Other Insignificant Activities	7.00	3.50	0.00	0.00	2.00	0.00
Total	**130**	**79.3**	**2597**	**1355**	**100.9**	**174**
				&	**12.905**	to BOC

Significant	Summary of Limited & Controlled Emissions					
Emission Unit	**PM**	**PM-10**	**SO2**	**NOx**	**VOC**	**CO**
Grouped by Year	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
Limited by PSD Permit (1982)						
EU-01 (1982)	Less than 70	17.5	Less than 1630	Less than 960	0.000	Less than 54
EU-02 (1982)		0.229			0.000	
EU-03 (1982)		7.36			0.000	
EU-04 (1982)		0.000			0.251	
EU-05 (1982)		0.000			9.47	
EU-08 (1982)		0.000			2.02	
EU-09 (1982)		0.000			3.25	
EU-10 (1982)		0.550			20.3	
EU-11 (1982)		5.80			0.000	
EU-12 (1982)		1.15			0.000	
EU-13 (1982)		0.004			27.728	
EU-14 (1982)		2.23			3.46	
EU-15 (Gas) (1982)		11.4			8.25	
EU-15 (Oil) (1982)		35.4			2.14	
EU-17 (1982)		1.88			0.000	
Subtotal 1982 EUs	**Less than 70**	**83.5**	**Less than 1630**	**Less than 960**	**76.9**	**Less than 54**
Other EUs						
EU-06 (1989)	0.000	0.000	0.000	0.000	0.442	0.000
EU-07 (1986)	0.000	0.000	0.000	0.000	0.056	0.000
RTOs Gas (2003)	0.133	0.533	0.042	7.01	0.385	5.89
RTOs No. 2 Fuel Oil (2007)	1.00	1.65	35.5	10.0	0.170	2.50
EU-18 (2000)	Less than 25	Less 15	0.00	0.00	Less than 25	0.00
Subtotal	**26.13**	**17.18**	**35.6**	**17.0**	**26.1**	**8.39**
Insig Act: Natural Gas	0.129	0.518	0.041	6.81	0.375	5.72
Oil -Fired Emerg Engs.	0.188	0.188	0.176	2.680	0.219	0.577
Other Insignificant Activities	7.000	3.500	0.000	0.000	2.000	0.000
Total	**103.5**	**104.9**	**1666**	**986.5**	**105.5**	**68.7**

Significant	Summary of Uncontrolled Potential HAPs Emissions						Vinyl				All Other	Total
Emission	**Methanol**	**Acetaldehyde**	**Benzene**	**Hexane**	**Acrolein**	**Acetate**	**Arsenic**	**Chromium**	**Lead**	**HAPs**	**HAPs**	
Unit	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	**(tons/yr)**	
EU-01	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-03	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-04	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-05	1.14	9.81	0.000	3.70	0.000	0.000	0.000	0.000	0.000	0.000	14.7	
EU-06	0.019	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.602	
EU-07	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-08	0.029	0.115	0.000	0.000	0.0132	0.009	0.000	0.000	0.000	0.000	0.167	
EU-09	0.173	0.612	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.785	
EU-10	24.9	16.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	41.3	
EU-09 & 10 RTOs Gas	0.000	0.000	0.00002	0.014	0.000	0.000	0.0000	0.00001	0.000004	0.00067	0.015	
EU-09 & 10 RTOs No. 2 Fuel Oil	0.000	0.000	0.00000	0.000	0.000	0.000	0.0003	0.00021	0.000631	0.00231	0.003	
EU-11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-13	0.277	0.277	3.466	69.312	0.000	0.000	0.000	0.000	0.000	7.860	81.2	
EU-14	0.000	0.033	0.075	0.00007	0.017	0.000	0.024	0.015	0.024	0.510	0.697	
EU-15 (Gas)	0.000	0.000	0.003	2.70	0.000	0.000	0.000	0.002	0.001	0.125	2.832	
EU-15 (Oil)	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.005	0.014	0.050	0.074	
EU-17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-18	0.042	0.179	0.000	0.000	0.078	0.000	0.000	0.000	0.000	0.042	0.341	
Subtotal (Worst Case Fuel)	**26.5**	**28.1**	**3.54**	**75.73**	**0.108**	**0.010**	**0.030**	**0.020**	**0.038**	**8.539**	142.6	
Insig Act: Natural Gas	0.000	0.000	0.000016	0.014	0.000	0.000	0.000	0.00001	0.000004	0.001	0.015	
Oil -Fired Emerg Engs.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Other Insignificant Activities										0.80	0.800	
Total	26.5	28.1	3.54	75.74	0.108	0.010	0.030	0.020	0.038	9.34	143.4	
									Total HAPs (tons/yr)		**143.4**	

