INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: October 27, 2011

RE: Vertellus Agriculture & Nutrition Specialties, LLC / 097 - 30723 - 00315

FROM: Matthew Stuckey, 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 according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, **within eighteen (18) calendar days of the mailing of this notice**. 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.

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
FNPER.dot12/03/07

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October 27, 2011

Mr. James Gross
Vertellus Agriculture & Nutrition Specialties, LLC
1500 South Tibbs Avenue
Indianapolis, Indiana 46241

RE: 097-30723-00315
Significant Source Modification to
Part 70 Operating Permit Renewal No.: T097-7552-00315

Dear Mr. Gross:

Vertellus Agriculture & Nutrition Specialties, LLC was issued a Part 70 Operating Permit T097-7552-00315 on January 12, 2005 for the operation of a stationary industrial organic chemical plant. An application to modify the source was received by the Office of Air Quality (OAQ) on July 18, 2011. Pursuant to the provisions of 326 IAC 2-7-10.5, a significant source modification to this permit is hereby approved as described in the attached Technical Support Document.

Vertellus Agriculture & Nutrition Specialties, LLC has applied to install a new B-3 (Niacinamide) production line including a new reactor, three raw material storage tanks, a liquid separation unit, a spray dryer with a product sorter, and a product packaging line. The following is a list of the new emission unit(s) and pollution control device(s):

One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(1) One plug flow reactor, without a process vent
(2) One liquid/liquid separation unit, without a process vent
(3) One spray dry column
(4) One product classifier
(5) One storage silo
(6) One final product packaging line
(7) One vertical fixed roof 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(8) One vertical fixed roof process water storage tank, identified as MT-1700
(9) One vertical fixed roof caustic storage tank

The following construction conditions shall apply:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, call (800) 451-6027 and ask for David Matousek at extension 2-8253 or dial (317) 232-8253.

Sincerely,

Tripurari Sinha

Tripurari P. Sinha, Ph.D., Section Chief
Permits Branch
Office of Air Quality

Attachments
DJM/djm

cc: File - Marion County
U.S. EPA, Region V
Marion County Health Department
Compliance and Enforcement Branch

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Significant Source Modification to a PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

Vertellus Agriculture & Nutrition Specialties, LLC
1500 South Tibbs Avenue
Indianapolis, Indiana 46241

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

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

Significant Source Modification No.: 097-30723-00315	
Issued by: Tripurari Sinha Tripurari P. Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Issuance Date: October 27, 2011

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D.11.13 Broken or Failed Bag Detection

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.11.14 Record Keeping Requirements for 40 CFR 63, Subpart GGG [40 CFR 63.1259]
D.11.15 Record Keeping Requirements
D.11.16 Reporting Requirements [40 CFR 63.1260]

D.12 FACILITY OPERATION CONDITIONS
Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.12.1 Cold Cleaner Degreaser Operations and Control [326 IAC 8-3-2]

Certification
Emergency Occurrence Report
Quarterly Reports
Quarterly Deviation and Compliance Monitoring Report
Attachment A - 40 CFR 60, Subpart Dc

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 through A.3 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 stationary industrial organic chemical plant.

Source Address:	1500 South Tibbs Avenue, Indianapolis, Indiana 46241
General Source Phone Number:	(317) 247-8141
SIC Code:	2869 and 2899
County Location:	Marion County
Source Location Status:	Nonattainment for ozone under the 8-hour standard Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Nonattainment NSR Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 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) waste heat recovery boiler, identified as unit 11-112E, having a maximum heat input capacity of 14.4 MMBtu per hour. This boiler was constructed in 1953 and exhausts to stack S-29-001.

(b) One (1) boiler (identified as unit 28-186N) having a maximum heat input capacity of 36.8 MMBtu per hour and capable of being fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No.6, process emissions, and hazardous waste. This boiler was constructed in 1959 and exhausts to stack S-29-002.

(c) One (1) boiler (identified as unit 30-2726S) having a maximum heat input capacity of 39.3 MMBtu per hour and fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No.6, process emissions, and hazardous waste. This boiler was constructed in 1964 and exhausts to stack S-29-003.

(d) One (1) boiler (identified as unit 70-2722W) having a maximum heat input capacity of 91.8 MMBtu per hour and fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No. 6, process emissions, and hazardous waste. This boiler was constructed in 1969 and exhausts to stack S-29-004.

(e) One (1) landfill gas and natural gas-fired boiler (identified as unit CB600-300) having a maximum heat input capacity of 25.1 MMBtu per hour. The boiler also burns miscellaneous emissions from the wastewater treatment plant. This boiler was installed in 1990 and exhausts to stack S-29-005. [40 CFR 60, Subpart Dc]

(f) One (1) landfill gas and natural gas-fired boiler (identified as unit CN5-400) having a maximum heat input capacity of 61.1 MMBtu per hour. This boiler was constructed in 1995 and exhausts to stack S-29-006. [40 CFR 60, Subpart Dc]

(g) One (1) natural gas-fired boiler (identified as unit CB-70K) having a maximum heat input capacity of 91.1 MMBtu per hour. This boiler may also be fired using fuel oils No.1, No.2, No.4, No.5, and No.6, and process emissions. This boiler was installed in 1999 and exhausts to stack S-29-007. [40 CFR 60, Subpart Dc]

(h) Thirteen (13) process heaters, including:

(1) One (1) Born heater (identified as unit 722804) having a maximum heat input capacity of 6.7 MMBtu per hour and fired using natural gas and/or process emissions. This unit was installed in 1972.

(2) One (1) Born hot oil heater (identified as unit BX2707V) having a maximum heat input capacity of 16.0 MMBtu per hour and fired using natural gas and/or process emissions. This unit was installed in 1967 and exhausts to stack S-27-001.

(3) One (1) Born heater (identified as unit BXS2706Q) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas and/or process emissions. This unit was installed in 1962.

(4) One (1) Born heater (identified as unit BS2740Q) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process emissions. This unit was installed in 1963.

(5) One (1) Born heater (identified as unit BT2728S) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process emissions. This unit was installed in 1964.

(6) One (1) BM Furnace (identified as unit BM2724W) having a maximum heat input capacity of 21.38 MMBtu per hour and fired using natural gas, and fuel oil #5. This unit was installed in 1969 and exhausts to stack S-27-003.

(7) One (1) BD Furnace (identified as unit BD2714V) having a maximum heat input capacity of 15.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process gas. This unit was installed in 1968 and exhausts to stack S-27-002.

(8) One (1) Born heater (identified as unit EP2729Q) having a maximum heat input capacity of 3.0 MMBtu per hour and fired using natural gas and/or process gas. This unit was installed in 1963.

(9) One (1) Born Furnace (identified as unit 732714) having a maximum heat input capacity of 56.5 MMBtu per hour and fired using natural gas and/or process gas. This unit was installed in 1974 and exhausts to stack S-27-005.

(10) One (1) CS Kettle equipped with a 5 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(11) One (1) CS Still equipped with an 8.48 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(12) One (1) Born Hot Oil Furnace (Process Heater), identified as HW-925.001, constructed in 1997, with maximum heat input capacity of 9.8 MMBtu/hr, burning natural gas or process residue, exhausting to stack S-66-003, located in Plant 66.

(13) One (1) Born Hot Oil Furnace (Process Heater), identified as unit 2607T, constructed in 1965, with maximum heat input capacity of 3.6 MMBtu per hour and fired using natural gas only. The unit is located in Plant 38.

(i) Wastewater handling operations, including one (1) Wastewater Treatment Plant, constructed in 1979, having a nominal throughput capacity of 350 gallons of wastewater per minute. The Wastewater Treatment Plant treats wastewater from Plants 27, 38, 40, 41, 47, 48, and 66 wastewater. Plant sewers are pumped to wastewater storage tanks for processing. Depending on the contents of the wastewater, the wastewater may be pH adjusted, clarified, filtered, and/or steam stripped as needed prior to discharge to the POTW. The Wastewater Treatment Plant consists of one (1) large surge volume tank (identified as the North API), four (4) wastewater storage tanks (identified as tanks 15, 16, 17, and 18), one (1) neutralization tank, one (1) clarification/flocculation tank, one (1) plate and frame filter press, and one (1) steam stripper for press filtrate. The wastewater operations consist of two (2) Group 2 wastewater streams identified as 140 Bottoms (ammonia stripper bottoms) and 75 Flow (raffinate stripper bottoms).

(j) Plant 27 used to manufacture pyridine and picolines. The plant was initially constructed in 1961 and consists of reactors, a product recovery unit, distillation columns, and two (2) cooling towers. A catalyst regenerator (identified as unit BX27REG) is also located in this plant. The catalyst regenerator, constructed in 1990, has emissions of particulate matter that are controlled using an external cyclone (with same ID as the regenerator), which exhausts to stack S-27-006. A molecular sieves regenerator, constructed in 1990, with VOC emissions controlled by a scrubber, is also located at this plant.

(k) Plant 38 used to manufacture precursors to various grades of vitamin B-3.

(1) One (1) B-3 production unit, constructed in 1967, including the following emission units:

(A) Reactors;

(B) Separators;

(C) An evaporator with emissions controlled by a scrubber;

(D) One (1) packaging facility consisting of the following:

(i) one (1) mill (identified as 28-MB), with non-vented pneumatic conveying system,

(ii) One (1) pneumatic conveying system identified as Vacuum Receiver 28-VR (known as the hurricane blower) installed in 1997, with a maximum operating capacity of 6,750 pounds per hour. This unit exhausts at stack S-28-002.

(iii) One pick-up collector (known as central vac), installed in 1997, with a maximum operating capacity of 150 pounds per hour. This unit exhausts at stack S-28-003.

And controlled by the following two (2) baghouses:

(i) Micro Pul (known as the downstairs collector), installed in 1991, with a maximum operating capacity of 670 pounds per hour, exhausting at stack S-28-004, and

(ii) Penthouse collector (known as the MAC dust collector), installed in 2000, with a maximum operating capacity of 1,500 pounds per hour, exhausting at stack S-28-001.

(2) One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(A) One plug flow reactor, with a process weight rate of 11 tons per hour, without a process vent
(B) One liquid/liquid separation unit, without a process vent
(C) One spray dry column, with a process weight rate of 11 tons per hour
(D) One product classifier, with a process weight rate of 11 tons per hour
(E) One solid B-3 storage silo, with a process weight rate of 11 tons per hour
(F) One final product packaging line, with a process weight rate of 11 tons per hour
(G) One vertical fixed roof liquid 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(H) One vertical fixed roof process water storage tank, identified as MT-1700
(I) One vertical fixed roof liquid caustic storage tank

The packaging line is uncontrolled. The spray column, product classifier and storage silo are controlled by a single product recovery baghouse, exhausting indoors.

(l) Plant 41 used to manufacture pyridine and picoline derivatives and picolines. The plant was initially constructed in 1968. Plant 41 consists of the following facilities:

(1) Reactor;

(2) Separation facility with emissions controlled using one (1) 8.0 MMBtu per hour waste gas incinerator (identified as unit HN013), which exhausts to stack S-41-002;

(3) Distillation.

(m) Plant 48, used to manufacture a variety of specialty chemicals. The plant was initially constructed in 1972 and consists of reactors (with emissions controlled by Scrubber, identified as AS-14) and distillation facilities.

(n) Plant 40 is used to dehydrate 2-picolinic acid and 4-picolinic acid with caustic to produce vinyl pyridine. The plant was initially constructed in 1969. Plant 40 consists of the following process units: reactor, separation, distillation, and vent tank. Emissions are vented through six vents identified as follows:

(1) Column #3 Atmospheric Vent (S/V 40/001) used to vent emissions from the separation facilities;

(2) Receiver Atmospheric Vents (S/V 40-002A, 40-002B, and 40-002C) used to vent emissions from the distillation facilities;

(3) Still Atmospheric Vent (S/V 40-002C) used to vent emissions from the distillation facilities; and

(4) Vent tank (S/V 40-004) used to vent emissions from Columns 1, 2, and 4.

(o) Plant 47, used to manufacture a variety of specialty chemicals. The plant was initially constructed in 1979 and consists of the following facilities:

(1) Reactor, controlled by a scrubber

(2) Distillation

(3) Separation

(4) One (1) 0.4 MMBtu per hour waste gas flare (identified as unit HC47GFS), used to control emissions from Plant 47. This unit was installed in 1979 and exhausts to stack S-47-001.

(5) One (1) CS Kettle equipped with a 5 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(6) One (1) CS Still equipped with an 8.48 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(p) Plant 66, used to manufacture a variety of specialty chemicals. The plant, approved for construction in 2007, consists of the following facilities:

(1) One (1) Reactor (MT-465.002), with emissions that vent to the one (1) Hot Oil Furnace (identified as HW-925.001).

(2) Distillation, consisting of a three columns:
- (i) Topping Column (identified as AS-455.001) with emissions returning to the process.
- (ii) Crude Distillation Column (identified as AS-460.001) with emissions returning to the process.
- (iii) Final Distillation Column (identified as AS-465.001) with emissions returning to the process.

(3) Separation, consisting of:
- (i) one(1) Scrubber Seal Tank (MS-455.003) which exhausts to stack S-66-001.
- (ii) one (1) Decanter (identified as MS-455.004) and one (1) Hot Well (identified as MS-455.005), which exhaust after a process condenser to stack S-66-002.

(4) One (1) packaging facility consisting of the following:
- (i) One (1) Product Flaker (identified as GY-270.001), with emissions that vent to the hot oil furnace.
- (ii) Two (2) Product Packaging Baggers (identified as GP-470.002 and GP-470.003), with emissions that vent to the hot oil furnace.

(q) One (1) storage tank identified as 254, located at Plant 41, having a maximum storage capacity of 19,753 gallons and used to store benzene. This storage tank was constructed in 1990.

(r) The following storage tanks with storage capacities less than 10,000 gallons which may be used to store benzene, located at Plant 27:

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 27	212	6,169	1980
	233	7,638	1980

(s) The following storage tanks with storage capacities less than 10,000 gallons which may be used to store benzene, located at Plant 41:

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 41	211	6,169	1980
	213	6,169	1980, replaced in 2006
	236	6,169	1980

(t) Three (3) storage tanks (identified as T-200, T-201, and T-202) located at Plant 27, each with a storage capacity of 51,702 gallons, and used to store formaldehyde. These tanks were constructed in 1992.

A.3 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):

(a) Eleven (11) storage tanks subject to 40 CFR 60, Subpart Kb and 326 IAC 12:

Plant Location	Tank ID	Storage Capacity (gallons)	Constructed on or Before
Plant 27	118	26,227	1989
Plant 29	2969	85,308	1996
Plant 40	359	21,997	1991
	360	21,997	1991
	372	21,997	1994
	373	21,997	1994
Plant 41	235	31,773	1995
Plant 47	2652	12.442	1995
Wastewater Treatment Plant (Plant 49)	CL-101	90,243	1991
Plant 66	MT-100.001	39,716	1996
	MT-101.001	20,305	1996

(b) Twenty-seven (27) storage tanks subject to 326 IAC 12:

Plant Location	Tank ID	Storage Capacity (gallons)	Constructed on or Before
Plant 26	2647	10,575	1994
	2650	16,921	1995
	2651	16,921	1995
Plant 40	305	15,028	1989
	366	11,750	1989
	367	11,750	1989
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Constructed on or Before**
Plant 41	11	15,274	1989
	30	15,274	1989
	33	15,274	1997
	35	15,274	1991
Plant 41	37	15,274	1994
	225	19,858	1996
Plant 48	536	11,750	1989
	537	11,750	1997
	538	11,750	1997
Wastewater Treatment Plant (Plant 49)	4927	11,844	1991
	107	16,921	1991
	110	12,796	1991
	T-101	13,536	1991

(c) Four (4) pressurized storage tanks consisting of the following:

(1) Two (2) pressurized storage tanks (identified as T-260 and T-261), located at Plant 27 and used to store propionaldehyde, each with a maximum storage capacity of 42,600 gallons. These storage tanks were constructed prior to 1984.

(2) Two (2) pressurized storage tanks (identified as T-262 and T-263), located at Plant 27 and used to store acetaldehyde, each with a maximum storage capacity of 300,000 gallons. These storage tanks were constructed prior to 1984.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

(f) Cold cleaning operating with potential emissions of less than three (3) pounds per hour (lbs/hr) or fifteen (15) pounds per day (lbs/day) of VOC.

(g) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.

(h) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

(i) Combustion source flame safety purging on startup.

(j) 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.

(k) 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.

(l) Cleaners and solvents characterized as follows: (A) having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; B) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(m) Closed loop heating and cooling systems.

(n) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(o) Heat exchanger cleaning and repair.

(p) Paved and unpaved roads and parking lots with public access.

(q) Asbestos abatement projects regulated by 326 IAC 14-10.

(r) 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.

(s) 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.

(t) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(u) Stationary fire pumps.

(v) Purge double block and bleed valves.

(w) Filter or coalescer media changeout.

(x) A laboratory as defined in 326 IAC 2-7-1(20)(C).

(y) Insignificant storage tanks with VOC emissions less than 3 pounds per hour or 15 pounds per day; single HAP emissions less than 5 pounds per day or 1 ton per year; and combined HAP emissions less than 12.5 pounds per day or 2.5 tons per year, including:

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
Plant 26	2600	2,961	1974

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	2603	NA	1983
	26007	2,961	1974
	2601	2,961	1974
	2602	2,961	1974
	2604A	3,948	1983
	2605A	1,763	1980
	2606A	1,763	1980
	2607	1,316	1980
	2608	1,316	1980
	2609A	2,133	1980
	2610	2,133	1980
	26101A	2,133	1980
	26102C	2,133	1980
	26103A	2,133	1980
	26104A	2,133	1980
	2611A	2,133	1982
	2612A	2,133	1982
	2613	2,133	1978
	2614	2,133	1978
	2615	2,133	1980
	2616	2,133	1980
	2617	2,133	1980
	2618A	6,792	1980
	26199	846	1980
	2619A	564	1980
	2620A	2,538	1980
	2621A	2,538	1980
	2622A	2,538	1980
	2623A	6,792	1980
	2624	6,792	1980
	2625	6,792	1980
	26266A	2,138	1980
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Construction Date**
Plant 26	2626B	2,138	1980
	2628	3,305	1980
	26299	846	1980
	2630A	2,961	1974
	2631A	2,961	1974
	2632A	2,961	1974
	2633	2,961	1974
	2634A	2,961	1974
	2635A	2,961	1974
	2636	2,961	1974
	2637	6,792	1974
	2638	7,614	1974
	2639	7,614	1974
	2640	7,614	1974
	2641A	4,888	1980
	2642A	4,888	1980
	2643A	4,888	1980
	2644	7,614	1974
	2645A	10,188	1974
	2648	10,152	1995
	2646	3,760	1980
	2649	9,400	1995
	2693A	881	1980
	2694	1,269	NA
	2696	1,469	1980
	2697	1,469	1980
	2698A	1,469	1980
Plant 27	60	259,095	1980
	61	259,095	1980
	62	259,095	1980
	63	259,095	1980
	67	259,095	1980
	70	259,095	1980
	71	259,095	1980
	72	259,095	1980

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	73	259,095	1980
	101	51,702	1961
	102	51,702	1980
	103	51,702	1980
	105	102,369	1963
	106	132,192	1980
	107	132,192	1980
	108	132,192	1980
	109	132,192	1980
	110	132,192	1980
	112	51,702	1980
	113	51,702	1980
	116	51,702	1980
	117	51,702	1980
	200	51,702	1980
	201	51,702	1980
	202	51,702	1980
	203	51,702	1980
	204	51,702	1980
	205	51,702	1980
	206	51,702	1980
	207	51,702	1961
	208	19,858	1962
	209	19,858	1980
	210	19,858	1980
	234	7,638	1980
	240	19,858	1980
	241	19,858	1980
	242	19,858	1980
	243	19,858	1980
	244	19,858	1980
	250	19,858	1980
	251	19,858	1980
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Construction Date**
Plant 27	252	19,858	1980
	253	19,858	1980
	254	19,858	1980
	257	2,979	1980
	270	25,381	1980
	271	8,813	1980
	272	8,813	1980
	273	8,813	1980
	274	28,287	1980
	299	5,264	1980
	411	19,858	1980
	412	19,858	1980
	413	19,858	1980
	414	19,858	1980
	415	19,858	1980
	421	19,858	1980
	422	19,858	1980
	423	19,858	1980
	424	19,858	1980
	425	19,858	1980
	431	19,858	1980
	432	19,858	1980
	433	19,858	1980
	434	19,858	1980
	435	19,858	1980
	441	19,858	1980
	442	19,858	1980
	443	19,858	1980
	444	19,858	1980
	445	19,858	1980
	451	19,858	1980
	452	19,858	1980
	453	19,858	1980
	454	19,858	1980

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	455	19,858	1980
	457	4,888	1993
	458	4,888	1993
	528	13,154	1980
	529	13,154	1980
	600	6,169	1973
	601	20,728	1973
	602	20,728	1973
	603	20,728	1973
	604	20,728	1973
	605	20,728	1973
	606	20,728	1973
	607	29,940	1973
	608	29,940	1973
	609	50,668	1996
	610	27,637	1995
	611	29,940	1971
	612	29,940	1973
	620	29,940	1969
	621	29,940	1980
	622	29,940	1980
	630	29,940	1980
	631	29,940	1980
	632	29,940	1980
	640	98,703	1980
	641	98,703	1980
	650	30,063	1980
	651	30,063	1980
	699	5,264	1973
Plant 29	2938	44,945	1980
	2939	44,945	1980
	2964	259,095	1980
	2965	259,095	1980
	2966	259,095	1980
	2969	85,308	1996
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Construction Date**
Plant 38	501	5,200	1981
	502	5,200	1981
	506	5,200	1980
	507	5,200	1980
	508	5,200	1981
	509	5,200	1981
	516	5,200	1970
	517	5,200	1980
	518	5,200	1970
	519	5,200	1980
	521	11,750	1980
	522	11,750	1980
	523	11,750	1980
	524	20,305	1987
	525	20,305	1987
	526	11,750	1965
Plant 40	321	21,997	1980
	322	21,997	1980
	323	21,997	1980
	324	29,940	1980
	331	21,997	1980
	332	21,997	1980
	333	29,940	1980
	334	29,940	1980
	335	21,997	1997
	341	21,997	1980
	342	21,997	1980
	343	21,997	1980
	344	21,997	1980
	350	21,997	1980
	351	21,997	1980
	352	21,997	1980

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	353	21,997	1980
	354	11,750	1980
	355	11,750	1980
	356	11,750	1980
	357	11,750	1980
	358	11,750	1980
	361	11,750	1980
	363	11,750	1980
Plant 41	1	15,274	1980
	2	15,274	1980
	3	15,274	1980
	4	15,274	1980
	5	15,274	1980
	6	15,274	1980
	7	15,170	1980
	8	15,170	1980
	9	15,274	1980
	10	13,227	1980
	12	15,274	1980
	13	15,274	1980
	14	15,274	1980
	15	15,274	1980
	16	15,274	1980
	17	15,274	1980
	18	15,274	1980
	19	15,274	1980
	21	5,585	1980
	23	2,735	NA
	24	2,735	NA
	25	2,003	NA
	26	2,009	1980
	30	15,274	1989
	31	15,274	1980
	32	15,274	1980
	34	15,274	1980
	36	15,274	1980
	38	5,949	1980
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Construction Date**
Plant 41	40	16,351	1980
	43	6,169	1980
	44	6,169	1980
	45	6,169	1980
	46	6,169	1980
	47	6,169	1980
	48	6,169	1980
	56	9,988	NA
	57	8,065	1980
	214	6,169	1980
	215	19,858	1980
	216	19,858	1980
	217	19,858	1980
	218	19,858	1980
	219	19,858	1980
	220	19,858	1980
	221	19,858	1980
	222	19,858	1980
	223	19,858	1980
	224	19,858	1980
	225	19,858	1996
	226	19,858	1962
	227	19,858	1980
	228	19,858	1980
	229	19,858	1980
	230	19,858	1980
	232	20,851	1980
	298	1,269	1980
	299	5,264	NA
Plant 47	514	2,115	1980

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	700	10,152	1981
	701	10,152	1981
	702	10,152	1980
	710	4,402	1981
	711	4,402	1981
	712	7,638	1980
	714	7,826	1981
	716	11,844	1980
	717	10,152	1981
	718	10,152	1981
	719	10,152	1981
	720	10,152	1981
	721	10,152	1981
	722	10,152	1981
	726	10,152	1981
	727	10,152	1981
	728	10,152	1981
	750	3,455	1979
	751	3,455	1979
	752	3,455	1979
	753	3,455	1979
	754	3,455	1979
	755	3,455	1979
	756	3,455	1979
	757	3,455	1979
	758	3,455	1979
	759	3,455	1979
	760	3,455	1979
	761	3,455	1979
	762	3,455	1979
	763	3,455	1979
	764	3,455	1979
	766	6,363	1979
	770	6,363	1979
	771	6,363	1979
	772	8,531	1991
	774	10,152	1980
	775	21,151	1999
Plant Location	**Tank ID**	**Storage Capacity (gallons)**	**Construction Date**
Plant 47	776	21,151	1999
	777	10,152	1979
	778	10,152	1979
	779	10,152	1979
	790	13,513	Prior to 1984
	791	13,513	1980
	792	13,513	1980
	793	13,513	1980
	794	13,513	1973
	795	13,513	1980
	797	20,305	1998
	780	6,363	NA
	781	6,363	1991
	785	3,455	1979
	798	10,152	1997
	799	14,806	1980
Plant 48	401	14,394	NA
	405	5,182	1972
	406	5,182	1972
	530	11,750	1972
	531	11,750	1972
	532	11,750	1972
	535	11,750	1972
	540	6,463	1988
	541	6,463	1988
	542	6,463	1972
	543	6,463	1972
	545	6,463	1972
	546	6,463	1972

Plant Location	Tank ID	Storage Capacity (gallons)	Construction Date
	547	6,463	1972
	548	6,463	1988
	550	6,463	1972
	551	6,463	1972
	552	6,463	1972
	553	6,463	1972
	556	6,463	1980
	557	6,463	1980
	558	9,342	1980
	599	1,904	1980
WW Treatment Plant (Plant 49)	4915	82,911	1980
	4916	82,911	1980
	4917	476,595	1980
	4918	476,595	1980
	4919	19,858	1980
	4921	16,921	1980
Plant 66	MS-455.001	2,655	1996
	MS-455.002	2,655	1996
	MS-120.001	82	1996
	MS-455.003	503	1996
	MS-465.006	617	1996
	MS-925.001	2,655	1996
	MT-465.001	14,382	1996
	MT-465.002	14,382	1996

NA – No data available.

