State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
SCIOTO COUNTY

Street Address:
122 S. Front Street

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 07-00500
Fac ID: 0773000080
DATE: 5/4/2006

Sunoco Inc (RM)
Bernie Marshall
1019 Haverhill-Ohio Furnace Rd
Haverhill, OH 456299999

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA **PCHD**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 5/4/2006**
Terms and Conditions	**Effective Date: 5/4/2006**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 07-00500

Application Number:	07-00500
Facility ID:	0773000080
Permit Fee:	**$1500**
Name of Facility:	Sunoco Inc (RM)
Person to Contact:	Bernie Marshall
Address:	1019 Haverhill-Ohio Furnace Rd Haverhill, OH 456299999

Location of proposed air contaminant source(s) [emissions unit(s)]:
1019 Haverhill-Ohio Furnace Road
Haverhill, **Ohio**

Description of proposed emissions unit(s):
Administrative modification to accurately address the emissions from the oxygen analyzers associated with the cumene oxidation reactors within the Cumene Oxidation process unit.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification

b. 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 federally enforceable terms and conditions of this permit.

c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the

permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times

substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit-To-Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be <u>obtained before</u> the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit-To-Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

Sunoco Inc (RM) **Facility ID: 077300008**
PTI Application: 07-00500
Modification Issued: 5/4/2006

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
VOC (vent & TO)	51.53
VOC (fugitive)	37.85
Acetone (vent &TO)	27.82
Acetone (fugitive)	2.61
particulate (TO)	2.19
CO (TO)	36.07
NOx (TO)	32.85
SO_2 (TO)	<1

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

I. Applicable Emission Limitations and/or Control Requirements Pertaining to Facility-wide Fugitive Equipment Leaks:

1. Applicable Rules and Emission Limitations:

OAC rule 3745-31-05(A)(3)

VOC emissions from facility-wide fugitive equipment leaks shall not exceed 147.80 tons per year.

Acetone emissions from facility-wide fugitive equipment leaks shall not exceed 73.89 tons per year.

Ammonia emissions from facility-wide fugitive equipment leaks shall not exceed 183.31 tons per year.

2. Additional Terms and Conditions

2.a Modifications of the equipment at this facility shall not require a PTI pursuant to OAC Chapter 3745-31 that result solely in increases in fugitive equipment leaks unless and until the calculated facility-wide PTE for fugitive emissions equals or exceeds the appropriate facility-wide allowable fugitive emission limit in A.I.1.

2.b The permittee shall consider only those fugitive emissions from the equipment being installed or modified (i.e., not the facility-wide fugitive equipment limit) when determining applicability under OAC rule 3745-31-11 through OAC rule 3745-31-20.

2.c The permittee shall maintain a leak detection and repair (LDAR) program for equipment (pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system) in volatile organic compound (VOC) service at this facility. The LDAR program will be maintained in accordance with 40 CFR Part 63, Subpart H (see Attachment 3).

For equipment which are subject to the provisions of 40 CFR Part 60, Subpart VV and also subject to 40 CFR Part 63, Subpart H, the permittee is required only to comply with 40 CFR Part 63, Subpart H. The provisions in 40 CFR 63.1(a)(3) of Subpart A do no alter the provisions in this section.

For equipment in VOC service which are subject to 40 CFR Part 60, Subpart VV, but are not subject to 40 CFR Part 63, Subpart H, the permittee has elected to apply 40 CFR Part 63, Subpart H to all such equipment, in accordance with 40 CFR 63.160 (c) of Subpart H. All VOC in such equipment shall be considered, for purposes of applicability and compliance with 40 CFR Part 63, Subpart H as if it were organic HAP. Compliance with the provisions of 40 CFR Part 63, Subpart H, in the manner described in this section, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV.

For equipment in VOC service which are subject to OAC rule 3745-21-09(DD), the permittee shall maintain a LDAR program for equipment in VOC service. Consistent with U.S. EPA streamlining policy, the permittee has elected to demonstrate compliance with OAC rule 3745-21-09(DD) by demonstrating compliance with the equipment leak standards in 40 CFR Part 63, Subpart H and generally more stringent than the LDAR requirements of OAC rule 3745-21-09(DD).

2.d The fugitive emissions generated from P001, P007, and P013 are subject to OAC rule 3745-31-10 through 20. The BACT determination for these emissions is compliance with 40 CFR Part 63, Subpart H.

3. **Operational Restrictions**

None

4. Monitoring and/or Recordkeeping

a. Monitoring for the LDAR program shall comply with Method 21 of 40 CFR Part 60, Appendix A, as specified in 40 CFR 63.180 (see Attachment 3).

