



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
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TO: Interested Parties / Applicant  
DATE: December 10, 2008  
RE: Dover Chemical Corporation / 089-26668-00227  
FROM: Matthew Stuckey, Deputy Branch Chief  
Permits Branch  
Office of Air Quality

**Notice of Decision: Approval – Effective Immediately**

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

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

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

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

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

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

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

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

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

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

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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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Indianapolis, Indiana 46204  
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## PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY and HAMMOND DEPARTMENT of ENVIRONMENTAL MANAGEMENT

**Dover Chemical Corporation – Hammond Works  
3000 Sheffield Avenue,  
Hammond, IN 46327**

(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.

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

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

Operation Permit Renewal No.: 089-26668-00227	
Issued by: <i>Sripuran Sinha</i> Tripurari P. Sinha, Ph. D, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 10, 2008 Expiration Date: December 10, 2013

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**Part 70 Quarterly Report - Temporary Operations and Experimental Trials - Cl<sub>2</sub> and HCl**

**Quarterly Deviation and Compliance Monitoring Report**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Hammond Department of Environmental Management (HDEM). 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)]

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The Permittee owns and operates a stationary chlorinated paraffin manufacturing plant.

Source Address:	3000 Sheffield Avenue, Hammond, IN 46327
Mailing Address:	3000 Sheffield Avenue, Hammond, IN 46327
SIC Code:	2899
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone Nonattainment for PM <sub>2.5</sub> Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules Major Source, under Emission Offset Rules Minor Source, under Nonattainment NSR for PM <sub>2.5</sub> 1 of 28 Source Categories Minor Source, Section 112 of the Clean Air Act

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

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

#### SECTION D.1

##### (a) Group of Boilers

- (1) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-300HP, identified as B-4, constructed in 1974, rated at 12.55 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3401.
- (2) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-200-500, identified as B-5, constructed in 1980, rated at 20.92 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3402.
- (3) One (1) Superior–Mohawk natural gas fired boiler, identified as B-6, constructed in 1988, rated at 20 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3403.

#### SECTION D.2 Chlorination system

with a maximum rated capacity of 5,000 pounds per hour of chlorine feed to produce short to long chain chlorination paraffins, olefins, waxes, polybutene, and 8,035 pounds per hour of muriatic acid. The chlorination system consists of the following systems:

##### (b) The system consisting of:

- (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007

(constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;

- (2) Five (5) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), TR-2016 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
- (3) One (1) sulfur monochloride tank, identified as TS-1058, constructed in 1981, with a maximum capacity of 5,470 gallons;
- (4) One (1) acid tower condensate neutralization tank, identified as TP-2030, constructed before 1976, with a maximum capacity of 500 gallons;
- (5) Two (2) chlorine railcar track spots, identified as RC-0101 and RC-0201, constructed before 1976, with a maximum capacity of 1 railcar (containing at most 180,600 pounds) each;
- (6) One (1) acid tower, identified as CB-2060, constructed before 1976, with a maximum capacity of 8,035 lb/hr muriatic acid;
- (7) One (1) tower product acid tank, identified as TP-2033, constructed before 1976, with a maximum capacity of 560-gallons;
- (8) One (1) tower water feed tank, identified as TP-2060 (constructed in 1996), with a maximum capacity of 560-gallons; and
- (9) Two (2) chlorine vaporizers, identified as XV-2050 and XV-2051, constructed before 1976, and with a maximum feed capacity of 3,000 lb/hr chlorine combined. This will not operate after the operation of One (1) chlorine vaporizer, constructed in 2008, identified as XV-2050, with a maximum feed capacity of 5,000 lb/hr chlorine;

all controlled by seven (7) scrubbers, identified as TP-2061 (constructed before 1976), TP-2062 (constructed before 1976), TP-2063 (constructed before 1976), TP-2064 (constructed before 1976), TP-2065 (constructed in 1977), TP-2066 (constructed in 1977), and TP-2067 (constructed in 1995), and exhausting at seven (7) stacks, identified as Stacks TP-2061 to 2067.

(c) The system consisting of:

- (1) Three (3) muriatic acid tanks, identified as TS-1090 (constructed in 1979), TS-1091 (constructed in 1980), and TS-1093 (constructed in 2000), with a maximum capacity of 16,000, 14,900 and 16,000 gallons, respectively;
- (2) Two (2) hypochlorite reduction tanks, identified as TP-3494, and TP-3495 (constructed in 1993), with a maximum capacity of 6,250 gallons each;
- (3) One (1) muriatic acid tank truck loading station, constructed in 1979, with a maximum capacity of 1 truck;

controlled by one (1) caustic scrubber identified as TP-1099 constructed in 1980 exhausting at one (1) stack, identified as Stack TP-1099.

(d) The system consisting of:

- (1) One (1) chlorinated product tank, identified as TS-2041, constructed before 1976, with a maximum capacity of 4,000 gallons;

- (2) Two (2) chlorinated product tanks, identified as TS-2043, and TS-2044, constructed before 1976, with a maximum capacity of 4,100 gallons each; and
- (3) One (1) chlorinated product-drumming tank, identified as TS-2012, constructed in 1978, with a maximum capacity of 1,500 gallons.

SECTION D.3                      Sulfurization system

with a maximum rated capacity of 8,450 pounds per hour of sulfurized products consisting of the following equipment:

- (e) The system consisting of:
  - (1) Three (3) sulfurization reactors, identified as TR-2120, TR-2121, and TR-2123, constructed before 1976, with maximum capacity of 3,700, 3,700, and 7,500 gallons, respectively, controlled by two (2) caustic scrubbers operating in series, identified as TP-2162 and TP-2163, followed by an activated carbon system for odor management and exhausting at Stack TP-2163. One (1) reflux condenser associated with sulfurization reactor TR-2120.
  - (2) Five (5) blowing tanks, identified as TP-2150 (constructed in 1977), TP-2151 (constructed in 1977), TP-2152 (constructed in 1977), TP-2153 (constructed in 1977), and TP-2154 (constructed in 1997), with maximum capacity of 11,000, 9,650, 11,500, 4,000, and 7,600 gallons, respectively, venting to a blowing tank knockout tank identified as TP-2159 (constructed prior to 1976), controlled by two (2) caustic scrubbers, identified as TP-2162 and TP-2163 and exhausting at Stack TP-2163.
  - (3) One (1) knockout storage tank, identified as TS-2164, constructed in 1976, with a maximum capacity of 1,500 gallons, exhausted to a containment scrubber, identified as TP-2167, constructed in 1995, and exhausting at Stack TP-2167.
  - (4) One (1) scrubber liquor storage tank, identified as TS-1029, constructed in 1979, with a maximum capacity of 15,880 gallons.
  - (5) Two (2) molten sulfur storage tanks, identified as TS-2190 and TP-2190, constructed in 1976.
  - (6) One (1) filter feed tank, maximum capacity of 3,000 gallons, identified as TP-2207, constructed prior to 1976.

SECTION D.4                      Hi-Temp System

with a maximum rated capacity of 4,200 pounds per hour of Hi-Temp products consisting of the following equipment:

- (f) The system consisting of:
  - (1) One (1) reactor, identified as TR-2620, constructed in 1989, with a maximum capacity of 4,000 gallons;
  - (2) Two (2) recovered methanol tanks, identified as TS-2602 and TS-2603, constructed in 1989, with maximum capacity of 2,500, and 4,000 gallons, respectively;
  - (3) One (1) sludge tank, identified as TP-2604, constructed in 1989, with a maximum capacity of 750 gallons, equipped with a sludge drumming operation followed by an activated carbon filter for odor management;

- (4) One (1) scrubber liquor tank, identified as TS-2610, constructed in 2001, with a maximum capacity of 10,000 gallons; and
- (5) One (1) intermediate holding tank, identified as TP-2601, constructed in 1989, with a maximum capacity of 4,550 gallons;

all controlled by two (2) caustic scrubbers identified as TP-2624 and TP-2626, constructed in 1989; and one flare, identified as GB-2627, constructed in 1990, in series, and exhausting at one (1) stack, identified as Stack GB-2627.

- (g) One (1) scrubber liquor truck loading station, constructed in 1989, controlled by a carbon drum, identified as TF-2610 constructed in 2001.
- (h) One (1) pre-coat tank, identified as TP-2722, constructed in 1995, with a maximum capacity of 1,300 gallons.
- (i) One (1) filter feed tank, identified as TP-2720, constructed in 1995, with a maximum capacity of 5,000 gallons, controlled by a carbon drum, identified as TF-2728 and exhausting at a stack identified as Stack TP-2728.
- (j) One (1) filtrate tank, identified as TP-2730, constructed in 1995, with a maximum capacity of 5,000 gallons.
- (k) One (1) filter, identified as GF-2724, constructed in 1995, with a maximum capacity of 69 cubic feet of filter cake, and one (1) filter, identified as GF-2734, constructed in 2005, with a maximum capacity of 41 cubic feet of filter cake, both controlled by a carbon drum, identified as TF-2728, exhausting at stack TF-2728.
- (l) One (1) reactor, constructed in 1993, identified as TP-2553, with a maximum capacity of 2,100 gallons, controlled by scrubber TP-2589.
- (m) One (1) filter feed tank, constructed in 1993, identified as TP-2554, with a maximum capacity of 2,100 gallons.
- (n) Three (3) wash water tanks, constructed in 1996, identified as TP-2556, TP-2557 and TP-2558, each with a maximum capacity of 700 gallons.
- (o) One (1) reactor, constructed in 1990, identified as TR-2630, with a maximum capacity of 4,000 gallons.
- (p) One (1) reactor, constructed in 2005, identified as TR-2541, with a maximum capacity of 3,500 gallons, controlled by scrubber TP-2589.

#### SECTION D.5            Fuel Additive system

with a maximum rated capacity of 12,000 pounds per hour of fuel additives (prior to blending) consisting of the following equipment:

- (q) The system consisting of:
  - (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;

- (2) Four (4) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
- (3) One (1) reactor, identified as TR-2016 (constructed in 1990), which discharges process water (condensate) to the condenser or the bypass system with a maximum capacity of 4,000 gallons;
- (4) One (1) EDA recycle tank, identified as TP-2052 (constructed in 1985), with a maximum capacity of 1,700 gallons;

controlled by a scrubber identified as TP-2072 (constructed in 1985), and exhausting at a stack identified as Stack TP-2072.

- (r) One (1) virgin EDA tank, identified as TS-1027, constructed in 1985, maximum capacity of 14,930 gallons, controlled by a carbon adsorption drum identified as TF-1027, and exhausting at stack identified as Stack TF-1027.
- (s) One (1) continuous wash system constructed in 1985 consisting of tanks TP-2339, TP-2328, TP-2334, TP-2333, TP-2331, TP-2330, TP-2340, TP-2349, TP-2348, one (1) 300 gallon feed tank identified as TP-2329, one (1) butanol recovery column identified as CS-2329, and one stripping column identified as CD-2319, controlled by one (1) vent condenser identified as XT-2313 and exhausting to stack XT-2313.
- (t) One (1) continuous wash system, constructed in 1990, consisting of tanks TP-2350, TP-2359, TP-2353, TP-2354, TP-2351, TP-2352, TP-2355, TP-2356, TP-2357, one (1) butanol water feed tank identified as TP-2358, one (1) butanol recovery column identified as CS-2368, and one stripping column identified as CD-2350, controlled by one (1) vent condenser identified as XT-2350 and exhausting to stack XT-2350.
- (u) Two (2) product rundown tanks, identified as TP-1035, TP-1036, both constructed in 1985, with a maximum capacity of 6,800 gallons.
- (v) Two (2) product rundown tanks, identified as TP-2360, and TP-2361 both constructed in 1990, with a maximum capacity of 6,800 gallons each.
- (w) Three (3) fuel additive blending tanks, identified as TP-1030, TP-1031, and TP-1032, all constructed in 1985, with maximum capacities of 11,740, 15,220, and 11,740 gallons, respectively.

#### SECTION D.6                      Miscellaneous system

with a maximum rated capacity of 3,000 pounds per hour consisting of the following equipment:

- (x) Five reactors, identified as TR-2224 (constructed in 1980), TR-2225 (constructed before 1976), TR-2226 (constructed before 1976), TR-2227 (constructed before 1976), and TR-2228 (constructed before 1976), maximum capacity of 5,500, 2,000, 7,000, 400, and 7,500 gallons, respectively; controlled by two (2) wet scrubbers, identified as PE-2228, and TP-2332, and exhausting at stacks identified as Stack PE-2228, and Stack TP-2332.
- (y) Two (2) reactors, identified as TR-2329 (constructed in 1986), and TR-2322 (constructed in 1984), maximum capacity of 1,500, and 2,000 gallons, respectively.

#### A.3      Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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

#### SECTION D.7                      VOC STORAGE TANKS

- (z) Storage tanks emitting less than one (1) ton per year collectively of a combination of HAPs and less than fifteen (15) pounds per day of VOC. [326 IAC 12, and 40 CFR 60.112b(a)]
- (1) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1001, constructed in 1997.
  - (2) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1002, constructed in 1997.
  - (3) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1003, constructed in 1993.
  - (4) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1004, constructed in 1978.
  - (5) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1005, constructed in 1978.
  - (6) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1006, constructed in 1978.
  - (7) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1007, constructed in 1978.
  - (8) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1008, constructed in 1978.
  - (9) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1009, constructed in 1978.
  - (10) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1010, constructed in 1978.
  - (11) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1011, constructed in 1978.
  - (12) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1012, constructed in 1978.
  - (13) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1013, constructed in 1978.
  - (14) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1014, constructed in 1978.
  - (15) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1015, constructed in 1987.
  - (16) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1016, constructed in 1978.
  - (17) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1017, constructed in 1978.
  - (18) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1018, constructed in 1978.
  - (19) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1019, constructed in 1996.