A.4 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 097-7552-00315, 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] [IC 13-17-12]

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) A "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 and Enforcement 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 or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement 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, 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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)]

(h) In addition to the nonapplicability determinations set forth in Sections D of this permit, the IDEM, OAQ has made the following determination regarding this source:

(1) The Niacinamide Packaging facility is not subject to the requirements of 326 IAC 8-5-3, synthesized pharmaceutical manufacturing operations, because no VOCs are used at this facility.

(2) (A) Plant 27, Plant 38 and Plant 41 are not subject to the requirements of 40 CFR 60, Subpart III – Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Process (326 IAC 12) because these plants

(i) Do not have an air oxidation unit; and
(ii) Do not produce as a product, co-product, by-product, or intermediate any of the chemicals listed in 40 CFR 60.617.

(B) Plants 40, 47, and 48 are not subject to the requirements of 40 CFR 60, Subpart III – Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes (326 IAC 12) because these plants do not produce as a product, co-product, by-product, or intermediate any of the chemicals listed in 40 CFR 60.617.

(3) Plants 27, 38, 40, 41, 47, and 48 are not subject to the requirements of 40 CFR 60, Subpart NNN – Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations (326 IAC 12), because these plants do not produce any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate.

(4) None of the storage tanks at this facility are subject to 40 CFR 60, Subpart K because the storage tanks either have capacities of less than 40,000 gallons or they are not used to store petroleum liquids as defined in 40 CFR 60.111(b) and 40 CFR 60.111a(b).

(5) None of the storage tanks at this facility are subject to the requirements of the New Source Performance Standards 40 CFR 60, Subpart Ka (326 IAC 12) because none of the storage tanks for which construction, reconstruction, or modification commenced after May 19, 1978, and prior to July 23, 1984 have capacities of equal to or greater than 40,000 gallons and are not used to store petroleum liquids as defined in 40 CFR 60.111(b) and 40 CFR 60.111(a)(b).

(6) The waste gas incinerator located at Plant 47 is not subject to the requirements of 40 CFR 60, Subpart E – Standards of Performance for Incinerators (326 IAC 12) because this incinerator does not burn solid waste. This incinerator doesn't meet the definition of an incinerator in 40 CFR 60.50.

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 097-7552-00315 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 and Enforcement Branch, 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 noncompliance 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]

(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]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 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 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.

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 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. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.6 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 260 linear feet on pipes or 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
Compliance and Enforcement Branch, 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 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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.7 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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 and Enforcement Branch, 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.8 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.9 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 or ninety (90) days of initial start-up, whichever is later. 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 and Enforcement 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.10 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.11 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.12 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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) 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.13 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.14 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; and/or

(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.15 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.16 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(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by July 1 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.17 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 or ninety (90) days of initial start-up, whichever is later.

(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.18 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 and Enforcement Branch, 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 or the date of initial start-up, whichever is later, 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 recordkeeping provisions of (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
Compliance and Enforcement Branch, 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.19 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

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

(a) One (1) waste heat recovery boiler, identified as unit 11-112E, having a maximum heat input of 14.4 MMBtu per hour. This boiler was constructed in 1953 and exhausts to stack S-29-001.

(b) One (1) boiler (identified as unit 28-186N) having a maximum heat input capacity of 36.8 MMBtu per hour and is capable of being fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No.6, process gas, and hazardous waste. This boiler was constructed in 1959 and exhausts to stack S-29-002.

(c) One (1) boiler (identified as unit 30-2726S) having a maximum heat input capacity of 39.3 MMBtu per hour and fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No. 6, process gas, and hazardous waste. This boiler was constructed in 1964 and exhausts to stack S-29-003.

(d) One (1) boiler (identified as unit 70-2722W) having a maximum heat input capacity of 91.8 MMBtu per hour and fired using natural gas, fuel oils No.1, No.2, No.4, No.5, and No. 6, process gas, and hazardous waste. This boiler was constructed in 1969 and exhausts to stack S-29-004.

(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.1.1 Particulate Matter Limitation (PM) [326 IAC 6.5-6-31]

(a) Pursuant to 326 IAC 6.5-6-31 (Particulate Emission Limitations. Marion County), the particulate matter emissions from boilers 28-186N, 30-2726S, and 70-2722W shall be limited as follows:

Boiler I.D.	PM Limitation	
	in Tons per year	in lbs per MMBtu
28-186N	12.2 Total Sum of the three	0.15
30-2726S		0.15
70-2722W		0.15

(b) Pursuant to 326 IAC 6.5-6-31(a), in addition to complying with limits of subsection (a), the permittee shall comply with the following:

(1) Processes 2607 T, 702611, 722804, 2713 W, and 2714 W at Reilly Industries, Inc., identified in subsection (a) as one hundred percent (100%) natural gas burners, shall burn only natural gas.

(2) Maintain monthly fuel usage records for processes 186 N, 2722 W, and 2726 S that contain sufficient information to estimate emissions including the following:

(A) Boiler identification.
(B) Fuel usage for each type of fuel.
(C) Heat content of fuel.
(D) Emission factor used to calculate emissions.

(3) Within thirty (30) days of the end of each calendar quarter, a written report shall be submitted to the department of the monthly emissions for each of the previous twelve (12) months for boilers 186 N, 2722 W, and 2726 S, including the information in subdivision (2).

(4) Compliance with the annual tons per year limitation shall be based on the sum of the monthly emissions for each twelve (12) month period.

(5) The fuel usage records shall be maintained at the source for three (3) years and available for an additional two (2) years. The records shall be made available to the IDEM, OAQ, or their designated representative upon request.

D.1.2 Sulfur Dioxide Emission Limitations (SO_2) [326 IAC 7-4-2]

Pursuant to 326 IAC 7-4-2 (Marion County Sulfur Dioxide Emission Limitations), emissions of sulfur dioxide from boilers 28-186N, 30-2726S, and 70-2722W shall not exceed the emission rates provided in the following table:

Boiler I.D.	SO2 Emission Limitations	
	lbs per MMBtu	lbs per hour
28-186N	1.25	46.0
30-2726S	1.25	49.1
70-2722W	1.25	114.75

Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.3 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.

Compliance Determination Requirements

D.1.4 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-4-2][326 IAC 7-2-1]

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions from boilers 28-186N, 30-2726S and 70-2722W do not exceed the limitations in Condition D.1.2 by:

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

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

(A) Fossil fuel oil or other liquid fuel samples may be collected from the fuel tank immediately after the fuel tank is filled and before any fossil fuel oil or other liquid fuel 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 the boilers, 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.

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

D.1.5 Visible Emissions Notations

(a) Visible emission notations of boilers 30-2726S and 70-2722W stack exhausts shall be performed once per day during normal daylight operations when burning fuel oil and hazardous waste. 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.

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

D.1.6 Record Keeping Requirements

(a) To document compliance with Condition D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below.

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

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

(3) To certify compliance when burning natural gas or process gas only or process 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.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain records of visible emission notations of boilers 30-2726S and 70-2722W stack exhausts once per day during normal daylight operations when burning fuel oil and hazardous waste or maintain a record of the reason why the visible emission notations were not taken.

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

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(e) One (1) landfill gas and natural gas-fired boiler (identified as unit CB600-300) having a maximum heat input capacity of 25.1 MMBtu per hour. The boiler also burns miscellaneous process gases from the wastewater treatment plant. This boiler was installed in 1990 and exhausts to stack S-29-005. [40 CFR 60, Subpart Dc]

(f) One (1) landfill gas and natural gas-fired boiler (identified as unit CN5-400) having a maximum heat input capacity of 61.1 MMBtu per hour. This boiler was constructed in 1995 and exhausts to stack S-29-006. [40 CFR 60, Subpart Dc]

(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 Limitation (PM) [326 IAC 6.5-1-2(b)]

(a) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate matter emissions from boiler CB600-300 shall be limited to 0.01 grains per dry standard cubic foot.

(b) Pursuant to 326 IAC 6.5-1-2(b)(3), the particulate matter emissions from boiler CN5-400 shall be limited to 0.01 grains per dry standard cubic foot.

D.2.2 Significant Source Modification Avoidance Limit [326 IAC 2-7-10.5(f)]

(a) In order to render the requirements of 326 IAC 2-7-10.5(f) not applicable to MSM 097-27202-00315, the total amount of landfill gas combusted in boilers CB600-300 and CN5-400 shall not exceed 1,000 MMCF per twelve consecutive month period with compliance determined at the end of each month.

(b) While combusting landfill gas, SO_2 emissions from boilers CB600-300 and CN5-400 shall be limited to 47.50 lb SO_2 / MMCF.

D.2.3 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 boiler CB600-300.

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

D.2.4 Record Keeping Requirements

(a) In order to document compliance with Condition D.2.2, the Permittee shall maintain monthly records of the total amount of landfill gas combusted in boilers CB600-300 and CN5-400. Records necessary to demonstrate compliance with Condition D.2.2 shall be available within thirty (30) days of the end of each compliance period.

(b) 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)]

(g) One (1) natural gas-fired boiler (identified as unit CB-70K) having a maximum heat input capacity of 91.1 MMBtu per hour. This boiler may also be fired using fuel oils No.1, No.2, No.4, No.5 and No.6, and process emissions. This boiler was installed in 1999 and exhausts to stack S-29-007.

(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 Particulate Matter Limitation (PM) [326 IAC 6.5-1-2(b)]

(a) Pursuant to 326 IAC 6.5-1-2(b)(3) (Particulate Emission Limitations), the particulate matter emissions from boiler CB-70K shall be limited to 0.01 grains per dry standard cubic foot of natural gas.

(b) Pursuant to 326 IAC 6.5-1-2(b)(2) (Nonattainment Area Limitations), the particulate matter emissions from boiler CB-70K shall be limited to 0.15 pounds per million Btu when burning fuel oil.

D.3.2 PSD Emission Limitations for Sulfur Dioxide and Nitrogen Oxides [326 IAC 2-2]

The amount of distillate oil and distillate oil equivalents burned in boiler CB-70K shall not exceed 1,124 kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month. The sulfur content of the fuel oil shall not exceed 0.5% by weight. For the purposes of determining compliance, burning 1 million cubic feet of natural gas is equivalent to burning 1.41 kgallon of distillate fuel.

Compliance with this condition ensures that both the SO_2 and NO_x emissions from the boiler do not exceed 39.9 tons per year and makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.3.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations), the SO_2 emissions from boiler CB-70K shall not exceed five tenths (0.5) pounds per million Btu heat input.

D.3.4 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.

Compliance Determination Requirements

D.3.5 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2-1]

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fossil fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:

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

(2) Analyzing the oil sample to determine the sulfur content of the fossil fuel 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; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the rotary dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either 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:

D.3.6 Visible Emissions Notations

(a) Visible emission notations of boiler CB-70K stack exhaust shall be performed once per day during normal daylight operations when burning fuel oil. 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.

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

D.3.7 Record Keeping Requirements

(a) To document compliance with Conditions D.3.1 and D.3.5, the Permittee shall maintain records in accordance with (1) through (6) below.

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

(2) Actual fossil 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 fossil 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.

(b) To document compliance with Condition D.3.2, the Permittee shall maintain records of the following:

(1) The amount and sulfur content of the distillate oil burned each month; and

(2) The amount of natural gas burned each month.

(c) To document compliance with Condition D.3.6, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust of boiler CB-70K. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

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

D.3.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the addresses 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 “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(h) Thirteen (13) process heaters, including:

(1) One (1) Born heater (identified as unit 722804) having a maximum heat input capacity of 6.7 MMBtu per hour and fired using natural gas and/or process gas.

(2) One (1) Born hot oil heater (identified as unit BX2707V) having a maximum heat input capacity of 16.0 MMBtu per hour and fired using natural gas and/or process gas. This unit was installed in 1967 and exhausts to stack S-27-001.

(3) One (1) Born heater (identified as unit BXS2706Q) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas and/or process gas.

(4) One (1) Born heater (identified as unit BS2740Q) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process gas.

(5) One (1) Born heater (identified as unit BT2728S) having a maximum heat input capacity of 6.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process gas.

(6) One (1) BM Furnace (identified as unit BM2724W) having a maximum heat input capacity of 21.38 MMBtu per hour and fired using natural gas, and fuel oil #5. This unit was installed in 1969 and exhausts to stack S-27-003.

(7) One (1) BD Furnace (identified as unit BD2714V) having a maximum heat input capacity of 15.0 MMBtu per hour and fired using natural gas, fuel oil #5, and/or process gas. This unit was installed in 1968 and exhausts to stack S-27-002.

(8) One (1) Born heater (identified as unit EP2729Q) having a maximum heat input capacity of 3.0 MMBtu per hour and fired using natural gas and/or process gas. This unit was installed in 1963.

(9) One (1) Born Furnace (identified as unit 732714) having a maximum heat input capacity of 56.5 MMBtu per hour and fired using natural gas and/or process gas. This unit was installed in 1974 and exhausts to stack S-27-005.

(10) One (1) CS Kettle equipped with a 5 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(11) One (1) CS Still equipped with an 8.48 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(12) One (1) Born Hot Oil Furnace (Process Heater), identified as HW-925.001, constructed in 1997, with maximum heat input capacity of 9.8 MMBtu/hr, burning natural gas or process residue, exhausting to stack S-66-003, located in Plant 66.

(13) One (1) Born Hot Oil Furnace (Process Heater), identified as unit 2607T, constructed in 1965, with maximum heat input capacity of 3.6 MMBtu per hour and fired using natural gas only. The unit is located in Plant 38.

(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 Particulate Matter Limitation (PM) [326 IAC 6.5-6-31]

(a) Pursuant to 326 IAC 6.5-6-31 (Particulate Emission Limitations. Marion County), the particulate matter emissions from the heaters shall be limited as follows:

Heater	PM Limitation	
	in Tons per year	in lbs per MMBtu
722804	Shall burn only natural gas	
BX2707V	0.4	0.011
BXS2706Q	0.1	0.011
BS2740Q	2.0	0.15
BT2728S	2.2	0.15
BM2724W	Shall burn only natural gas	
BD2714V	3.1	0.15
EP2729Q	0.1	0.011
732714	7.5	0.15
2607T	Shall burn only natural gas	

(b) Pursuant to 326 IAC 6.5-1-2(b)(2) (Nonattainment Area Particulate Emission Limitations for General Sources), the particulate matter emissions from heater, HW-925.001 with maximum heat input of 9.8 MMBtu/hr, located at Plant 66, shall be limited to no greater than fifteen hundredth (0.15) pounds per million Btu when burning process residue.

(c) Pursuant to 326 IAC 6.5-1-2(b)(3) (Nonattainment Area Particulate Emission Limitations for General Sources), the particulate matter emissions from heater, HW-925.001 with maximum heat input of 9.8 MMBtu/hr, located at Plant 66, shall be limited to no greater than one hundredth (0.01) grain per dry standard cubic foot (dscf) when burning natural gas.

(d) Pursuant to 326 IAC 6.5-1-2(b)(3) (Nonattainment Area Particulate Emission Limitations for General Sources), the particulate matter emissions from process heater 2607T with maximum heat input capacity of 3.6 MMBtu per hour, firing only natural gas and located at Plant 38, shall be limited to no greater than one hundredth (0.01) grain per dry standard cubic foot (dscf).

D.4.2 Sulfur Dioxide Emission Limitations (SO_2) [326 IAC 7-2]

(a) Pursuant to 326 IAC 7-4-2 (Marion County Sulfur Dioxide Emission Limitations), emissions of sulfur dioxide from the heaters shall not exceed the emission rates provided in the following table:

Heaters	SO_2 Emission Limitations	
	lbs per MMBtu	lbs per hour
722804	Less than 0.05	Less than 0.05
BX2707V	1.25	20.0
BXS2706Q	Less than 0.05	Less than 0.05
BS2740Q	1.25	7.5
BT2728S	1.25	7.5
BM2724W	1.25	26.3
BD2714V	1.25	18.8
EP2729Q	1.25	3.8
732714	1.25	45.0
HW-925.001	1.25	2.0

(b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.4.3 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 heaters 722804, BX2707V, BX2706Q, BS2740Q, BT2728S, BM2724W, BD2714V, EP2729Q, and 732714.

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

D.4.4 Visible Emissions Notations

(a) Visible emission notations of heaters BS2740Q, BT2728S, BM2724W, and BD2714V stack exhausts shall be performed once per day during normal daylight operations when burning fuel oil. Visible emission notations of heater HW-925.001 stack exhaust shall be performed once per day during normal daylight operations when burning process residue. 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.

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

D.4.5 Record Keeping Requirements

(a) To document compliance with Condition D.4.4, the Permittee shall maintain a daily record of visible emission notations of process heaters BS2740Q, BT2728S, BM2724W, BD2714V and HW-925.001 stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emissions notation (e.g. the process did not operate that day).

(b) 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)]

(i) Wastewater handling operations, including one (1) Wastewater Treatment Plant, constructed in 1979, having a nominal throughput capacity of 350 gallons of wastewater per minute. The Wastewater Treatment Plant treats wastewater from Plants 27, 38, 40, 41, 47, 48, and 66 wastewater. Plant sewers are pumped to wastewater storage tanks for processing. Depending on the contents of the wastewater, the wastewater may be pH adjusted, clarified, filtered, and/or steam stripped as needed prior to discharge to the POTW. The Wastewater Treatment Plant consists of one (1) large surge volume tank (identified as the North API), four (4) wastewater storage tanks (identified as tanks 15, 16, 17, and 18), one (1) neutralization tank, one (1) clarification/flocculation tank, one (1) plate and frame filter press, and one (1) steam stripper for press filtrate. The wastewater operations consist of two (2) Group 2 wastewater streams identified as 140 Bottoms (ammonia stripper bottoms) and 75 Flow (raffinate stripper bottoms).

(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 General Provisions Relating to NESHAPs [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 14] [40 CFR 61, Subpart A]

(a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the Wastewater Treatment Plant except when otherwise specified in 40 CFR 63, Subpart DD.

(b) The provisions of 40 CFR 61, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 14, apply to the waste collection and treatment system except when otherwise specified in 40 CFR 61, Subpart FF.

(c) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the miscellaneous organic chemical manufacturing affected source, as designated by 40 CFR 63.2440(b), except when otherwise specified in 40 CFR 63 Subpart FFFF. The Permittee must comply with these requirements on and after the effective date of 40 CFR 63 Subpart FFFF.

(d) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (d) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.5.1, National Emissions Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturers – Notification Requirements.

D.5.2 National Emissions Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing [40 CFR Part 63, Subpart FFFF]

(a) The affected source, the facility-wide collection of miscellaneous organic chemical manufacturing processing units (MCPU) and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in 40 CFR 63.2435(b)(1), is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous organic Chemical Manufacturing, (40 CFR 63, Subpart FFFF), effective the date the rule is published in the *Federal Register*. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart FFFF on and after the date that is three years after the effective date of the rule, or accept and meet an enforceable HAP emissions limit below the major source threshold prior to three years after the effective date of the rule. Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.

(b) The definitions of 40 CFR 63, Subpart FFFF at 40 CFR 63.2550 are incorporated by reference.

(c) Pursuant to 40 CFR 63.2515, the Permittee shall submit the notifications in 40 CFR 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 the affected source and chosen compliance method by the dates specified. These notifications include, but are not limited to, the following:

(1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) no later than 120 days after the effective date of 40 CFR 63, Subpart FFFF; and (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.2515(c). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to 40 CFR 63, Subpart FFFF, the Permittee shall submit the test plan required by 40 CFR 63.7(c) and the emission profile with the notification of the performance test.

(d) Pursuant to 40 CFR 63.2520(c), the Permittee shall submit a pre-compliance report to request approval for any of the items in 40 CFR 63.2520(c)(1) through (7) at least six (6) months prior to the compliance date.

(e) Pursuant to 40 CFR 63.2520(d), the Permittee shall submit a notification of compliance status report according to the schedule in paragraph (1), and the notification of compliance status report must contain the information specified in paragraph (2).

(1) The Permittee shall submit the notification of compliance status report no later than 150 days after the compliance date specified in 40 CFR 63.2445(b).

(2) The notification of compliance status report shall include the information in 40 CFR 63.2520(d)(2)(i) through (ix).

(f) The notifications required by paragraphs (a) through (c) 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

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

The notifications require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

D.5.3 General Standards for 40 CFR 63, Subpart DD [40 CFR 63.683][326 IAC 20-23]

(a) Pursuant to 40 CFR 63.683(b)(iii), the Permittee shall determine before placing off-site material in off-site material management units that the average volatile organic hazardous air pollutant (VOHAP) concentration of the off-site material is less than 500 parts per million by weight (ppmw) at the point-of-delivery. The Permittee shall review and update this determination at least once every calendar year. If any change in operation increases the average VOHAP concentration of the off-site waste to equal to or greater than 500 ppmw, the Permittee shall comply with all relevant requirements of 40 CFR 63, Subpart DD applicable to off-site material management units.

(b) Pursuant to 40 CFR 63.683(c)(ii), the Permittee shall determine before placing off-site material in the process equipment associated with the process vent that the average volatile organic hazardous air pollutant (VOHAP) concentration of the off-site material is less than 500 parts per million by weight (ppmw) at the point-of-delivery. The Permittee shall review and update this determination at least once every calendar year. If any change in operation increases the average VOHAP concentration of the off-site waste to equal to or greater than 500 ppmw, the Permittee shall comply with all relevant requirements of 40 CFR 63, Subpart DD applicable to process vents.

(c) The average VOHAP concentration of the off-site material shall be determined using:

(1) The direct measurement approach described in Condition D.5.7(a); or

(2) Knowledge of the off-site material as described in Condition D.5.7(b).

(d) Pursuant to 40 CFR 63.680(c)(3), the total HAP concentration in any pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems shall be less than 10 percent by weight. If any change in operation increase the total HAP concentration to equal to or greater than 10 percent by weight, the Permittee shall comply with the equipment leak requirements of 40 CFR 63, Subpart DD.