The permittee shall maintain records for the LDAR program in accordance with the requirements of 40 CFR 63.181 (see Attachment 3).

5. Reporting Requirements

a. The permittee shall submit semiannual reports for the LDAR program for equipment in accordance with the requirements of 40 CFR 63.182 (see Attachment 3).

b. Reports required by 40 CFR Part 63, Subparts F, G, and H (see Attachments 1

through 3) shall be submitted to USEPA Region 5, with a copy to the Portsmouth Local Air Agency, in accordance with 40 CFR 63.103(c) (see Attachment 1).

6. Testing Requirements

a. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

i. Emission Limitation:

VOC emissions from facility-wide fugitive equipment leaks shall not exceed 147.80 tons per year.

Acetone emissions from facility-wide fugitive equipment leaks shall not exceed 73.89 tons per year.

Ammonia emissions from facility-wide fugitive equipment leaks shall not exceed 183.31 tons per year.

Applicable Compliance Method:

The facility-wide PTE fugitive emissions shall be calculated using the following methodology:

The facility-wide PTE fugitive emissions are based upon the sum of PTE fugitive emissions from components in each emissions unit at the facility. These components include all valves, pumps, pressure relief valves, connectors, open-ended lines, and sampling connections in regulated service at the facility. PTE fugitive emissions are calculated using the facility component count, component service type, and PTE fugitive emission factors.

PTE fugitive emission factors are calculated utilizing synthetic organic chemical manufacturing industry (SOCMI) Screening Ranges Emission Factors and SOCMI Average Emission Factors as listed in U.S. EPA's "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017). The service type for each component is determined according to the definitions contained in the SOCMI NESHAP (40 CFR Part 63, Subpart H)

for gas, light liquid, and heavy liquid service. For the purposes of regulatory overlap (applicability and compliance) with 40 CFR Part 60, Subpart VV and OAC rule 3745-21-09(DD), all VOC in such equipment at the facility is considered as if it were organic HAP.

The PTE fugitive emission factors for monitored components in light liquid and gas/vapor service are calculated using the SOCMI Screening Ranges Emission Factors and "potential to emit" leak rates. A leak rate of 0.5% for pumps in light liquid service and a leak rate of 0.1% for all other monitored components in light liquid and gas/vapor service is used to calculate "potential to emit" leak rates. PTE fugitive emission factors are then calculated for each component type based on the SOCMI Screening Ranges Emission Factors and the "potential to emit" leak rates using the following equation:

PTE Fugitive Emission Factor = PTE Leak Rate * (>10,000 ppm Screening Ranges Emission Factor) + (1 – PTE Leak Rate) * (<10,000 ppm Screening Ranges Emission Factor)

This same methodology is used to calculate the PTE fugitive emission factors for all components in heavy liquid service using a "potential to emit" leak rate of 0.1%. The PTE fugitive emission factors for unmonitored components in light liquid and gas/vapor service (i.e. components in acetone or ammonia service that are not required to be monitored by any applicable regulations) are set equal to the SOCMI Average Emission Factors. The table below lists the SOCMI Screening Ranges and Average Emissions Factors, the leak rate (if any), and the resulting PTE fugitive emission factor for each component type.

The PTE fugitive emissions can be calculated by multiplying all the components in a given service type by the respective PTE fugitive emission factor as listed in the table below. The summation of emissions from all components in each service type is the facility-wide PTE fugitive emissions.

Sunoco Inc (RM) **Facility ID: 077300008**
PTI Application: 07-00500
Modification Issued: 5/4/2006

	Service Component	Screening Concentrations > 10,000 ppm lb/hr	Screening Concentrations < 10,000 ppm lb/hr	Assumed % of components Leaking for Year (%)	Facility PTE Emission Factor Set lb/hr
Monitored Gas/Vapor and Light Liquid components	Gas/Vapor				
	Valves	0.172	0.000289	0.1	0.000461
	Compressor Seals	3.545	0.197	0.1	0.2003
	Pressure Relief Valves	3.728	0.0985	0.1	0.1021
	Connectors (Flanges)	0.249	0.00018	0.1	0.000429
	Open-Ended Lines	0.0264	0.0033	0.1	0.00332
	Sampling Connections	-	-	Default to Average Factor	0.0331
	Light Liquid				
	Valves	0.197	0.000364	0.1	0.000561
	Pump Seals/Agitator Seals	0.536	0.0041	0.5	0.00676
	Connectors (Flanges)	0.249	0.00018	0.1	0.000429
	Open-Ended Lines	0.02635	0.0033	0.1	0.00332
	Sampling Connections	-	-	Default to Average Factor	0.0331
Unmonitored Heavy Liquid Components	Heavy Liquid				
	Valves	0.00051	0.00051	0.1	0.00051
	Pump Seals	0.476	0.0046	0.1	0.00507
	Connectors (Flanges)	0.249	0.00018	0.1	0.000429
	Open-Ended Lines	0.02635	0.0033	0.1	0.00332
	Sampling Connections	-	-	Default to Average Factor	0.0331