Significant	Summary of Controlled Potential HAPs Emissions						Vinyl				All Other	Total
Emission	**Methanol**	**Acetaldehyde**	**Benzene**	**Hexane**	**Acrolein**	**Acetate**	**Arsenic**	**Chromium**	**Lead**	**HAPs**	**HAPs**	
Unit	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	**(tons/yr)**	
EU-01	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-03	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-04	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-05	0.008	0.072	0.000	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.107	
EU-06	0.0002	0.0058	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	
EU-07	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-08	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	
EU-09	0.003	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	
EU-10	0.497	0.329	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.8	
EU-09 & 10 RTOs Gas	0.000	0.000	0.00002	0.0144	0.000	0.000	0.0000	0.0000	0.0000	0.0007	0.015	
EU-09 & 10 RTOs No. 2 Fuel Oil	0.000	0.000	0.000	0.000	0.000	0.000	0.0003	0.0002	0.0006	0.0023	0.003	
EU-11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-13	0.006	0.006	0.069	1.386	0.000	0.000	0.000	0.000	0.000	0.157	1.624	
EU-14	0.000	0.033	0.075	0.004	0.017	0.000	0.024	0.0000	0.0000	0.371	0.524	
EU-15 (Gas)	0.000	0.000	0.003	2.701	0.000	0.000	0.000	0.002	0.001	0.125	2.832	
EU-15 (Oil)	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.005	0.014	0.050	0.074	
EU-17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
EU-18	0.042	0.179	0.000	0.000	0.078	0.000	0.000	0.000	0.000	0.042	0.341	
Subtotal (Worst Case Fuel)	**0.557**	**0.639**	**0.147**	**4.133**	**0.095**	**0.001**	**0.030**	**0.005**	**0.014**	**0.697**	6.3	
Insig Act: Natural Gas	0.000	0.000	0.00002	0.014	0.000	0.000	0.000	0.000	0.000	0.001	0.015	
Oil -Fired Emerg Engs.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Other Insignificant Activities										0.800	0.800	
Total	**0.557**	**0.639**	**0.147**	**4.147**	**0.095**	**0.001**	**0.030**	**0.005**	**0.014**	**1.498**	**7.1**	
									Total HAPs (tons/yr)		**7.1**	

Emission Unit/ Control Device	Stack(s)	Allowable Grain Loading per Dry Std. Cubic Foot of Outlet Air (g/dscf)	Gas or Air Flow Rate (acfm.)	Temperature (F)	Gas or Air Flow Rate (dcfm.)	Allowable Emission Rate (lbs/hr)	Non-Fugitive (stack) Emission Rate After Controls (lbs/hr)
EU-01/D-0001	DC-0001	0.030	37300.0	70.0	36703.2	9.44	0.053
EU-02/D-0001	DC-0002	0.030	5800.0	70.0	5707.2	1.47	0.008
EU-03/D-0112	DC-0112 &	0.030	23430.0	70.0	23055.1	5.93	0.151
	BV-0112						
EU-10/SF-511 - SF-515 for Each Scrubber Stack	BL-511 - BL-515	0.030	4187.0	70.0	4120.0	1.06	0.126
EU-10/2 RTOs	5002	0.030					0.126
EU-12/D-0601	DC-0601	0.030	6150.0	70.0	6051.6	1.56	0.004
EU-14/D-4000	001	0.010	150740.0	330.0	99511.3	8.53	2.21
EU-15	001	0.010	150740.0	330.0	99511.3	8.53	4.894
EU-18/DC-503	DC-0503	0.030	13580.0	200.0	10730.7	2.76	0.116