D.5.4 Standards Required by 40 CFR 61, Subpart FF [326 IAC 14] [40 CFR 61.342]

(a) Pursuant to 40 CFR 61.342(a), the total annual benzene quantity from the facility waste shall not exceed 11 tons per year. Compliance with this limit exempts the Permittee from the requirements of 40 CFR 61.342(b) and (c). The total annual benzene from facility waste is defined as the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream shall be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene.

(b) Pursuant to 40 CFR 61.342(g), compliance with this subpart will be determined by review of the Permittee's records and results from tests and inspections using methods and procedures specified in D.5.6.

D.5.5 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.5.6 Test Methods, Procedures and Compliance Provisions for 40 CFR 61, Subpart FF [326 IAC 14] [40 CFR 61.355]

(a) Pursuant to 40 CFR 61.355(a), the Permittee shall determine the total annual benzene quantity from facility waste by the following procedure:

(1) For each waste stream subject to 40 CFR Part 61, Subpart FF having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in Condition D.5.6(a), the Permittee shall:

(A) Determine the annual waste quantity for each waste stream using the procedures specified in Condition D.5.4(a).

(B) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in Condition D.5.4(a).

(C) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to Condition D.5.4(a).

(2) If the total annual benzene quantity from facility waste is equal to or greater than 11 ton/yr, then the Permittee shall comply with the requirements of §61.342 (c), (d), or (e).

(3) If the total annual benzene quantity from facility waste is less than 11 ton/yr but is equal to or greater than 1.1 ton/yr, then the Permittee shall:

(A) Comply with the recordkeeping requirements in Condition D.5.9 and reporting requirements in Condition D.5.10; and

(B) Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 11 ton/yr or more.

(4) If the total annual benzene quantity from facility waste is less than 1.1 ton/yr, then the Permittee shall:

(A) Comply with the recordkeeping requirements in Condition D.5.9 and reporting requirements in Condition D.5.10.

(B) Repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1.1 ton/yr or more.

(5) The benzene quantity in a waste stream that is generated less than one time per year, except as provided for process unit turnaround waste in Condition D.5.4(a), shall be included in the determination of total annual benzene quantity from facility waste for the year in which the waste is generated unless the waste stream is otherwise excluded from the determination of total annual benzene quantity from facility waste in accordance with Condition D.5.4(a). The benzene quantity in this waste stream shall not be annualized or averaged over the time interval between the activities that resulted in generation of the waste, for purposes of determining the total annual benzene quantity from facility waste.

(b) Pursuant to 40 CFR 61.355(b) and for purposes of the calculation required by Condition D.5.4(a), the Permittee shall determine the annual waste quantity at the point of waste generation, by one of the following methods:

(1) Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation;

(2) Use the maximum design capacity of the waste management unit; or

(3) Use measurements that are representative of maximum waste generation rates;

(4) The determination of annual waste quantity for each process unit turnaround waste generated only at 2 year or greater intervals, may be made by dividing the total quantity of waste generated during the most recent process unit turnaround by the time period (in the nearest tenth of a year) between the turnaround resulting in generation of the waste and the most recent preceding process turnaround for the unit. The resulting annual waste quantity shall be included in the calculation of the annual benzene quantity as provided in Condition D.5.4(a) of this section for the year in which the turnaround occurs and for each subsequent year until the unit undergoes the next process turnaround. For estimates of total annual benzene quantity as specified in the 90-day report, required under §61.357(a)(1), the Permittee shall estimate the waste quantity generated during the most recent turnaround, and the time period between turnarounds in accordance with good engineering practices. If the Permittee chooses not to annualize process unit turnaround waste, as specified in this paragraph, then the process unit turnaround waste quantity shall be included in the calculation of the annual benzene quantity for the year in which the turnaround occurs.

(c) Pursuant to 40 CFR 61.355(c) and for the purposes of the calculation required by Condition D.5.4(a), the Permittee shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in Condition D.5.4(a) using either of the methods given in Condition D.5.4(a):

(1) The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:

(A) The determination shall be made at the point of waste generation except for the process unit turnaround waste. The determination of flowweighted annual average benzene concentration for process unit turnaround waste shall be made using either of the methods given in Condition D.5.4(a). The resulting flow-weighted annual average benzene concentration shall be included in the calculation of annual benzene quantity as provided in Condition D.5.4(a) for the year in which the turnaround occurs and for each subsequent year until the unit undergoes the next process unit turnaround.

(B) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.

(C) Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination -- to reduce the benzene concentration.

(D) The determination shall be made prior to any treatment of the waste that removes benzene, except as specified for process unit turnaround waste in Condition D.5.4(a).

(E) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

(2) Knowledge of the waste. The Permittee shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the Permittee shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When the Permittee and IDEM, OAQ do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under Condition D.5.4(a) of this section shall be used to resolve the disagreement.

(3) Measurements of the benzene concentration in the waste stream in accordance with the following procedures:

(A) The Permittee shall collect a minimum of three representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere.

(B) For waste in enclosed pipes, the following procedures shall be used:

(i) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sampling.

(ii) A static mixer shall be installed in the process line or in a by-pass line unless the Permittee demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream.

(iii) The sampling tap shall be located within two pipe diameters of the static mixer outlet.

(iv) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste.

(v) After purging, the sample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere.

(vi) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10 ^{o}C (50 ^{o}F).

(vii) After filling, the sample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container.

(viii) The sample containers shall immediately be cooled and maintained at a temperature below 10 ^{o}C (50 ^{o}F) for transfer to the laboratory.

(C) When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling.

(D) Each waste sample shall be analyzed using one of the following test methods for determining the benzene concentration in a waste stream:

(i) Method 8020, Aromatic Volatile Organics, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in §61.18 of 40 CFR Part 61);

(ii) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in §61.18 of 40 CFR Part 61);

(iii) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in "Test Methods for Evaluating Solid Waste,

Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in §61.18 of 40 CFR Part 61);

(iv) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 (incorporation by reference as specified in §61.18 of 40 CFR Part 61);

(v) Method 602, Purgeable Aromatics, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewater for which this is an approved EPA methods; or

(vi) Method 624, Purgeables, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewater for which this is an approved EPA method.

(E) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses as follows:

$$C = \frac{1}{Qt} \times \sum_{i=1}^{n} (Qi)(Ci)$$

Where:
C = Flow-weighted annual average benzene concentration for waste stream, ppm
Qt = Total annual waste quantity for waste stream, kg/yr (lb/yr).
n = Number of waste samples (at least 3).
Qi = Annual waste quantity for waste stream represented by C_i, kg/yr (lb/yr).
Ci = Measured concentration of benzene in waste sample i, ppmw.

D.5.7 Testing Methods and Procedures for 40 CFR 63, Subpart DD [326 IAC 20-23] [40 CFR 63.694]

Pursuant to 40 CFR 63.694, the average VOHAP concentration of an off-site material at the point-of-delivery shall be determined using either direct measurement as specified in Condition D.5.7(a) or by knowledge as specified in Condition D.5.7(b).

(a) Direct measurement to determine VOHAP concentration:

(1) Sampling. Samples of the off-site material stream shall be collected from the container, pipeline, or other device used to deliver the off-site material stream to the plant site in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the source or process generating the off-site material stream. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Each collected sample must be prepared and analyzed in accordance with one of the following methods as applicable to the sampled off-site material for the purpose of measuring the HAP listed in Table 1 of 40 CFR 63, Subpart DD:

(A) Method 305 in 40 CFR part 63, appendix A.

(B) Method 25D in 40 CFR part 60, appendix A.

(C) Method 624 in 40 CFR part 136, appendix A. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(D) Method 625 in 40 CFR part 136, appendix A. For the purpose of using this method to comply with Subpart DD of 40 CFR 63, the owner or operator must perform corrections to these compounds based on the "accuracy as recovery" using the factors in Table 7 of the method. If this method is used to analyze one or more compounds that are not on the method's published list of approved compounds, the Alternative Test Procedure specified in 40 CFR 136.4 and 40 CFR 136.5 must be followed.

(E) Method 1624 in 40 CFR part 136, appendix A.

(F) Method 1625 in 40 CFR part 136, appendix A.

(G) Method 8260 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8260 approved by the EPA. For the purpose of using Method 8260 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with section 8 of Method 8260, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(i) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(ii) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(iii) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(H) Method 8270 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846, Third Edition, September 1986, as amended by Update I, November 15, 1992. As an alternative, an owner or operator may use any more recent, updated version of Method 8270 approved by the EPA. For the purpose of using Method 8270 to comply with this subpart, the owner or operator must maintain a formal quality assurance program consistent with Method 8270, and this program must include the following elements related to measuring the concentrations of volatile compounds:

(1) Documentation of site-specific procedures to minimize the loss of compounds due to volatilization, biodegradation, reaction, or sorption during the sample collection, storage, and preparation steps.

(2) Documentation of specific quality assurance procedures followed during sampling, sample preparation, sample introduction, and analysis.

(3) Measurement of the average accuracy and precision of the specific procedures, including field duplicates and field spiking of the off-site material source before or during sampling with compounds having similar chemical characteristics to the target analytes.

(I) Any other analysis method that has been validated in accordance with the procedures specified in section 5.1 and section 5.3 and the corresponding calculations in section 6.1 or section 6.3 of Method 301 in appendix A in 40 CFR part 63. The data are acceptable if they meet the criteria specified in section 6.1.5 or section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range of 0.7 to 1.30. Other sections of Method 301 are not required.

(3) Calculations. The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with Condition D.5.7(b)(2) and the equation in 40 CFR 63.694(b)(iii). If the Permittee uses a test method that provides species-specific chemical concentrations, then the Permittee may adjust the measured concentrations to the corresponding concentration values which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor listed in Table 1 of 40 CFR 63. 694.

(b) Knowledge of the off-site material to determine VOHAP concentration:

(1) Documentation shall be prepared that presents the information used as the basis for the Permittee’s knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on information in documents such as manifests, shipping papers, or waste certification notices.

(2) If test data are used as the basis for knowledge, then the Permittee shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, the Permittee may use HAP concentration test data for the off-site material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the off-site material.

(3) If species-specific chemical concentration test data are used as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (fm305) listed in Table 1 of 40 CFR 63, Subpart DD.

(4) In the event that IDEM, OAQ and the Permittee disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in Condition D.5.7(a) shall be used to establish compliance with the applicable requirements. The IDEM, OAQ may perform or request that the Permittee perform this determination using direct measurement.

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

D.5.8 Record keeping Requirements for 40 CFR 63, Subpart DD

To demonstrate compliance with Condition D.5.3, the Permittee shall maintain records of the initial and annual determinations of the average VOHAP concentration in off-site waste and the total HAP content. All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.9 Record keeping Requirements for 40 CFR 61, Subpart FF [325 IAC 14] [40 CFR 61.356]

Pursuant to 40 CFR 61.356(b), the Permittee shall maintain the following records:

(a) Records that identify each waste stream at the facility subject to 40 CFR 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart.

(b) For each waste stream not controlled for benzene emissions, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

(c) For each facility where the annual waste quantity for process unit turnaround waste is determined in accordance with Condition D.5.4(a), the records shall include all test results, measurements, calculations, and other documentation used to determine the following information: identification of each process unit at the facility that undergoes turnarounds, the date of the most recent turnaround for each process unit, identification of each process unit turnaround waste, the water content of each process unit turnaround waste, the annual waste quantity determined in accordance with Condition D.5.6(a), the range of benzene concentrations in the waste, the annual average flow-weighted benzene concentration of the waste, and the annual benzene quantity calculated in accordance with Condition D.5.4(a).

(d) All records shall be maintained in accordance with Section C – General Recordkeeping Requirements of this permit.

D.5.10 Reporting Requirements for 40 CFR 61, Subpart FF [326 IAC 14] [40 CFR 61.357]

Pursuant to 40 CFR 61.357(b) and (c), the Permittee shall submit the following information to IDEM, OAQ:

(a) If the total annual benzene quantity from facility waste is less than 1.1 ton/year (ton/yr), then the Permittee shall submit to IDEM, OAQ a report that updates the information in the initial report (required by 40 CFR 61.357(a)) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1.1 ton/yr or more.

(b) If the total annual benzene quantity from facility waste is less than 11 ton/yr but is equal to or greater than 1.1 ton/yr, then the Permittee shall submit to IDEM, OAQ a report that updates the information in the initial report (required be 40 CFR 61.357(a)). The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 11 ton/yr or more. If the information from that submitted in the previous annual report is not changed in the following year, the Permittee may submit a statement to that effect.

SECTION D.6 FACILITY OPERATION CONDITIONS

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

(e) and (f) Thirty-six (36) storage tanks subject to 326 IAC 12:

Plant Location	Tank ID	Storage Capacity (gallons)	Constructed On or Before
Plant 26	2647	10,575	1994
	2650	16,921	1995
	2651	16,921	1995
Plant 27	118	26,227	1989
Plant 29	2969	85,308	1996
Plant 40	305	15,028	1989
	359	21,997	1991
	360	21,997	1991
	366	11,750	1989
	367	11,750	1989
	372	21,997	1994
	373	21,997	1994
Plant 41	11	15,274	1989
	30	15,274	1989
	33	15,274	1997
	35	15,274	1991
	37	15,274	1994
	225	19,858	1996
	235	31,773	1995
Plant 47	2652	12,442	1995
Plant 48	536	11,750	1989
	537	11,750	1997
	538	11,750	1997
Wastewater Treatment Plant (Plant 49)	4927	11,844	1991
	107	16,921	1991
	110	12,796	1991
	CL-101	90,243	1991
	T-101	13,536	1991
Plant 66	MS-120.001	82	1996
	MS-455.001	2,655	1996
	MS-455.002	2,655	1996
	MS-455.003	503	1996
	MS-455.006	617	1996
	MS-925.001	2,655	1996
	MT-465.001	14,382	1996
	MT-465.002	14,382	1996

(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 General Provision Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Kb.

D.6.2 Standards Required by 40 CFR 60, Subpart Kb [326 IAC 12-1] [40 CFR 60, Subpart 60.112b]

Pursuant to 40 CFR 60.112b(a)(3), storage tank 2969 shall be equipped with a closed vent system and control device meeting the following specifications:

(a) 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).

(b) 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.

D.6.3 Compliance Requirements for 40 CFR 60, Subpart Kb [326 IAC 12-1] [40 CFR 60, Subpart 60.116b]

(a) Pursuant to 40 CFR 60.116b(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:

(A) 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 in 40 CFR 60.17), unless the IDEM, OAQ specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(B) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia (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 0.5 psia (3.5 kPa).

(3) For other liquids, the vapor pressure:

(A) May be obtained from standard reference texts, or

(B) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference in 40 CFR 60.17); or

(C) Measured by an appropriate method approved by the IDEM, OAQ; or

(D) Calculated by an appropriate method approved by the IDEM, OAQ.

(b) Pursuant to 40 CFR 60.116b(f), the Permittee 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 Condition D.6.3(a).

(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 Condition D.6.2, 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:

(A) ASTM D2879-83, 96, or 97 (incorporated by reference in 40 CFR 60.17); or

(B) ASTM D323-82 or 94 (incorporated by reference 40 CFR 60.17); or

(C) As measured by an appropriate method as approved by the IDEM, OAQ.

Compliance Determination Requirements

D.6.4 Testing and Procedures Required by 40 CFR 60, Subpart Kb [326 IAC 12-1] [40 CFR 60, Subpart 60.113b]

Pursuant to 40 CFR 60.113b(d), the Permittee shall comply with the following requirements for storage tank 2969:

The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2), shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

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

D.6.5 Reporting and Record Keeping Required by 40 CFR 60, Subpart Kb [326 IAC 12-1] [40 CFR 60, Subpart 60.115b and 60.116b]

(a) Pursuant to 40 CFR 60.115b(d), the Permittee shall maintain copies of the following records and reports for storage tank 2969:

(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.

(b) Pursuant to 40 CFR 60.116b(b), the Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for all storage tanks listed in this section. These records shall be kept for the life of the storage tank.

(c) Pursuant to 40 CFR 60.116b(c), the Permittee shall maintain records of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period for the following storage tanks:

(1) Storage tank CL-101, which have a design capacity greater than 39,890 gallons (151 m^3) storing a liquid with a maximum true vapor pressure greater than or equal to 0.5 psia (3.5 kPa); and

(2) Storage tanks 118, 359, 360, 372, 373, 225, 235, and 797, which have a design capacity greater than or equal to 19,813 gallons (75 m^3) but less than 39,890 gallons (151 m^3) storing a liquid with a maximum true vapor pressure greater than or equal to 2.18 psia (15.0 kPa).

(d) Pursuant to 40 CFR 60.116b(d), for each storage vessel either with a design capacity greater than or equal to 39,890 gallons (151 m^3) storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia (5.2 kPa) or with a design capacity greater than or equal to 19,813 gallons (75 m^3) but less than 39,890 gallons (151 m^3) storing a liquid with a maximum true vapor pressure that is normally less than 4.0 psia (27.6 kPa) shall notify the IDEM, OAQ within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. The following storage tanks are subject to this requirement CL-101, 118, 359, 360, 372, 373, 225, 235, 797, and MT-100.001 & MT-101.001 as applicable.

SECTION D.7 FACILITY OPERATION CONDITIONS

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

(q) One (1) storage tank (identified as tank 254), which has a maximum storage capacity of 19,753 gallons and is used to store benzene. This storage tank was constructed in 1990 and is located at Plant 27.

(r) The following storage tanks with storage capacities less than 10,000 gallons, which may be used to store benzene:

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 41	212	6,169	1980
	233	7,638	1980

(r) The following storage tanks with storage capacities less than 10,000 gallons which may be used to store benzene, located at Plant 41

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 41	211	6,169	1980
	213	6,169	1980, replaced in2006
	236	6,169	1980

(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 General Provisions Relating to NESHAP [326 IAC 14-1][40 CFR Part 61, Subpart A]

The provisions of 40 CFR 61, Subpart A - General Provisions, which are incorporated by reference in 326 14-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 61, Subpart Y – National Emission Standard for Benzene Storage Vessels.

D.7.2 Emission Standard for 40 CFR 61, Subpart Y [326 IAC 14][40 CFR 63, Subpart G] [326 IAC 20-12]

Pursuant to 40 CFR 61.271(b), storage vessels 254 and 236 shall be equipped with a fixed roof and an internal floating roof.

(a) An internal floating roof means a cover that rests on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a permanently affixed 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.

(b) The internal floating roof shall be equipped with 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) 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.

(d) Each opening in a non-contact 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.

(e) Each internal floating roof shall meet the specifications listed below.

(1) 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. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted.

(2) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(3) Each automatic bleeder vent shall be gasketed.

(4) Rim space vents shall be equipped with a gasket.

(5) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(6) 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.

(7) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when a device is in actual use. Covers on each access hatch and each automatic gauge float well which are equipped with bolts shall be bolted when they are not in use. Rim space vents are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

D.7.3 Compliance Provisions for 40 CFR 61, Subpart Y [326 IAC 14][40 CFR 63, Subpart G] [326 IAC 20-12]

Pursuant to 40 CFR 61.272, the Permittee shall comply with the following requirements for storage vessels 254 and 236:

(a) Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with benzene. 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, the Permittee shall repair the items before filling the storage vessel.

(b) Visually inspect the internal floating roof and the primary seal or the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months, except as provided in Condition D.7.3(d)(1). If the internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee 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, an extension of up to 30 additional days may be requested from the IDEM, OAQ in the inspection report required in Condition D.7.6(a). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(c) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. 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 inspections as specified in Condition D.7.3(b) and at intervals greater than 5 years in the case of vessels specified in Condition D.7.3(d)(1).

(1) For all the inspections required by Conditions D.7.3(a) and D.7.3(c), the Permittee shall notify the IDEM, OAQ in writing at least 30 days prior to the refilling of each storage vessel to afford IDEM, OAQ the opportunity to have an observer present. If the inspection required by Condition D.7.3(c) is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the vessel, the Permittee shall notify the IDEM, OAQ 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, the notification including the written documentation may be made in writing and sent by express mail so that it is received by the IDEM, OAQ at least 7 days prior to refilling.

(2) 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 Permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with benzene.

(d) For vessels equipped with a double-seal system as specified in Condition D.7.3(c):

(1) Visually inspect the vessel as specified in Condition D.7.3(c) at least every 5 years; or

(2) Visually inspect the vessel annually as specified in Condition D.7.3(b), and at least every 10 years as specified in Condition D.7.3(c).

D.7.4 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 units 254 and 236.

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

D.7.5 Record keeping Requirements [40 CFR 61, Subpart Y] [326 IAC 14][40 CFR 63, Subpart G] [326 IAC 20-12]

Pursuant to 40 CFR 61.276(b), the Permittee shall keep readily accessible records showing the dimensions of each storage vessels and an analysis showing the capacity of each storage vessel for all storage vessels listed in this section. These records shall be kept as long as the storage vessel is in operation. Storage vessels listed in this section which have a design capacity of less than 38 cubic meters (10,000 gallons) are subject to no provisions of 40 CFR 61, Subpart Y other than the requirements specified in this condition.

D.7.6 Reporting Requirements [40 CFR 61, Subpart Y] [326 IAC 14][40 CFR 63, Subpart G][326 IAC 20-12]

Pursuant to 40 CFR 61.275(a), the Permittee shall comply with the following reporting requirements for storage tanks 254 and 236:

(a) The Permittee shall submit a report describing the results of each inspection conducted in accordance with Condition D.7.3. For vessels for which annual inspections are required under Condition D.7.3(b), the report shall be submitted no more than 12 months after the last report was submitted, and each report is to be submitted within 60 days of each annual inspection.

(1) Each report shall include the date of the inspection of the storage vessel and state whether the following conditions exist:

(A) The internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached from the internal floating roof, or there are holes, tears or other openings in the seal or seal fabric; or

(B) There are visible gaps between the seal and the wall of the storage vessel.

(2) Where an annual report identifies any condition in Condition D.7.6(a)(1) the annual report shall describe the nature of the defect, the date the storage vessel was emptied, and the nature of an date the repair was made, except as provided in Condition D.7.6(a)(3).

(3) If an extension is requested in an annual periodic report in accordance with Condition D.7.3(b), a supplemental periodic report shall be submitted within 15 days of repair. The supplemental periodic report shall identify the vessel and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(b) The Permittee shall submit a report describing the results of each inspection conducted in accordance with Condition D.7.3(c) and (d).

(1) The report is to be submitted within 60 days of conducting each inspection required by Condition D.7.3(c) and (d).

(2) Each report shall identify each storage vessel in which the owner or operator finds that 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 report shall also describe the nature of the defect, the date the storage vessel was emptied, and the nature of and date the repair was made.

SECTION D.8 FACILITY OPERATION CONDITIONS

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

(j) Plant 27 used to manufacture pyridine and picolines. The plant was initially constructed in 1961 and consists of reactors, a product recovery unit, distillation columns, a drying facility, and two (2) cooling towers. A catalyst regenerator (identified as unit BX27REG), constructed in 1990, is also located in this plant. The catalyst regenerator has emissions of particulate matter that are controlled using an external cyclone (with same ID as the regenerator), which exhausts to stack S-27-006. A molecular sieves regenerator, constructed in 1990, with VOC emissions controlled by a scrubber, is also located at this plant.

(r) The following storage tanks with storage capacities less than 10,000 gallons which may be used to store benzene, located at Plant 27:

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 27	212	6,169	1980
	233	7,638	1980

(t) Three (3) storage tanks (identified as T-200, T-201, and T-202) located at Plant 27, each with a storage capacity of 51,702 gallons, and used to store formaldehyde. These tanks were constructed in 1992.

(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 General Provision Relating to NESHAP [326 IAC 20-1] [40 CFR 63, Subpart A]

(a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subparts F, G, and H.

(b) The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected source, except when otherwise specified by Table 12 to 40 CFR Part 63, Subpart EEEE. The Permittee must comply with these requirements on and after February 3, 2004.

(c) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.

D.8.2 National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline - Emission Limitations [40 CFR Part 63, Subpart EEEE]

(a) The provisions of 40 CFR Part 63, Subpart EEEE (National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline) apply to the affected source, Plant 27.