		Facility PTE Emission Factor Set equal to SOCMI Average Emission Factors lb/hr
Unmonitored Light Liquid and Gas/Vapor Components	Gas/Vapor	
	Valves	0.0132
	Compressor Seals	0.503
	Pressure Relief Valves	0.229
	Connectors (Flanges)	0.00403
	Open-Ended Lines	0.0037
	Sampling Connections	0.0331
	Light Liquid	
	Valves	0.00888
	Pump Seals/Agitator Seals	0.0439
	Connectors (Flanges)	0.00403
	Open-Ended Lines	0.0037
	Sampling Connections	0.0331

II. Requirements of 40 CFR Part 60, Subpart NNN

40 CFR 60.660 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c).

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983:

(1) Each distillation unit not discharging its vent stream into a recovery system.
(2) Each combination of a distillation unit and the recovery system into which its vent stream is discharged.
(3) Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged.

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

(1) Any distillation unit operating as part of a process unit which produces coal tar or beverage alcohols, or which uses, contains, and produces no VOC is not an affected facility.
(2) Any distillation unit that is subject to the provisions of Subpart DDD is not an affected facility.
(3) Any distillation unit that is designed and operated as a batch operation is not an affected facility.
(4) Each affected facility that has a total resource effectiveness (TRE) index value greater than 8.0 is exempt from all provisions of this subpart except for §§60.662; 60.664(d), (e), and (f); and 60.665 (h) and (l).
(5) Each affected facility in a process unit with a total design capacity for all chemicals produced within that unit of less than one gigagram per year is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in paragraphs (j), (l)(6), and (n) of §60.665.
(6) Each affected facility operated with a vent stream flow rate less than 0.008 scm/min is exempt from all provisions of this subpart except for the test method and procedure and the recordkeeping and reporting requirements in §60.664(g) and paragraph (i), (l)(5), and (o) of §60.665.

(d) *Alternative means of compliance.*

(1) *Option to comply with part 65.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.662 through 60.665 and 60.668. The provisions of 40 CFR part 65 also satisfy the criteria of paragraphs (c)(4) and (6) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, 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

process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, 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 D, must comply with 40 CFR part 65, subpart A.
(3) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, at initial startup shall comply with paragraphs (d)(1) and (2) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first.
(4) *Initial startup notification.* Each owner or operator subject to the provisions of this subpart that chooses to comply with 40 CFR part 65, subpart D, at initial startup shall notify the Administrator of the specific provisions of 40 CFR 65.63(a)(1), (2), or (3), with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by 40 CFR 65.5(b).

NOTE: The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of total organic compounds (TOC), measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.

40 CFR 60.661 Definitions.

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60, and the following terms shall have the specific meanings given them.

Batch distillation operation means a noncontinuous distillation operation in which a discrete quantity or batch of liquid feed is charged into a distillation unit and distilled at one time. After the initial charging of the liquid feed, no additional liquid is added during the distillation operation.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam.

By compound means by individual stream components, not carbon equivalents.

Continuous recorder means a data recording device recording an instantaneous data value at least once every 15 minutes.

Distillation operation means an operation separating one or more feed stream(s) into two or more exit stream(s), each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

Distillation unit means a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is present in a vent stream.

Halogenated vent stream means any vent stream determined to have a total concentration (by volume) of compounds containing halogens of 20 ppmv (by compound) or greater.

Incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that is heated to produce steam.

Process unit means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.667. A process unit can operate independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities.

Product means any compound or chemical listed in §60.667 that is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

Recovery device means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

Recovery system means an individual recovery device or series of such devices applied to the same vent stream.

Total organic compounds (TOC) means those compounds measured according to the procedures in §60.664(b)(4). For the purposes of measuring molar composition as required in §60.664(d)(2)(i); hourly emissions rate as required in §60.664(d)(5) and §60.664(e); and TOC concentration as required in §60.665(b)(4) and §60.665(g)(4), those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone are to be excluded. The compounds to be excluded are identified in Environmental Protection Agency's statements on ozone abatement policy for State Implementation Plans (SIP) revisions (42 FR 35314; 44 FR 32042; 45 FR 32424; 45 FR 48942).