Appendix B

Best Available Control Technology (BACT) Determination

Source Background and Description

Source Name: **New Energy Corp.**
Source Location: **3201 West Calvert Street, South Bend, Indiana 46613**
County: **St. Joseph**
SIC Code: **2869**
Operation Permit No.: **T 141-6956-00033**
Permit Reviewer: **Frank P. Castelli**

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the alcohol load-out operation, identified as EU-13, installed in October 1982, at the fuel-grade ethanol production plant. Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for a facility constructed after January 1, 1980 that has potential VOC emissions of equal to or greater than twenty-five (25) tons per year and is not regulated by other rules in 326 IAC 8. Based on the calculations (see Appendix A) and the analysis of applicable state regulations (see State Rule Applicability section of TSD), the alcohol load-out operation, identified as EU-13, is subject to the requirements of 326 IAC 8-1-6:

IDEM, OAQ conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft US EPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below:

(a) Identify all potentially available control options;

(b) Eliminate technically infeasible control options;

(c) Rank remaining control technologies by control effectiveness;

(d) Evaluate the most effective controls and document the results as necessary; and

(e) Select BACT.

In accordance with EPA guidance, the BACT analysis should take into account the energy, environmental, and economic impacts. Emission reductions may be achieved through the application of available control techniques, changes in process design, and/or operational limitations.

A summary of the BACT review for the alcohol load-out operation, identified as EU-13, is provided and the determination is based on the following information:

(a) The EPA RACT/BACT/LAER (RBLC) Clearinghouse; and

(b) State and local air quality permits.

<u>Introduction</u>

New Energy Corp. ships denatured ethanol using either tank trucks or railcars. During loading, VOCs will be emitted as ethanol vapors and gases present in the tanks from previous cargos are displaced by liquid ethanol. The railcars are dedicated tanks, but the trucks may carry gasoline or be unclean before filling with ethanol. The potential VOC emissions from this activity were calculated using the methodology in AP-42, Section 5.2, Transportation and Loading of Petroleum Liquids (1/95) and are estimated to be greater than twenty-five (25) tons per year from the denatured ethanol loading operations (see calculations in Appendix A).

Since the alcohol load-out operation, identified as EU-13, was constructed after the January 1, 1980 applicability date and there are no other rules in 326 IAC 8 applicable to this unit, the Permittee is required to control the VOC emissions from the alcohol load-out operation with BACT.

Step 1 – Identify Control Options

(a) IDEM, OAQ identified and evaluated the following six (6) control technologies to control VOC emissions from the alcohol load-out operation at ethanol production plants:

(1) Carbon Adsorption

Carbon adsorption is a process by which VOC is retained on a granular carbon surface, which is highly porous and has a very large surface-to-volume ratio. Organic vapors retained on the adsorbent are thereafter desorbed and both the adsorbate and absorbent are recovered.

Carbon adsorption systems operate in two phases: adsorption and desorption. Adsorption is rapid and removes most of the VOCs in the stream. Eventually, the adsorbent becomes saturated with the vapors and the system's efficiency drops. The adsorbent must be regenerated or replaced soon after efficiency begins to decline. In regenerative systems, the adsorbent is reactivated with steam or hot air and the absorbate (solvent) is recovered for reuse or disposal. Non-regenerative systems require the removal of the adsorbent and replacement with fresh or previously regenerated carbon.

(2) Wet Scrubbers

A wet scrubber is an absorption system in which the waste stream is dissolved in a solvent by passing it through a medium containing the solvent. Water is the most commonly used solvent. Other solvents may be used depending on the components of the waste stream.