(b) Pursuant to 40 CFR 63.2342(b)(1), the Permittee must comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in paragraph (b)(2) of 40 CFR 63.2342.

(c) The Permittee must submit the following notifications according to the schedule in Table 12 to 40 CFR Part 63, Subpart EEEE and as specified in paragraphs (b) through (d) of 40 CFR 63.2382.

(1) Initial Notification. The Permittee must submit the Initial Notification no later than June 2, 2004.

(2) The Permittee must submit the Notification of Intent to conduct a performance test at least 60 calendar days before it is initially scheduled to begin as required in 40 CFR 63.7(b)(1).

(3) Notification of Compliance Status. If the Permittee are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to 40 CFR Part 63, Subpart EEEE, the Permittee must submit a Notification of Compliance Status. The Notification of Compliance Status must include the information required in 40 CFR Part 63, Section 63.999(b) and in paragraphs (d)(2)(i) through (viii) of 40 CFR 63.2382.

(d) Terminology used in this section are defined in the CAA, in 40 CFR Part 63, Section 63.2, and in 40 CFR 63.2406, and are applicable to the affected source.

D.8.3 General Standards [40 CFR 63, Subpart G][326 IAC 20-16-1]

Pursuant to 40 CFR 63.102(a), the Permittee of sources subject to 40 CFR Part 63, Subpart F shall comply with the requirements of 40 CFR Part 63, Subparts G and H.

(a) The provisions set forth in 40 CFR Part 63, Subpart F and Subpart G shall apply at all times except during periods of start-up or shutdown (as defined in 40 CFR 63.101), malfunction, or non-operation of the chemical manufacturing process unit (or specific portion thereof) resulting in cessation of the emissions to which 40 CFR Part 63, Subpart F and Subpart G apply. However, if a start-up, shutdown, malfunction or period of nonoperation of one portion of a chemical manufacturing process unit does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of 40 CFR Part 63, Subpart F and Subpart G during the start-up, shutdown, malfunction or period of non-operation.

(b) The provisions set forth in 40 CFR Part 63, Subpart H shall apply at all times except during periods of start-up or shutdown, as defined in 40 CFR 63.101(b), malfunction, process unit shutdown (as defined in 40 CFR 63.161), or non-operation of the chemical manufacturing process unit (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which 40 CFR Part 63, Subpart H applies.

(c) The Permittee shall not shut down items of equipment that are required or utilized for compliance with the provisions of 40 CFR Part 63, Subpart F, Subpart G or H during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene requirements of 40 CFR Part 63, Subpart F, Subpart G or H applicable to such items of equipment. This condition does not apply if the item of equipment is malfunctioning, or if the Permittee must shut down the equipment to avoid damage due to a contemporaneous start-up, shutdown, or malfunction of the chemical manufacturing process unit or portion thereof.

(d) During start-ups, shutdowns, and malfunctions when the requirements of 40 CFR Part 63, Subpart F, Subparts G and/or H do not apply pursuant to Conditions D.8.3 (a) through (c), the Permittee shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. The term “excess emissions” means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the Permittee complied with the relevant provisions of 40 CFR Part 63, Subpart F, Subparts G and/or H. The measures to be taken shall be identified in the applicable start-up, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the source. Back-up control devices are not required, but may be used if available.

D.8.4 Process Vent Provisions [40 CFR 63, Subpart G][326 IAC 20-16-1]

(a) Pursuant to 40 CFR 63.113(a), Group 1 process vents (identified as the Box Plant Vent Tank and the DAB Plant Vent Tank) shall comply with the following requirements:

(1) Emissions of total organic hazardous air pollutants shall not exceed a concentration of 20 parts per million by volume using process heaters identified as the Box Plant furnace and DAB Plant Furnace, which are both rated at less than 44 megawatts.

(2) The 20-ppm concentration shall be calculated on a dry basis, and corrected to 3- percent oxygen.

(3) Compliance shall be determined by measuring either organic hazardous air pollutants or total organic carbon using the procedures in 40 CFR 116.

(b) Pursuant to 40 CFR 63.113(b), the vent stream shall be introduced into the flame zone of the Box Plant furnace and DAB Plant Furnace.

(c) Pursuant to 40 CFR 63.113(e), the Group 2 process vent (identified as the Continuous Stills Vent) shall comply with the following provisions:

(1) TRE index value shall be maintained at a value greater than 4.0; and

(2) The TRE index value shall be calculated using the method in 40 CFR 63.115.

D.8.5 Requirements for Heat Exchange Systems [326 IAC 20] [40 CFR 63, Subpart F]

(a) Pursuant to 40 CFR 63.104, except when one or more of the conditions specified in 40 CFR 63.104(a)(1) through (a)(6) are met, the Permittee shall monitor each heat exchange system subject to 40 CFR 63.104 according to the provisions in either Condition D.8.5 (b) or (c). Whenever a leak is detected, the Permittee shall comply with the requirements in Condition D.8.5(d).

(b) If the Permittee elects to comply with the requirements of Condition D.8.5(a) by monitoring the cooling water for the presence of one or more organic hazardous air pollutants or other representative substances whose presence in cooling water indicates a leak, then the Permittee shall comply with the requirements of 40 CFR 63.104(b)(1) through (b)(6). The cooling water shall be monitored for total hazardous air pollutants, total volatile organic compounds, total organic carbon, one or more speciated HAP compounds, or other representative substances that would indicate the presence of a leak in the heat exchange system.

(c) If the Permittee elects to comply with the requirement of Condition D.8.5(a) monitoring using a surrogate indicator of heat exchange system leaks , the Permittee shall comply with the requirements specified in 40 CFR 63.104(c)(1) through (c)(3). Surrogate indicators that could be used to develop an acceptable monitoring program are ion specific electrode monitoring, pH, conductivity or other representative indicators.

(d) If a leak is detected, the Permittee shall comply with the following requirements, except as provided in Condition D.8.5(e).

(1) The leak shall be repaired as soon as practical but not later than 45 calendar days after the owner or operator receives results of monitoring tests indicating a leak. The leak shall be repaired unless the owner or operator demonstrates that the results are due to a condition other than a leak.

(2) Once the leak has been repaired, the owner or operator shall confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later.

(e) Delay of repair of heat exchange systems for which leaks have been detected is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions in 40 CFR 63.104(e)(1) or (e)(2) is met. All time periods shall be determined from the date when the Permittee determines that delay of repair is necessary.

D.8.6 Storage Vessel Provisions [326 IAC 20] [40 CFR 63, Subpart G]

Pursuant to 40 CFR 63.123(a), storage tanks T-200, T-201, and T-202, which meet the definition of Group 2 storage vessels as defined in 40 CFR 63.111, are subject to the recordkeeping requirements in Condition D.8.36, but are not subject to any other provisions of 40 CFR 63, Subpart G. If any change causes a storage tank to meet the definition of a Group 1 storage vessel, the Permittee shall comply with all requirements of 40 CFR 63, Subpart G applicable to Group 1 storage tanks.

D.8.7 Process Wastewater Provisions [326 IAC 20] [40 CFR 63, Subpart G]

(a) The Group 2 wastewater streams (identified as ammonia stripper bottoms and raffinate stripper bottoms) shall comply only with the recordkeeping requirements in 40 CFR 63.147(b)(8).

(b) If at any time the statements in Condition D.8.7(b) (1) or (2) exist for any wastewater stream located at Plant 27, the Permittee shall comply with the standards, monitoring, recordkeeping and reporting requirements for Group 1 wastewater streams found in 40 CFR 63, Subpart G.

(1) The total annual average concentration of compounds listed in Table 9 of 40 CFR Part 63, Subpart G is greater than or equal to 10,000 parts per million by weight at any flow rate; or

(2) The total annual average concentration of compounds listed in Table 9 of 40 CFR Part 63, Subpart G is greater than or equal to 1,000 parts per million by weight and the annual average flow rate is greater than or equal to 10 liters per minute.

(c) The Permittee shall determine whether a wastewater stream is a Group 1 or Group 2 wastestream in accordance with the provisions in 40 CFR 63.132(c). Total annual average concentration of compounds listed in Table 9 of 40 CFR 63, Subpart G shall be determined according to the procedures specified in 40 CFR 63.144(b). The annual average flow rate shall be determined according to the procedures specified in 40 CFR 63.144(c).

(d) Pursuant to 40 CFR 63.132(f), the Permittee shall not discard liquid or solid organic materials with a concentration of greater than 10,000 parts per million of compounds listed in Table 9 of 40 CFR Part 63, Subpart G (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. This prohibition does not apply to materials from the following activities:

(1) Equipment leaks;

(2) Activities included in maintenance or startup/shutdown/malfunction plans;

(3) Spills; or

(4) Samples of a size not greater than reasonably necessary for the method of analysis that is used.

D.8.8 Standards: Pumps in Light Liquid Service [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.163(b)(1), the Permittee shall monitor each pump monthly to detect leaks by the method specified in Condition D.8.24(a) and shall comply with the following requirements, except as provided in 40 CFR 63.162(b) and Condition D.8.8 (d).

(1) A leak is defined as an instrument reading of 1,000 parts per million or greater.

(2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.

(b) (1) Pursuant to 40 CFR 63.163(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 Condition D.8.8(b)(3) or D.8.14.

(2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:

(i) Tightening of packing gland nuts.

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(3) Repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

(c) (1) Pursuant to 40 CFR 63.163(d)(1), the Permittee shall calculate percent leaking pumps on a process unit basis.

(2) If calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the Permittee shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.175.

(3) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$$\%PL=((PL-PS)/(PT-PS))x100$$

where:
%PL = Percent leaking pumps

PL = Number of pumps found leaking as determined through monthly monitoring as required in Condition D.8.8(a).

PT = Total pumps in organic HAP service, including those meeting the criteria in 40 CFR 63.163(e) and 63.163(f).

PS = Number of pumps leaking within 1 month of start-up during the current monitoring period.

(d) Pursuant to 40 CFR 63.163(j), any pump that is designated as an unsafe-to-monitor pump is exempt from the requirements of Condition D.8.8(a) if:

(1) The Permittee determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with this condition; and

(2) The Permittee has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

D.8.9 Standards: Pressure Relief Devices In Gas / Vapor Service [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.165(a), except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided in Condition D.8.9(b), as measured by the method specified in Condition D.8.24(b).

(b) (1) Pursuant to 40 CFR 63.165(b)(1), after each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Condition D.8.14.

(2) No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in Condition D.8.24(b).

(c) Pursuant to 40 CFR 63.165(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 Condition D.8.15 is exempt from the requirements of this condition.

D.8.10 Standards: Open-ended Valves or Lines [326 IAC 14][40 CFR 63, Subpart H]

(a) Pursuant to 40 CFR 63.167(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 40 CFR 63.162(b) and 40 CFR 63.167(d) and 63.167(e). 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, or during maintenance or repair.

(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.

D.8.11 Standards: Valves In Gas / Vapor Service and In Light Liquid Service [326 IAC 14][40 CFR 63 Subpart H]

Pursuant to 40 CFR 63.168, valves that are either in gas service or in light liquid service shall comply with the following provisions:

(a) Pursuant to 40 CFR 63.168(b), the Permittee shall monitor all valves, except as provided in Condition D.8.14 and Conditions D.8.11(f) and D.8.11(g), at the intervals specified in Condition D.8.11(b)

(1) The valves shall be monitored to detect leaks by the method specified in Condition D.8.23(a).

(2) A leak is defined as an instrument reading of 500 parts per million or greater.

(b) Pursuant to 40 CFR 63.168(d), the Permittee shall monitor valves for leaks at the intervals specified below:

(1) At process units with 2 percent or greater leaking valves, calculated according to Condition D.8.11(c), the Permittee shall either:

(i) Monitor each valve once per month; or

(ii) Implement a quality improvement program for valves that complies with the requirements of 40 CFR 63.175(d) or (e) and monitor quarterly.

(2) At process units with less than 2 percent leaking valves, the Permittee shall monitor each valve once each quarter, except as provided in Conditions D.8.11(b)(3) and D.8.11(b)(4).

(3) At process units with less than 1 percent leaking valves, the Permittee may elect to monitor each valve once every 2 quarters.

(4) At process units with less than 0.5 percent leaking valves, the Permittee may elect to monitor each valve once every 4 quarters.

(c) Pursuant to 40 CFR 63.168(e)(1), the percent leaking valves at a process unit shall be determined by the following equation:

$$\%VL=(VL/(VT+VC))\times 100$$

where:
%VL = Percent leaking valves as determined through periodic monitoring required in Conditions D.8.11 (a) through (b).

VL = Number of valves found leaking excluding non-repairables as provided in paragraph (c)(2)(i).

VT = Total valves monitored, in a monitoring period excluding valves monitored as required by paragraph (d)(3).

VC = Optional credit for removed valves=0.67 × net number (i.e., total removed-total added) of valves in organic HAP service removed from process unit after the date set forth in 40 CFR 63.100(k) of Subpart F for existing process units, and after the date of initial start-up for new sources. If credits are not taken, then VC = 0.

(1) For use in determining monitoring frequency, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs.

(2) (i) Non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with Condition D.8.11 (c)(2)(ii). Otherwise, a number of non-repairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

(ii) If the number of non-repairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of non-repairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.

(d) (1) Pursuant to 40 CFR 63.168(f)(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 Condition D.8.14.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(3) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair.

(i) The monitoring shall be conducted as specified in Conditions D.8.23(a) and D.8.23(b), as appropriate and as allowed by the rule, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by Condition D.8.11 (a) and (b) may be used to satisfy the requirements of this condition, if the timing of the monitoring period coincides with the time specified in this condition. Alternatively, other monitoring may be performed to satisfy the requirements of this condition, regardless of whether the timing of the monitoring period for periodic monitoring coincides with the specified time.

(iii) If a leak is detected, the Permittee shall follow the provisions of the following paragraphs, Conditions D.8.11(d)(3)(iii)(A) and D.8.11(d)(3)(iii)(B), to determine whether that valve must be counted as a leaking valve.

(A) If the Permittee elected to use periodic monitoring required by Conditions D.8.11 (a) and (b) to satisfy the requirements of Condition D.8.11(d)(3), then the valve shall be counted as a leaking valve.

(B) If the Permittee elected to use other monitoring, prior to the periodic monitoring required by Conditions D.8.11 (a) and (b) to satisfy the requirements of Condition D.8.11 (d)(3), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(e) Pursuant to 40 CFR 63.168(g), first attempts at repair include, but are not limited to, the following 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) Pursuant to 40 CFR 63.168(h), any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of this condition if:

(1) The Permittee determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with this condition; and

(2) The Permittee has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

(g) Pursuant to 40 CFR 63.168(i), any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of this condition if:

(1) The Permittee determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; and

(2) The Permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

D.8.12 Standards: Pumps, Valves, and Connectors in Heavy Liquid Service; Instrumentation Systems; and Pressure Relief Devices in Liquid Service [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.169(a), pumps, valves, and connectors in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in Condition D.8.23(a) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in Conditions D.8.12(c) and (d), it is not necessary to monitor the system for leaks by the method specified in Condition D.8.23(a).

(b) Pursuant to 40 CFR 63.169(b), if an instrument reading of 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.

(c) (1) Pursuant to 40 CFR 63.169(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 Condition D.8.14.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(3) For equipment identified in Condition D.8.12(a) that is not monitored by the method specified in Condition D.8.23(a), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

(d) Pursuant to 40 CFR 63.169(d), first attempts at repair include, but are not limited to, the practices described under Conditions D.8.8(b)(2) and D.8.11(e), for pumps and valves, respectively.

D.8.13 Standards: Surge Control Vessels and Bottoms Receivers [326 IAC 14][40 CFR 63 Subpart H]

Pursuant to 40 CFR 63.170, each surge control vessel or bottoms receiver shall be equipped with a closed-vent system that routes the organic vapors vented from the surge control vessel or bottoms receiver back to the process or to a control device that complies with the requirements in Condition D.8.15, except as provided in 40 CFR 63.162(b), or comply with the requirements of 40 CFR 63.119(b) or 63.119(c) of 40 CFR 63, Subpart G.

D.8.14 Standards: Delay of Repair [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.171(a), delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(b) Pursuant to 40 CFR 63.171(b), delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(c) Pursuant to 40 CFR 63.171(c), delay of repair for valves, and connectors is also allowed if:

(1) The Permittee determines that emissions of purged material resulting from immediate repair would be 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 Condition D.8.15.

(d) Pursuant to 40 CFR 63.171(d), delay of repair for pumps is also allowed if:

(1) Repair requires replacing the existing seal design with a new system that the Permittee has determined under the provisions of 40 CFR 63.176(d) will provide better performance.

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Pursuant to 40 CFR 63.171(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 second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

D.8.15 Standards: Closed-Vent Systems and Control Devices [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.172(a), closed-vent systems and control devices used to comply with provisions of 40 CFR Part 63, Subpart H shall comply with the provisions of this condition, except as provided in 40 CFR 63.162(b).

(b) Pursuant to 40 CFR 63.172(b), recovery or recapture devices (e.g., condensers and absorbers) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts par million by volume, whichever is less stringent.

(c) Pursuant to 40 CFR 63.172(c), the Permittee shall monitor control devices to ensure that they are operated and maintained in conformance with their design to ensure proper operation and maintenance of the control device.

(d) Pursuant to 40 CFR 63.172(f), except as provided in Conditions D.8.15 (i) and (j), each closed-vent system shall be inspected according to the procedures and schedule specified below.

(1) If the closed-vent system is constructed of hard-piping, the Permittee shall:

(i) Conduct an initial inspection according to the procedures Condition D.8.15(e), 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 Permittee shall:

(i) Conduct an initial inspection according to the procedures in Condition D.8.15(e), and

(ii) Conduct annual inspections according to the procedures Condition D.8.15(e).

(e) Pursuant to 40 CFR 63.172(g), each closed-vent system shall be inspected according to the procedures in Condition D.8.23(a).

(f) Pursuant to 40 CFR 63.172(h), leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in Condition D.8.15(g).

(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, except as provided in Condition D.8.15(g).

(g) Pursuant to 40 CFR 63.172(i), 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 Permittee 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.

(h) Pursuant to 40 CFR 63.172(j), for each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the Permittee shall comply with the provisions of either Condition D.8.15 (h)(1) or (h)(2), except as provided in Condition D.8.15 (h)(3).

(1) Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

(3) Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to Conditions D.8.15 (h)(1) and (h)(2).

(i) Pursuant to 40 CFR 63.172(k), any parts of the closed-vent system that are designated as unsafe to inspect are exempt from the inspection requirements of Conditions D.8.15 (d)(1) and (d)(2) if:

(1) The Permittee 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 Conditions D.8.15 (d)(1) and (d)(2); and

(2) The Permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually.

(j) Pursuant to 40 CFR 63.172(l), any parts of the closed-vent system that are designated as difficult to inspect are exempt from the inspection requirements of Conditions D.8.15 (d)(1) and (d)(2) if:

(1) The Permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The Permittee has a written plan that requires inspection of the equipment at least once every 5 years.

(k) Pursuant to 40 CFR 63.172(m), whenever organic HAP emissions are vented to a closed vent system or control device used to comply with the provisions 40 CFR Part 63, Subpart H, such system or control device shall be operating.

D.8.16 Standards: Connectors In Gas / Vapor Service and In Light Liquid Service [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.174(a), the Permittee of a process unit subject to 40 CFR Part 63, Subpart H shall monitor all connectors in gas/vapor and light liquid service, except as provided in 40 CFR 63.162(b), and in Conditions D.8.16(e) and D.8.16(g), at the intervals specified in Condition D.8.16 (b).

(1) The connectors shall be monitored to detect leaks by the method specified in Condition D.8.23(a).

(2) If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(b) Pursuant to 40 CFR 63.174(b), the Permittee shall monitor for leaks at the intervals specified in below:

(1) The Permittee shall monitor all connectors, except as provided in Conditions D.8.16(e) and (g).

(2) The Permittee shall perform monitoring of connectors at the frequencies specified in Conditions D.8.16 (b)(2)(i) through (b)(2)(v), except as provided in Condition D.8.16(c)(2):

(i) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.

(ii) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. The Permittee may comply with this condition by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period.

(iii) If the Permittee of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the Permittee may monitor the connectors one time every 4 years. The Permittee may comply with these requirements by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.

(iv) If a process unit complying with the requirements of Condition D.8.16 (b) using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the Permittee shall increase the monitoring frequency to one time every 2 years. The Permittee may comply with the requirements of this condition by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The Permittee may elect to use the provisions of Condition D.8.16(b)(2)(iii) when the percent leaking connectors decreases to less than 0.5 percent.

(v) If a process unit complying with requirements of Condition D.8.16 (b)(2)(iii) using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the Permittee shall increase the monitoring frequency to one time per year. The Permittee may elect to use the provisions of Condition D.8.16(b)(2)(iii) when the percent leaking connectors decreases to less than 0.5 percent.

(c) (1) (i) Pursuant to 40 CFR 63.174(c)(1)(i), except as provided in Condition D.8.16 (c)(1)(ii), each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions of Condition D.8.16 (d), unless it is determined to be non-repairable, in which case it is counted as a nonrepairable connector for the purposes of Condition D.8.16 (h)(2).

(ii) As an alternative to the requirements in Condition D.8.16 (c)(1)(i), the Permittee may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the Permittee may not count non-repairable connectors for the purposes of Condition D.8.16 (h)(2). The Permittee shall calculate the percent leaking connectors for the monitoring periods described in Condition D.8.16 (b), by setting the non-repairable component, CAN, in the equation in Condition D.8.16 (h)(2) to zero for all monitoring periods.

(iii) The Permittee may switch alternatives described in Conditions D.8.16 (c)(1)(i) and (c)(1)(ii) at the end of the current monitoring period, provided that it is reported as required in Condition D.8.35 and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch.

(2) As an alternative to the requirements of Condition D.8.16 (b)(3) of this condition, each screwed connector 2 inches or less in nominal inside diameter may:

(i) Comply with the requirements of Condition D.8.12 and
(ii) Be monitored for leaks within the first 3 months after being returned to organic hazardous air pollutants service after having been opened or otherwise had the seal broken. If that monitoring detects a leak, it shall be repaired according to the provisions of Condition D.8.16 (d).

(d) Pursuant to 40 CFR 63.174(d), 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 Condition D.8.16 (f) and in Condition D.8.14. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(e) Pursuant to 40 CFR 63.174(f), any connector that is designated as an unsafe-to-monitor connector is exempt from the requirements of Condition D.8.16 (a) if:

(1) The Permittee determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with Conditions D.8.16 (a) through (d); and

(2) The Permittee has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic schedule otherwise applicable.

(f) Pursuant to 40 CFR 63.174(g), any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of Conditions D.8.16 (a) and (d) if:

(1) The Permittee determines that repair personnel would be exposed to an immediate danger as a consequence of complying with Condition D.8.16 (d); and
(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) (1) Pursuant to 40 CFR 63.174(h)(1), any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of Conditions D.8.16 (a) and (c) and from the recordkeeping and reporting requirements of Conditions D.8.34 and D.8.26. An inaccessible connector is one that is:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition D.8.14 and D.8.16 (f).

(3) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(h) Pursuant to 40 CFR 63.174(i), for use in determining the monitoring frequency, as specified in Condition D.8.16 (b), the percent leaking connectors shall be calculated as specified below:

$$\% CL = [(CL - CAN)/(Ct + CC)] \times 100$$

where:

% CL = Percent leaking connectors as determined through periodic monitoring required in Conditions D.8.16(a) and D.8.16(b).

CL = Number of connectors, including non-repairables, measured at 500 parts per million or greater, by the method specified in Condition D.8.23(a).

CAN = Number of allowable non-repairable connectors, as determined by monitoring required in Conditions D.8.16(b)(3) and D.8.16(c), not to exceed 2 percent of the total connector population, Ct.

Ct = Total number of monitored connectors, including non-repairables, in the process unit.

CC = Optional credit for removed connectors = 0.67 × net number (i.e., total removed—total added) of connectors in organic hazardous air pollutants service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then CC = 0.

(i) Pursuant to 40 CFR 63.174(j), if the Permittee eliminates a connector subject to monitoring under Condition D.8.16(b), the Permittee may receive credit for elimination of the connector, as described in Condition D.8.16 (h), provided the following requirements are met.