TRE index value means a measure of the supplemental total resource requirement per unit reduction of TOC associated with an individual distillation vent stream, based on vent stream flow rate, emission rate of TOC net heating value, and corrosion properties (whether or not the vent stream is halogenated), as quantified by the equation given under §60.664(e).

Vent stream means any gas stream discharged directly from a distillation facility to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks including, but not limited to, pumps,

compressors, and valves.

40 CFR 60.662 Standards.

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

(a) Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

(b) Combust the emissions in a flare that meets the requirements of §60.18; or

(c) Maintain a TRE index value greater than 1.0 without use of VOC emission control devices.

40 CFR 60.663 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility that uses an incinerator to seek to comply with the TOC emission limit specified under §60.662(a) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:
(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater.
(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.
(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.
(2) A flow indicator that provides a record of vent stream flow to the incinerator at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the inlet of each incinerator and before being joined with any other vent stream.

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.662(b) shall install, calibrate, maintain and operate according to manufacturer's specifications the following equipment:
(1) A heat sensing device, such as a ultra-violet beam sensor or thermocouple, at the pilot light to

indicate the continuous presence of a flame.
(2) A flow indicator that provides a record of vent stream flow to the flare at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the flare and before being joined with any other vent stream.

(c) The owner or operator of an affected facility that uses a boiler or process heater to seek to comply with §60.662(a) shall install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

(1) A flow indicator that provides a record of vent stream flow to the boiler or process heater at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream.
(2) A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5°C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity.

(d) Monitor and record the periods of operation of the boiler or process heater if the design heat input capacity of the boiler or process heater is 44 MW (150 million Btu/hr) or greater. The records must be readily available for inspection.

(e) The owner or operator of an affected facility that seeks to comply with the TRE index value limit specified under §60.662(c) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:
(1) Where an absorber is the final recovery device in the recovery system:
(i) A scrubbing liquid temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, and a specific gravity monitoring device having an accuracy of ±0.02 specific gravity units, each equipped with a continuous recorder, or
(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infrared, photoionization, or thermal conductivity, each equipped with a continuous recorder.
(2) Where a condenser is the final recovery device in the recovery system:
(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, or
(ii) An organic monitoring device used to monitor organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.
(3) Where a carbon adsorber is the final recovery device unit in the recovery system:
(i) An integrating steam flow monitoring device having an accuracy of ±10 percent, and a carbon bed temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, both equipped with a continuous

recorder, or
(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

(f) An owner or operator of an affected facility seeking to demonstrate compliance with the standards specified under §60.662 with control devices other than incinerator, boiler, process heater, or flare; or recovery device other than an absorber, condenser, or carbon adsorber shall provide to the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

See section 40 CFR 60.664 for Test methods and procedures .

40 CFR 60.665 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to §60.662 shall notify the Administrator of the specific provisions of §60.662 (§60.662(a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of §60.662 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by §60.664 within 180 days.

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to comply with §60.662(a), a report containing performance test data need not be submitted, but a report containing the information in §60.665(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.
(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(a) through use of either a thermal or catalytic incinerator:
(i) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing, and
(ii) The percent reduction of TOC determined as specified in §60.664(b) achieved by the incinerator, or the concentration of TOC (ppmv, by compound) determined as specified in §60.664(b) at the outlet of the control device on a dry basis corrected to 3 percent oxygen.
(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(a) through use of a boiler or process heater:
(i) A description of the location at which the vent stream is introduced into the boiler or process heater, and
(ii) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 MW (150 million Btu/hr) measured at least every 15 minutes and averaged over the same time period of the performance testing.
(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(b) through use of a smokeless flare, flare design (i.e., steam-assisted,

air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.
(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(c):
(i) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Administrator), and average exit temperature, of the absorbing liquid measured at least every 15 minutes and averaged over the same time period of the performance testing (both measured while the vent stream is normally routed and constituted), or
(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally, or
(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total steam mass flow measured at least every 15 minutes and averaged over the same time period of the performance test (full carbon bed cycle), temperature of the carbon bed after regeneration (and within 15 minutes of completion of any cooling cycle(s)), and duration of the carbon bed steaming cycle (all measured while the vent stream is routed and constituted normally), or
(iv) As an alternative to §60.665(b)(4) (i), (ii) or (iii), the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber, measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is normally routed and constituted.
(v) All measurements and calculations performed to determine the TRE index value of the vent stream.
(c) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663(a) and (c) as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where a combustion device is used to comply with §60.662(a), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:
(1) For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test at which compliance with §60.662(a) was determined.
(2) For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the vent stream immediately before the catalyst bed is more than 28°C (50°F) below the average temperature of the vent stream during the most recent performance test at which compliance with §60.662(a) was determined. The owner or operator also shall record all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test at which compliance with §60.662(a) was determined.
(3) All 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test at

which compliance with §60.662(a) was determined for boilers or process heaters with a design heat input capacity of less than 44 MW (150 million Btu/hr).
(4) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under §60.662(a).