(3) Thermal Oxidation

An efficient thermal oxidizer design must provide adequate residence time for complete combustion, sufficiently high temperatures for VOC destruction, and adequate velocities to ensure proper mixing without quenching combustion. The type of burners and their arrangement affect combustion rates and residence time. The more thorough the contact between the flame and VOC, the shorter the time required for complete combustion. Natural gas is required to ignite the flue gas mixtures and maintain combustion temperatures. Typically, a heat exchanger upstream of the oxidizer uses the heat content of the oxidizer flue gas to preheat the incoming VOC-laden stream to improve the efficiency of the oxidizer.

Of all the VOC control technologies evaluated, thermal oxidization is least affected by waste stream characteristics. A properly designed thermal oxidizer can handle almost all solvent mixtures (except for fluorinated or chlorinated solvents) and concentrations, and therefore meet all regulatory standards. In addition to the energy penalty associated with thermal oxidization, NOx emissions will be generated from the combustion of natural gas used to fuel the oxidizer. A thermal oxidizer normally provides a VOC destruction efficiency of at least 98%.

(4) Catalytic Oxidation

In a catalytic oxidizer, a catalyst is used to lower the activation energy for oxidation. When a preheated gas stream is passed through a catalytic oxidizer, the catalyst bed initiates and promotes the oxidation of VOCs without being permanently altered itself. In catalytic oxidization, combustion occurs at significantly lower temperatures than that of direct flame units and can also achieve a destruction efficiency of 95%. However, steps must be taken to ensure complete combustion. The types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese, and nickel. These catalysts are deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic.

(5) Flare

Flares can be used to control almost any VOC stream and can handle fluctuations in VOC concentration, flow rate, heat content, and inert content. Flaring is appropriate for continuous, batch, and variable flow vent stream application. Some streams, such as those containing halogenated or sulfur-containing compounds, are usually not flared because they corrode the flare tip or cause formation of secondary pollutants (such as acid gases or sulfur dioxide). A flare normally provides a VOC destruction efficiency greater than 98%.

6. Refrigeration Condenser

Condensation is the process by which the temperature of the waste stream is lowered to below the boiling points of the waste constituents. A refrigeration condenser normally provides VOC control efficiency greater than 90%.

(b) The search for ethanol loading process in EPA's RACT/BACT/LAER Clearinghouse (RBLC) and Indiana Air Permits identified the following:

Plant	PBLD ID or Permit #	Date Issued and State	Facility	Control Technology and Permit Date	Stack Test Results and Dates
DRS Ventures, LLC	F 139-22981-00020	11/13/05 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 0.26 lbs/hr.	Under Construction.
Central Indiana Ethanol, LLC	SPR 053-22564-00062	07/20/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC < 0.92 lbs/hr.	Under Construction.
Premier Ethanol, LLC	F 075-22858-00032	9/18/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 0.92 lbs/hr.	Under Construction.
Putnam Ethanol, LLC	SPM 133-22480-00003	3/23/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 0.92 lbs/hr.	Under Construction.
The Andersons Clymers Ethanol, LLC	F 017-21536-00023	2/15/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 2.03 lbs/hr.	Under Construction.
ASA Linden, LLC	F 017-21453-00061	2/8/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 1.25 lbs/hr.	Under Construction.
Hartford Energy, LLC	F 009-21592-00024	1/31/06 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%. VOC emissions < 0.0224 lbs per 1000 gallons of denatured ethanol, and < 0.70 tpy. Submerged fill loading that uses normal service.	Under Construction.