(1) The integrity of the weld is demonstrated by monitoring it according to the procedures in Condition D.8.23(a) or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method.

(2) Welds are monitored or tested within 3 months after being welded.

(3) If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is therefore not exempt from the provisions of 40 CFR Part 63, Subpart H.

D.8.17 Requirements for Maintenance Wastewater [326 IAC 20][40 CFR 63, Subpart F]

Pursuant to 40 CFR 63.105, the Permittee shall comply with the requirements of Conditions D.8.17 (a) through (d) for maintenance wastewater containing the organic HAP's listed in Table 9 of 40 CFR 63, Subpart G.

(a) The Permittee shall prepare a description of maintenance procedures for management of wastewater generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:

(1) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.

(2) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and

(3) Specify the procedures to be followed when clearing materials from process equipment.

(b) The Permittee shall modify and update the information required by Condition D.8.17(a) as needed following each maintenance procedure based on the actions taken and the wastewater generated in the preceding maintenance procedure.

(c) The Permittee shall implement the procedures described in Conditions D.8.17 (a) and (b) as part of the start-up, shutdown, and malfunction plan required under 40 CFR 63.6(e)(3).

(d) The Permittee shall maintain a record of the information required by Conditions D.8.17 (a) and (b) as part of the start-up, shutdown, and malfunction plan required under 40 CFR 63.6(e)(3).

D.8.18 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the particulate matter emissions from the Catalyst Regenerator shall be limited to 0.03 grains per dry standard cubic foot.

D.8.19 VOC Emission Limitation [326 IAC 8-1-6][326 IAC 2-2][OP 900049-01]

The molecular sieves regenerator shall comply with the following limitations:

(a) The emissions of VOC from the molecular sieves regenerator stack exhaust shall not exceed 0.063 pounds per hour and 0.04 tons per twelve-month period.

(b) The scrubber used to control emissions from the molecular sieves regenerator shall be in operation at all times the molecular sieves is in operation.

(c) The number of hours of operation for the molecular sieves shall not exceed 1,350 hours per twelve consecutive month period.

Compliance with these limits make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-1-6 not applicable.

D.8.20 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.8.21 Particulate Control

In order to comply with condition D.8.18, the cyclone used for particulate control shall be in operation and control emissions from the at all times that the Catalyst Regenerator is in operation.

D.8.22 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with D.8.19, the Permittee shall perform VOC testing on the molecular seives regenerator utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

D.8.23 Monitoring Requirements: Process Vent Provisions [326 IAC 20] [40 CFR 63, Subpart G]

(a) Pursuant to 40 CFR 63.114(a), the following monitoring equipment is required for process heaters used to comply with the requirements in Condition D.8.4(a)(1): a temperature monitoring device in the firebox equipped with a continuous recorder. This requirement does not apply to gas streams that are introduced with primary fuel or are used as the primary fuel.

(b) Pursuant to 40 CFR 63.114(d), the Permittee shall comply with Conditions D.8.23 (b)(1) or (b)(2) for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor) and the point where the gas stream reaches the process vent that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to condition.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in Condition D.8.36(a). The flow indicator shall be installed at the entrance to any bypass line that could divert the gas stream to the atmosphere; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line.

D.8.24 Test Methods and Procedures Equipment Leaks [326 IAC 14][40 CFR 63 Subpart H]

Pursuant 40 CFR 63.180(a), the Permittee shall comply with the following test methods and procedures:

(a) All monitoring shall be performed in accordance with the requirements in 40 CFR 63.180(b).

(b) Pursuant 40 CFR 63.180(c), when equipment is monitored for compliance as required in 40 CFR 63.164(i), Conditions D.8.9(a), and D.8.15(d) or when equipment subject to a leak definition of 500 ppm is monitored for leaks, the Permittee may elect to adjust or not to adjust the instrument readings for background. If the Permittee elects to not adjust instrument readings for background, the Permittee shall monitor the equipment according to the procedures specified in 40 CFR 63.180(b)(1) through (b)(4). In such case, all instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If the Permittee elects to adjust instrument readings for background, the Permittee shall monitor the equipment according to the procedures specified in 40 CFR 63.180(c)(1) through (c)(4).

(c) Pursuant 40 CFR 63.180(d)(1), each piece of equipment within a process unit that can reasonably be expected to contain equipment in organic HAP service is presumed to be in organic HAP service unless the Permittee demonstrates that the piece of equipment is not in organic HAP service. For a piece of equipment to be considered not in organic HAP service, it must be determined that the percent organic HAP content can be reasonably expected not to exceed 5 percent by weight on an annual average basis. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment, Method 18 of 40 CFR Part 60, Appendix A shall be used.

(d) The Permittee may use good engineering judgment rather than the procedures in Condition D.8.24 (c) to determine that the percent organic HAP content does not exceed 5 percent by weight. When the Permittee and IDEM, OAQ do not agree on whether a piece of equipment is not in organic HAP service, however, the procedures in paragraph (c) shall be used to resolve the disagreement. Conversely, the Permittee may determine that the organic HAP content of the process fluid does not exceed 5 percent by weight by, for example, accounting for 98 percent of the content and showing that organic HAP is less than 3 percent.

(e) If the Permittee determines that a piece of equipment is in organic HAP service, the determination can be revised after following the procedures in Condition D.8.24 (c), or by documenting that a change in the process or raw materials no longer causes the equipment to be in organic HAP service.

(f) Samples used in determining the percent organic HAP content shall be representative of the process fluid that is contained in or contacts the equipment.

D.8.25 VOC Control

In order to comply with D.8.19, the scrubber shall be in operation and control emissions from the dryer at all times that the dryer is in operation.

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

D.8.26 Visible Emissions Notations

(a) Visible emission notations of the Catalyst Regenerator stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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.8.27 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process shall be shut down immediately until the failed units have 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).

D.8.28 Monitoring Requirements for the Scrubber

The Permittee shall monitor the scrubber flow rate at least once per day for the scrubber controlling the emissions from the molecular sieves regenerator. When for any one reading the flow rate is outside the normal range established from the stack test required by Condition D.8.22, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. If the flow rate reading is outside of the normal range for any one reading, the Permittee shall take reasonable response steps In accordance with Section C - Response to Excursions or Exceedances. A reading that is outside the normal 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 flow rate shall comply with Section C - Pressure Gauge and Other 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.8.29 Failure Detection

In the event that a scrubber malfunction has been observed, the failed scrubber and the associated processes shall be shut down immediately until the scrubber 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).

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

D.8.30 Record Keeping Requirements

(a) To document compliance with Condition D.8.26, the Permittee shall maintain a daily record of visible emission notations of the Catalyst Regenerator stack 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 process did not operate that day).

(b) To document compliance with Condition D.8.19, the Permittee shall maintain records of the hours of operation of the drying facility once per shift.

(c) To document compliance with Condition D.8.28, the Permittee shall maintain a daily record of the scrubber flow rate. The Permittee shall include in its daily record when a flow rate reading is not taken and the reason for the lack of a flow rate reading (e.g. the process did not operate that day).

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

D.8.31 General Compliance, Reporting, and Recordkeeping provisions [40 CFR 63, Subpart G][326 IAC 20-16-1]

(a) Pursuant to 40 CFR 63.103, all records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining four and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(b) The Permittee shall keep records of the following:

(1) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment or continuous monitoring systems used to comply with 40 CFR Part 63, Subpart F, Subpart G, or H during which excess emissions (as defined in Condition D.8.3(d)) occur.

(2) For each start-up, shutdown, and malfunction during which excess emissions (as defined in Condition D.8.3(d)) occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a “checklist,” or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.

(3) For continuous monitoring systems used to comply with 40 CFR Part 63, Subpart G, records documenting the completion of calibration checks and maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(c) Pursuant to 40 CFR 63.103(d), all reports required under 40 CFR Part 63, Subparts F, G, and H shall be sent to IDEM, OAQ and US EPA at the addresses listed in 40 CFR 63.13 of Subpart A.

D.8.32 Reporting and Recordkeeping: Process Vent Provisions, Requirements for Group and TRE Determinations and Performance Tests [326 IAC 20] [40 CFR 63, Subpart G]

(a) Pursuant to 40 CFR 63.117(a), the Permittee shall keep an up-to-date, readily accessible record of the data specified in 40 CFR 63.117 (a)(1) through (a)(3), as applicable, and if any subsequent TRE determinations or performance tests are conducted, report the data in specified in 40 CFR 63.117 (a)(1) through (a)(3) in the next Periodic Report. Record and report the following when using a combustion device to achieve an organic HAP concentration of 20 parts per million by volume, as specified in Condition D.8.4(a)(1):

(1) A description of the location at which the vent stream is introduced into the process heater.

(2) The concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in 40 CFR 63.116 at the outlet of the combustion device on a dry basis corrected to 3 percent oxygen.

(b) Pursuant to 40 CFR 63.117(b), the Permittee of a Group 2 process vent with a TRE index greater than 4.0 as specified in Condition D.8.4(c), shall maintain records of measurements, engineering assessments, and calculations performed to determine the TRE index value of the vent stream. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments.

D.8.33 Reporting and Record Keeping: Process Vent Provisions - Periodic Requirements [326 IAC 20] [40 CFR 63, Subpart G]

(a) For process vents subject to the requirements of 40 CFR 63, Subpart G, the Permittee shall keep up-to-date and readily accessible records of the information specified in 40 CFR 63.118(a).

(b) For the Group 2 process vent complying with Condition D.8.4(c), the Permittee shall keep up-to-date, readily accessible records of information specified in 40 CFR 63.118(c).

(c) For Group 1 process vents, the Permittee shall submit to IDEM, OAQ Periodic Reports as specified in 40 CFR 63.118(f).

(d) Pursuant to 40 CFR 63.118(g), whenever a process change is made that causes a Group 2 process vent to become a Group 1 process vent, the Permittee shall submit a report within 180 calendar days after the process change as specified in 40 CFR 63.151(j). The report shall include:

(1) A description of the process change;

(2) The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under 40 CFR 63.115(e); and

(3) A statement that the Permittee will comply with the provisions of 40 CFR 63, Subpart G for Group 1 process vents.

(e) Pursuant to 40 CFR 63.118(h), whenever a process change is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the Permittee shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next periodic report. The report shall include:

(1) A description of the process change,

(2) The results of the recalculation of the TRE index value required under 40 CFR 63.115(e), and

(3) A statement that the Permittee will comply with the requirements specified in 40 CFR 63.113(d).

(f) The Permittee is not required to submit a report of a process change if one of the conditions listed in 40 CFR 63.118(k) is met.

D.8.34 Process Wastewater Provisions – Record Keeping [326 IAC 20] [40 CFR 63, Subpart G]

(a) Pursuant to 40 CFR 63.147(b), the Permittee shall keep in a readily accessible location the following records:

(1) Process unit identification and description of the process unit.

(2) Stream identification code.

(3) Concentration of compounds listed in Table 9 of 40 CFR Part 63, Subpart G in parts per million, by weight. Include documentation of the methodology used to determine concentration.

(4) Flow rate in liter per minute.

(b) Pursuant to 40 CFR 63.147(f), if the Permittee uses process knowledge to determine the annual average concentration of a wastewater stream as specified in 40 CFR 63.144(b)(1) and/or uses process knowledge to determine the annual average flow rate as specified in 40 CFR 63.144(c)(1), and determines that the wastewater stream is not a Group 1 wastewater stream, the Permittee shall keep in a readily accessible location the documentation of how process knowledge was used to determine the annual average concentration and/or the annual average flow rate of the wastewater stream.

D.8.35 General Reporting [326 IAC 20] [40 CFR 63, Subpart G]

(a) The Permittee submit Periodic Reports in accordance with the requirements of 40 CFR 63.152(c).

(b) The Permittee shall submit additional reports in accordance with the requirements of 40 CFR 63.152(d), including reports of start-up, shutdown, and malfunction.

D.8.36 Record Keeping Requirements for Equipment Leaks [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.181(a), all records shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site.

(b) The Permittee shall maintain records of the information required by 40 CFR 63.181(b).

(c) Pursuant to 40 CFR 63.181(c), for visual inspections of equipment subject to the provisions of 40 CFR Part 63, Subpart H, the Permittee shall document that the inspection was conducted and the date of the inspection. The Permittee shall maintain records as specified in Condition D.8.39(d) for leaking equipment identified in this inspection. These records shall be retained for 2 years.

(d) When each leak is detected as specified in Conditions D.8.8, D.8.11, D.8.12, D.8.15, and D.8.16, the Permittee shall maintain copies of the records specified in 40 CFR 63.181(d). The information shall be recorded and kept for 2 years.

(e) Pursuant to 40 CFR 63.181(f), the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in Conditions D.8.9(a) and D.8.9(b). The results shall include:

(1) The background level measured during each compliance test.

(2) The maximum instrument reading measured at each piece of equipment during each compliance test.

(f) The Permittee shall maintain records of the information specified in 40 CFR 63.181(g) for closed-vent systems and control devices subject to the provisions of Condition D.8.15.

(g) For vents or pumps subject to the requirements of 40 CFR 63.175 and 40 CFR 63.176, the Permittee shall maintain the records specified in Pursuant to 40 CFR 63.181(h) for the period of the quality improvement program for the process unit.

D.8.37 Reporting Requirements for Equipment Leaks [326 IAC 14][40 CFR 63 Subpart H]

(a) Pursuant to 40 CFR 63.182(d), the Permittee shall submit Periodic Reports.

(1) A report containing the information in Conditions D.8.40 (a)(2), (a)(3), and (a)(4) shall be submitted semiannually as required in 40 CFR 63.182(c).

(2) For each process unit complying with the provisions of 40 CFR 63, Subpart H, the summary information listed below for each monitoring period during the 6-month period.

(i) The number of valves for which leaks were detected as described in Condition D.8.11(a), the percent leakers, and the total number of valves monitored;

(ii) The number of valves for which leaks were not repaired as required in Condition D.8.11(d), identifying the number of those that are determined non-repairable;

(iii) The number of pumps for which leaks were detected as described in Condition D.8.8(a), the percent leakers, and the total number of pumps monitored;

(iv) The number of pumps for which leaks were not repaired as required in Condition D.8.8(b);

(v) The number of connectors for which leaks were detected as described in Condition D.8.16(a), the percent of connectors leaking, and the total number of connectors monitored;

(vi) The number of connectors for which leaks were not repaired as required in Condition D.8.16(d), identifying the number of those that are determined non-repairable;

(vii) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.

(viii) The results of all monitoring to show compliance with Conditions D.8.9(a), D.8.15(d), and 40 CFR 63.164(i) conducted within the semiannual reporting period.

(ix) If applicable, the initiation of a monthly monitoring program under Condition D.8.11(b)(1)(i), or a quality improvement program under either 40 CFR 63.175 or 63.176.

(x) If applicable, notification of a change in connector monitoring alternatives as described in Condition D.8.16(c)(1).

(3) Any revisions to items reported in earlier Notification of Compliance Status, if the method of compliance has changed since the last report.

D.8.38 Record Keeping Requirements for Storage Vessels [326 IAC 20] [40 CFR 63, Subpart G]

Pursuant to 40 CFR 63.123(a), the Permittee shall keep readily accessible records showing the dimensions and an analysis showing the capacity of each Group 2 storage vessel (identified as T- 200, T-201, and T-202). This record shall be kept as long as the storage vessel retains Group 2 status and is in operation.

D.8.39 Record Keeping and Reporting Requirements for Heat Exchange Systems [326 IAC 20] [40 CFR 63, Subpart F]

(a) Pursuant to 40 CFR 63.104(f)(1), the Permittee shall retain the following records:

(1) Monitoring data required by this section indicating a leak and the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination;

(2) Records of any leaks detected by procedures subject to Condition D.8.5 and the date the leak was discovered;

(3) The dates of efforts to repair leaks; and

(4) The method or procedure used to confirm repair of a leak and the date repair was confirmed.

(b) Pursuant to 40 CFR 63.104(f)(2), if the Permittee invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semiannual periodic report. If the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.

(1) The Permittee shall report the presence of the leak and the date that the leak was detected.

(2) The Permittee shall report whether or not the leak has been repaired.

(3) The Permittee shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in 40 CFR 63.104(e)(2), documentation of emissions estimates shall also be submitted.

(4) If the leak remains unrepaired, the Permittee shall report the expected date of repair.

(5) If the leak is repaired, the Permittee shall report the date the leak was successfully repaired.

D.8.40 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12][326 IAC 2-7-5]

The Permittee shall submit a applications for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit. For compliance with 40 CFR 63, Subpart EEEE:

(a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart EEEE, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.

(b) The significant permit modification application shall be submitted no later than May 5, 2006.

(c) The significant permit modification applications 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

SECTION D.9 FACILITY OPERATION CONDITIONS

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

(n) Plant 40 is used to dehydrate 2-picolinic acid and 4-picolinic acid with caustic to produce vinyl pyridine. The plant was initially constructed in 1969. Plant 40 consists of the following process units: reactor, separation, distillation, and vent tank. Emissions are vented through six vents identified as follows:

(1) Column #3 Atmospheric Vent (S/V 40/001) used to vent emissions from the separation facilities;

(2) Receiver Atmospheric Vents (S/V 40-002A, 40-002B, and 40-002C) used to vent emissions from the distillation facilities;

(3) Still Atmospheric Vent (S/V 40-002C) used to vent emissions from the distillation facilities; and

(4) Vent tank (S/V 40-004) used to vent emissions from Columns 1, 2, and 4.

(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 General Provision Relating to NESHAPs [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 61, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 14, apply to the facility described in this section except when otherwise specified in 40 CFR 61, Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene.

D.9.2 Standards for 40 CFR 61, Subpart J [40 CFR 61.111][326 IAC 14]

Pursuant to 40 CFR 61.112, the Permittee shall comply with the requirements of 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) for equipment in benzene service, including affected pumps; open-ended valves; open-ended lines; valves; and connectors.

D.9.3 General Standards for 40 CFR 61, Subpart V [60 CFR 61.242-1] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.242-1, the Permittee shall comply with the following requirements:

(a) Each piece of equipment to which 40 CFR 61, Subparts J and V apply shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

(b) Equipment that is in vacuum service is excluded from the requirements of Conditions D.9.4 through D.9.7 if it is identified as required in Condition D.9.9(d)(4).

(c) The definitions in 40 CFR 61, Subpart J, Section 61.111 are applicable to the Permittee.

D.9.4 Standards: Pumps [40 CFR 61.242-2] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.242-2, pumps subject to the requirements of 40 CFR 61, Subpart J shall comply with the following requirements:

(a) (1) Each pump shall be monitored monthly to detect leaks by the methods specified in Condition D.9.8(a), except as provided in Conditions D.9.4(d), (e), and (f).

(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 Condition D.9.7.

(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 Conditions D.9.4(a) and (b), provided the following requirements are met:

(1) Each dual mechanical seal system is:

(A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(B) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system; or

(C) 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.

(A) 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 Condition D.9.8 to determine the presence of VOC and VHAP in the barrier fluid.

(B) 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 Permittee.

(C) If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.

(5) Each sensor as described in Condition D.9.4(d)(3) is checked daily or is equipped with an audible alarm.

(6) (A) The Permittee 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.

(B) If indications of liquids dripping from the pump seal exceed the criteria established in Condition D.9.4(d)(6)(A), or if, based on the criteria established in Condition D.9.4(d)(6)(A), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(C) 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 Condition D.9.7.

(D) 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 Condition D.9.9(d)(2)(A), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition D.9.4(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 Condition D.9.8(b), and

(3) Is tested for compliance with Condition D.9.4(e)(2) initially upon designation, annually, and at other times requested by the Administrator.

(f) Any pump that is designated, as described in Condition D.9.9(e)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of Condition D.9.4(a) and (d)(4) through (d)(6) if:

(1) The Permittee demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition D.9.4(a); and

(2) The Permittee 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 Condition D.9.4(c) if a leak is detected.

(g) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of Condition D.9.4(a)(2) and (d)(4), and the daily requirements of Condition D.9.4(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly.

D.9.5 Standards: Open-ended Valves or Lines [40 CFR 61.242-6] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.242-6, open-ended valves and lines subject to the requirements of 40 CFR 61, Subpart J shall comply with the following requirements:

(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(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 Condition D.9.5(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 Condition D.9.5(a), (b) and (c).

(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 Condition D.9.5(a) through (c) are exempt from the requirements of Condition D.9.5(a) through (c).

D.9.6 Standards: Valves [40 CFR 61.242-7] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.242-7, valves subject to the requirements of 40 CFR 61, Subpart J shall comply with the following requirements:

(a) Each valve shall be monitored monthly to detect leaks by the method specified in Condition D.9.8(a) and shall comply with Conditions D.9.6(b) through (e), except as provided in Conditions D.9.6(f), (g), and (h).

(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 Condition D.9.7.

(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 Condition D.9.9(d)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition D.9.6(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 Condition D.9.8(b); and

(3) Is tested for compliance with Condition D.9.6(f)(2) initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in Condition D.9.9(e)(1), as an unsafe-to-monitor valve is exempt from the requirements of Condition D.9.6(a) if:

(1) The Permittee 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 Condition D.9.6(a); and

(2) The Permittee 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 Condition D.9.9(e)(2), as a difficult-to-monitor valve is exempt from the requirements of Condition D.9.6(a) if:

(1) The Permittee 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 Permittee of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

D.9.7 Standards: Delay of Repair [40 CFR 61.242-10] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.242-10, the Permittee shall comply with the following requirements:

(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 Permittee 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 40 CFR 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.

Compliance Determination Requirements

D.9.8 Test Methods and Procedures [40 CFR 61.245] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.245, the Permittee shall comply with the following test methods and procedures:

(a) Monitoring, as required in Conditions D.9.3 through D.9.7, 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:

(A) Zero air (less than 10 ppm of hydrocarbon in air); and

(B) 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.

(b) When equipment is tested for compliance with or monitored for no detectable emissions, the Permittee shall comply with the following requirements:

(1) The requirements of Conditions D.9.8(a)(1) through (a)(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.

(c) (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 the Permittee demonstrates that the piece of equipment is not in VHAP service. For a piece of equipment to be considered not in VHAP service, it shall 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 40 CFR 61.18) shall be used.

(2) (A) The Permittee may use engineering judgment rather than the procedures in Condition D.9.8(c)(1) 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 a Permittee and the Administrator do not agree on whether a piece of equipment is not in VHAP service, however, the procedures in Condition D.9.8(c)(1) shall be used to resolve the disagreement.

(B) If a Permittee determines that a piece of equipment is in VHAP service, the determination can be revised only after following the procedures in Condition D.9.8(c)(1).

(3) Samples used in determining the percent VHAP content shall be representative of the process fluid that is contained in or contacts the equipment.

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

D.9.9 Record Keeping Requirements [40 CFR 61.246] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 61.246, the Permittee shall comply with the following recordkeeping requirements:

(a) The Permittee may comply with the recordkeeping requirements for process units subject to 40 CFR 61, Subparts J and V in one recordkeeping system if the system identifies each record by each process unit.

(b) When each leak is detected as specified in Conditions D.9.4 and D.9.6, 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 Condition D.9.6(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 Conditions D.9.4 and D.9.6, the following information shall be recorded in a log and shall be maintained on site 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 Condition D.9.8(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 Permittee (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 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) (A) A list of identification numbers for equipment that the Permittee elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background.

(B) The designation of this equipment for no detectable emissions shall be signed by the Permittee.

(3) (A) The dates of each compliance test required in Conditions D.9.4(e) and D.9.6(f).

(B) The background level measured during each compliance test.

(C) The maximum instrument reading measured at the equipment during each compliance test.

(4) A list of identification numbers for equipment in vacuum service.

(e) The following information pertaining to all valves subject to the requirements of Conditions D.9.6(g) and (h) and to all pumps subject to the requirements of Condition D.9.4(f) 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.

(f) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in Condition D.9.4(d)(5) and an explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(g) 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.

(h) 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.

D.9.10 Reporting Requirements [40 CFR 61.247] [40 CFR 61, Subpart J] [326 IAC 14]

Pursuant to 40 CFR 61, Subpart J and 40 CFR 60.247, the Permittee shall comply with the following reporting requirements:

(a) The Permittee shall submit a semiannual report to the IDEM, OAQ. The report shall include the following information:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(A) Number of valves for which leaks were detected as described in Condition D.9.6(b).