- (20) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1020, constructed in 1997.
- (21) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1021, constructed in 1997.
- (22) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1022, constructed in 1996.
- (23) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1023, constructed in 1996.
- (24) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1024, constructed in 1997.
- (25) One (1) storage tank, maximum capacity of 28,760 gallons, identified as TS-1026, constructed in 1980.
- (26) One (1) storage tank, maximum capacity of 11,075 gallons, identified as TS-1028, constructed in 1980.
- (27) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1033, constructed in 1986.
- (28) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1039, constructed in 1987.
- (29) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1040, constructed in 1987.
- (30) One (1) storage tank, maximum capacity of 15,540 gallons, identified as TS-1042, constructed in 1989.
- (31) One (1) storage or blend tank, maximum capacity of 14,900 gallons, identified as TS-1043, constructed in 1990.
- (32) One (1) wax storage tank, maximum capacity of 20,390 gallons, identified as TS-1056, constructed in 1978.
- (33) One (1) storage tank, maximum capacity of 20,390 gallons, identified as TS-1057, constructed in 1978.
- (34) One (1) storage tank, maximum capacity of 4,010 gallons, identified as TS-1081, constructed in 1989.
- (35) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1082, constructed in 1989.
- (36) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2160, constructed before 1976.
- (37) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2163, constructed before 1976.
- (38) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2168, constructed before 1976.
- (39) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2169,

- constructed before 1976.
- (40) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2170, constructed before 1976.
  - (41) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2178, constructed in 1998.
  - (42) One (1) storage tank, maximum capacity of 2,600 gallons, identified as TS-2209, constructed before 1979.
  - (43) One (1) storage tank, maximum capacity of 10,800 gallons, identified as TS-2218, constructed before 1979.
  - (44) One (1) storage tank, maximum capacity of 10,690 gallons, identified as TS-2252, constructed prior to 1976.
  - (45) One (1) storage tank, maximum capacity of 6,760 gallons, identified as TS-2253, constructed before 1976.
  - (46) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2255, constructed before 1976.
  - (47) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2264, constructed before 1979.
  - (48) One (1) storage tank, maximum capacity of 31,070 gallons, identified as TS-2265, constructed before 1979.
  - (49) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2271, constructed in 2005.
  - (50) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2272, constructed in 2005.
  - (51) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2275, constructed before 1979.
  - (52) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2276, constructed before 1979.
  - (53) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2277, constructed before 1976.
  - (54) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2279, constructed before 1976.
  - (55) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2280, constructed before 1976.
  - (56) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2605, constructed in 1990.
  - (57) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2315, constructed in 1990.
  - (58) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2362, constructed in 1990.

- (59) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2364, constructed in 1990.
- (60) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2365, constructed in 1990.
- (61) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2367, constructed in 1990.
- (62) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2606, constructed in 1989.
- (63) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2611, constructed in 1990.
- (64) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2612, constructed in 1990.
- (65) One (1) storage tank, maximum capacity of 30,080 gallons, identified as TS-2613, constructed in 1990.
- (66) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2618, constructed in 1990.
- (67) One (1) storage tank, maximum capacity of 16,920 gallons, identified as TS-2619, constructed in 1990.
- (68) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2550, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (69) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2551, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (70) One (1) storage tank, maximum capacity of 2,970 gallons, identified as TP-2617, constructed in 1990.

SECTION D.8

5.7 MMBtu/hr Boiler

- (aa) One (1) natural gas fired boiler, identified as boiler no. B-3, constructed in 1974, rated at 5.7 MMBtu per hour, exhausting at one (1) stack, identified as GB-3404.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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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, T089-26668-00227, 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 and HDEM, 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]**

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

### **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 and HDEM, within a reasonable time, any information that IDEM, OAQ and HDEM 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 and HDEM 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 Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room – 304  
Hammond, Indiana 46320

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 and HDEM, 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 and HDEM 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]

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- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room – 304  
Hammond, Indiana 46320

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, and HDEM upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and HDEM. IDEM, OAQ, and HDEM 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 PMP does 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]

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and HDEM and Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or  
Telephone Number: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865

Hammond Department of Environmental Management phone:  
(219) 853-6306; fax: (219) 853-6343  
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.

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

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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 and HDEM 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 and HDEM 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, or HDEM 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, or HDEM 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, or HDEM has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T089-7797-00227 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

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

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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]

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- (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 and HDEM 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 and HDEM 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 and HDEM at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and HDEM 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)]

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and HDEM 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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

- (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 and HDEM 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 and HDEM 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 and HDEM 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]**

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- (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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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)]**

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- (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]**

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- (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

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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 and HDEM in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

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

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-3 (for sources located in NA areas).

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, and HDEM 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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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 and HDEM 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 and HDEM the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

- (a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

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

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of twenty percent (20%) 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 1-7-2, 326 IAC 1-7-3(c) and (d), and 326 IAC 1-7-4(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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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

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

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

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

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

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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 and HDEM 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 and HDEM not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and HDEM if the Permittee submits to IDEM, OAQ and HDEM, 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]**

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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)]**

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

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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]**

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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)]**

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- (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]**

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(Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on August 29, 1996.
- (b) If the ERP is disapproved by IDEM, OAQ, and HDEM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (c) Upon direct notification by IDEM, OAQ, and HDEM, 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]**

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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.

- (a) A Risk Management Plan was prepared as required by 40 CFR 68 and submitted to U.S. EPA. U.S. EPA received the RMP on June 21, 1999.

**C.14 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]**

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- (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 and HDEM, 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) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:
  - (1) starting in 2007 and every three (3) years thereafter, and

- (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.
- (b) 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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

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

- (c) 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 and HDEM 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 2-3]

- (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 or HDEM makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or HDEM within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility 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)) 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.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) 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 2-3]

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

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320
- (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 and HDEM on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ and HDEM:
  - (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 (c)(2) and (3) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

and

Hammond Department of Environmental Management  
5925 Calumet Avenue, Room - 304  
Hammond, Indiana 46320

- (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 and HDEM. The general public may request this information from the IDEM, OAQ and HDEM under 326 IAC 17.1.

## **Stratospheric Ozone Protection**

### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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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) Group of Boilers
  - (1) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-300HP, identified as B-4, constructed in 1974, rated at 12.55 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3401.
  - (2) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-200-500, identified as B-5, constructed in 1980, rated at 20.92 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3402.
  - (3) One (1) Superior–Mohawk natural gas fired boiler, identified as B-6, constructed in 1988, rated at 20 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3403.

(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 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6.8-2][326 IAC 6-2-4]**

- (a) Pursuant to 326 IAC 6.8-2-19 (Lake County PM<sub>10</sub> emission requirements) PM<sub>10</sub> emissions from the Cleaver-Brooks boiler B-4 (Stack GB-3401) shall be limited to seven-thousandths (0.007) pounds per million Btu, and 0.09 pounds per hour.
- (b) Pursuant to 326 IAC 6.8-2-19 (Lake County PM<sub>10</sub> emission requirements) PM<sub>10</sub> emissions from the Cleaver-Brooks boiler B-5 (Stack GB-3402) shall be limited to seven-thousandths (0.007) pounds per million Btu, and 0.14 pounds per hour.
- (c) Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)) the particulate emissions from the combustion of natural gas from boiler B-6 (Stack GB-3403) shall be limited to 0.387 pounds per million Btu, and 7.44 pounds per hour.

The above limit is established by the following equation:

$$Pt = (1.09)/(Q^{0.26})$$

Where:

Pt	=	Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
Q	=	Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

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

Chlorination process with a maximum rated capacity of 5,000 pounds per hour of chlorine feed to produce short to long chain chlorination paraffins, olefins, waxes, polybutene, and 8,035 pounds per hour of muriatic acid. The chlorination system consists of the following systems:

- (b) The system consisting of:
- (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
  - (2) Five (5) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), TR-2016 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
  - (3) One (1) sulfur monochloride tank, identified as TS-1058, constructed in 1981, with a maximum capacity of 5,470 gallons;
  - (4) One (1) acid tower condensate neutralization tank, identified as TP-2030, constructed before 1976, with a maximum capacity of 500 gallons;
  - (5) Two (2) chlorine railcar track spots, identified as RC-0101 and RC-0201, constructed before 1976, with a maximum capacity of 1 railcar (containing at most 180,600 pounds) each;
  - (6) One (1) acid tower, identified as CB-2060, constructed before 1976, with a maximum capacity of 8,035 lb/hr muriatic acid;
  - (7) One (1) tower product acid tank, identified as TP-2033, constructed before 1976, with a maximum capacity of 560-gallons;
  - (8) One (1) tower water feed tank, identified as TP-2060 (constructed in 1996), with a maximum capacity of 560-gallons; and
  - (9) Two (2) chlorine vaporizers, identified as XV-2050 and XV-2051, constructed before 1976, and with a maximum feed capacity of 3,000 lb/hr chlorine combined. This will not operate after the operation of One (1) chlorine vaporizer, constructed in 2008, identified as XV-2050, with a maximum feed capacity of 5,000 lb/hr chlorine;

all controlled by seven (7) scrubbers, identified as TP-2061 (constructed before 1976), TP-2062 (constructed before 1976), TP-2063 (constructed before 1976), TP-2064 (constructed before 1976), TP-2065 (constructed in 1977), TP-2066 (constructed in 1977), and TP-2067 (constructed in 1995), and exhausting at seven (7) stacks, identified as Stacks TP-2061 to 2067.

- (c) The system consisting of:
- (1) Three (3) muriatic acid tanks, identified as TS-1090 (constructed in 1979), TS-1091 (constructed in 1980), and TS-1093 (constructed in 2000), with a maximum

capacity of 16,000, 14,900 and 16,000 gallons, respectively;

- (2) Two (2) hypochlorite reduction tanks, identified as TP-3494, and TP-3495 (constructed in 1993), with a maximum capacity of 6,250 gallons each;
- (3) One (1) muriatic acid tank truck loading station, constructed in 1979, with a maximum capacity of 1 truck;

controlled by one (1) caustic scrubber identified as TP-1099 constructed in 1980 exhausting at one (1) stack, identified as Stack TP-1099.

(d) The system consisting of:

- (1) One (1) chlorinated product tank, identified as TS-2041, constructed before 1976, with a maximum capacity of 4,000 gallons;
- (2) Two (2) chlorinated product tanks, identified as TS-2043, and TS-2044, constructed before 1976, with a maximum capacity of 4,100 gallons each; and
- (3) One (1) chlorinated product-drumming tank, identified as TS-2012, constructed in 1978, with a maximum capacity of 1,500 gallons.

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

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

#### **D.2.1 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6.8-2][326 IAC 6.8-1-5]**

Pursuant to 326 IAC 6.8-2-19, the allowable PM<sub>10</sub> emission rate from the Chlorination process shall not exceed 0.001 pounds per ton, and 0.003 pounds per hour. Pursuant to 326 IAC 6.8-1-5(d), the Chlorination process shall comply with both limits.

#### **D.2.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

Pursuant to 326 IAC 8-9, the Permittee shall maintain a record and submit to Compliance Branch, OAQ, IDEM a report containing the following information:

- (a) The vessel identification number
- (b) The vessels dimension
- (c) The vessel capacity

for each of the following vessels.

- (1) TS-2012
- (2) TS-2041
- (3) TS-2043
- (4) TS-2044

### **Compliance Determination Requirements**

#### **D.2.3 Scrubber Operation Requirements**

The scrubber control system shall be in operation at all times when the chlorination system is in operation.

**D.2.4 Hydrochloric Acid (HCl) and Chlorine (Cl<sub>2</sub>)**

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Caustic Scrubber: The caustic strength operations limit shall be no less than 4%. If a representative sample taken during any 8-hour shift shows a caustic percent reading of 4% or less, then the Permittee shall take one of the following steps:

- (1) Fresh caustic will be added to the scrubber; or
- (2) The caustic solution will be changed within 8 hours of test reading; or
- (3) The process will be vented to the backup scrubbers; or
- (4) The process shall be shutdown and the caustic solution changed before the process is started up.

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

**D.2.5 Parametric Monitoring**

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The Permittee shall test the concentration (% by weight) of caustic in the chlorination scrubbers once per day.

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

**D.2.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records once per day of the caustic concentration in the chlorination scrubbers.
- (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)]:

Sulfurization process - with a maximum rated capacity of 8,450 pounds per hour of sulfurized products consisting of the following equipment:

- (e) The system consisting of:
  - (1) Three (3) sulfurization reactors, identified as TR-2120, TR-2121, and TR-2123, constructed before 1976, with maximum capacity of 3,700, 3,700, and 7,500 gallons, respectively, controlled by two (2) caustic scrubbers operating in series, identified as TP-2162 and TP-2163, followed by an activated carbon system for odor management and exhausting at Stack TP-2163. One (1) reflux condenser associated with sulfurization reactor TR-2120.
  - (2) Five (5) blowing tanks, identified as TP-2150 (constructed in 1977), TP-2151 (constructed in 1977), TP-2152 (constructed in 1977), TP-2153 (constructed in 1977), and TP-2154 (constructed in 1997), with maximum capacity of 11,000, 9,650, 11,500, 4,000, and 7,600 gallons, respectively, venting to a blowing tank knockout tank identified as TP-2159 (constructed prior to 1976), controlled by two (2) caustic scrubbers, identified as TP-2162 and TP-2163 and exhausting at Stack TP-2163.
  - (3) One (1) knockout storage tank, identified as TS-2164, constructed in 1976, with a maximum capacity of 1,500 gallons, exhausted to a containment scrubber, identified as TP-2167, constructed in 1995, and exhausting at Stack TP-2167.
  - (4) One (1) scrubber liquor storage tank, identified as TS-1029, constructed in 1979, with a maximum capacity of 15,880 gallons.
  - (5) Two (2) molten sulfur storage tanks, identified as TS-2190 and TP-2190, constructed in 1976.
  - (6) One (1) filter feed tank, maximum capacity of 3,000 gallons, identified as TP-2207, constructed prior to 1976.

(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 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6.8-2][326 IAC 6.8-1-5]

Pursuant to 326 IAC 6.8-2-19, the allowable PM<sub>10</sub> emission rate from the Sulfurization process shall not exceed 0.157 pounds per ton, and 0.23 pounds per hour. Pursuant to 326 IAC 6.8-1-5(d), the Sulfurization process shall comply with both limits.

##### D.3.2 PSD Minor Limit [326 IAC 2-2]

The amount of sulfur used by the sulfurization process shall be limited to less than 10,335 tons per 12 consecutive month period with compliance determined at the end of each month. This usage limit and the scrubber's H<sub>2</sub>S control efficiency of 99.9 percent is required to limit the hydrogen sulfide (H<sub>2</sub>S) emissions to less than 10 tons per twelve (12) consecutive month period. If the monitoring data is not available or indicates the scrubber is not achieving this control efficiency, the Permittee shall use a control efficiency of zero percent (0%).

Compliance with this limit, will limit the H<sub>2</sub>S emissions to less than 10 tons per year and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the

sulfurization process.

**D.3.3 Emission Offset Minor Limit [326 IAC 2-3]**

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The amount of sulfurized products produced by the sulfurization process shall be limited to less than 37,000 tons per 12 consecutive month period with compliance determined at the end of each month and volatile organic compounds (VOC) emissions shall not exceed 0.000368 pounds of VOC per pound of finished sulfurization products.