Plant	PBLD ID or Permit #	Date Issued and State	Facility	Control Technology and Permit Date	Stack Test Results and Dates
Central Indiana Ethanol, LLC	F 053-21057-00062	08/04/05 (IN)	Ethanol Loading Rack	Flare with a control efficiency of 98%	Under Construction.
Motiva Enterprises, L.L.C.	CT-0149	10/22/03 (CT)	Fuel Loading Rack	Vapor recovery unit with carbon absorption unit	Not Available
United Wisconsin Grain Producers	WI-0204	8/14/03 (WI)	Ethanol Loading Rack	Flare with a control efficiency of 94%	Not Available
Archer Daniels Midland Co.	IL-0090	03/28/03 (IL)	Ethanol Loading Rack	Flare with a control efficiency of 95%	Not Available
Van Waters & Rogers	CA-0894	09/01/99 (CA)	Truck Loading Stations	Thermal oxidizer with a control efficiency of 95%	Not Available

Step 2 – Eliminate Technically Infeasible Control Options

After reviewing the above technologies, IDEM, OAQ eliminated carbon adsorption and wet scrubbers as not technically feasible for ethanol loadout process. The reasons for eliminating these technologies are as follows:

(a) Carbon Adsorption

Carbon adsorption is effective when there is sufficient VOC concentration and adequate van der Waals interactions. Because the primary VOC being emitted is ethanol, the van der Waals interactions would be minimal. Therefore, carbon adsorption is not typically used in this type of application. According to Calgon Carbon Industries, carbon adsorption is actually used in some applications to purify ethanol. This means that carbon adsorption is so ineffective at capturing ethanol that it is used to remove contaminants from ethanol. Therefore, carbon adsorption is considered technologically infeasible for controlling the VOC emissions from the ethanol loadout facility.

(b) Wet Scrubbers

Wet scrubbers are reasonably effective for controlling VOC emissions when the VOCs are easily absorbed in water. Several characteristics control the effectiveness of wet scrubbers for VOC removal. The one parameter that can be easily analyzed to determine if wet scrubbing is effective is the solubility of the pollutants in the absorbent (water). The constituents in gasoline include many different organic compounds. Some of these compounds have limited solubility in water and, therefore, potentially affect the control efficiency of the scrubber. A significant amount of VOC emissions emitted during loadout arises from the displacement of petroleum or gasoline vapors present in the tank from the previous cargo. While the emissions from the ethanol would be effectively controlled by a wet scrubber, the VOC emissions resulting from the displacement of gasoline or petroleum vapors would not be effectively controlled by a wet scrubber.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

A condenser, thermal oxidizer, and flare are the only technically feasible control options for the ethanol loadout. IDEM, OAQ reviewed industry data to determine the VOC control efficiency of each of the remaining control technologies. The results of this review are summarized in the following table:

Control Technology	VOC Control Efficiency
Flare	98%

Thermal Oxidizer	99%
Refrigeration Condenser	Greater than 90%

Step 4 – Evaluate the Most Effective Controls and Document Results

According to the analysis above, the most effective control is a thermal oxidizer with a control efficiency of 99%. IDEM is aware that other vendors have guaranteed control efficiencies of 99% to control similar processes for other proposed ethanol plants. However, BACT limitations do not necessarily need to reflect the highest possible control efficiency achievable by the technology on which the emission limitation is based. The permitting authority has discretion to base the emission limitation on a control efficiency that is somewhat lower than the optimal level.

Step 5 – Select BACT

New Energy Corp. proposed to use a load-out natural gas-fired flare, identified as G-602, rated at 0.100 million British thermal units per hour, with a destruction efficiency of 98% to control the VOC emissions from the truck and railcar ethanol load-out operation. Pursuant to 326 IAC 8-1-6, IDEM, OAQ has determined that the following requirements represent BACT for the alcohol load-out operation, identified as EU-13:

(a) The VOC emissions from the alcohol load-out operation, identified as EU-13, shall be collected and controlled by the load-out natural gas-fired flare, identified as G-602.

(b) The overall efficiency of the flare, identified as G-602 (including the capture efficiency and destruction efficiency) shall be at least 98%.

(c) The VOC emissions from the load-out natural gas-fired flare, identified as G-602, shall not exceed 6.32 pounds per hour.