(B) Number of valves for which leaks were not repaired as required in Condition D.9.6(d).

(C) Number of pumps for which leaks were detected as described in Conditions D.9.4(b) and (d)(6).

(D) Number of pumps for which leaks were not repaired as required in Condition D.9.4(c) and (d)(6).

(E) 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 in the initial report required by 40 CFR 61.247(a) if changes have occurred since the initial report or subsequent revisions to the initial report were submitted. Note: Compliance with the requirements of 40 CFR 61.10(c) is not required for revisions documented under this Condition.

(5) The results of all performance tests and monitoring to determine compliance with no detectable emissions conducted within the semiannual reporting period.

(b) Pursuant to 40 CFR 61.247(c), the semiannual reports shall be submitted according to the reporting schedule specified in the initial report, unless a revised schedule has been submitted in a subsequent semiannual report.

(c) An application for approval of construction or modification under 40 CFR 61.05(a) and 61.07 shall not be required provided:

(1) The new source complies with the standards in 40 CFR 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 Condition D.9.10(a), the information in 40 CFR 61.247(a)(5) is reported.

SECTION D.10 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] – Specialty Chemical Operations

(m) Plant 48, used to manufacture a variety of specialty chemicals. The plant was initially constructed in1972 and consists of reactors (with emissions controlled by Scrubber, identified as AS-14) and distillation facilities.

(o) Plant 47, used to manufacture a variety of specialty chemicals. The plant was initially constructed in 1979 and consists of the following facilities:

(1) Reactor, controlled by a scrubber;

(2) Distillation;

(3) Separation;

(4) One (1) 0.4 MMBtu per hour waste gas flare (identified as unit HC47GFS), used to control emissions from Plant 47. This unit was installed in 1979 and exhausts to stack S-47-001;

(5) One (1) CS Kettle equipped with a 5 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979;

(6) One (1) CS Still equipped with an 8.48 MMBtu per hour Born heater, which is fired using natural gas. This unit is located in Plant 47 and was constructed in 1979.

(p) Plant 66, used to manufacture a variety of specialty chemicals. The plant, approved for construction in 2007, consists of the following facilities:

(1) One (1) Reactor (MT-465.002), with emissions that vent to the one (1) Hot Oil Furnace (identified as HW-925.001);

(2) Distillation, consisting of a three columns:
(i) Topping Column (identified as AS-455.001) with emissions returning to the process;
(ii) Crude Distillation Column (identified as AS-460.001) with emissions returning to the process;
(iii) Final Distillation Column (identified as AS-465.001) with emissions returning to the process.

(3) Separation, consisting of:
(i) One (1) Scrubber Seal Tank (MS-455.003) which exhausts to stack S-66-001;
(ii) One (1) Decanter (identified as MS-455.004) and Hot Well (identified as MS-455.005), which exhaust after a process condenser to stack S-66-002.

(4) One (1) packaging facility consisting of the following:
(i) One (1) Product Flaker (identified as GY-270.001), with emissions venting to the hot oil furnace;
(ii) Two (2) Product Packaging Baggers, identified as GP-470.002 and GP-470.003, with emissions venting to the hot oil furnace.

(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.10.1 Hazardous Air Pollutants Minor Limit [326 IAC 2-4.1]

(a) Individual HAP emission for two (2) plants combined: 48 and 66, shall be limited to less than six (6.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Records shall be taken monthly and shall be complete and sufficient to establish compliance with the emission cap.

(b) Combined HAPs emission for two (2) plants combined: 48 and 66, shall be limited to less than six (6.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Records shall be taken monthly and shall be complete and sufficient to establish compliance with the emission cap.

(c) Compliance with these HAP limits shall be reached by limiting HAP input and using plant 48 scrubber AS-14 as control when appropriate, to the extent that control equipment shows reduction efficiency pursuant to Condition 11.3. Compliance with these limits shall render requirements of 326 IAC 2-4.1 nonapplicable.

D.10.2 Volatile Organic Compound (VOC) Limits [326 IAC 2-3]

(a) Volatile Organic Compound (VOC) emissions from Plant 48 shall be limited to less than 40.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit shall be reached by limiting VOC input for Plant 48 and using control equipment, scrubber identified as AS-14, as appropriate to the extent that the control equipment shows reduction efficiency sufficient to demonstrate compliance with this limit. Compliance with these limits shall render requirements of 326 IAC 2-3 nonapplicable.

(b) Volatile Organic Compound (VOC) input at Plant 66 shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit shall render requirements of 326 IAC 2-3 and 326 IAC 8-1-6 nonapplicable.

Compliance Demonstration Requirements

D.10.3 Volatile Organic Compounds (VOC) and HAPs

(a) To demonstrate compliance with Conditions D.10.1 and D.10.2, the Permittee shall maintain records of all product runs and any applicable compliance stack tests.

(b) The monthly VOC emissions of the Plant 48 shall be calculated by the following formula:

$$E_{VOC48} = W_{VOC48u} + \sum [W_{VOC48c} * (1-C_{eff})],$$

where: E_{VOC48} = the monthly VOC emission from Plant 48;

W_{VOC48u} = the monthly Plant 48 VOC input when operating without control;

W_{VOC48c} = the monthly Plant 48 VOC input for each process when operating with control;

C_{eff} = the scrubber AT-14 control efficiency for each process;

(c) The combined plants 48 and 66 monthly HAPs emissions (for individual and combined HAPs) shall be calculated by the following formula:

$E_{HAP} = W_{HAP48u} + W_{HAP66} + \sum [W_{HAP48c} * (1-C_{eff})]$,

where: E_{HAP} = the monthly HAP emission from plants 48 and 66 (combined)

W_{HAP48u} = the monthly Plant 48 HAP input when operating without control (scrubber)

W_{HAP48c}= the monthly Plant 48 HAP input for each process when operating with control (scrubber)

W_{HAP66} = the monthly Plant 66 HAP input

C_{eff} = the scrubber AS-14 control efficiency for each process

Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

D.10.4 Testing Requirements (326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within one hundred and eighty (180) days after the start-up of each process in Plant 48 using the scrubber, identified as AS-14, to control VOC or HAP emissions, the Permittee shall conduct a performance test of the Plant 48 scrubber identified as AS-14 to verify its control efficiency for VOC and HAP for each process using the scrubber as control, utilizing methods as approved by the IDEM Commissioner. These tests shall be repeated at least once every five years from the date of the most recent valid compliance demonstration or if there is a change to the process resulting in increased emissions. Testing shall be conducted in accordance with Section C - Performance Testing. Scrubber control efficiency for each process shall be used to calculate emissions as described in Condition D.10.3 and to demonstrate compliance with Conditions D.10.1 and/or D.10.2.

Compliance Monitoring Requirements

D.10.5 Scrubber

(a) The Permittee shall monitor and record the pressure drop at least once per day when the scrubber identified as AS-14 is utilized to comply with the limits established in Conditions D.10.1 and/or D.10.2. When for any one reading the pressure drop is outside the normal range of 0.9 - 2.5 PSI (24.9 to 69.2 inches of water column) 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 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 and Exceedances shall be considered a deviation from this permit.

(b) The Permittee shall monitor and record the scrubber flow rate at least once per day when the scrubber, identified as AS-14, is utilized to comply with the limits established in Conditions D.10.1 and/or D.10.2. When for any one reading the flow rate is outside the normal range of 4 to 8 gallons per minute 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 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 and Exceedances shall be considered a deviation from this permit.

(c) The instruments used for determining the flow rate and pressure drop 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.

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

D.10.6 Record Keeping Requirements

(a) To document compliance with Conditions D.10.1 and D.10.2, the Permittee shall maintain records in accordance with (1) through (3) below.

(1) Calendar dates covered in the compliance determination period, including the dates, times, and batch identification of operations during which the scrubber identified as AS-14 was in operation to control VOC and/or HAP emissions.

(2) actual monthly VOC and HAPs input for plants 48 and 66, including periods when scrubber identified as AS-14 in Plant 48 was and was not in operation;

(3) the VOC and HAPs content of each chemical.

D.10.7 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.10.1 and D.10.2 shall be submitted to the addresses 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 a “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.11 FACILITY OPERATION CONDITIONS

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

(k) Plant 38 used to manufacture precursors to various grades of vitamin B-3.

(1) One (1) B-3 production unit, constructed in 1967, including the following emission units:

(A) Reactors;

(B) Separators;

(C) An evaporator with emissions controlled by a scrubber;

(D) One (1) packaging facility consisting of the following:

(i) one (1) mill (identified as 28-MB), with non-vented pneumatic conveying system,

(ii) One (1) pneumatic conveying system identified as Vacuum Receiver 28- VR (known as the hurricane blower) installed in 1997, with a maximum operating capacity of 6,750 pounds per hour. This unit exhausts at stack S-28-002.

(iii) One pick-up collector (known as central vac), installed in 1997, with a maximum operating capacity of 150 pounds per hour. This unit exhausts at stack S-28-003.

And controlled by the following two (2) baghouses:

(i) Micro Pul (known as the downstairs collector), installed in 1991, with a maximum operating capacity of 670 pounds per hour, exhausting at stack S-28-004, and

(ii) Penthouse collector (known as the MAC dust collector), installed in 2000, with a maximum operating capacity of 1,500 pounds per hour, exhausting at stack S-28-001.

(2) One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(A) One plug flow reactor, with a process weight rate of 11 tons per hour, without a process vent
(B) One liquid/liquid separation unit, without a process vent
(C) One spray dry column, with a process weight rate of 11 tons/hr
(D) One product classifier, with a process weight rate of 11 tons/hr
(E) One solid B-3 storage silo, with a process weight rate of 11 tons/hr
(F) One final product packaging line, with a process weight rate of 11 tons/hr
(G) One vertical fixed roof liquid 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(H) One vertical fixed roof process water storage tank, identified as MT-1700
(I) One vertical fixed roof liquid caustic storage tank

The packaging line is uncontrolled. The spray column, product classifier and storage silo are controlled by a single product recovery baghouse, exhausting outdoors.

(l) Plant 41 used to manufacture pyridine and picoline derivatives and picolines. The plant was initially constructed in 1968. Plant 41 consists of the following facilities:

(1) Reactors;

(2) Separation facility with emissions controlled using one (1) 8.0 MMBtu per hour waste gas incinerator (identified as unit HN013), which exhausts to stack S-41-002;

(3) Distillation.

(s) The following storage tanks with storage capacities less than 10,000 gallons which may be used to store benzene, located at Plant 41:

Tank Location	Tank ID	Storage Capacity (gallons)	Year Installed
Plant 41	211	6,169	1980
	213	6,169	1980, replaced in2006
	236	6,169	1980

(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.11.1 General Standards for 40 CFR 63, Subpart GGG [40 CFR 63.1252]

(a) Opening of a safety device. Opening of a safety device, as defined in 40 CFR 63.1251, is allowed at any time conditions require it to do so to avoid unsafe conditions.

(b) Closed-vent systems. Closed-vent systems that contain bypass lines that could divert a vent stream away from a control device used to comply with the requirements in 40 CFR 63.1253, 63.1254, and 63.1256 shall comply with the requirements of Table 4 of 40 CFR 63, Subpart GGG and Condition D.11.1 (b)(1) or (2). Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, rupture disks and pressure relief valves needed for safety purposes are not subject to this condition.

(1) Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. Records shall be maintained as specified in 40 CFR 63.1259(i)(6)(i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) Secure the bypass line valve in the closed position with a car seal or lock and key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Records shall be maintained as specified in 40 CFR 63.1259(i)(6)(ii).

(c) Heat exchange systems. Except as provided in Condition D.11.1 (c)(2), the Permittee shall comply with the requirements in Condition D.11.1 (c)(1) for heat exchange systems that cool process equipment or materials used in pharmaceutical manufacturing operations.

(1) The heat exchange system shall be treated according to the provisions of 40 CFR 63.104, except that the monitoring frequency shall be no less than quarterly.

(2) For identifying leaking equipment, the Permittee of heat exchange systems on equipment which meet current good manufacturing practice (CGMP) requirements of 21 CFR part 211 may elect to use the physical integrity of the reactor as the surrogate indicator of heat exchange system leaks around the reactor.

D.11.2 Process Vent Standards [40 CFR 63.1254]

Plant 41 shall comply with one of the following standards. Notification of a change in the compliance method for any process shall be reported according to the procedures of 40 CFR 63.1260(h).

(a) 900 / 1800 kg Compliance Option [40 CFR 63.1254(a)(2) and (3)]:

(1) Actual HAP emissions from the sum of all process vents within a process (as defined in 40 CFR 63.1251) must not exceed 900 kilograms (kg) in any 365 day period.

(2) Actual HAP emissions from the sum of all process vents at the source within processes complying with the 900 kilogram limit in 40 CFR 63.1254(a)(2)(i) are limited to a maximum of 1,800 kilogram in any 365 day period.

(3) Emissions from vents that are subject to the requirements of 40 CFR 63.1254(a)(3) and emissions from vents that are controlled in accordance with the alternative limit in 40 CFR 63.1254(c) shall be excluded from the sums calculated above.

(4) The Permittee may switch from compliance with 40 CFR 63.1254(a)(2) to Compliance with 40 CFR 63.1254(a)(1) only after at least one year of operation in compliance with 40 CFR 63.1254(a)(2).

(b) 93% Reduction Compliance Option [40 CFR 63.1254(a)(1) and (3)]:
Uncontrolled HAP emissions from the sum of all process vents within a process that are not subject to 40 CFR 63.1254(a)(3) shall be reduced by 93 percent or greater by weight or any one or more vents within a process may be controlled in accordance with any of the following procedures:

(1) To outlet concentrations less than or equal to 20 ppmv as TOC and less than or equal to 20 ppmv as hydrogen halides and halogens; OR

(2) By a flare that meets the requirements of §63.11(b)

(3) By a control device specified in 40 CFR 63.1257(a)(4).

(c) If the uncontrolled HAP emissions from any process vent exceed 25 tons per year and the flow-weighted average flowrate (FR_a) calculated using Equation 1 in 40 CFR 63.1254(a)(3) is less than or equal to the flowrate index (FRI) calculated using Equation 2 of 40 CFR 63.1254(a)(3), then the Permittee must either:

(1) Reduce uncontrolled HAP emissions from that process vent by 98 percent or in accordance with any of the procedures in 40 CFR 63.1254(a)(1)(ii)(A) through (D); OR

(2) As an alternative to the 98% reduction in (i) above, the Permittee may comply with the provisions in 40 CFR 63.1254(a)(3)(ii)(A), (B), or (C).

(d) Alternative Compliance Option [40 CFR 63.1254(c)]:
The Permittee shall route vents to a noncombustion control device which achieves an outlet TOC concentration, as calibrated on methane or the predominant HAP, of 50 ppmv or less and an outlet concentration of hydrogen halides and halogens of 50 ppmv or less.

D.11.3 Monitoring and Compliance Demonstration Requirements [40 CFR 63.1258]

Each process in Plant 41 shall comply with the following based on the compliance option chosen:

(a) 900 / 1800 kg Compliance Option and 93% Reduction Option:

(1) For control devices that control vent streams totaling less than 1 ton per year HAP emissions, before control, the Permittee shall verify daily that the control device is operating properly. If the control device is used to control batch process vents alone or in combination with other streams, the verification may be on a per batch basis. This verification shall include, but not be limited to, a daily or per batch demonstration that the unit is working as designed. Measurements taken for this verification are not considered continuous monitoring systems.

(2) For condensers that control vent streams totaling greater than 1 ton per year HAP emissions, before control:

(i) The Permittee shall establish the maximum condenser outlet temperature as a site-specific operating parameter.

(ii) The Permittee shall measure and record the outlet gas temperature at least every 15 minutes during the period in which the condenser is functioning in achieving HAP removal.

(iii) The temperature monitoring device must be accurate to within ± 2 percent of the temperature measured in degrees Celsius or ± 2.5 degrees Celsius whichever is greater.

(iv) The temperature monitoring device must be calibrated annually.

(v) Averaging periods for the site-specific operating parameters shall be established according to 40 CFR 63.1258(b)(2)(i) through (iii).

(vi) The site specific operating parameters shall be set pursuant to 40 CFR 63.1258(b)(3).

(3) For scrubbers that control vent streams totaling greater than 1 ton per year HAP emissions, before control:

(b) The Permittee shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter. If the scrubber uses a caustic solution to remove acid emissions, the Permittee shall establish a minimum pH of the effluent scrubber liquid as a site-specific operating parameter.

(i) The Permittee shall measure and record either the scrubber liquid flow rate or pressure drop every 15 minutes during the period in which the scrubber is functioning in achieving HAP removal. If the scrubber uses a caustic solution to remove acid emissions, the Permittee shall monitor the pH of the effluent scrubber liquid at least once per day.

(ii) The monitoring device(s) used to determine the pressure drop shall be certified by the manufacturer to be accurate to within a gage pressure of ± 10 percent of the maximum pressure drop measured.

(iii) The monitoring device(s) used for measurement of scrubber liquid flow rate shall be certified by the manufacturer to be accurate within ± 10 percent of the design scrubber liquid flow rate.

(iv) The monitoring device(s) shall be calibrated annually.

(v) The site specific operating parameters shall be set pursuant to 40 CFR 63.1258(b)(3).

Pursuant to 40 CFR 63.1258(c), the Permittee shall demonstrate continuous compliance with the 900 and 1,800 kilogram per year emission limits by calculating daily 365 day rolling summations of emissions.

(c) Alternative Compliance Option: The Permittee shall use CEMS to monitor and record the outlet TOC concentration and the outlet hydrogen halide and halogen concentration every fifteen (15) minutes during the period in which the device is functioning in achieving the required HAP removal. The TOC monitor must meet the requirements of EPA Performance Specification 8, 9, or 15 of Appendix B of 40 CFR 60 and shall be installed, calibrated, and maintained according to 40 CFR 63.8.

D.11.4 Equipment Leaks Standard [40 CFR 63.1255]

The following provisions apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year and are located at Plant 41.

(a) Equipment to which 40 CFR 63, Subpart GGG applies shall be identified such that it can be distinguished readily from equipment that is not subject to this NESHAP. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process boundaries by some form of weatherproof identification. If changes are made to the affected source subject to the leak detection requirements, equipment identification for each type of component shall be updated, if needed, within 90 calendar days or by the next Periodic Report following the end of the monitoring period for that component, whichever is later.

(b) When each leak is detected by visual, audible, or olfactory means, or by monitoring as described in 40 CFR 63.180(b) or (c), 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 in light liquid or gas/vapor service may be removed after it has been monitored as specified in 40 CFR 63.1255(e)(7)(iii), and no leak has been detected during the follow-up monitoring.

(3) The identification on equipment, except on a valve in light liquid or gas/vapor service, may be removed after it has been repaired.

(c) In all cases where the provisions of 40 CFR 63, Subpart GGG require the Permittee to repair leaks by a specified time after the leak is detected, it is a violation of this condition to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of this condition. However, if the repairs are unsuccessful, a leak is detected and the Permittee shall take further action as required by applicable provisions of this condition.

(d) The following process components in VOHAP/ VOC service shall comply with design standards, shall be operated in accordance with work practice standards and shall undergo periodic monitoring in accordance with the provisions cited below. Periodic monitoring shall be performed in accordance with 40 CFR 63.1255(b)(4)(v) and 40 CFR 63.1255(a)(11)(iv).

(1) Pumps in light liquid service shall be operated in accordance with the standard at 40 CFR 63.1255(c);

(2) Compressors shall be operated in accordance with the standards at 40 CFR 63.1255(b)(3);

(3) Pressure relief devices in gas/vapor service shall be operated in accordance with the standard at 40 CFR 63.1255(b)(3);

(4) Sampling connection systems shall be operated in accordance with the standard at 40 CFR 63.1255(b)(3);

(5) Open ended valves or lines shall be operated in accordance with the standard at 40 CFR 63.1255(d);

(6) Valves in gas/vapor and light liquid service shall be operated in accordance with the standard at 40 CFR 63.1255(e);

(7) Closed-vent systems and control devices used to comply with this shall be operated in accordance with the standard at 40 CFR 63.1255(b)(4)(ii);

(8) Agitators in gas/vapor and light liquid service shall be operated in accordance with the standard at 40 CFR 63.1255(c);

(9) Pumps, valves, connectors, and agitators in heavy liquid service, instrumentation systems, and pressure relief devices in liquid service shall be operated in accordance with the standard at 40 CFR 63.1255(b)(3); and

(10) Connectors in gas/vapor and light liquid service shall be operated in accordance with the standard at 40 CFR 63.1255(b)(4)(iii).

(e) As an alternative to complying with Conditions D.11.4 (d)(1) through D.11.4 (d)(6) and D.11.4 (d)(8) through D.11.4 (d)(10), system components may comply with 40 CFR 63.1255(b)(4)(iv).

(f) Pursuant to 40 CFR 63.1255(b)(3), which references 40 CFR 63.179 (Alternative means of emission limitation: Enclosed-vented process units), process units enclosed in such a manner that all emissions from equipment leaks are vented through a closed-vent system to a control device meeting the requirements of 40 CFR 63.172 and 40 CFR 1255(b)(4)(ii) are exempted from the requirements of 40 CFR 63.163 through 171, and 40 CFR 63.173 through 174 as referenced by 40 CFR 63.1255. The enclosure shall be maintained under a negative pressure at all times while the process unit is in operation to ensure that all emissions are routed to the control device. The closed vent system and control device must comply with the requirements in Condition D.11.4(d)(7).

(g) The following equipment is exempt from the monitoring requirements as specified in 40 CFR 63.1255(f)(1)(i) through (iv) provided the Permittee meets the requirements specified in 40 CFR 63.1255(f)(2), (3) or (4) as applicable. All equipment must be assigned to a group of processes.

(1) Equipment that is designated as unsafe to monitor or unsafe to inspect pursuant to 40 CFR 63.1255(f)(2);

(2) Equipment that is difficult to monitor or difficult to inspect pursuant to 40 CFR 63.1255(f)(3); and

(3) Connectors that are inaccessible, ceramic, or ceramic-lined pursuant to 40 CFR 63.1255(f)(4).

(h) The following facilities are not subject to the equipment leaks standards in 40 CFR 63.1255:

(1) Research and development facilities, activities, and equipment [40 CFR 63.1250(d)];

(2) Components on transportation equipment and containers (e.g., railroad cars, tanker trucks and drums);

(3) Utilities and non-process lines [40 CFR 63.1255(a)(5)];

(4) Bench scale processes [40 CFR 63.1255(a)(6)];

(5) Equipment in vacuum service [40 CFR 63.1255(a)(8)];

(6) Waste components;

(7) Equipment that is in HAP service but that is in such service less than 300 hours per calendar year [40 CFR 63.1255(a)(10)]; and

(8) Closed loop heat exchange systems [40 CFR 63.1255(a)(5)].

D.11.5 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the particulate matter emissions from the packaging facilities constructed in 1967 and 2011, the spray dryer, product classifier and storage silo shall be limited to 0.03 grains per dry standard cubic foot.

D.11.6 Synthesized Pharmaceutical Manufacturing Operations [326 IAC 8-5-3]

All reactors, distillation units, dryers, storage of volatile organic compounds, transfer of volatile organic compounds, extraction equipment, filters, crystallizers, and centrifuges that have the potential to emit equal to or greater than fifteen (15) pounds per day shall comply with the following requirements:

(a) Volatile organic compound emissions from all reactors, distillation operations, crystallizers, centrifuges, and vacuum dryers shall be controlled by surface condensers or equivalent controls.

(1) The outlet gas temperature for surface condensers must not exceed:

(A) minus twenty-five degrees Celsius (-25 °C) when condensing VOC of vapor pressure greater than forty (40) kilo Pascals (five and eight-tenths (5.8) pounds per square inch);

(B) minus fifteen degrees Celsius (-15 °C) when condensing VOC of vapor pressure greater than twenty (20) kilo Pascals (two and nine-tenths (2.9) pounds per square inch);

(C) zero degrees Celsius (0 °C) when condensing VOC of vapor pressure greater than ten (10) kiloPascals (one and five-tenths (1.5) pounds per square inch);

(D) ten degrees Celsius (10 °C) when condensing VOC of vapor pressure greater than seven (7) kiloPascals (one (1) pound per square inch); or

(E) twenty-five degrees Celsius (25 °C) when condensing VOC of vapor pressure greater than three and five-tenths (3.5) kilo Pascals (five-tenths (0.5) pound per square inch).