Compliance with this limit, will limit the VOC emission from the sulfurization process to less than 25 tons per year and render the requirements of 326 IAC 2-3 (Emission Offset) not applicable to the sulfurization process.

**D.3.4 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

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Pursuant to 326 IAC 8-9, the Permittee shall maintain a record and submit to Compliance Branch, OAQ, IDEM a report containing the following information for VOC storage tank TS-1029:

- (a) The vessel identification number
- (b) The vessels dimension
- (c) The vessel capacity

**Testing and Monitoring Requirements [326 IAC 2-7-6 (1)][326 IAC 2-7-5 (1)]**

**D.3.5 Scrubber Operation Requirements [326 IAC 2-7-10.5]**

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The Permittee shall operate the scrubber control system, at all times the sulfurization system is in operation.

**D.3.6 Hydrogen Sulfide (H<sub>2</sub>S) [326 IAC 2-7-10.5]**

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- (a) The sulfurization scrubber for H<sub>2</sub>S controls shall be in operation and control H<sub>2</sub>S emissions from the sulfurization process at all times the sulfurization process is in operation.
- (b) Caustic Scrubber - First Stage of Series: The caustic strength operations limit shall be no less than 1%. If a representative sample taken during any 8-hour shift shows a caustic percent reading of 1% or less, then the Permittee shall take one of the following steps:
  - (1) The caustic solution will be changed within 8 hours of test reading; or
  - (2) The process shall be shutdown and the caustic solution changed before the process is started up.
- (c) Caustic Scrubber - Second Stage of Series: The caustic strength at the second stage operations limit shall be no less than 10%.
- (d) The on-site Quality Control laboratory shall randomly test one of the 5-day split samples retained per week, unless the process is down for five consecutive days to verify the accuracy of operations data. Enough sample of the randomly tested sample shall also be retained so that an analysis can be run if so requested by the IDEM, OAQ or HDEM within 5 day holding period. Upon request of IDEM, OAQ or HDEM, a sample of the scrubber caustic solution shall be provided and/or the IDEM, OAQ or HDEM may witness a sample collection and test of the scrubber solution.

**D.3.7 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]**

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Before June 12, 2011, the Permittee shall conduct a performance test to verify H<sub>2</sub>S control efficiency as per condition D.3.2 and establish the caustic concentration (% by weight), hourly average operating temperature and minimum liquid circulation volume in the second stage sulfurization scrubber using methods as approved by the Commissioner. This test shall be

repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

## Monitoring Requirements

### D.3.8 Parametric Monitoring

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- (a) The Permittee shall calibrate, maintain, and operate a continuous monitoring system on the second stage sulfurization scrubber for measuring hourly average operating temperature. From the date of issuance of this permit until the approved stack test results are available the hourly average temperature of the scrubber shall not exceed 170°F.
- (b)
  - (1) The Permittee shall monitor the concentration (% by weight) of caustic once per day and the scrubber liquid flow rate in second stage sulfurization scrubber once per hour. From the date of issuance of this permit until the approved stack test results are available the concentration (% by weight) of caustic and the scrubber liquid flow rate of the scrubber shall not be lower than 10% and 80 gallons per minute, respectively.
  - (2) The Permittee shall test the concentration (% by weight) of caustic in first stage sulfurization scrubber once per day.
- (c) The Permittee shall monitor the volume and caustic concentration charged to the scrubbers during the recharge operations once per day.
- (d) Split samples taken from the second stage scrubber shall be maintained at the facility for the most current five day calendar period.

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

### D.3.9 Record Keeping Requirements

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- (a) The Permittee shall maintain the following records in accordance with Section C - General Record Keeping Requirements, of this permit:
  - (1) The amount of sulfur used and sulfurization products manufactured for each month.
  - (2) The hourly average operating temperature of the second stage of the scrubber.
  - (3) Records of the per day caustic concentration and per hour liquid flow rate in second stage of the scrubber.
  - (4) Per day records of the caustic concentration in the first stage of the scrubber.
  - (5) Daily volume and caustic concentration charged to the scrubbers during recharge.
- (b) Pursuant to 326 IAC 8-9-6, the Permittee shall keep readily accessible records of each storage tank listed in Condition D.3.4 for the life of the tank.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### D.3.10 Reporting Requirements

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The Permittee shall submit a quarterly report of data required by condition D.3.2 and D.3.3 within 30 days following the reporting period using the reporting forms located at the end of this permit, or their equivalent;

## SECTION D.4

## FACILITY OPERATION CONDITIONS

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

Hi-Temp Process - with a maximum rated capacity of 4,200 pounds per hour of hi-temp products consisting of the following equipment:

- (f) The system consisting of:
  - (1) One (1) reactor, identified as TR-2620, constructed in 1989, with a maximum capacity of 4,000 gallons;
  - (2) Two (2) recovered methanol tanks, identified as TS-2602 and TS-2603, constructed in 1989, with maximum capacity of 2,500, and 4,000 gallons, respectively;
  - (3) One (1) sludge tank, identified as TP-2604, constructed in 1989, with a maximum capacity of 750 gallons, equipped with a sludge drumming operation followed by an activated carbon filter for odor management;
  - (4) One (1) scrubber liquor tank, identified as TS-2610, constructed in 2001, with a maximum capacity of 10,000 gallons; and
  - (5) One (1) intermediate holding tank, identified as TP-2601, constructed in 1989, with a maximum capacity of 4,550 gallons;

all controlled by two (2) caustic scrubbers identified as TP-2624 and TP-2626, constructed in 1989; and one flare, identified as GB-2627, constructed in 1990, in series, and exhausting at one (1) stack, identified as Stack GB-2627.
- (g) One (1) scrubber liquor truck loading station, constructed in 1989, controlled by a carbon drum, identified as TF-2610 constructed in 2001.
- (h) One (1) pre-coat tank, identified as TP-2722, constructed in 1995, with a maximum capacity of 1,300 gallons.
- (i) One (1) filter feed tank, identified as TP-2720, constructed in 1995, with a maximum capacity of 5,000 gallons, controlled by a carbon drum, identified as TF-2728 and exhausting at a stack identified as Stack TP-2728.
- (j) One (1) filtrate tank, identified as TP-2730, constructed in 1995, with a maximum capacity of 5,000 gallons.
- (k) One (1) filter, identified as GF-2724, constructed in 1995, with a maximum capacity of 69 cubic feet of filter cake, and one (1) filter, identified as GF-2734, constructed in 2005, with a maximum capacity of 41 cubic feet of filter cake, both controlled by a carbon drum, identified as TF-2728, exhausting at stack TF-2728.
- (l) One (1) reactor, constructed in 1993, identified as TP-2553, with a maximum capacity of 2,100 gallons, controlled by scrubber TP-2589.
- (m) One (1) filter feed tank, constructed in 1993, identified as TP-2554, with a maximum capacity of 2,100 gallons.
- (n) Three (3) wash water tanks, constructed in 1996, identified as TP-2556, TP-2557 and TP-2558, each with a maximum capacity of 700 gallons.

- (o) One (1) reactor, constructed in 1990, identified as TR-2630, with a maximum capacity of 4,000 gallons.
- (p) One (1) reactor, constructed in 2005, identified as TR-2541, with a maximum capacity of 3,500 gallons, controlled by scrubber TP-2589.

(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 Emissions Limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner  
[326 IAC 6.8-1-2]

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Pursuant to 326 IAC 6.8-1-2 The particulate matter (PM) emissions from the emission units, identified as TR-2620, and the filtration process shall not exceed 0.03 grain per dry standard cubic foot, dscf, each.

## SECTION D.5

## FACILITY OPERATION CONDITIONS

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

Fuel Additive Process - with a maximum rated capacity of 12,000 pounds per hour of fuel additives (prior to blending) consisting of the following equipment:

- (q) The system consisting of:
  - (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
  - (2) Four (4) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
  - (3) One (1) reactor, identified as TR-2016 (constructed in 1990), which discharges process water (condensate) to the condenser or the bypass system with a maximum capacity of 4,000 gallons;
  - (4) One (1) EDA recycle tank, identified as TP-2052 (constructed in 1985), with a maximum capacity of 1,700 gallons;controlled by a scrubber identified as TP-2072 (constructed in 1985), and exhausting at a stack identified as Stack TP-2072.
- (r) One (1) virgin EDA tank, identified as TS-1027, (constructed in 1985), maximum capacity of 14,930 gallons, controlled by a carbon adsorption drum identified as TF-1027, and exhausting at stack identified as Stack TF-1027.
- (s) One (1) continuous wash system consisting of tanks TP-2339, TP-2328, TP-2334, TP-2333, TP-2331, TP-2330, TP-2340, TP-2349, TP-2348, one (1) 300 gallon feed tank identified as TP-2329, one (1) butanol recovery column identified as CS-2329, and one stripping column identified as CD-2319, controlled by one (1) vent condenser identified as XT-2313 and exhausting to stack XT-2313.
- (t) One (1) continuous wash system consisting of tanks TP-2350, TP-2359, TP-2353, TP-2354, TP-2351, TP-2352, TP-2355, TP-2356, TP-2357, one (1) butanol water feed tank identified as TP-2358, one (1) butanol recovery column identified as CS-2368, and one stripping column identified as CD-2350, controlled by one (1) vent condenser identified as XT-2350 and exhausting to stack XT-2350.
- (u) Four (4) product rundown tanks, identified as TP-1035, TP-1036 (both constructed in 1985), TP-2360, and TP-2361 (both constructed in 1990), maximum capacity of 6,800 gallons each.
- (v) Three (3) fuel additive blending tanks, identified as TP-1030, TP-1031, and TP-1032 (all constructed in 1985), with maximum capacities of 11,740, 15,220, and 11,740 gallons, respectively.

(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 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

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Pursuant to 326 IAC 8-9, the Permittee shall maintain a record and submit to Compliance Branch, OAQ, IDEM a report containing the following information:

- (a) The vessel identification number
- (b) The vessels dimension
- (c) The vessel capacity

for each of the following vessels:

- (1) TP-1030
- (2) TP-1031
- (3) TP-1032

#### **D.5.2 Record Keeping Requirements**

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Pursuant to 326 IAC 8-9-6, the Permittee shall keep readily accessible records of each storage tank listed in Condition D.5.1 for the life of the storage tank.

## SECTION D.6

## FACILITY OPERATION CONDITIONS

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

Miscellaneous Process - with a maximum rated capacity of 3,000 pounds per hour consisting of the following equipment:

- (w) Five reactors, identified as TR-2224 (constructed in 1980), TR-2225 (constructed before 1976), TR-2226 (constructed before 1976), TR-2227 (constructed before 1976), and TR-2228 (constructed before 1976), maximum capacity of 5,500, 2,000, 7,000, 400, and 7,500 gallons, respectively; controlled by two (2) wet scrubbers, identified as PE-2228, and TP-2332, and exhausting at stacks identified as Stack PE-2228, and Stack TP-2332.
- (x) Two (2) reactors, identified as TR-2329 (constructed in 1986), and TR-2322 (constructed in 1984), maximum capacity of 1,500, and 2,000 gallons, respectively.

(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 Particulate Emission Limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner  
[326 IAC 6.8-1-2]

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The particulate matter (PM) emissions from the emission units, identified as TR-2224, TR-2225, TR-2226, TR-2227, TR-2228, TR-2329 and TR-2322 shall not exceed 0.03 grain per dry standard cubic foot, dscf, each.

**SECTION D.7**

**FACILITY OPERATION CONDITIONS**

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

- (y) Storage tanks emitting less than one (1) ton per year collectively of a combination of HAPs and less than fifteen (15) pounds per day of VOC. [326 IAC 12, and 40 CFR 60.112b(a)]
  - (1) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1001, constructed in 1997.
  - (2) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1002, constructed in 1997.
  - (3) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1003, constructed in 1993.
  - (4) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1004, constructed in 1978.
  - (5) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1005, constructed in 1978.
  - (6) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1006, constructed in 1978.
  - (7) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1007, constructed in 1978.
  - (8) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1008, constructed in 1978.
  - (9) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1009, constructed in 1978.
  - (10) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1010, constructed in 1978.
  - (11) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1011, constructed in 1978.
  - (12) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1012, constructed in 1978.
  - (13) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1013, constructed in 1978.
  - (14) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1014, constructed in 1978.
  - (15) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1015, constructed in 1987.
  - (16) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1016, constructed in 1978.

- (17) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1017, constructed in 1978.
- (18) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1018, constructed in 1978.
- (19) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1019, constructed in 1996.
- (20) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1020, constructed in 1997.
- (21) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1021, constructed in 1997.
- (22) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1022, constructed in 1996.
- (23) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1023, constructed in 1996.
- (24) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1024, constructed in 1997.
- (25) One (1) storage tank, maximum capacity of 28,760 gallons, identified as TS-1026, constructed in 1980.
- (26) One (1) storage tank, maximum capacity of 11,075 gallons, identified as TS-1028, constructed in 1980.
- (27) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1033, constructed in 1986.
- (28) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1039, constructed in 1987.
- (29) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1040, constructed in 1987.
- (30) One (1) storage tank, maximum capacity of 15,540 gallons, identified as TS-1042, constructed in 1989.
- (31) One (1) storage or blend tank, maximum capacity of 14,900 gallons, identified as TS-1043, constructed in 1990.
- (32) One (1) wax storage tank, maximum capacity of 20,390 gallons, identified as TS-1056, constructed in 1978.
- (33) One (1) storage tank, maximum capacity of 20,390 gallons, identified as TS-1057, constructed in 1978.
- (34) One (1) storage tank, maximum capacity of 4,010 gallons, identified as TS-1081, constructed in 1989.
- (35) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1082, constructed in 1989.

- (36) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2160, constructed before 1976.
- (37) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2163, constructed before 1976.
- (38) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2168, constructed before 1976.
- (39) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2169, constructed before 1976.
- (40) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2170, constructed before 1976.
- (41) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2178, constructed in 1998.
- (42) One (1) storage tank, maximum capacity of 2,600 gallons, identified as TS-2209, constructed before 1979.
- (43) One (1) storage tank, maximum capacity of 10,800 gallons, identified as TS-2218, constructed before 1979.
- (44) One (1) storage tank, maximum capacity of 10,690 gallons, identified as TS-2252, constructed prior to 1976.
- (45) One (1) storage tank, maximum capacity of 6,760 gallons, identified as TS-2253, constructed before 1976.
- (46) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2255, constructed before 1976.
- (47) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2264, constructed before 1979.
- (48) One (1) storage tank, maximum capacity of 31,070 gallons, identified as TS-2265, constructed before 1979.
- (49) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2271, constructed in 2005.
- (50) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2272, constructed in 2005.
- (51) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2275, constructed before 1979.
- (52) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2276, constructed before 1979.
- (53) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2277, constructed before 1976.
- (54) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2279, constructed before 1976.