(2) The vapor pressures listed above shall be measured at twenty degrees Celsius (20 °C).

(3) Where equivalent controls are used, the VOC emissions must be reduced by at least as much as they would be by using a surface condenser which meets the requirements of paragraph (a)(1) of this condition.

(b) VOC emissions from all air dryers and production equipment exhaust systems shall be limited to thirty-three (33) pounds per day.

(c) The Permittee shall:

(A) provide a vapor balance system or equivalent control that is at least ninety percent (90%) effective in reducing emissions from truck or railcar deliveries to storage tanks with capacities greater than two thousand (2,000) gallons that store VOC with vapor pressures greater than twenty-eight (28) kiloPascals (four and one-tenth (4.1) pounds per square inch) at twenty degrees Celsius (20 ^{o}C); and

(B) install pressure/vacuum conservation vents set at plus or minus two-tenths (± 0.2) kilo Pascals on all storage tanks that store VOC with vapor pressures greater than ten (10) kilo Pascals (one and five-tenths (1.5) pounds per square inch at twenty degrees Celsius (20 ^{o}C)), unless a more effective control system is used.

(d) All centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface, where the liquid contains VOC and exerts a total VOC vapor pressure of three and five tenths (3.5) kiloPascals (five-tenths (0.5) pounds per square inch) or more at twenty degrees Celsius (20 ^{o}C) shall be enclosed.

(e) All inprocess tanks containing a volatile organic compound at any time shall be equipped with covers. These covers must remain closed, unless production, sampling, maintenance, or inspection procedures require operator access.

(f) The Permittee shall repair all leaks from which a liquid, containing VOC, can be observed running or dripping. The repair shall be completed the first time the equipment is off line for a period of time long enough to complete the repair.

D.11.7 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

(a) PM_{10} emissions from the spray dryer baghouse exhaust shall not exceed 2.35 lb/hr.

(b) $PM_{2.5}$ emissions from the spray dryer baghouse exhaust shall not exceed 1.25 lb/hr.

Compliance with these emission limits along with the PM_{10} and $PM_{2.5}$ emissions from the packaging system and the net change of emissions from Plant 27, Plant 29, Plant 38 and Plant 41 will ensure the potential to emit PM_{10} is less than 15 tons and $PM_{2.5}$ is less than 10 tons per year and will render the requirements of 326 IAC 2-2, not applicable to Significant Source Modification 097-30723-00315 for PM_{10} and $PM_{2.5}$.

D.11.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A preventive maintenance plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.11.9 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Condition D.11.5, the baghouses used for particulate control shall be in operation and control emissions from the packaging facilities at all times that the packaging facilities are in operation.

(b) In order to ensure compliance with Condition D.11.7, the baghouse used for particulate control shall be in operation and control emissions from the spray dryer operation at all times this facility is in operation.

(c) 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.11.10 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-6(6)]

(a) In order to demonstrate the compliance status with Condition D.11.5 and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform PM testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The PM emission rate shall be determined after the control device. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(b) In order to demonstrate the compliance status with Condition D.11.7(a) and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform PM_{10} testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The PM_{10} emission rate shall be determined after the control device. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(c) In order to demonstrate the compliance status with Condition D.11.7(b) and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform $PM_{2.5}$ testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The $PM_{2.5}$ emission rate shall be determined after the control device. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.11.11 Visible Emissions Notations

(a) In order to demonstrate the compliance status with Condition D.11.5 and Condition D.11.7, visible emission notations of the packaging facility constructed in 1967 stack exhausts and the spray drying process baghouse exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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.11.12 Parametric Monitoring

In order to demonstrate the compliance status with Condition D.11.5 and Condition D.11.7, the Permittee shall record the pressure drop across the baghouses used in conjunction with the packaging facilities constructed in 1967, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across baghouses is outside the normal range of 3.0 and 6.0 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.11.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(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).

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.

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

D.11.14 Record Keeping Requirements for 40 CFR 63, Subpart GGG [40 CFR 63.1259]

Pursuant to 40 CFR 63.1259, the Permittee shall keep the following records:

(a) The Permittee shall develop and implement a written startup, shutdown and malfunction plan as specified in 40 CFR 63.6(e)(3). This plan shall describe in detail procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program for corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with Subpart GGG. Current and superseded versions shall be kept onsite. The Permittee shall keep startup, shutdown and malfunction records.

(b) For control devices that control vent streams totaling less than 1 ton per year HAP emissions, before control, the Permittee shall keep records of the daily verifications that each control device is operating properly.

(c) For each process using the 900 / 1800 kg Compliance Option, the Permittee shall keep daily records of the rolling annual total emissions.

(d) For each condenser or scrubber controlling vent streams totaling greater than 1 ton per year HAP emissions, before control, the Permittee shall keep records of outlet gas temperature, scrubber liquid flow rate, and pressure drop as applicable.

(e) For each process using continuous monitoring systems, the Permittee shall maintain continuous monitoring system records specified in 40 CFR 63.10(c)(1) through (14). Pursuant to 40 CFR 63.1259(b)(3), the Permittee shall maintain records documenting the completion of calibration checks and maintenance of continuous monitoring systems.

(f) Pursuant to 40 CFR 63.1259(b)(5), the Permittee shall keep records of the following, as appropriate:

(1) The number of batches per year for each batch process;

(2) The operating hours per year for continuous processes;

(3) Standard batch uncontrolled and controlled emissions for each process;

(4) Actual uncontrolled and controlled emissions for each nonstandard batch;

(5) A record whether each batch operated was considered a standard batch;

(g) The Permittee shall keep a schedule or log of each operating scenario updated daily or, at a minimum, each time a different operating scenario is put into operation. Records shall be sufficient to demonstrate which operating scenario apply to each process for each day.

(h) The Permittee shall keep a description of worst-case operating conditions as required in 40 CFR 63.1257(b)(8).

(i) The Permittee shall keep records of all maintenance performed on the air pollution control equipment.

(j) Records relating to leak detection and repair shall be kept in accordance with 40 CFR 63.1255(g).

(k) The following records relating to wastewater shall be kept:

(1) The Permittee shall keep records documenting decisions to use a delay of repair due to unavailability of parts, as specified in 40 CFR 63.1256(i).

(2) For transfers of affected wastewater streams or residuals removed from an affected wastewater stream in accordance with 40 CFR 63.1256(a)(5), the Permittee shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic HAP which are required to be managed and treated in accordance with the provisions 40 CFR 63, Subpart GGG.

(3) A record, as applicable, that each waste management unit inspection required by 40 CFR 63.1256(b) through (f) was performed.

D.11.15 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.11.11, the Permittee shall maintain a daily record of visible emission notations of the packaging facilities constructed in 1967 stack exhausts and the spray dryer operation 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 process did not operate that day).

(b) In order to document the compliance status with Condition D.11.12, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the packaging facilities constructed in 1967. 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 process did not operate that day).

(c) Section C General Record Keeping Requirements contains the Permittee's obligation with regard

to the records required by this condition.

D.11.16 Reporting Requirements [40 CFR 63.1260]

(a) The Permittee shall submit semiannual Periodic Reports. When a new operating scenario has been operated since the last Periodic report, quarterly reports shall be submitted.

(b) The Permittee must submit a report 60 days before the scheduled implementation date of either any change in the activity covered by the Precompliance report or a change in the status of a control device from small to large.

(c) Whenever a process change is made or there is a change in any of the information submitted in the Notification of Compliance Status Report (other than those changes covered in (2) above), the Permittee shall submit the following information with the next Periodic report:

(1) A brief description of the process change;

(2) A description of any modifications to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report;

(4) Information required by the Notification of Compliance Status Report for changes involving the addition of processes or equipment.

(d) The Permittee shall prepare startup, shutdown, and malfunction reports as outlined in 40 CFR 63.1260(i).

(e) Reporting relating to leak detection and repair shall be conducted in accordance with 40 CFR 63.1255(h).

SECTION D.12 FACILITY OPERATION CONDITIONS

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

(i) Cold cleaning operating with potential emissions of less than three (3) pounds per hour (lbs/hr) or fifteen (15) pounds per day (lbs/day) of VOC.

(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.12.1 Cold Cleaner Degreaser Operations and Control [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), the owner or operator of a cold cleaning facility shall:

(a) Equip the cleaner with a cover;
(b) Equip the cleaner with a facility for draining cleaned parts;
(c) Close the degreaser cover whenever parts are not being handled in the cleaner;
(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
(e) Provide a permanent, conspicuous label summarizing the operating requirements;
(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

SECTION E.1 SOURCE OPERATION CONDITIONS

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

(e) One (1) landfill gas and natural gas-fired boiler (identified as unit CB600-300) having a maximum heat input capacity of 25.1 MMBtu per hour. The boiler also burns miscellaneous process gases from the wastewater treatment plant. This boiler was installed in 1990 and exhausts to stack S-29-005. [40 CFR 60, Subpart Dc]

(f) One (1) landfill gas and natural gas-fired boiler (identified as unit CN5-400) having a maximum heat input capacity of 61.1 MMBtu per hour. This boiler was constructed in 1995 and exhausts to stack S-29-006. [40 CFR 60, Subpart Dc]

(g) One (1) natural gas-fired boiler (identified as unit CB-70K) having a maximum heat input capacity of 91.1 MMBtu per hour. This boiler may also be fired using fuel oils No.1, No.2, No.4, No.5 and No.6, and process emissions. This boiler was installed in 1999 and exhausts to stack S-29-007. [40 CFR 60, Subpart Dc]

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

E.1.1 General Provisions Relating to NSPS Dc [326 IAC 12][40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, 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.

E.1.2 New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units [326 IAC 12][40 CFR Part 60, Subpart Dc]

The Permittee who operates three small industrial-commercial-institutional boilers, constructed after June 9, 1989 with a maximum heat input capacity greater than 10 mmBtu/hr but less than 100 MMBtu/hr shall comply with the following provisions of 40 CFR Part 60, Subpart Dc, included as Attachment A of this permit:

Nonapplicable portions of the NSPS will not be included in the permit. Boilers CB600-300 and CN5-400 are subject to the following portions of Subpart Dc:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(a)
(4) 40 CFR 60.48c(f)(4)
(5) 40 CFR 60.48c(g)
(6) 40 CFR 60.48c(i)
(7) 40 CFR 60.48c(j)

Nonapplicable portions of the NSPS will not be included in the permit. Boiler CB-70K is subject to the following portions of Subpart Dc:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.42c(d)
(4) 40 CFR 60.42c(h)(1)
(5) 40 CFR 60.42c(j)
(6) 40 CFR 60.43c(c)
(7) 40 CFR 60.43(d)
(8) 40 CFR 60.44c(g)
(9) 40 CFR 60.44c(h)
(10) 40 CFR 60.46c(e)
(11) 40 CFR 60.47c(c)

(12) 40 CFR 60.48c(a)
(13) 40 CFR 60.48c(f)(1)
(14) 40 CFR 60.48c(f)(4)
(15) 40 CFR 60.48c(g)
(16) 40 CFR 60.48c(i)
(17) 40 CFR 60.48c(j)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315

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 (IDEM)

OFFICE OF AIR QUALITY (OAQ)
COMPLIANCE AND ENFORCEMENT BRANCH

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- 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 and Enforcement Branch); and
- 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
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 (IDEM)
OFFICE OF AIR QUALITY (OAQ)

COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315
Facility: Boiler CB-70K
Parameter: Distillate fuel oil and fuel oil equivalents
Limit: 1,124 kgallons of distillate fuel oil and fuel oil equivalents

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Note: For the purposes of determining compliance, burning 1 MMCF of natural gas in Boiler CB-70K is Equivalent to burning 1.41 kgallons of distillate fuel oil.

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on (date): _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM)
OFFICE OF AIR QUALITY (OAQ)

COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

VOC Emission, Plants 48 and 66

This form consists of 2 pages **Page 1 of 2**

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315
Facility: Plants 48 and Plant 66
Parameter: VOC
Limit: 40 ton/year for plant 48, 25 ton/yr for plant 66.
Plant 66 VOC emission = VOC input;
Plant 48 VOC emission to be calculated using the following equation:

$$E_{VOC48} = W_{VOC48u} + \sum [W_{VOC48c} * (1-C_{eff})],$$

where: E_{VOC48} = the monthly VOC emission from Plant 48;

W_{VOC48u} = the monthly Plant 48 VOC input when operating without control;

W_{VOC48c} = the monthly Plant 48 VOC input for each process when operating with control;

C_{eff} = the scrubber AT-14 control efficiency for each process;

QUARTER: _____ YEAR: _____

Plant 48

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Plant 66

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Continued on Page 2

VOC Emission, Plants 48 and 66 (continued)

Page 2 of 2

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

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 (IDEM)
OFFICE OF AIR QUALITY (OAQ)

COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315
Facility: Plants 48 and 66
Parameter: Hazardous Air Pollutants (combined HAPs)
Limit: 6.0 Tons/year total from the two (2) plants (combined)
HAP Emissions to be calculated using the following formula:

$$E_{HAP} = W_{HAP48u} + W_{HAP66} + \sum [W_{HAP48c} * (1-C_{eff})],$$

where: E_{HAP} = the monthly combined HAP emission from plants 48 and 66 (combined)
W_{HAP48u} = the monthly Plant 48 HAP input when operating without control (scrubber)
W_{HAP48c}= the monthly Plant 48 HAP input for each process when operating with control (scrubber)
W_{HAP66} = the monthly Plant 66 HAP input
C_{eff} = the scrubber AS-14 control efficiency for each process

QUARTER: YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

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 (IDEM)
OFFICE OF AIR QUALITY (OAQ)

COMPLIANCE AND ENFORCEMENT BRANCH
Part 70 Quarterly Report

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315
Facility: Plants 48 and 66
Parameter: Hazardous Air Pollutants (individual HAP)
Limit: 6.0 Tons/year total from the two (2) plants (combined)
HAP Emission to be calculated using the following formula:

$$E_{HAP} = W_{HAP48u} + W_{HAP66} + \sum [W_{HAP48c} * (1-C_{eff})],$$

where: E_{HAP} = the monthly individual HAP emission from plants 48 and 66 (combined)
W_{HAP48u} = the monthly Plant 48 HAP input when operating without control (scrubber)
W_{HAP48c}= the monthly Plant 48 HAP input for each process when operating with control (scrubber)
W_{HAP66} = the monthly Plant 66 HAP input
C_{eff} = the scrubber AS-14 control efficiency for each process

QUARTER: YEAR: HAP:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Note: For the purposes of determining compliance, the sum of individual HAP emissions from plants 48 & 66 shall be limited to 6.0 tons/year on a rolling monthly average.

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

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 (IDEM)
OFFICE OF AIR QUALITY (OAQ)

COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Vertellus Agriculture & Nutrition Specialties LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Part 70 Permit No.: T097-7552-00315

Months:_____ **to**_____ **Year:**_____

This form consists of 2 pages **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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do 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:	

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.

Attachment A to a Part 70 Operating Permit

Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

Source Name:	**Vertellus Agriculture & Nutrition Specialties, LLC**
Source Location:	**1500 South Tibbs Avenue, Indianapolis, IN 46241**
County:	**Marion County**
SIC Code:	**2869, 2899**
Operation Permit No.:	**T 097-7552-00315**
Permit Reviewer:	**Josiah Balogun**

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not subject by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 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 continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of SO_2in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2emissions limit or the 90 percent SO_2reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 50 percent (0.50) of the potential SO_2emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent

SO_2reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the following:

(1) The percent of potential SO_2emission rate or numerical SO_2emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s= SO_2emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (1.2 lb/MMBtu);

K_b= 260 ng/J (0.60 lb/MMBtu);

K_c= 215 ng/J (0.50 lb/MMBtu);

H_a= Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO_2emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50

weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO_2emission limits under §60.42c is based on the average percent reduction and the average SO_2emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2emission rate (E_{ho}) and the 30-day average SO_2emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate $E_{ao}$when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho}(E_{ho}o) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E_{ao}(E_{ao}o). The E_{ho}o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_j)}{X_j}$$

Where:

E_{ho}o = Adjusted E_{ho}, ng/J (lb/MMBtu);

E_{ho}= Hourly SO_2emission rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0.

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters $E_w$or $X_k$if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO_2emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$= Potential SO_2emission rate, in percent;

$\%R_g$= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$= SO_2removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$($\%R_g$o) is computed from E_{ao}o from paragraph (e)(1) of this section and an adjusted average SO_2inlet rate (E_{ai}o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$o = Adjusted $\%R_g$, in percent;

E_{ao}o = Adjusted E_{ao}, ng/J (lb/MMBtu); and

E_{ai}o = Adjusted average SO_2inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai}o, an adjusted hourly SO_2inlet rate (E_{hi}o) is used. The E_{hi}o is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{hi}o$ = Adjusted E_{hi}, ng/J (lb/MMBtu);

E_{hi}= Hourly SO_2inlet rate, ng/J (lb/MMBtu);

E_w= SO_2concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value $E_w$for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure $E_w$if the owner or operator elects to assume E_w= 0; and

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2emissions data in calculating $\%P_s$and E_{ho}under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$or E_{ho}pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2or CO_2measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main* or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243–01; RTP, NC 27711.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2concentrations and either O_2or CO_2concentrations at the outlet of the SO_2control device (or the outlet of the steam generating unit if no SO_2control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO_2concentrations and either O_2or CO_2concentrations at both the inlet and outlet of the SO_2control device.

(b) The 1-hour average SO_2emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO_2emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO_2emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO_2CEMS at the inlet to the SO_2control device shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted, and the span value of the SO_2CEMS at the outlet from the SO_2control device shall be 50 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO_2CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2control device (or outlet of the steam generating unit if no SO_2control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2at the inlet or outlet of the SO_2control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable $SO_2$and CO_2measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this

part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), (f), and (g) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A–4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part is not required to operate a COMS.

(g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2or diluent (O_2or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) 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 sample 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);

(iii) 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

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source and Significant Permit Modification

Source Description and Location

Source Name:	Vertellus Agriculture & Nutrition Specialties, LLC
Source Location:	1500 South Tibbs Avenue Indianapolis, Indiana 46241
County:	Marion County
SIC Code:	2869, 2899
Operation Permit No.:	T 097-7552-00315
Operation Permit Issuance Date:	January 12, 2005
Significant Source Modification No.:	097-30723-00315
Significant Permit Modification No.:	097-30726-00315
Permit Reviewer:	David J. Matousek

Existing Approvals

The source was issued Part 70 Operating Permit No. 097-7552-00315 on January 12, 2005. The source has since received the following approvals:

(a) Administrative Amendment No. 097-23179-00315, issued on July 5, 2006;
(b) Administrative Amendment No. 097-23460-00315, issued on September 6, 2006;
(c) Administrative Amendment No. 097-23763-00315, issued on November 8, 2006;
(d) Minor Source Modification No. 097-24158-00315, issued on March 8, 2007;
(e) Significant Permit Modification No. 097-24160-00315, issued on May 30, 2008;
(f) Administrative Amendment No. 097-25155-00315, issued on October 3, 2007; and
(g) Significant Permit Modification No. 097-27243-00315, issued on April 30, 2009.

County Attainment Status

The source is located in Marion County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11th Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O_3	Attainment effective November 8, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.

[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to ozone. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Marion County has been classified as nonattainment for $PM_{2.5}$ in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Marion County has been classified as attainment or unclassifiable in Indiana for SO_2, CO, PM_{10}, NO_2 and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a chemical process plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	**Emissions** (ton/yr)
PM	> 100
PM_{10}	> 100
$PM_{2.5}$	> 100
SO_2	> 100
VOC	> 100
CO	> 100
NO_X	> 100
GHGs	> 100,000
Single HAP	> 10
Total HAP	> 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, emissions of GHGs are equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since direct $PM_{2.5}$ and SO_2 are emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon the technical support document (TSD) for minor source modification number 097-27202-00315 for PM, PM10, PM2.5, SO2, VOC, CO and NOx. Greenhouse gas emissions were estimated by IDEM and are included as Appendix A to this TSD.

(d) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a new source review and modification application, submitted by Vertellus Agriculture & Nutrition Specialties, LLC on July 18, 2011, related to the installation of a new B-3 (Niacinamide) production line including a new reactor, three raw material storage tanks, a liquid separation unit, a spray dryer with a product sorter, and a product packaging line. The following is a list of the proposed emission units and pollution control devices:

One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(1) One plug flow reactor, with a process weight rate of 11 tons per hour, without a process vent
(2) One liquid/liquid separation unit, without a process vent
(3) One spray dry column, with a process weight rate of 11 tons per hour
(4) One product classifier, with a process weight rate of 11 tons per hour
(5) One solid B-3 storage silo, with a process weight rate of 11 tons per hour
(6) One final product packaging line, with a process weight rate of 11 tons per hour
(7) One vertical fixed roof liquid 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(8) One vertical fixed roof process water storage tank, identified as MT-1700
(9) One vertical fixed roof liquid caustic storage tank

The packaging line is uncontrolled. The spray column, product classifier and storage silo are controlled by a single product recovery baghouse, exhausting outdoors.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the 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 PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Increase in PTE Before Controls of the Modification	
Pollutant	**Potential To Emit** (ton/yr)
PM	3,379.69
PM_{10}	3,379.69
$PM_{2.5}$	3,379.69
SO_2	0.00
VOC	0.20
CO	0.00
NO_X	0.00
Single HAPs	0.00
Total HAPs	0.00

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

This source modification is subject to 326 IAC 2-7-10.5(f)(4)(A), because PM and PM10 emissions are greater than twenty-five (25) tons per year. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d); because, the modification requires a case-by-case determination of an emission limitation or other standard.

Permit Level Determination – PSD or Nonattainment NSR

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Limited PTE New Units - Plant 38

Emission Unit ID#	Process Description	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO2 (TPY)	VOC (TPY)	CO (TPY)	NOx (TPY)	CO_2 e (TPY)
	Spray Dryer System	0.26	10.30	5.48	0.00	0.00	0.00	0.00	0.00
	Packaging System	0.36	0.17	0.03	0.00	0.00	0.00	0.00	0.00
---	Total PTE - New Units	0.62	10.47	5.51	0.00	0.00	0.00	0.00	0.00

Net Change of Affected Units [2]

Emission Unit ID#	Process Description	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO2 (TPY)	VOC (TPY)	CO (TPY)	NOx (TPY)	CO_2 e (TPY)
Plant 38	Baseline-Exist Equip	4.64	4.64	4.64	0.00	0.00	0.00	0.00	0.00
Plant 38	Projected-Exist Equip	5.91	5.91	5.91	0.00	0.00	0.00	0.00	0.00
Plant 38	Net Change	1.27	1.27	1.27	0.00	0.00	0.00	0.00	0.00
Plant 41	Baseline	0.49	0.49	0.49	0.04	1.05	0.08	57.74	7,810.40
Plant 41	Projected	0.59	0.59	0.59	0.05	1.26	0.10	69.53	9,405.72
Plant 41	Net Change	0.10	0.10	0.10	0.01	0.21	0.02	11.79	1,595.32
Plant 27	Baseline	15.09	15.09	15.09	0.15	19.13	0.00	36.10	30,500.87
Plant 27	Projected	16.49	16.49	16.49	0.17	20.91	0.00	39.45	33,331.77
Plant 27	Net Change	1.40	1.40	1.40	0.02	1.78	0.00	3.35	2,830.90
Plant 29	Baseline	10.47	10.47	10.47	30.00	3.93	0.55	78.28	43,962.20
Plant 29	Projected	12.09	12.09	12.09	34.64	4.53	0.64	90.40	50,767.60
Plant 29	Net Change	1.62	1.62	1.62	4.64	0.60	0.09	12.12	6,805.40

Prevention of Significant Deterioration (PSD) Applicability Determination

	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO2 (TPY)	VOC (TPY)	CO (TPY)	NOx (TPY)	CO_2 e (TPY)
Limited PTE New Units	0.62	10.47	5.51	0.00	0.00	0.00	0.00	0.00
Net Change of Affected Units	4.39	4.39	4.39	4.67	2.59	0.11	27.26	11,231.62
Totals for Project	5.01	14.86	9.90	4.67	2.59	0.11	27.26	11,231.62
Significant Levels	25	15	10	40	40	100	40	75,000

The Permittee has stated in the application for this approval that this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1 and/or Non-attainment New Source Review under 326 IAC 2-1.1-5. IDEM, OAQ has not reviewed any additional information and will not be making any determination in this regard as part of this approval.