- (55) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2280, constructed before 1976.
- (56) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2605, constructed in 1990.
- (57) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2315, constructed in 1990.
- (58) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2362, constructed in 1990.
- (59) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2364, constructed in 1990.
- (60) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2365, constructed in 1990.
- (61) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2367, constructed in 1990.
- (62) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2606, constructed in 1989.
- (63) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2611, constructed in 1990.
- (64) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2612, constructed in 1990.
- (65) One (1) storage tank, maximum capacity of 30,080 gallons, identified as TS-2613, constructed in 1990.
- (66) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2618, constructed in 1990.
- (67) One (1) storage tank, maximum capacity of 16,920 gallons, identified as TS-2619, constructed in 1990.
- (68) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2550, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (69) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2551, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (70) One (1) storage tank, maximum capacity of 2,970 gallons, identified as TP-2617, constructed in 1990.

(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 Volatile Organic Liquid Storage Vessels [326 IAC 12][40 CFR 60, Part Kb]**

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Pursuant to 40 CFR 60.116b, the Permittee shall keep readily accessible records showing the dimensions of the storage tanks and an analysis showing the capacities of the following storage tanks.

- (1) TS-1001
- (2) TS-1002
- (3) TS-1003
- (4) TS-1015
- (5) TS-1019
- (6) TS-1020
- (7) TS-1021
- (8) TS-1022
- (9) TS-1023
- (10) TS-1024
- (11) TS-2178
- (12) TS-2315
- (13) TS-2362
- (14) TS-2364
- (15) TS-2365
- (16) TS-2367
- (17) TS-2606
- (18) TS-2613

### **D.7.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

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Pursuant to 326 IAC 8-9, the Permittee shall maintain a record and submit to Compliance Branch, OAQ, IDEM a report containing the following information:

- (a) The vessel identification number
- (b) The vessels dimension
- (c) The vessel capacity

for each of the following vessels.

- (1) TS-1004
- (2) TS-1005
- (3) TS-1006
- (4) TS-1007
- (5) TS-1008
- (6) TS-1009
- (7) TS-1010
- (8) TS-1011
- (9) TS-1012
- (10) TS-1013
- (11) TS-1014
- (12) TS-1016
- (13) TS-1017
- (14) TS-1018
- (15) TS-1026
- (16) TS-1028
- (17) TP-1033
- (18) TS-1039
- (19) TS-1040
- (20) TS-1042
- (21) TS-1043

- (22) TS-1056
- (23) TS-1057
- (24) TS-1081
- (25) TS-1082
- (26) TS-2160
- (27) TS-2163
- (28) TS-2168
- (29) TS-2169
- (30) TS-2170
- (31) TS-2209
- (32) TS-2218
- (33) TS-2252
- (34) TS-2253
- (35) TS-2255
- (36) TS-2264
- (37) TS-2265
- (38) TS-2271
- (39) TS-2272
- (40) TS-2275
- (41) TS-2276
- (42) TS-2277
- (43) TS-2279
- (44) TS-2280
- (45) TS-2605
- (46) TS-2611
- (47) TS-2612
- (48) TS-2618
- (49) TS-2619
- (50) TP-2550
- (51) TP-2551
- (52) TP-2617

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

**D.7.3 Record Keeping Requirements**

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Pursuant to 40 CFR 60.116b and 326 IAC 8-9-6, the Permittee shall keep readily accessible records of each storage tank required by D.7.1 and D.7.2 for the life of the storage tanks.

**SECTION D.8**

**FACILITY OPERATION CONDITIONS**

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

Specifically regulated insignificant activities with emissions below significant thresholds:

- (z) One (1) natural gas fired boiler, identified as boiler no. B-3, constructed in 1974, rated at 5.7 MMBtu per hour, exhausting at one (1) stack, identified as GB-3404.

(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 Particulate Matter Limitation (PM<sub>10</sub>) [326 IAC 6.8-2][326 IAC 6-2-4]**

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Pursuant to 326 IAC 6.8-2-19 (Lake County PM<sub>10</sub> emission requirements) PM<sub>10</sub> emissions from the Cleaver-Brooks boiler B-3 (Stack GB-3404) shall be limited to seven-thousandths (0.007) pounds per million Btu, and 0.07 pounds per hour.

## SECTION E.1 FACILITY OPERATION CONDITIONS

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

Chlorination process with a maximum rated capacity of 5,000 pounds per hour of chlorine feed to produce short to long chain chlorination paraffins, olefins, waxes, polybutene, and 8,035 pounds per hour of muriatic acid. The chlorination system consists of the following systems:

- (a) The system consisting of:
- (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
  - (2) Five (5) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), TR-2016 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
  - (3) One (1) sulfur monochloride tank, identified as TS-1058, constructed in 1981, with a maximum capacity of 5,470 gallons;
  - (4) One (1) acid tower condensate neutralization tank, identified as TP-2030, constructed before 1976, with a maximum capacity of 500 gallons;
  - (5) Two (2) chlorine railcar track spots, identified as RC-0101 and RC-0201, constructed before 1976, with a maximum capacity of 1 railcar (containing at most 180,600 pounds) each;
  - (6) One (1) acid tower, identified as CB-2060, constructed before 1976, with a maximum capacity of 8,035 lb/hr muriatic acid;
  - (7) One (1) tower product acid tank, identified as TP-2033, constructed before 1976, with a maximum capacity of 560-gallons;
  - (8) One (1) tower water feed tank, identified as TP-2060 (constructed in 1996), with a maximum capacity of 560-gallons; and
  - (9) Two (2) chlorine vaporizers, identified as XV-2050 and XV-2051, constructed before 1976, and with a maximum feed capacity of 3,000 lb/hr chlorine combined. This will not operate after the operation of One (1) chlorine vaporizer, constructed in 2008, identified as XV-2050, with a maximum feed capacity of 5,000 lb/hr chlorine;

all controlled by seven (7) scrubbers, identified as TP-2061 (constructed before 1976), TP-2062 (constructed before 1976), TP-2063 (constructed before 1976), TP-2064 (constructed before 1976), TP-2065 (constructed in 1977), TP-2066 (constructed in 1977), and TP-2067 (constructed in 1995), and exhausting at seven (7) stacks, identified as Stacks TP-2061 to 2067.

- (b) The system consisting of:
- (1) Three (3) muriatic acid tanks, identified as TS-1090 (constructed in 1979), TS-1091 (constructed in 1980), and TS-1093 (constructed in 2000), with a maximum capacity of 16,000, 14,900 and 16,000 gallons, respectively;

- (2) Two (2) hypochlorite reduction tanks, identified as TP-3494, and TP-3495 (constructed in 1993), with a maximum capacity of 6,250 gallons each;
- (3) One (1) muriatic acid tank truck loading station, constructed in 1979, with a maximum capacity of 1 truck;

controlled by one (1) caustic scrubber identified as TP-1099 constructed in 1980 exhausting at one (1) stack, identified as Stack TP-1099.

(c) The system consisting of:

- (1) One (1) chlorinated product tank, identified as TS-2041, constructed before 1976, with a maximum capacity of 4,000 gallons;
- (2) Two (2) chlorinated product tanks, identified as TS-2043, and TS-2044, constructed before 1976, with a maximum capacity of 4,100 gallons each; and
- (3) One (1) chlorinated product-drumming tank, identified as TS-2012, constructed in 1978, with a maximum capacity of 1,500 gallons.

Hi-Temp process - with a maximum rated capacity of 4,200 pounds per hour of hi-temp products consisting of the following equipment:

(d) The system consisting of:

- (1) One (1) reactor, identified as TR-2620, constructed in 1989, with a maximum capacity of 4,000 gallons;
- (2) Two (2) recovered methanol tanks, identified as TS-2602 and TS-2603, constructed in 1989, with maximum capacity of 2,500, and 4,000 gallons, respectively;
- (3) One (1) sludge tank, identified as TP-2604, constructed in 1989, with a maximum capacity of 750 gallons, equipped with a sludge drumming operation followed by an activated carbon filter for odor management;
- (4) One (1) scrubber liquor tank, identified as TS-2610, constructed in 2001, with a maximum capacity of 10,000 gallons; and
- (5) One (1) intermediate holding tank, identified as TP-2601, constructed in 1989, with a maximum capacity of 4,550 gallons;

all controlled by two (2) caustic scrubbers identified as TP-2624 and TP-2626, constructed in 1989; and one flare, identified as GB-2627, constructed in 1990, in series, and exhausting at one (1) stack, identified as Stack GB-2627.

- (e) One (1) scrubber liquor truck loading station, constructed in 1989, controlled by a carbon drum, identified as TF-2610 constructed in 2001.
- (f) One (1) pre-coat tank, identified as TP-2722, constructed in 1995, with a maximum capacity of 1,300 gallons.
- (g) One (1) filter feed tank, identified as TP-2720, constructed in 1995, with a maximum capacity of 5,000 gallons, controlled by a carbon drum, identified as TF-2728 and exhausting at a stack identified as Stack TP-2728.

- (h) One (1) filtrate tank, identified as TP-2730, constructed in 1995, with a maximum capacity of 5,000 gallons.
- (i) One (1) filter, identified as GF-2724, constructed in 1995, with a maximum capacity of 69 cubic feet of filter cake, and one (1) filter, identified as GF-2734, constructed in 2005, with a maximum capacity of 41 cubic feet of filter cake, both controlled by a carbon drum, identified as TF-2728, exhausting at stack TF-2728.
- (j) One (1) reactor, constructed in 1993, identified as TP-2553, with a maximum capacity of 2,100 gallons, controlled by scrubber TP-2589.
- (k) One (1) filter feed tank, constructed in 1993, identified as TP-2554, with a maximum capacity of 2,100 gallons.
- (l) Three (3) wash water tanks, constructed in 1996, identified as TP-2556, TP-2557 and TP-2558, each with a maximum capacity of 700 gallons.
- (m) One (1) reactor, constructed in 1990, identified as TR-2630, with a maximum capacity of 4,000 gallons.
- (n) One (1) reactor, constructed in 2005, identified as TR-2541, with a maximum capacity of 3,500 gallons, controlled by scrubber TP-2589.

Fuel Additive Process - with a maximum rated capacity of 12,000 pounds per hour of fuel additives (prior to blending) consisting of the following equipment:

- (o) The system consisting of:
  - (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
  - (2) Four (4) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
  - (3) One (1) reactor, identified as TR-2016 (constructed in 1990), which discharges process water (condensate) to the condenser or the bypass system with a maximum capacity of 4,000 gallons;
  - (4) One (1) EDA recycle tank, identified as TP-2052 (constructed in 1985), with a maximum capacity of 1,700 gallons;controlled by a scrubber identified as TP-2072 (constructed in 1985), and exhausting at a stack identified as Stack TP-2072.
- (p) One (1) virgin EDA tank, identified as TS-1027, (constructed in 1985), maximum capacity of 14,930 gallons, controlled by a carbon adsorption drum identified as TF-1027, and exhausting at stack identified as Stack TF-1027.
- (q) One (1) continuous wash system consisting of tanks TP-2339, TP-2328, TP-2334, TP-2333, TP-2331, TP-2330, TP-2340, TP-2349, TP-2348, one (1) 300 gallon feed tank identified as TP-2329, one (1) butanol recovery column identified as CS-2329, and one stripping column identified as CD-2319, controlled by one (1) vent condenser identified as XT-2313 and exhausting to stack XT-2313.

One (1) continuous wash system consisting of tanks TP-2350, TP-2359, TP-2353, TP-2354, TP-2351, TP-2352, TP-2355, TP-2356, TP-2357, one (1) butanol water feed tank identified as TP-2358, one (1) butanol recovery column identified as CS-2368, and one stripping column identified as CD-2350, controlled by one (1) vent condenser identified as XT-2350 and exhausting to stack XT-2350.

- (r) Four (4) product rundown tanks, identified as TP-1035, TP-1036 (both constructed in 1985), TP-2360, and TP-2361 (both constructed in 1990), maximum capacity of 6,800 gallons each.
- (s) Three (3) fuel additive blending tanks, identified as TP-1030, TP-1031, and TP-1032 (all constructed in 1985), with maximum capacities of 11,740, 15,220, and 11,740 gallons, respectively.

Miscellaneous Process - with a maximum rated capacity of 3,000 pounds per hour consisting of the following equipment:

- (t) Five reactors, identified as TR-2224 (constructed in 1980), TR-2225 (constructed before 1976), TR-2226 (constructed before 1976), TR-2227 (constructed before 1976), and TR-2228 (constructed before 1976), maximum capacity of 5,500, 2,000, 7,000, 400, and 7,500 gallons, respectively; controlled by two (2) wet scrubbers, identified as PE-2228, and TP-2332, and exhausting at stacks identified as Stack PE-2228, and Stack TP-2332.
- (u) Two (2) reactors, identified as TR-2329 (constructed in 1986), and TR-2322 (constructed in 1984), maximum capacity of 1,500, and 2,000 gallons, respectively.

(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)]**

#### **E.1.1 HAPs Minor Limits [40 CFR Part 63]**

- (a) The total HAP emissions from all temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3), shall be limited to six (6) tons per twelve consecutive month period, with compliance determined at the end of each month.
- (b) Total HCl emissions from all temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3), shall be limited to one (1) ton per twelve consecutive month period, with compliance determined at the end of each month.
- (c) Total Cl<sub>2</sub> emissions from all temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3), shall be limited to three (3) tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, along with HAP emissions from the chlorination process and source wide fugitive HAP emissions from storage tanks, will limit the source-wide potential to emit of single HAP and combined HAP emissions to less than 10 and 25 tons per 12 consecutive month period, respectively, and make the requirements of 40 CFR Part 63, Subpart NNNNN and Subpart A not applicable.

## Compliance Determination Requirements

### E.1.2 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

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The Permittee shall perform HAP testing for any temporary operation and experimental trial implemented pursuant to 326 IAC 2-1.1-3(h)(3), during the thirty (30) day trial period, to establish a HAP emission rate for that trial. Tests shall be conducted utilizing methods as approved by the Commissioner, and in accordance with Section C- Performance Testing.

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

### E.1.3 Record Keeping Requirements

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- (a) The Permittee shall maintain records sufficient to document compliance with Condition E.1.1. These records shall include the following:
- (1) Total production during each experimental trial period.
  - (2) Total raw material input during each experimental trial period.
  - (3) Total HAP input during each experimental trial period.
  - (4) Test data and results for the testing required pursuant to E.1.2.
  - (5) Total emissions from each experimental trial conducted at the source.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### E.1.4 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition E.1.1 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 "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
and  
HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Dover Chemical –Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Part 70 Permit No.: T089-7797-00227

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue, MC61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Dover Chemical- Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Part 70 Permit No.: T089-7797-00227

**This form consists of 2 pages**

**Page 1 of 2**

- 1) 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 Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM <sub>10</sub> , SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Part 70 Quarterly Report**

Source Name: Dover Chemical Corporation - Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Part 70 Permit No.: T089-7797-00227  
Facility: Sulfurization Process  
Limit: Less than 10,335 tons of sulfur used per year

YEAR: \_\_\_\_\_

Month	Sulfur Used	Sulfur Used	Sulfur Used
	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  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Part 70 Quarterly Report**

Source Name: Dover Chemical Corporation - Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Part 70 Permit No.: T089-7797-00227  
Facility: Sulfurization process  
Limit: Less than 37,000 tons of sulfurization products per 12 consecutive month period

YEAR: \_\_\_\_\_

Month	Sulfurization Products	Sulfurization Products	Sulfurization Products
	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  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Part 70 Quarterly Report**

Source Name: Dover Chemical Corporation - Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Part 70 Permit No.: T089-7797-00227  
Facility: Temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3) (Facilities Identified in Section E.1)  
Limit: 6 Tons total HAP emissions per 12 consecutive month period with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Total HAP Emissions	Total HAP emissions	Total HAP Emissions
	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  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Part 70 Quarterly Report**

Source Name: Dover Chemical Corporation - Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Part 70 Permit No.: T089-7797-00227  
Facility: Temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3) (Facilities Identified in Section E.1)  
Limit: 1 Ton total HCl emissions per 12 consecutive month period with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Total HCl Emissions	Total HCl emissions	Total HCl Emissions
	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  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Part 70 Quarterly Report**

Source Name: Dover Chemical Corporation - Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46320  
Part 70 Permit No.: T089-7797-00227  
Facility: Temporary operation and experimental trials, implemented pursuant to 326 IAC 2-1.1-3(h)(3) (Facilities Identified in Section E.1)  
Limit: 3 Tons total Cl<sub>2</sub> emissions per 12 consecutive month period with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Total Cl <sub>2</sub> Emissions	Total Cl <sub>2</sub> emissions	Total Cl <sub>2</sub> Emissions
	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  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

and

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Dover Chemical – Hammond Works  
Source Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Mailing Address: 3000 Sheffield Avenue, Hammond, IN 46327  
Part 70 Permit No.: T089-7797-00227

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

<p>This report is an affirmation that the source has met all the requirements stated in this permit. 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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**Attachment A – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984  
[40 CFR Part 60, Subpart Kb] [326 IAC 12]**

<b>Source Description and Location</b>
--

Source Name:	Dover Chemical Corp. – Hammond Works
Source Location:	3000 Sheffield Avenue, Hammond, IN 46327
County:	Lake
SIC Code:	2899
Permit Renewal No.:	089-26668-00227
Permit Reviewer:	Kimberley Malley

<b>NSPS [40 CFR Part 60, Subpart Kb]</b>
--

**Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984**

**§ 60.110b Applicability and designation of affected facility.**

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

- (1) Vessels at coke oven by-product plants.
- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to 1,589.874 m<sup>3</sup> used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- (5) Vessels located at bulk gasoline plants.
- (6) Storage vessels located at gasoline service stations.
- (7) Vessels used to store beverage alcohol.
- (8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

### **§ 60.111b Definitions.**

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

*Bulk gasoline plant* means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

*Condensate* means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

*Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

*Fill* means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

*Gasoline service station* means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

*Maximum true vapor pressure* means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

- (1) In accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see §60.17); or
- (2) As obtained from standard reference texts; or
- (3) As determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17);
- (4) Any other method approved by the Administrator.

*Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

*Petroleum liquids* means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

*Process tank* means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

*Reid vapor pressure* means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323–82 or 94 (incorporated by reference—see §60.17).

*Storage vessel* means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;
- (2) Subsurface caverns or porous rock reservoirs; or
- (3) Process tanks.

*Volatile organic liquid (VOL)* means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

*Waste* means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

#### **§ 60.112b Standard for volatile organic compounds (VOC).**

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or

subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

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

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m<sup>3</sup> which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

### **§ 60.113b Testing and procedures.**

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm<sup>2</sup> per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external 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, the owner or operator

shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) 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).

#### **§ 60.114b Alternative means of emission limitation.**

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

### **§ 60.115b Reporting and recordkeeping requirements.**

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §60.112b(a)(1) or §60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with §60.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

### **§ 60.116b Monitoring of operations.**

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at

ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

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

(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(ii) ASTM D323–82 or 94 (incorporated by reference—see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

#### **§ 60.117b Delegation of authority.**

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

**Attachment B – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units  
[40 CFR Part 60, Subpart Dc] [326 IAC 12]**

<b>Source Description and Location</b>
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Source Name:	Dover Chemical Corp. – Hammond Works
Source Location:	3000 Sheffield Avenue, Hammond, IN 46327
County:	Lake
SIC Code:	2899
Permit Renewal No.:	089-26668-00227
Permit Reviewer:	Kimberley Malley

<b>NSPS [40 CFR Part 60, Subpart Dc]</b>
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**Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

**§ 60.40c Applicability and delegation of authority.**

(a) Except as provided in paragraph (d) 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<sub>2</sub>) 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 GG or 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 covered 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 covered by this subpart.

**§ 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, 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).

*Dry flue gas desulfurization technology* means a SO<sub>2</sub> control 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<sub>2</sub> control 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).

*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<sub>2</sub> emissions (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 any other 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<sub>2</sub> control 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<sub>2</sub>.

*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.

**§ 60.42c Standard for sulfur dioxide (SO<sub>2</sub>).**

(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<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in 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<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in 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<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of SO<sub>2</sub> in 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<sub>2</sub> emissions limit or the 90 percent SO<sub>2</sub> reduction 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<sub>2</sub> emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 50 percent (0.50) of the potential SO<sub>2</sub> emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in 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<sub>2</sub> reduction 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<sub>2</sub> in 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<sub>2</sub> in 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<sub>2</sub> in excess of the following:

(1) The percent of potential SO<sub>2</sub> emission rate or numerical SO<sub>2</sub> emission 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<sub>s</sub>= SO<sub>2</sub> emission limit, expressed in ng/J or lb/MMBtu heat input;

K<sub>a</sub>= 520 ng/J (1.2 lb/MMBtu);

K<sub>b</sub>= 260 ng/J (0.60 lb/MMBtu);

K<sub>c</sub>= 215 ng/J (0.50 lb/MMBtu);

H<sub>a</sub>= 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<sub>b</sub>= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H<sub>c</sub>K<sub>a</sub>H<sub>b</sub>= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO<sub>2</sub> emission 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<sub>2</sub> emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO<sub>2</sub> control) 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<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) 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.

#### **§ 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 combusts 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.

(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<sub>2</sub> emissions is not subject to the PM limit in this section.

#### **§ 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<sub>2</sub> emission 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<sub>2</sub> emission limits under §60.42c is based on the average percent reduction and the average SO<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> emission rate (E<sub>ho</sub>) and the 30-day average SO<sub>2</sub> emission rate (E<sub>ao</sub>). 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<sub>ao</sub> 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<sub>ho</sub> (E<sub>ho0</sub>) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E<sub>ao</sub> (E<sub>ao0</sub>). The E<sub>ho0</sub> is computed using the following formula:

$$E_{ho0} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>ho0</sub> = Adjusted E<sub>ho</sub>, ng/J (lb/MMBtu);

E<sub>ho</sub> = Hourly SO<sub>2</sub> emission rate, ng/J (lb/MMBtu);

E<sub>w</sub> = SO<sub>2</sub> concentration 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<sub>w</sub> 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<sub>w</sub> if the owner or operator elects to assume E<sub>w</sub> = 0.

X<sub>k</sub> = 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<sub>w</sub> or X<sub>k</sub> 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<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>s</sub> = Potential SO<sub>2</sub> emission rate, in percent;

%R<sub>g</sub> = SO<sub>2</sub> removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

%R<sub>f</sub> = SO<sub>2</sub> removal 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<sub>s</sub>, an adjusted %R<sub>g</sub>(%R<sub>g</sub>o) is computed from E<sub>ao</sub>o from paragraph (e)(1) of this section and an adjusted average SO<sub>2</sub> inlet rate (E<sub>ai</sub>o) using the following formula:

$$\%R_{g^o} = 100 \left( 1 - \frac{E_{ao}^o}{E_{ai}^o} \right)$$

Where:

%R<sub>g</sub>o = Adjusted %R<sub>g</sub>, in percent;

E<sub>ao</sub>o = Adjusted E<sub>ao</sub>, ng/J (lb/MMBtu); and

E<sub>ai</sub>o = Adjusted average SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu).

(ii) To compute E<sub>ai</sub>o, an adjusted hourly SO<sub>2</sub> inlet rate (E<sub>hi</sub>o) is used. The E<sub>hi</sub>o is computed using the following formula:

$$E_{hi^o} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>hi</sub>o = Adjusted E<sub>hi</sub>, ng/J (lb/MMBtu);

E<sub>hi</sub>= Hourly SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu);

E<sub>w</sub>= SO<sub>2</sub> concentration 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<sub>w</sub>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<sub>w</sub>if the owner or operator elects to assume E<sub>w</sub>= 0; and

X<sub>k</sub>= 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<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO<sub>2</sub> standards 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<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>h</sub> 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<sub>s</sub> or E<sub>h</sub> pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

### **§ 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 3 of appendix A of this part shall be used for gas analysis when applying Method 5, 5B, or 17 of appendix A 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<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) 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<sub>2</sub> or CO<sub>2</sub> measurements 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 of this part (6-minute average of 24 observations) 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 EPA Reference Method 5, 5B, or 17 of appendix A 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 EPA Method 5, 5B, or 17 of appendix A of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(13) 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 (d)(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 (d)(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 (d)(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<sub>2</sub> (or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraph (d)(7)(i) of this section.

(i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.

(ii) For O<sub>2</sub> (or CO<sub>2</sub>), EPA reference Method 3, 3A, or 3B of appendix A 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.

(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).

#### **§ 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<sub>2</sub> emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at the outlet of the SO<sub>2</sub> control device (or the outlet of the steam generating unit if no SO<sub>2</sub> control 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<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at both the inlet and outlet of the SO<sub>2</sub> control device.

(b) The 1-hour average SO<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> CEMS at the inlet to the SO<sub>2</sub> control device shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted, and the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device shall be 50 percent of the maximum estimated hourly potential SO<sub>2</sub> emission 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<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission 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 to 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<sub>2</sub> input 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<sub>2</sub> at the inlet or outlet of the SO<sub>2</sub> control 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<sub>2</sub> and CO<sub>2</sub> measurement 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<sub>2</sub> standards 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), and (f) 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 COMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All COMS for measuring opacity 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) 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 (0.06 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions are not required to operate a CEMS for measuring opacity if they follow the applicable procedures under §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.45c(d). The CEMS specified in paragraph §60.45c(d) 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) An affected facility that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, 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 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 CEMS for measuring opacity. 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.

(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. At least two data points per hour must be used to calculate each 1-hour average.

(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) An affected facility 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 appropriate delegated permitting authority is not required to operate a CEMS for measuring opacity. 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.

**§ 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<sub>2</sub> emissions. 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<sub>2</sub> emission 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) The owner or operator of each coal-fired, oil-fired, or wood-fired affected facility subject to the opacity limits under §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period.

(d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> emission 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<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) 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 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 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 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<sub>2</sub> standard, 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<sub>2</sub> standard, 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.

**Indiana Department of Environmental Management  
Office of Air Quality  
Hammond Department of Environmental Management**

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

<b>Source Background and Description</b>
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Source Name:	Dover Chemical Corp. – Hammond Works
Source Location:	3000 Sheffield Avenue, Hammond, IN 46327
County:	Lake
SIC Code:	2899
Permit Renewal No.:	089-26668-00227
Permit Reviewer:	Kimberley Malley

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Dover Chemical Corp. – Hammond Works relating to the operation of a stationary chlorinated paraffin manufacturing plant.

<b>History</b>
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Dover Chemical Corp. – Hammond Works was issued Part 70 Operating Permit No. 089-7797-00227 on March 19, 2004. On June 17, 2008, Dover Chemical Corp. – Hammond Works submitted an application to the OAQ requesting to renew its operating permit. Information was provided on September 9, 2008 by the company to include two insignificant units and the new source review for a new vaporizer.

<b>Permitted Emission Units and Pollution Control Equipment</b>
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The source consists of the following emission units:

SECTION D.1

(a) Group of Boilers

- (1) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-300HP, identified as B-4, constructed in 1974, rated at 12.55 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3401.
- (2) One (1) Cleaver-Brooks natural gas fired boiler, Model CB-200-500, identified as B-5, constructed in 1980, rated at 20.92 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3402.
- (3) One (1) Superior–Mohawk natural gas fired boiler, identified as B-6, constructed in 1988, rated at 20 MMBtu per hour, and exhausting at one (1) stack, identified as GB-3403.

SECTION D.2

Chlorination system

with a maximum rated capacity of 5,000 pounds per hour of chlorine feed to produce short to long chain chlorination paraffins, olefins, waxes, polybutene, and 8,035 pounds per hour of muriatic acid. The chlorination system consists of the following systems:

(b) The system consisting of:

- (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
- (2) Five (5) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), TR-2016 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
- (3) One (1) sulfur monochloride tank, identified as TS-1058, constructed in 1981, with a maximum capacity of 5,470 gallons;
- (4) One (1) acid tower condensate neutralization tank, identified as TP-2030, constructed before 1976, with a maximum capacity of 500 gallons;
- (5) Two (2) chlorine railcar track spots, identified as RC-0101 and RC-0201, constructed before 1976, with a maximum capacity of 1 railcar (containing at most 180,600 pounds) each;
- (6) One (1) acid tower, identified as CB-2060, constructed before 1976, with a maximum capacity of 8,035 lb/hr muriatic acid;
- (7) One (1) tower product acid tank, identified as TP-2033, constructed before 1976, with a maximum capacity of 560-gallons;
- (8) One (1) tower water feed tank, identified as TP-2060 (constructed in 1996), with a maximum capacity of 560-gallons; and
- (9) Two (2) chlorine vaporizers, identified as XV-2050 and XV-2051, constructed before 1976, and with a maximum feed capacity of 3,000 lb/hr chlorine combined. This will not operate after the operation of One (1) chlorine vaporizer, constructed in 2008, identified as XV-2050, with a maximum feed capacity of 5,000 lb/hr chlorine;

all controlled by seven (7) scrubbers, identified as TP-2061 (constructed before 1976), TP-2062 (constructed before 1976), TP-2063 (constructed before 1976), TP-2064 (constructed before 1976), TP-2065 (constructed in 1977), TP-2066 (constructed in 1977), and TP-2067 (constructed in 1995), and exhausting at seven (7) stacks, identified as Stacks TP-2061 to 2067.