The potential to emit of the modification are in excess of 15 TPY for PM10 and 10 TPY for PM2.5. However, the source has accepted limits on PM10 and PM2.5 emissions of the spray dryer to keep the project minor for PSD. The following emission limits will ensure Significant source modification 097-30723-00315 is minor for PSD:

Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

(a) PM_{10} emissions from the spray dryer dust collector exhaust shall not exceed 2.35 lb/hr.

(b) $PM_{2.5}$ emissions from the spray dryer dust collector exhaust shall not exceed 1.25 lb/hr.

Compliance with these emission limits along with the PM_{10} and $PM_{2.5}$ emissions from the packaging system and the net change of emissions from Plant 27, Plant 29, Plant 38 and Plant 41 will ensure the potential to emit PM_{10} is less than 15 tons and $PM_{2.5}$ is less than 10 tons per year and will render the requirements of 326 IAC 2-2, not applicable to Significant Source Modification 097-30723-00315 for PM_{10} and $PM_{2.5}$.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this modification.

NESHAP:

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this modification.

CAM:

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Limited PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Spray Dryer System PM10	Y	Y	3,379.68	0.26	100	Y	N
Spray Dryer System PM	Y	Y	3,379.68	10.3	100	Y	N
Spray Dryer System PM2.5	Y	Y	3,379.68	5.48	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Spray Dryer System for PM, PM10 amd PM2.5 upon issuance of this permit. A CAM plan will be incorporated into this Part 70 permit renewal.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-1.1-5 (Nonattainment New Source Review)
Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the processes listed in the table below shall not exceed the pound per hour rate shown in table when operating at a process weight rate shown in the table below. These pounds per hour limitations were calculated as follows:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Summary of Process Weight Rate Limits		
Process / Emission Unit	**P** (ton/hr)	**E** (lb/hr)
Spray Dryer	11.00	20.44
Packaging Facility	11.00	20.44

The packaging unit has potential particulate matter emissions of less than 0.551 pounds per hour; therefore, it is exempt from 326 IAC 6-3-2 in accordance with 326 IAC 6-3-1(b)(15).

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
This rule applies to sources or facilities located in Marion County, that are specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10, or to unlisted sources or facilities with the potential to emit 100 tons per year or more or actual emissions of 10 TPY of particulate matter. As a source, Vertellus is listed in 326 IAC 6.5-6-31. This source has a potential to emit PM in excess of 100 TPY; therefore, 326 IAC 6.5 does apply to the spray dryer

and packaging facility. In accordance with 326 IAC 6.5-1-2(a), particulate matter emissions from the packaging unit and the spray dryer operation shall not exceed 0.03 gr/dscf. This rule is more stringent than 326 IAC 6-3-2; therefore, 326 IAC 6-3-2 does not apply to the spray dryer.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a 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 Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements 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 Determination Requirements applicable to this modification are as follows:

Emission Unit	Parameter	Frequency
Spray Dry Unit [Controlled by a dust collector]	Operation of Dust Collector	At all times process is in operation

Summary of Testing Requirements					
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
Spray Dry Unit	Dust Collector	Within 60 days of max. capacity but no later than 180 days after startup	PM (Outlet of Dust Collector)	Every Five Years	0.03 gr/dscf at outlet
Spray Dry Unit	Dust Collector	Within 60 days of max. capacity but no later than 180 days after startup	PM_{10} (Outlet of Dust Collector)	One Time	2.35 lb/hr
Spray Dry Unit	Dust Collector	Within 60 days of max. capacity but no later than 180 days after startup	$PM_{2.5}$ (Outlet of Dust Collector)	One Time	1.25 lb/hr

The Compliance Monitoring Requirements applicable to this modification are as follows:

Emission Unit	Parameter	Frequency	Response
Spray Dryer Dust Collector	VE Notations	Once per Day	Reasonable Response Steps

These monitoring conditions are necessary to ensure compliance with the Prevention of Significant Deterioration (PSD) minor limit (326 IAC 2-2) and 326 IAC 6.5.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T 097-7552-00315. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change #1 IDEM revised Section A to include the emission unit descriptions for the proposed modification. Revisions are shown below:

A.2 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:

****

(k) Plant 38 used to manufacture precursors to various grades of vitamin B-3.

(1) ~~The plant was initially constructed in 1967 and consists of the following emission units:~~ **One (1) B-3 production unit, constructed in 1967, including the following emission units:**

(**A**~~1~~) Reactors;

(**B**~~2~~) Separators;

(**C**~~3~~) An evaporator with emissions controlled by a scrubber;

(**D**~~4~~) One (1) packaging facility consisting of the following:

****

(2) One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(A) One plug flow reactor, with a process weight rate of 11 tons per hour, without a process vent
(B) One liquid/liquid separation unit, without a process vent
(C) One spray dry column, with a process weight rate of 11 tons per hour
(D) One product classifier, with a process weight rate of 11 tons per hour
(E) One solid B-3 storage silo, with a process weight rate of 11 tons per hour
(F) One final product packaging line, with a process weight rate of 11 tons per hour

(G) One vertical fixed roof liquid 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(H) One vertical fixed roof process water storage tank, identified as MT-1700
(I) One vertical fixed roof liquid caustic storage tank

The packaging line is uncontrolled. The spray column, product classifier and storage silo are controlled by a single product recovery baghouse, exhausting outdoors.

Change #2 IDEM revised the facility description box in Section D.11 to include the new B-3 production line. Revisions are shown below:

SECTION D.11 FACILITY OPERATION CONDITIONS

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

(k) Plant 38 used to manufacture precursors to various grades of vitamin B-3.

(1) ~~The plant was initially constructed in 1967 and consists of the following emission units:~~ **One (1) B-3 production unit, constructed in 1967, including the following emission units:**

(**A**~~1~~) Reactors;

(**B**~~2~~) Separators;

(**C**~~3~~) An evaporator with emissions controlled by a scrubber;

(**D**~~4~~) One (1) packaging facility consisting of the following:

(~~A~~**i**) One (1) mill (identified as 28-MB), with non-vented pneumatic conveying system;

(~~B~~**ii**) One (1) pneumatic conveying system identified as Vacuum Receiver 28-VR (known as the hurricane blower) installed in 1997, with a maximum operating capacity of 6,750 pounds per hour. This unit exhausts at stack S-28-002;

(~~C~~**iii**) One pick-up collector (known as central vac), installed in 1997, with a maximum operating capacity of 150 pounds per hour. This unit exhausts at stack S-28- 003.

And controlled by two (2) baghouses:

(~~A~~**i**) Micro Pul (known as the downstairs collector), installed in 1991, with a maximum operating capacity of 670 pounds per hour, exhausting at stack S-28- 004, and

(~~B~~**ii**) Penthouse collector (known as the MAC dust collector), installed in 2000, with a maximum operating capacity of 1,500 pounds per hour, exhausting at stack S- 28-001.

(2) One (1) B-3 Spray Column production line, approved for construction in 2011, with a nominal throughput of 11 tons/hr, and consisting of the following process units:

(A) One plug flow reactor, with a process weight rate of 11 tons per hour, without a process vent
(B) One liquid/liquid separation unit, without a process vent
(C) One spray dry column, with a process weight rate of 11 tons per hour
(D) One product classifier, with a process weight rate of 11 tons per hour,
(E) One solid B-3 storage silo, with a process weight rate of 11 tons per hour
(F) One final product packaging line, with a process weight rate of 11 tons per hour
(G) One vertical fixed roof liquid 3-cyanopyridine (3CN) storage tank, identified as MT-1600, with a maximum storage capacity of 51,820 gallon
(H) One vertical fixed roof process water storage tank, identified as MT-1700
(I) One vertical fixed roof liquid caustic storage tank

The packaging line is uncontrolled. The spray column, product classifier and storage silo are controlled by a single product recovery baghouse, exhausting outdoors.

****

Change #3 IDEM has added a 326 IAC 6.5 limit for the new packaging facility and the spray dryer. Original Condition D.11.5 is revised as shown below:

D.11.5 Particulate Matter (PM) [326 IAC 6.5-1-2(a)]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the particulate matter emissions from the packaging facilities **constructed in 1967 and 2011, the spray dryer, product classifier and storage silo** shall be limited to 0.03 grains per dry standard cubic foot.

Change #4 IDEM added a PSD minor limit to Section D.11 to ensure the requirements of 326 IAC 2-2 PSD do not apply to this project. The proposed condition is shown below. Original permit condition D.11.7 has been renumbered to D.11.9 to allow insertion of two additional conditions.

D.11.7 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

(a) PM_{10} emissions from the spray dryer baghouse exhaust shall not exceed 2.35 lb/hr.

(b) $PM_{2.5}$ emissions from the spray dryer baghouse exhaust shall not exceed 1.25 lb/hr.

Compliance with these emission limits along with the PM_{10} and $PM_{2.5}$ emissions from the packaging system and the net change of emissions from Plant 27, Plant 29, Plant 38 and Plant 41 will ensure the potential to emit PM_{10} is less than 15 tons and $PM_{2.5}$ is less than 10 tons per year and will render the requirements of 326 IAC 2-2, not applicable to the Significant Source Modification 097-30723-00315 for PM_{10} and $PM_{2.5}$.

Change #5 IDEM clarified the Permittee's obligation with respect to the PMP. Revisions are shown below:

D.11.~~7~~**8** 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~~**A preventive maintenance plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition**.

Change #6 IDEM added a compliance determination requirement for the spray dryer operation. The dust collector for the spray dryer shall be in operation at all times the process is in operation. This is required to determine compliance with the 326 IAC 2-2 PSD minor limits. Revisions are shown below:

D.11.~~8~~**9** Particulate Control [326 IAC 2-7-6(6)]

(a) In order to ~~comply~~**ensure compliance** with **Condition** D.11.5, the baghouses used for particulate control shall be in operation and control emissions from the packaging facilities at all times that the packaging facilities are in operation.

(b) **In order to ensure compliance with Condition D.11.7, the baghouse used for particulate control shall be in operation and control emissions from the spray dryer operation at all times this facility is in operation.**

(c) **********

Change #7 IDEM added testing conditions to verify the PM, PM10 and PM2.5 emission rates both before and after control to determine compliance with the 326 IAC 2-2 PSD minor limits and 326 IAC 2-7-10.5. The proposed condition follows:

D.11.10 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-6(6)]

(a) In order to demonstrate the compliance status with Condition D.11.5 and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform PM testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The PM emission rate shall be determined after the control device. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(b) In order to demonstrate the compliance status with Condition D.11.7(a) and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform PM_{10} testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The PM_{10} emission rate shall be determined after the control device. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

(c) In order to demonstrate the compliance status with Condition D.11.7(b) and within sixty (60) days of reaching maximum capacity but no later than one hundred and eighty (180) days after initial startup, the Permittee shall perform $PM_{2.5}$ testing on the spray dryer dust collector exhaust, utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). The $PM_{2.5}$ emission rate shall be determined after the control device. Section C –

Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Change #8 IDEM added a requirement to perform visible emission notations for the spray drying operation. This is required to determine compliance with the 326 IAC 2-2 PSD minor limits. Original condition D.11.9 is revised as follows:

D.11.~~9~~**11** Visible Emissions Notations

(a) **In order to demonstrate the compliance status with Condition D.11.5 and Condition D.11.7,** ~~V~~**v**isible emission notations of the packaging facility **constructed in 1967** stack exhausts **and the spray drying process baghouse exhaust** shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

****

Change #9 IDEM is clarifying the existing condition

D.11.1~~0~~**2** Parametric Monitoring

In order to demonstrate the compliance status with Condition D.11.5 and Condition D.11.7, ~~T~~**t**he Permittee shall record the pressure drop across the baghouses used in conjunction with the packaging facilities **constructed in 1967**, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across baghouses is outside the normal range of 3.0 and 6.0 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.

****

Change #10 IDEM clarified the record keeping condition and added new requirements for the spray dryer operation.

D.11.1~~3~~**5** Record Keeping Requirements

(a) ~~To document compliance with~~**In order to document the compliance status with** Condition D.11.~~9~~**11**, the Permittee shall maintain a daily record of visible emission notations of the packaging facilities **constructed in 1967** stack exhausts **and the spray dryer operations 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 process did not operate that day).

(b) ~~To document compliance with~~**In order to document the compliance status with** Condition D.11.1~~0~~**2**, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling the packaging facilities **constructed in 1967**. 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 process did not operate that day).

(c) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit~~**Section C General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition**.

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 097-30723-00315 and Significant Permit Modification No. 097-30726-00315. The staff recommends to the Commissioner that this Part 70 Minor Source and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to David Matousek at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (232-8253) or toll free at 1-800-451-6027 extension (2-8253).

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A - Emission Calculations
Emissions Summary Sheet - ATPA Analysis

Company Name: Vertellus Agriculture & Nutrition Specialties, LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Permit Number: SSM 097-30723-00315 and SPM 097-30726-00315
Reviewer: David Matousek
Date: August 8, 2011

Permit Level Determination - 326 IAC 2-7-10.5									
Emission Unit ID#	**Process Description**	**PM** (TPY)	**PM_{10}** (TPY)	**$PM_{2.5}$** (TPY)	**SO2** (TPY)	**VOC** (TPY)	**CO** (TPY)	**NOx** (TPY)	**CO_2 e** (TPY)
	Spray Dryer System	3,379.68	3,379.68	3,379.68	0.00	0.00	0.00	0.00	0.00
	Packaging System	0.36	0.17	0.03	0.00	0.00	0.00	0.00	0.00
	Insignificant	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
	PTE of Modification	3,380.04	3,379.85	3,379.71	0.00	0.20	0.00	0.00	0.00

Limited PTE New Units - Plant 38									
Emission Unit ID#	**Process Description**	**PM** (TPY)	**PM_{10}** (TPY)	**$PM_{2.5}$** (TPY)	**SO2** (TPY)	**VOC** (TPY)	**CO** (TPY)	**NOx** (TPY)	**CO_2 e** (TPY)
	Spray Dryer System	0.26	10.30	5.48	0.00	0.00	0.00	0.00	0.00
	Packaging System	0.36	0.17	0.03	0.00	0.00	0.00	0.00	0.00
---	Total PTE - New	0.62	10.47	5.51	0.00	0.00	0.00	0.00	0.00

Net Change of Affected Units [2]									
Emission Unit ID#	**Process Description**	**PM** (TPY)	**PM_{10}** (TPY)	**$PM_{2.5}$** (TPY)	**SO2** (TPY)	**VOC** (TPY)	**CO** (TPY)	**NOx** (TPY)	**CO_2 e** (TPY)
Plant 38	Baseline-Existing	4.64	4.64	4.64	0.00	0.00	0.00	0.00	0.00
Plant 38	Projected-Existing	5.91	5.91	5.91	0.00	0.00	0.00	0.00	0.00
Plant 38	Net Change	1.27	1.27	1.27	0.00	0.00	0.00	0.00	0.00
Plant 41	Baseline	0.49	0.49	0.49	0.04	1.05	0.08	57.74	7,810.40
Plant 41	Projected	0.59	0.59	0.59	0.05	1.26	0.10	69.53	9,405.72
Plant 41	Net Change	0.10	0.10	0.10	0.01	0.21	0.02	11.79	1,595.32
Plant 27	Baseline	15.09	15.09	15.09	0.15	19.13	0.00	36.10	30,500.87
Plant 27	Projected	16.49	16.49	16.49	0.17	20.91	0.00	39.45	33,331.77
Plant 27	Net Change	1.40	1.40	1.40	0.02	1.78	0.00	3.35	2,830.90
Plant 29	Baseline	10.47	10.47	10.47	30.00	3.93	0.55	78.28	43,962.20
Plant 29	Projected	12.09	12.09	12.09	34.64	4.53	0.64	90.40	50,767.60
Plant 29	Net Change	1.62	1.62	1.62	4.64	0.60	0.09	12.12	6,805.40

Prevention of Significant Deterioration (PSD) Applicability Determination								
	PM (TPY)	**PM_{10}** (TPY)	**$PM_{2.5}$** (TPY)	**SO2** (TPY)	**VOC** (TPY)	**CO** (TPY)	**NOx** (TPY)	**CO_2 e** (TPY)
Limited PTE New Units	0.62	10.47	5.51	0.00	0.00	0.00	0.00	0.00
Net Change of Affected Units	4.39	4.39	4.39	4.67	2.59	0.11	27.26	11,231.62
Totals for Project	5.01	14.86	9.90	4.67	2.59	0.11	27.26	11,231.62
Significant Levels	25	15	10	40	40	100	40	75,000

Notes:

1) Baseline emissions for "Actual to Projected Actual" (ATPA) methods used a base period of January 1, 2009 to December 31, 2010. The baseline period for the ATPA analysis was provided by the Permittee.
2) In accordance with 326 IAC 2-2-2(d)(6), a "Hybrid Test" is used for projects involving a combination of new emission units, existing emission units. The "Hybrid Test" involves using the appropriate applicability test for the type of emission unit listed in 326 IAC 2-2-2(d)(3) to (5) and summing the increases.
3) There are no HAP emissions associated with the new emission units.
4) The Permittee stated as part of this application that the project is not significant for any NSR pollutant and does not trigger Prevention of Significant Deterioration (PSD) review.

Appendix A - Emission Calculations
Potential to Emit - New Emission Units

Company Name: Vertellus Agriculture & Nutrition Specialties, LLC
Source Address: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Permit Number: SSM 097-30723-00315 and SPM 097-30726-00315
Reviewer: David Matousek
Date: August 8, 2011

1) Packaging System Emissions

Emission from the packaging system was estimated using AP-42, Section 13.2.4, Aggregate Handling and Storage Piles, November 2006. The process consists of dropping pellets, approximately three feet, into a shipping bag.

Emission Factor (lb/ton material) = k x 0.0032 x [(U/5)^1.3 / (M/2)^1.4]

Where: k is the particle size multiplier (dimensionless)
U is the mean wind speed (miles per hour)

Emission Factor Calculation				
Variable	Unit	PM	PM10	PM2.5
k	unitless	0.74	0.35	0.053
M	%	0.25	0.25	0.25
U	mph	1.3	1.3	1.3
Uncontrolled E.F	lb/ton	0.0076	0.0036	0.0005

Potential to Emit - Packaging Unit					
Operation	Operating Hours (hr/yr)	Throughput (ton/hr)	PTE PM (TPY)	PTE PM_{10} (TPY)	PTE $PM_{2.5}$ (TPY)
Packaging Unit	8,760.00	11.00	0.36	0.17	0.03

2) Spray Dryer Emissions

Potential to Emit from Inlet Grain Loading						
Operation	Operating Hours (hr/yr)	Grain Loading (gr/dscf)	Maximum Air Flow (dscf)	PTE PM (TPY)	PTE PM_{10} (TPY)	PTE $PM_{2.5}$ (TPY)
Spray Dryer	8,760.00	2.44	36,894.20	3,379.68	3,379.68	3,379.68

Limited PTE for PM - 326 IAC 6.5 Limit					
Operation	Operating Hours (hr/yr)	Grain Loading (gr/dscf)	Maximum Air Flow (dscf)	PTE PM (TPY)	PTE PM (lb/hr)
Spray Dryer	8,760.00	0.03	228.00	0.26	0.06

Limited PTE PM10 and PM2.5 - PSD Minor Limit		
Operation	Limited PTE PM_{10}	Limited PTE $PM_{2.5}$
Spray Dryer (TPY)	10.30	5.48
Spray Dryer (lb/hr)	2.35	1.25

Methodology:
1) PTE (TPY) = throughput (ton/hr) x E.F (lb/ton) x 8,760 hr/yr x 1 ton/2,000lb
2) PTE (TPY) = grain loading (gr/dscf) x air flow (dscf/min) x 7,000 gr/lb x 60 min/hr x 8,760 hr/yr x 1ton/2,000 lb
3) Limited PM Emissions (gr/dscf) = (PM (TPY) x 2,000 lb/ton x 1 yr/8,760 hr x 1 hr/60 min x 7,000 gr/lb) / air flow (dscfm)
4) The PTE of PM_{10} and $PM_{2.5}$ of the spray dryer is limited to ensure the requirements of 326 IAC 2-2 do not apply to the project. The PTE of PM of the spray dryer is limited to ensure compliance with 326 IAC 6.5.

Appendix A: Emission Calculations
Source-Wide Emissions from Combustion Sources
Greenhouse Gas Emissions

Company Name: Vertellus Agriculture & Nutrition Specialties, LLC
Address City IN Zip: 1500 South Tibbs Avenue, Indianapolis, Indiana 46241
Permit Number: SSM 097-30723-00315 & SPM 097-30726-00315
Reviewer: David Matousek
Date: August 15, 2011

Sourcewide Natural Gas Usage	**3,316**	**MMSCF/yr**
Default High Heat Value for Natural Gas	**1.028E-03**	**MMBtu/SCF**

	Greenhouse Gas - Natural Gas Sources		
	CO2	CH4	N2O
Emission Factor (Kg/MMBtu)	53.02	1.0E-03	1.0E-04
Emission Factor (lb/MMBtu)	116.89	2.2E-03	2.2E-04
Potential Emission in tons/yr	199,230	3.76	0.38
Global Warming Potential	1	21.0	310.0
CO2e Total in tons/yr	199,426		

Sourcewide Fuel Oil Usage	**3,583**	**kgallons/yr**
Default High Heat Value for Fuel Oil	**1.50E-01**	**MMBtu/gallon**

	Greenhouse Gas - Fuel Oil Sources		
	CO2	CH4	N2O
Emission Factor (Kg/MMBtu)	75.10	3.0E-03	6.0E-04
Emission Factor (lb/MMBtu)	165.57	6.6E-03	1.3E-03
Potential Emission in tons/yr	44,493	1.8	0.4
Global Warming Potential	1	21.0	310.0
CO2e Total in tons/yr	44,640		

Sourcewide Biogas Usage	**1,000**	**MMSCF/yr**
Default High Heat Value for Fuel Oil	**8.41E-04**	**MMBtu/SCF**

	Greenhouse Gas - Fuel Oil Sources		
	CO2	CH4	N2O
Emission Factor (Kg/MMBtu)	52.07	3.2E-03	6.3E-04
Emission Factor (lb/MMBtu)	114.79	7.1E-03	1.4E-03
Potential Emission in tons/yr	48,269	3.0	0.6
Global Warming Potential	1	21.0	310.0
CO2e Total in tons/yr	48,513		

GHG Emissions from Natural Gas =	**199,426**	**CO2e in tons/yr**
GHG Emissions from #6 Fuel Oil =	**44,640**	**CO2e in tons/yr**
GHG Emissions from Bio Gas =	**48,513**	
Total Greenhouse Gas Emissions =	**292,579**	**CO2e Total in tons/yr**

Methodology:
Emission Factor (lb/MMBtu) = Emission Factor (kg/MMBtu) x 2.2046 lb/Kg
PTE (TPY) = Fuel Usage (MMSCF/yr) x Default High Heat Value (MMBtu/SCF)x Emission Factor (lb/MMBtu) x 1000000(SCF/MMSCF)x1 ton/2000 lb
CO2e (TPY) = (CO2 emissions x 1) + (CH4 emissions x 21) + (N2O emissions x 310)
Notes:
Emission Factors are from 40 CFR 98, Subpart C, Table C-1 and C-2
Fuel usage derived from Title V permit limits

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: James Gross II
Vertellus Agriculture & Nutrition Specialties, LLC
1500 S Tibbs Ave
Indianapolis, IN 46241

DATE: October 27, 2011

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Title V - Significant Source Modification
097 - 30723 - 00315

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Brian Bence, Site Director
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

October 27, 2011

TO: West Indianapolis Library Branch

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Vertellus Agriculture & Nutrition Specialties, LLC
Permit Number: 097 - 30723 - 00315

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: October 27, 2011

RE: Vertellus Agriculture & Nutrition Specialties, LLC / 097 - 30723 - 00315

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
http://www.in.gov/ai/appfiles/idem-caats/

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

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