(c) The system consisting of:

- (1) Three (3) muriatic acid tanks, identified as TS-1090 (constructed in 1979), TS-1091 (constructed in 1980), and TS-1093 (constructed in 2000), with a maximum capacity of 16,000, 14,900 and 16,000 gallons, respectively;
- (2) Two (2) hypochlorite reduction tanks, identified as TP-3494, and TP-3495 (constructed in 1993), with a maximum capacity of 6,250 gallons each;
- (3) One (1) muriatic acid tank truck loading station, constructed in 1979, with a maximum capacity of 1 truck;

controlled by one (1) caustic scrubber identified as TP-1099 constructed in 1980 exhausting at one (1) stack, identified as Stack TP-1099.

(d) The system consisting of:

- (1) One (1) chlorinated product tank, identified as TS-2041, constructed before 1976, with a maximum capacity of 4,000 gallons;
- (2) Two (2) chlorinated product tanks, identified as TS-2043, and TS-2044, constructed before 1976, with a maximum capacity of 4,100 gallons each; and
- (3) One (1) chlorinated product-drumming tank, identified as TS-2012, constructed in 1978, with a maximum capacity of 1,500 gallons.

#### SECTION D.3                      Sulfurization system

with a maximum rated capacity of 8,450 pounds per hour of sulfurized products consisting of the following equipment:

(e) The system consisting of:

- (1) Three (3) sulfurization reactors, identified as TR-2120, TR-2121, and TR-2123, constructed before 1976, with maximum capacity of 3,700, 3,700, and 7,500 gallons, respectively, controlled by two (2) caustic scrubbers operating in series, identified as TP-2162 and TP-2163, followed by an activated carbon system for odor management and exhausting at Stack TP-2163. One (1) reflux condenser associated with sulfurization reactor TR-2120.
- (2) Five (5) blowing tanks, identified as TP-2150 (constructed in 1977), TP-2151 (constructed in 1977), TP-2152 (constructed in 1977), TP-2153 (constructed in 1977), and TP-2154 (constructed in 1997), with maximum capacity of 11,000, 9,650, 11,500, 4,000, and 7,600 gallons, respectively, venting to a blowing tank knockout tank identified as TP-2159 (constructed prior to 1976), controlled by two (2) caustic scrubbers, identified as TP-2162 and TP-2163 and exhausting at Stack TP-2163.
- (3) One (1) knockout storage tank, identified as TS-2164, constructed in 1976, with a maximum capacity of 1,500 gallons, exhausted to a containment scrubber, identified as TP-2167, constructed in 1995, and exhausting at Stack TP-2167.
- (4) One (1) scrubber liquor storage tank, identified as TS-1029, constructed in 1979, with a maximum capacity of 15,880 gallons.
- (5) Two (2) molten sulfur storage tanks, identified as TS-2190 and TP-2190, constructed in 1976.
- (6) One (1) filter feed tank, maximum capacity of 3,000 gallons, identified as TP-2207, constructed prior to 1976.

#### SECTION D.4                      Hi-Temp System

with a maximum rated capacity of 4,200 pounds per hour of hitemp products consisting of the following equipment:

- (f) The system consisting of:
- (1) One (1) reactor, identified as TR-2620, constructed in 1989, with a maximum capacity of 4,000 gallons;
  - (2) Two (2) recovered methanol tanks, identified as TS-2602 and TS-2603, constructed in 1989, with maximum capacity of 2,500, and 4,000 gallons, respectively;
  - (3) One (1) sludge tank, identified as TP-2604, constructed in 1989, with a maximum capacity of 750 gallons, equipped with a sludge drumming operation followed by an activated carbon filter for odor management;
  - (4) One (1) scrubber liquor tank, identified as TS-2610, constructed in 2001, with a maximum capacity of 10,000 gallons; and
  - (5) One (1) intermediate holding tank, identified as TP-2601, constructed in 1989, with a maximum capacity of 4,550 gallons;

all controlled by two (2) caustic scrubbers identified as TP-2624 and TP-2626, constructed in 1989; and one flare, identified as GB-2627, constructed in 1990, in series, and exhausting at one (1) stack, identified as Stack GB-2627.

- (g) One (1) scrubber liquor truck loading station, constructed in 1989, controlled by a carbon drum, identified as TF-2610 constructed in 2001.
- (h) One (1) pre-coat tank, identified as TP-2722, constructed in 1995, with a maximum capacity of 1,300 gallons.
- (i) One (1) filter feed tank, identified as TP-2720, constructed in 1995, with a maximum capacity of 5,000 gallons, controlled by a carbon drum, identified as TF-2728 and exhausting at a stack identified as Stack TP-2728.
- (j) One (1) filtrate tank, identified as TP-2730, constructed in 1995, with a maximum capacity of 5,000 gallons.
- (k) One (1) filter, identified as GF-2724, constructed in 1995, with a maximum capacity of 69 cubic feet of filter cake, and one (1) filter, identified as GF-2734, constructed in 2005, with a maximum capacity of 41 cubic feet of filter cake, both controlled by a carbon drum, identified as TF-2728, exhausting at stack TF-2728.
- (l) One (1) reactor, constructed in 1993, identified as TP-2553, with a maximum capacity of 2,100 gallons, controlled by scrubber TP-2589.
- (m) One (1) filter feed tank, constructed in 1993, identified as TP-2554, with a maximum capacity of 2,100 gallons.
- (n) Three (3) wash water tanks, constructed in 1996, identified as TP-2556, TP-2557 and TP-2558, each with a maximum capacity of 700 gallons.
- (o) One (1) reactor, constructed in 1990, identified as TR-2630, with a maximum capacity of 4,000 gallons.
- (p) One (1) reactor, constructed in 2005, identified as TR-2541, with a maximum capacity of 3,500 gallons, controlled by scrubber TP-2589.

SECTION D.5                      Fuel Additive system

with a maximum rated capacity of 12,000 pounds per hour of fuel additives (prior to blending) consisting of the following equipment:

- (q) The system consisting of:
- (1) Nine (9) reactors, identified as TR-2001 (constructed before 1976), TR-2003 (constructed before 1976), TR-2004 (constructed before 1976), TR-2005 (constructed before 1976), TR-2006 (constructed before 1976), TR-2007 (constructed in 1977), TR-2008 (constructed in 1977), TR-2010 (constructed in 1983), and TR-2014 (constructed in 1990), with a maximum capacity of 2,000 gallons each;
  - (2) Four (4) reactors, identified as TR-2002 (constructed in 1988), TR-2009 (constructed in 1982), TR-2015 (constructed in 1990), and TR-2017 (constructed in 1993), with a maximum capacity of 4,000 gallons each;
  - (3) One (1) reactor, identified as TR-2016 (constructed in 1990), which discharges process water (condensate) to the condenser or the bypass system with a maximum capacity of 4,000 gallons;
  - (4) One (1) EDA recycle tank, identified as TP-2052 (constructed in 1985), with a maximum capacity of 1,700 gallons;

controlled by a scrubber identified as TP-2072 (constructed in 1985), and exhausting at a stack identified as Stack TP-2072.

- (r) One (1) virgin EDA tank, identified as TS-1027, constructed in 1985, maximum capacity of 14,930 gallons, controlled by a carbon adsorption drum identified as TF-1027, and exhausting at stack identified as Stack TF-1027.
- (s) One (1) continuous wash system, constructed in 1985, consisting of tanks TP-2339, TP-2328, TP-2334, TP-2333, TP-2331, TP-2330, TP-2340, TP-2349, TP-2348, one (1) 300 gallon feed tank identified as TP-2329, one (1) butanol recovery column identified as CS-2329, and one stripping column identified as CD-2319, controlled by one (1) vent condenser identified as XT-2313 and exhausting to stack XT-2313.
- (t) One (1) continuous wash system, constructed in 1990, consisting of tanks TP-2350, TP-2359, TP-2353, TP-2354, TP-2351, TP-2352, TP-2355, TP-2356, TP-2357, one (1) butanol water feed tank identified as TP-2358, one (1) butanol recovery column identified as CS-2368, and one stripping column identified as CD-2350, controlled by one (1) vent condenser identified as XT-2350 and exhausting to stack XT-2350.
- (u) Two (2) product rundown tanks, identified as TP-1035, TP-1036, both constructed in 1985, with a maximum capacity of 6,800 gallons.
- (v) Two (2) product rundown tanks, identified as TP-2360, and TP-2361 both constructed in 1990, with a maximum capacity of 6,800 gallons each.
- (w) Three (3) fuel additive blending tanks, identified as TP-1030, TP-1031, and TP-1032, all constructed in 1985, with maximum capacities of 11,740, 15,220, and 11,740 gallons, respectively.

SECTION D.6                      Miscellaneous system

with a maximum rated capacity of 3,000 pounds per hour consisting of the following equipment:

- (x) Five reactors, identified as TR-2224 (constructed in 1980), TR-2225 (constructed before 1976), TR-2226 (constructed before 1976), TR-2227 (constructed before 1976), and TR-2228 (constructed before 1976), maximum capacity of 5,500, 2,000, 7,000, 400, and 7,500 gallons, respectively; controlled by two (2) wet scrubbers, identified as PE-2228, and TP-2332, and exhausting at stacks identified as Stack PE-2228, and Stack TP-2332.
- (y) Two (2) reactors, identified as TR-2329 (constructed in 1986), and TR-2322 (constructed in 1984), maximum capacity of 1,500, and 2,000 gallons, respectively.

**Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit**

There are no unpermitted facilities operating at this source during this review process.

**Emission Units and Pollution Control Equipment Removed From the Source**

There were no emission units that were removed from this source since issuance of Part 70 Operating Permit No. 089-7797-00227.

**Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

SECTION D.7                      VOC STORAGE TANKS

- (z) Storage tanks emitting less than one (1) ton per year collectively of a combination of HAPs and less than fifteen (15) pounds per day of VOC. [326 IAC 12, and 40 CFR 60.112b(a)]
  - (1) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1001, constructed in 1997.
  - (2) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1002, constructed in 1997.
  - (3) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1003, constructed in 1993.
  - (4) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1004, constructed in 1978.
  - (5) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1005, constructed in 1978.
  - (6) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1006, constructed in 1978.
  - (7) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1007, constructed in 1978.
  - (8) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1008, constructed in 1978.

- (9) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1009, constructed in 1978.
- (10) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1010, constructed in 1978.
- (11) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1011, constructed in 1978.
- (12) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1012, constructed in 1978.
- (13) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1013, constructed in 1978.
- (14) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1014, constructed in 1978.
- (15) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1015, constructed in 1987.
- (16) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1016, constructed in 1978.
- (17) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1017, constructed in 1978.
- (18) One (1) storage tank, maximum capacity of 21,050 gallons, identified as TS-1018, constructed in 1978.
- (19) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1019, constructed in 1996.
- (20) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1020, constructed in 1997.
- (21) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1021, constructed in 1997.
- (22) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1022, constructed in 1996.
- (23) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1023, constructed in 1996.
- (24) One (1) storage tank, maximum capacity of 27,950 gallons, identified as TS-1024, constructed in 1997.
- (25) One (1) storage tank, maximum capacity of 28,760 gallons, identified as TS-1026, constructed in 1980.
- (26) One (1) storage tank, maximum capacity of 11,075 gallons, identified as TS-1028, constructed in 1980.
- (27) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1033, constructed in 1986.

- (28) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1039, constructed in 1987.
- (29) One (1) storage tank, maximum capacity of 15,380 gallons, identified as TS-1040, constructed in 1987.
- (30) One (1) storage tank, maximum capacity of 15,540 gallons, identified as TS-1042, constructed in 1989.
- (31) One (1) storage or blend tank, maximum capacity of 14,900 gallons, identified as TS-1043, constructed in 1990.
- (32) One (1) wax storage tank, maximum capacity of 20,390 gallons, identified as TS-1056, constructed in 1978.
- (33) One (1) storage tank, maximum capacity of 20,390 gallons, identified as TS-1057, constructed in 1978.
- (34) One (1) storage tank, maximum capacity of 4,010 gallons, identified as TS-1081, constructed in 1989.
- (35) One (1) storage tank, maximum capacity of 15,220 gallons, identified as TS-1082, constructed in 1989.
- (36) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2160, constructed before 1976.
- (37) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2163, constructed before 1976.
- (38) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2168, constructed before 1976.
- (39) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2169, constructed before 1976.
- (40) One (1) storage tank, maximum capacity of 15,270 gallons, identified as TS-2170, constructed before 1976.
- (41) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2178, constructed in 1998.
- (42) One (1) storage tank, maximum capacity of 2,600 gallons, identified as TS-2209, constructed before 1979.
- (43) One (1) storage tank, maximum capacity of 10,800 gallons, identified as TS-2218, constructed before 1979.
- (44) One (1) storage tank, maximum capacity of 10,690 gallons, identified as TS-2252, constructed prior to 1976.
- (45) One (1) storage tank, maximum capacity of 6,760 gallons, identified as TS-2253, constructed before 1976.

- (46) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2255, constructed before 1976.
- (47) One (1) storage tank, maximum capacity of 10,360 gallons, identified as TS-2264, constructed before 1979.
- (48) One (1) storage tank, maximum capacity of 31,070 gallons, identified as TS-2265, constructed before 1979.
- (49) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2271, constructed in 2005.
- (50) One (1) storage tank, maximum capacity of 3,920 gallons, identified as TS-2272, constructed in 2005.
- (51) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2275, constructed before 1979.
- (52) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2276, constructed before 1979.
- (53) One (1) storage tank, maximum capacity of 23,310 gallons, identified as TS-2277, constructed before 1976.
- (54) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2279, constructed before 1976.
- (55) One (1) storage tank, maximum capacity of 3,450 gallons, identified as TS-2280, constructed before 1976.
- (56) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2605, constructed in 1990.
- (57) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2315, constructed in 1990.
- (58) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2362, constructed in 1990.
- (59) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2364, constructed in 1990.
- (60) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2365, constructed in 1990.
- (61) One (1) storage tank, maximum capacity of 30,400 gallons, identified as TS-2367, constructed in 1990.
- (62) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2606, constructed in 1989.
- (63) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2611, constructed in 1990.
- (64) One (1) storage tank, maximum capacity of 4,760 gallons, identified as TS-2612, constructed in 1990.

- (65) One (1) storage tank, maximum capacity of 30,080 gallons, identified as TS-2613, constructed in 1990.
- (66) One (1) storage tank, maximum capacity of 10,570 gallons, identified as TS-2618, constructed in 1990.
- (67) One (1) storage tank, maximum capacity of 16,920 gallons, identified as TS-2619, constructed in 1990.
- (68) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2550, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (69) One (1) storage tank, maximum capacity of 2,750 gallons, identified as TP-2551, constructed in 1996, and modified in 2007 to vent to scrubber TP-2636 which exhausts to stack TP-2636.
- (70) One (1) storage tank, maximum capacity of 2,970 gallons, identified as TP-2617, constructed in 1990.

SECTION D.8

5.7 MMBtu/hr Boiler

- (aa) One (1) natural gas fired boiler, identified as boiler no. B-3, constructed in 1974, rated at 5.7 MMBtu per hour, exhausting at one (1) stack, identified as GB-3404.

<b>Existing Approvals</b>
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Since the issuance of the Part 70 Operating Permit, 089-7797-00227 on March 19, 2004, the source has constructed or has been operating under the following approvals as well:

- (a) Significant Source Modification No. 089-18109-00227 issued on June 21, 2004,
- (b) Significant Permit Modification No. 089-18855-00227 issued on August 6, 2004,
- (c) Exemption No. 089-21189-00227 issued on June 1, 2005,
- (d) Exemption No. 089-21535-00227 issued on July 19, 2005,
- (e) Significant Permit Modification No. 089-21470-00227 issued on March 17, 2006,
- (f) Administrative Amendment No. 089-21756-00227 issued on November 16, 2005,
- (g) Exemption No. 089-21882-00227 issued on October 27, 2005,
- (h) Exemption No. 089-22533-00227 issued on January 31, 2006,
- (i) Administrative Amendment No. 089-23331-00227 issued on October 12, 2006,
- (j) Administrative Amendment No. 089-24393-00227 issued on March 27, 2007; and
- (k) Significant Permit Modification No. 089-25143-00227 issued on April 28, 2008.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

## Updates

The following is a summary of the relevant source modifications, permit modifications, permit amendments, and exemptions issued to Dover Chemical - Hammond Works:

- (a) Significant Source Modification No. 089-18109-00227, issued on June 21, 2004 and Significant Permit Modification No. 089-18855-00227, issued on August 6, 2004:  
On September 5, 2003, Dover Chemical - Hammond Works applied to add a reflux condenser, identified as TR-2120, to the sulfurization process. As part of this project, the source accepted an enforceable limit on the production of sulfurization products to limit emissions of VOC from the process to less than ten (10) tons per year and H<sub>2</sub>S to less than ten (10) tons per year. In addition, operation of the sulfurization scrubber was made enforceable. The TSD for this project stated the potential to emit VOC for the project was 0.0 tons per year. The project simply added a control device and made the use of the control device enforceable. No VOC emission increase was proposed.
- (b) Administrative Amendment No. 089-21756-00227, issued on November 16, 2005:  
On July 15, 2005, Dover Chemical - Hammond Works applied to replace two existing chlorine vaporizers, identified as XV-2050 and XV-2051, one acid tower, identified as CB-2060, on the chlorine process line with a single chlorine vaporizer, identified as XV-2050 and a new acid tower, identified as CB-2060, respectively. The chlorine vaporizers and acid tower were replaced to increase process reliability, since the vaporizers and acid tower were reaching the end of their normal service life. Emissions from the chlorination process are from the reactors and are controlled by the product formula and the reactor capacity. Since the reactor capacity and product formula did not change, there were no anticipated increases in the potential to emit from the chlorination process due to the replacement of the chlorine vaporizer and acid tower. The chlorine vaporizer simply feeds raw material and has no associated emissions. The acid tower helps recover hydrochloric acid (HCl) from the reactors. The new acid tower had a slightly higher efficiency so the recovery of HCl in the reactor exhaust was anticipated to increase, lowering HCl emissions, and increasing the production of product HCl, also known as muriatic acid.
- (c) Significant Permit Modification No. 089-21470-00227, issued on March 17, 2006:  
On July 15, 2005, Dover Chemical - Hammond Works applied to include enforceable permit conditions limiting source-wide HAP emissions below major thresholds, and the deletion of all conditions relating to 40 CFR 63, Subpart NNNNN. The requirements of 40 CFR 63, Subpart NNNNN (National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production) applies to hydrochloric acid production facilities located at major sources. Dover Chemical - Hammond Works submitted emission calculations showing the potential to emit Hydrochloric Acid (HCl) and Chlorine (Cl<sub>2</sub>) exceeded the major source thresholds for HAPs. The source opted to limit the source-wide emissions of any combination of HAPs and any single HAP to less than 25 and 10 tons per twelve (12) consecutive month period, respectively. The Permittee chose to limit production of chlorinated hydrocarbons in the chlorination process to less than 12,000 tons per 12 consecutive month period with compliance determined at the end of each month. The limit of 12,000 tons was obtained by the use of theoretically derived emission factors of 1.45 pounds of HCl per ton of chlorinated hydrocarbon produced and 1.07 pounds of Cl<sub>2</sub> per ton of chlorinated hydrocarbon produced. The emission factors were accepted by IDEM and a permit condition was included to require stack testing to verify both emission factors. Both emission factors were later determined by an approved stack test to be overly conservative.
- (d) Administrative Amendment No. 089-23331-00227, issued on October 12, 2006:

On July 7, 2006, Dover Chemical - Hammond Works applied to include the Dovernox C-8 production process. The application consisted of emission units not previously included in the Part 70 Operating Permit, as well as modified and re-numbered units. The potential to emit from the project was 1.67 tons per year for VOC and 0.58 tons per year for HAPs (Styrene). An administrative amendment was issued because the project involved the revision of descriptive information, the incorporation of exempt units and insignificant activities.

- (e) Administrative Amendment No. 089-24393-00227, issued on March 27, 2007:  
 On March 2, 2007, Dover Chemical - Hammond Works applied to update descriptive information, make minor physical changes to process piping in accordance with 326 IAC 2-1.1-1(6), to use two existing storage tanks to store maleic anhydride, and to add the manufacture of a new product PIBSA in the Hi-Temp process using existing process equipment. As part of this application, the Permittee stated total HAP emissions from all storage tanks located at the site were less than one (1) ton per year.

**Enforcement Issue**

There are no enforcement actions pending.

**Emission Calculations**

See Appendix A of this Technical Support Document for detailed emission calculations for insignificant activities for the Chlorination System and HiTEC 082 Production and Chemical Polyisobutylene Tank.

**County Attainment Status**

The source is located in Lake County

<b>Table 1: County Attainment Status</b>	
<b>Pollutant</b>	<b>Designation</b>
SO <sub>2</sub>	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 <sup>th</sup> Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O <sub>3</sub>	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

- (a) Ozone Standards
  - (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

(i) 1-hour ozone standard

On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NO<sub>x</sub> threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

(ii) 8-hour ozone standard

VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) PM<sub>2.5</sub>  
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment

areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM<sub>2.5</sub> promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> 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**  
 Lake County has been classified as attainment or unclassifiable in Indiana for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) 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 2-2-1(gg)(1).
- (e) **Fugitive Emissions**  
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD, Emission Offset, and nonattainment NSR applicability.

<b>Unrestricted Potential Emissions</b>
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This table reflects the unrestricted potential emissions of the source.

<b>Table 2: Unrestricted PTE</b>	
<b>Pollutant</b>	<b>Emissions (ton/yr)</b>
CO	<100
NO <sub>x</sub>	<100
PM	<100
PM <sub>10</sub>	<100
PM <sub>2.5</sub>	<100
SO <sub>2</sub>	<100
VOC	>25
H <sub>2</sub> S	>10
Cl <sub>2</sub>	<10
HCl	<10
Total HAP	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

**Description of Proposed Modification**

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Dover Chemical Corp. – Hammond Works on September 9, 2008, relating to the replacement of the two current chlorine vaporizers with a combined rating of 3,000 pounds of chlorine per hour with one new vaporizer rated at 5,000 pounds of chlorine per hour. The increase in chlorine capacity from 3,000 to 5,000 pounds per hour will result in an increase in emissions of hydrochloric acid (HCl) and an increase in chlorine (Cl<sub>2</sub>) emissions. The following is a list of the proposed emission units and pollution control devices:

One (1) chlorine vaporizer, constructed in 2008, identified as XV-2050, with a maximum feed capacity of 5,000 lb/hr chlorine and two insignificant activities.

**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.

<b>HAPs</b>	<b>Potential To Emit (ton/yr)</b>
Cl <sub>2</sub>	61.56
HCl	2.43
<b>TOTAL</b>	<b>63.99</b>

This source modification is subject to 326 IAC 2-7-10.5(f)(6) because the potential to emit Hazardous Air Pollutants (HAPs) is greater than ten (10) tons per year before control. Additionally, the modification will be incorporated into the Part 70 Operating Permit through this Operating Permit No.: T089-26668-00227.

**Potential to Emit After Issuance**

Process/ Emission Unit	Table 3: Potential To Emit (tons/year)						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Entire Source	<100	<100	<100	<100	>25	<100	<100

- (a) This existing stationary source is still not major for PSD because the emissions of each regulated pollutant are less than one hundred (<100) tons per year, and it is one of the twenty-eight (28) listed source categories.
- (b) This existing stationary source is major for Emission Offset for ozone because the emissions of the nonattainment pollutant, VOC, are greater than twenty-five (>25) tons per year.
- (c) This existing stationary source is not major for nonattainment NSR because the emissions of direct PM<sub>2.5</sub> and SO<sub>2</sub> are less than one hundred (100) tons per year.
- (d) Fugitive Emissions  
 Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD, Emission Offset, and nonattainment NSR applicability.

**Federal Rule Applicability**

The following federal rules are applicable to the source:

**(a) Compliance Assurance Monitoring (CAM)**

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing 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 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:

Table 4: CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Major Source Threshold (ton/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
Chlorination Cl <sub>2</sub>	Y	Y	>10	<10	10	Y	N
Chlorination HCl	Y	Y	>10	<10	10	Y	N
Chlorination PM <sub>10</sub>	Y	Y	<100	<100	100	N	N
Sulfurization H <sub>2</sub> S	Y	Y	>10	<10	10	Y	N
Sulfurization PM <sub>10</sub>	Y	Y	<100	<100	100	N	N
Hi-Temp PM <sub>10</sub>	Y	Y	<100	<100	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Chlorination for chlorine, hydrochloric acid, and Sulfurization for hydrogen sulfide upon issuance of the Title V Renewal. A CAM plan will be incorporated into this Part 70 permit renewal.

**(b) New Source Performance Standards (NSPS)**

**326 IAC 12 and 40 CFR Part 60, Subpart Dc (Standards of Performance for Industrial Commercial-Institutional Steam generating Units)**

The boiler nos. B-3 is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40b, Subpart Dc), because this boiler has a heat input capacity from fuels combusted in the steam generating drum of less than 10 million Btu/hour.

The boiler nos. B-4, B-5, and B-6 are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40b, Subpart Dc), because each boiler has a heat input capacity from fuels combusted in the steam generating drum of greater than 10 million Btu/hour and was existing and in operation before June 9, 1989.

**326 IAC 12 and 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels)**

The following VOC storage tanks are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels), because the construction on these tanks commenced after July 23, 1984 and each storage tank has a capacity greater than 75 m<sup>3</sup>. These storage tanks are exempt from the General Provisions (part 60, subpart A). Pursuant to 40 CFR 60.116b (b), the owner or operator of each storage tank shall keep readily accessible record showing the dimension of the storage tank and analysis showing the capacity of the storage tank for the life of the tank.

- (1) TS-1001
- (2) TS-1002
- (3) TS-1003
- (4) TS-1015
- (5) TS-1019
- (6) TS-1020
- (7) TS-1021
- (8) TS-1022
- (9) TS-1023
- (10) TS-1024
- (11) TS-2178
- (12) TS-2315
- (13) TS-2362
- (14) TS-2364
- (15) TS-2365
- (16) TS-2367
- (17) TS-2613

**326 IAC 12 and 40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing Industry (SOCMI))**

The source does not produce specified organic chemicals as an intermediate or final product or byproduct. Therefore it is exempt from the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.480), Subpart VV - Standards of Performance for Equipment Leaks of VOC In Synthetic Organic Chemical Manufacturing Industry (SOCMI).

**326 IAC 12 and 40 CFR Part 60, Subpart III (Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes)**

The source does not produce specified organic chemicals as an intermediate or final product or byproduct. Therefore, it is exempt from the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.610, Subpart III - Standards of Performance for Volatile Organic Compounds (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes.

**326 IAC 12 and 40 CFR Part 60, Subpart NNN (Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations)**

The source does not produce specified organic chemicals as an intermediate or final product or byproduct. Therefore it is exempt from the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.660, Subpart NNN - Standards of Performance for Volatile Organic Compounds (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI)) Distillation Operations.

**326 IAC 12 and 40 CFR Part 60, Subpart RRR (Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes)**

The source does not produce specified organic chemicals as an intermediate or final product or byproduct. Therefore it is exempt from the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.700, Subpart RRR - Standards of Performance for Volatile Organic Compounds (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI)) Reactor Processes.

**(c) National Emission Standards for Hazardous Air Pollutants (NESHAPs)  
326 IAC 14 and 40 CFR 61 (National Emission Standards For Hazardous Air Pollutants)**

The Standards for Hazardous Air Pollutants (NESHAPs) 326 IAC 14, (40 CFR 61) are not applicable to this source, because none of the pollutants covered by this rule is emitted from any of its processes.

**(d) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(MACT)  
326 IAC 20 and 40 CFR 63, Parts F and G (National Emission Standards for Hazardous Air Pollutants)**

The Chlorination process does not produce as a primary product a SOCMI chemical listed in table 1 of subpart F; and does not use as a reactant or manufacture as a product one or more of the organic HAPs listed in table 2 of subpart F.

Therefore, Chlorination process is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 20, (40 CFR 63, Parts F and G).

**326 IAC 20 and 40 CFR 63, Part H (National Emission Standards for Hazardous Air Pollutants)**

The National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 20, and 40 CFR 63 Subpart H, standard for equipment leaks, is not applicable to this source, because no 40 CFR 63 Subparts currently apply to this source.

The provisions of 40 CFR 63 Subpart A - General Provisions dated July 1 1998 edition, which are incorporated as 326 IAC 20-1-1, apply to the affected source described in this section except when otherwise specified in 40 CFR 63 Subpart NNNNN.

The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart NNNNN:

- (1) CS 2060 Hydrochloric Acid Tower
- (2) TP-2060 Acid Tower Feed Water Tank
- (3) TP-2033 Hydrochloric Acid Tower Product Tank
- (4) TP-2061, 2062, 2065 & 2066 Scrubbers (TP 2065 and TP 2066 are back up scrubbers).

- (5) TP-1030 Tank Farm Acid Loading Scrubber
- (6) TS 1090, 1091, 1093 Muriatic Acid Storage Tanks (three storage tanks)
- (7) The hydrochloric acid vent line going from the tank wagon over to the Tank Farm Scrubber TP-1030

### State Rule Applicability - Entire Source

The following state rules are applicable to the source:

#### **326 IAC 2-2 (Prevention of Significant Deterioration-PSD)**

The source was constructed before 1977, the applicability date for this rule and is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 (Prevention of Significant Deterioration). Although the source has the potential to emit in excess of 10 tons per year of H<sub>2</sub>S, the source has agreed to limit the PTE of H<sub>2</sub>S to less than 10 tons per year. The amount of sulfur used by the sulfurization process shall be limited to less than 10,335 tons per 12 consecutive month period with compliance determined at the end of each month. This usage limit and the scrubber's H<sub>2</sub>S control efficiency of 99.9 percent is required to limit the hydrogen sulfide (H<sub>2</sub>S) emissions to less than 10 tons per twelve (12) consecutive month period.

#### **326 IAC 2-3 (Emission Offset)**

This source was constructed before August 1980, the applicability date for this rule and is located in Lake County. The potential to emit VOC is greater than 25 tons per year. Therefore the source was a major source for Emission Offset in August 1980, and it is one of the twenty-eight (28) listed sources.

The amount of sulfurized products produced by the sulfurization process shall be limited to less than 37,000 tons per 12 consecutive month period with compliance determined at the end of each month and volatile organic compounds (VOC) emissions shall not exceed 0.000368 pounds of VOC per pound of finished sulfurization products. Compliance with the above limits shall limit VOC emissions from the scrubber to 25 tons per year and render the scrubber installed in 2004 federally enforceable.

#### **326 IAC 2-6 (Emission Reporting)**

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2004 and every 3 years after. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

#### **326 IAC 5-1 (Opacity Limitations)**

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

Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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.

#### **326 IAC 6-4 (Fugitive Dust Emissions)**

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.

**326 IAC 6.8-10-1 (Lake County: Fugitive Particulate Matter)**

The source is located in Lake County and this source does not have the potential to emit of fugitive particulate emissions of 5 tons per year or more. Therefore, this source is not subject to rule 326 IAC 6.8-10-1.

**326 IAC 8-7 (Specific VOC Reduction Requirements for Lake County)**

The source has the potential to emit volatile organic compounds (VOCs) at levels equal to or greater than twenty five tons per year (tpy) in Lake county and it belongs to source Category (H) Batch Processors. Therefore, the rule 326 IAC 8-7-2 does not apply to this source.

**State Rule Applicability – Individual Facilities**

The following state rules are applicable to specified emission units at the source:

**326 IAC 5-1-3 (Opacity Limitations: Temporary Alternative Opacity Limitations)**

During startup and shutdown, the boiler nos. B-4, B-5, and B-6 may exceed the opacity limit in 326 IAC 5-1-2. However, opacity shall not exceed 60% for any six minute averaging period and shall not continue for more than two six minute periods in any 24 hour period.

**326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**

This boiler B-6 is not subject to 326 IAC 6.8-1-2(b)(3), because the source or the boiler does not have the potential to emit one hundred (100) tons or more and actual emissions of ten (10) tons or more of particulate matter per year.

Boiler no. B-6 was constructed after September 1983. Therefore, the boiler no. B-6 is subject to rule 326 IAC 6-2-4. The limit below is established by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).  
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr).

<b>Boilers</b>	<b>Installation Date</b>	<b>Rating (MMBtu/hr)</b>	<b>Q (MMBtu/hr)</b>	<b>Pt (lb/MMBtu)</b>
B-6	1988	20.00	59.17	0.4

**326 IAC 6.8 (Particulate Matter Limitations for Lake County)**

- (a) The particulate matter (PM) emissions from the Hi-Temp Process emission units, identified as TR-2620, TR-2630 and filtration shall not exceed 0.03 grains per dry standard cubic foot, each.
  
- (b) The particulate matter (PM) emissions from the Miscellaneous Process emission units, identified as TR-2224, TR-2225, TR-2226, TR-2227, TR-2228, TR-2329, TR-2322 shall not exceed 0.03 grains per dry standard cubic foot, each.

**326 IAC 6.8-2 (Lake County PM<sub>10</sub> Emission Requirements)**

The source is located in Lake County where Particulate Rules for Nonattainment Area Limitations rule 326 IAC 6.8-2-1 apply. The Boiler nos. B-3, B-4, B-5, Chlorination process, and Sulfurization process have source specific emission PM<sub>10</sub> requirements as specified in Table 6.

Pursuant to 326 IAC 6.8-2-19 (Dover Chemical Corporation-Hammond) PM<sub>10</sub> emissions shall be limited as follows:

<b>Table 6: Dover Chemical Corporation-Hammond in Lake County, source identification number 00227, shall meet the following emission limits:</b>		
<b>Source</b>	<b>Units</b>	<b>lbs/hr</b>
Cleaver Brooks boiler B-4	0.007 lbs/MMBtu	0.09
Cleaver Brooks boiler B-5	0.007 lbs/MMBtu	0.14
VA power B-3 boiler	0.007 lbs/MMBtu	0.04
Chlorinated wax process	0.001 lbs/ton	0.003
Sulfurized fat process	0.157 lbs/ton	0.230

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**

The following VOC storage tanks have a capacity of less than 39,000 gallons each. Therefore pursuant to 326 IAC 8-9-6(a) and (b), the Permittee shall maintain a record and submit to Compliance Branch, OAQ, IDEM a report containing the following information

- (a) The vessel identification number
- (b) The vessels dimension
- (c) The vessel capacity

for each of the following vessels:

- (1) TS-1004
- (2) TS-1005
- (3) TS-1006
- (4) TS-1007
- (5) TS-1008
- (6) TS-1009
- (7) TS-1010
- (8) TS-1011
- (9) TS-1012
- (10) TS-1013
- (11) TS-1014
- (12) TS-1016
- (13) TS-1017
- (14) TS-1018
- (15) TS-1026
- (16) TS-1028
- (17) TS-1033
- (18) TS-1039
- (19) TS-1040
- (20) TS-1042
- (21) TS-1043
- (22) TS-1056
- (23) TS-1057
- (24) TS-1081
- (25) TS-1082

- (26) TS-2160
- (27) TS-2163
- (28) TS-2168
- (29) TS-2169
- (30) TS-2170
- (31) TS-2209
- (32) TS-2218
- (33) TS-2252
- (34) TS-2253
- (35) TS-2255
- (36) TS-2264
- (37) TS-2265
- (38) TS-2271
- (39) TS-2272
- (40) TS-2275
- (41) TS-2276
- (42) TS-2277
- (43) TS-2279
- (44) TS-2280
- (45) TS-2605
- (46) TS-2611
- (47) TS-2612
- (48) TS-2618
- (49) TS-2619
- (50) TP-2550
- (51) TP-2551
- (52) TP-2617

### **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.

<b>Table 7: Summary of Testing Requirements</b>				
<b>Emission Unit</b>	<b>Control Device</b>	<b>Timeframe for Testing</b>	<b>Pollutant</b>	<b>Frequency of Testing</b>
Sulfurization	scrubber	Before June 21, 2011	caustic concentration, temperature, flow rate	Once every 5 years
<b>Summary of Compliance Monitoring</b>				
<b>Emission Unit</b>	<b>Control Device &amp; Stack</b>	<b>Pollutant</b>	<b>monitoring Frequency</b>	
Chlorination Process	7 Scrubbers exhausting to Stacks TP-2061 to TP-2067	Caustic concentration	daily	
Sulfurization	2 Scrubbers exhausting to Stack TP-2163	Caustic concentration of 1 <sup>st</sup> stage and 2 <sup>nd</sup> stage, temperature, flow rate	caustic concentration: daily temperature: continuously Flow rate in 2nd stage: hourly	

**Recommendation**

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 17, 2008.

**IDEM Contact**

Questions regarding this proposed permit can be directed to:

Kimberley Malley  
 Indiana Department Environmental Management  
 Office of Air Quality  
 100 North Senate Avenue  
 MC 61-53, Room 1003  
 Indianapolis, Indiana 46204-2251  
 Toll free (within Indiana): 1-800-451-6027 extension 3-9664  
 Or dial directly: (317) 233-9664  
 kmalley@idem.in.gov

Please refer to Part 70 Operating Permit Renewal No. 089-26668-00227 in all correspondence.

**Conclusion**

The operation of this stationary chlorinated paraffin manufacturing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 089-26668-00227.

**Indiana Department of Environmental Management  
Office of Air Quality**

**Appendix A – Tank Emissions  
Technical Support Document (TSD) for a  
Part 70 Operating Permit Renewal**

**Source Background and Description**

Source Name: Dover Chemical Corp. – Hammond Works  
 Source Location: 3000 Sheffield Avenue, Hammond, IN 46327  
 County: Lake  
 SIC Code: 2899  
 Operating Permit Renewal No.: T 089-26668-00227  
 Operating Permit Reviewer: Kimberley Malley

**Chlorinated Products Manufacturing (Chlorination Process)**

(The data used to calculate potential emissions was taken from an on-site stack test performed on Jun 12-14, 2006)

Maximum Chlorine Feed Rate = 5,000 lb/hr (21,900 ton/yr)  
 Maximum Chlorinated Metalworking Production = 2,428 lb/hr  
 Maximum Chlorinated Polybutene Production = 1,390 lb/hr  
 Maximum Chlorinated Products Production = 2,428 lb/hr + 1,390 lb/hr = 3,818 lb/hr  
 Ratio of Chlorinated Product to Chlorine Fed = 3,818 lb/hr / 3,000 lb/hr = 1.27  
 Stack Test HCl emissions = 0.00369 lb HCl/hr and 0.0019 lb HCl/ton chlorinated product  
 Stack Test Cl<sub>2</sub> emissions = 0.06622 lb Cl<sub>2</sub>/hr and 0.0347 lb/ton chlorinated product

<b>Stack Test Emission Factors</b>				
Compound Emitted	Emission Factor (lb/lb Cl <sub>2</sub> fed)	Cl <sub>2</sub> Feed Rate (lb/hr)	Emission (lb/hr)	Estimated Emissions (ton/yr)
Chlorine	2.53E-05	5,000	0.127	0.56
Hydrochloric Acid	1.00E-06	5,000	0.005	0.02
<b>Total Process Emissions</b>				<b>0.58</b>

**Emission Rates from Stack Test, Prior Controls**

1,3 Butadiene = 1.88 lb/hr  
 SO<sub>2</sub> = 0.00107 lb/hr  
 Limiting Batch Run Time = 16 hours  
 Time Process Vented to Scrubber = 2 hrs/batch  
 Batches/yr = 8,760 hr/yr ÷ 16 hr/batch = 548 batches/yr

**Potential Emissions (Prior to Controls)**

1,3 Butadiene = (1.88 lb 1,3 butadiene/hr) x (2 hr/batch) x (548 batches/yr) ÷ (2,000 lb/ton) = 1.03 ton 1,3 Butadiene/yr  
 SO<sub>2</sub> = (0.00107 lb SO<sub>2</sub>/hr) x (2 hr/batch) x (548 batches/yr) ÷ (2,000 lb/ton) = 0.0006 ton/yr

**Potential Emissions (After Controls)**

Scrubber Control Efficiency = 99%

1,3 Butadiene = ( 1.03 tons/yr ) x ( 1 - 0.99 ) = 0.01 ton/yr

SO2 = ( 0.0006 tons/yr ) x ( 1 - 0.99 ) = 0.000006 ton/yr

**Notes:**

- 1) Emissions from the storage tanks and HiTEC loadout were estimated by the applicant using Tanks 4.0 from the U.S. EPA. The calculations were reviewed by the Indiana Department of Environmental Management, Office of Air Quality and were found to be accurate.
- 2) Stack testing for the HiTEC process and the chlorination process were conducted by the applicant/consultants and were monitored by the Indiana Department of Environmental Management and the Hammond Department of Environmental Management.
- 3) Emissions using the stack test emission factors were calculated as follows:  
Emissions(lb/hr) = (Emission Factor in lb/lb) x (Feed Rate in lb/hr)  
Estimated Emission (ton/yr) = (Emissions in lb/hr) x ( 8,760 hr/yr ) ÷(2,000 lb/ton)
- 4) Emissions using the currently permitted emission factors were calculated as follows:  
Emissions(lb/hr)=(Emission Factor in lb/ton Chlorinated Product) x (Chlorinated Product Produced in ton/yr) ÷ 8,760 hr/yr  
Emissions(ton/yr) = (Emission in lb/hr) x (8,760 hr/yr) ÷ (2,000 lb/ton)

**Summary of the Tank Emissions**

EPA's TANKS 4.0.9 computer program was used to determine the working and standing losses for the Dover Chemical Polyisobutylene Tank. The emissions summary from this analysis is included in the following table and the reports from the TANKS 4.0.9 are attached.

<b>Tank</b>	<b>Components</b>	<b>Working Losses <i>lb/yr</i></b>	<b>Breathing Losses <i>lb/yr</i></b>	<b>Total VOC Emissions <i>lb/yr</i></b>	<b>Total VOC Emissions <i>ton/yr</i></b>
Dover Chemical Polyisobutylene	Polyisobutylene	380.49	0.00	380.49	0.19
				380.49	0.19

**IDEM Contact**

Questions regarding this proposed permit can be directed to:

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