(d) Each owner or operator subject to the provisions of this subpart shall keep up to date, readily accessible continuous records of the flow indication specified under §60.663(a)(2), §60.663(b)(2) and §60.663(c)(1), as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate.

(e) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater to comply with §60.662(a) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State or Federal regulatory requirements.)

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.663(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

(g) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663(e), as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where an owner or operator seeks to comply with §60.662(c), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

(1) Where an absorber is the final recovery device in a recovery system, and where an organic compound monitoring device is not used:
(i) All 3-hour periods of operation during which the average absorbing liquid temperature was more than 11°C (20°F) above the average absorbing liquid temperature during the most recent performance test, or
(ii) All 3-hour periods of operation during which the average absorbing liquid specific gravity was more than 0.1 unit above, or more than 0.1 unit below, the average absorbing liquid specific gravity during the most recent performance test (unless monitoring of an alternative parameter, which is a measure of the degree of absorbing liquid saturation, is approved by the Administrator, in which case he will define appropriate parameter boundaries and periods of operation during which they are exceeded).
(2) Where a condenser is the final recovery device in a system, and where an organic compound monitoring device is not used, all 3-hour periods of operation during which the average exit (product side) condenser operating temperature was more than 6°C (11°F) above the average exit (product side) operating temperature during the most recent performance test.
(3) Where a carbon adsorber is the final recovery device in a system, and where an organic

compound monitoring device is not used:
(i) All carbon bed regeneration cycles during which the total mass steam flow was more than 10 percent below the total mass steam flow during the most recent performance test, or
(ii) All carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than 10 percent greater than the carbon bed temperature (in degrees Celsius) during the most recent performance test.
(4) Where an absorber, condenser, or carbon adsorber is the final recovery device in the recovery system and where an organic compound monitoring device is used, all 3-hour periods of operation during which the average organic compound concentration level or reading of organic compounds in the exhaust gases is more than 20 percent greater than the exhaust gas organic compound concentration level or reading measured by the monitoring device during the most recent performance test.
(h) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with §60.662(c) shall keep up-to-date, readily accessible records of:
(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;
(2) Any recalculation of the TRE index value performed pursuant to §60.664(f); and
(3) The results of any performance test performed pursuant to the methods and procedures required by §60.664(d).
(i) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the flow rate cutoff in §60.660(c)(6) shall keep up-to-date, readily accessible records to indicate that the vent stream flow rate is less than 0.008 scm/min (0.3 scf/min) and of any change in equipment or process operation that increases the operating vent stream flow rate, including a measurement of the new vent stream flow rate.
(j) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in §60.660(c)(5) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.
(k) Each owner and operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.
(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.660(c)(4), (c)(5), or (c)(6) or §60.662 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.
(1) Exceedances of monitored parameters recorded under §60.665(c) and (g).
(2) All periods recorded under §60.665(d) when the vent stream is diverted from the control device or has no flow rate.
(3) All periods recorded under §60.665(e) when the boiler or process heater was not operating.
(4) All periods recorded under §60.665(f) in which the pilot flame of the flare was absent.
(5) Any change in equipment or process operation that increases the operating vent stream flow rate

above the low flow exemption level in §60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under §60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under the low capacity exemption status in §60.660(c)(5), the facility must begin compliance with the requirements set forth in §60.662.
(6) Any change in equipment or process operation, as recorded under paragraph (j) of this section, that increases the design production capacity above the low capacity exemption level in §60.660(c)(5) and the new capacity resulting from the change for the distillation process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8. The facility must begin compliance with the requirements set forth in §60.660(d) or §60.662. If the facility chooses to comply with §60.662, the facility may qualify for an exemption in §60.660(c)(4) or (6).
(7) Any recalculation of the TRE index value, as recorded under §60.665(h).
(m) The requirements of §60.665(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.665(l), provided that they comply with the requirements established by the State.
(n) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(5) must submit to the Administrator an initial report detailing the design production capacity of the process unit.
(o) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(6) must submit to the Administrator an initial report including a flow rate measurement using the test methods specified in §60.664.
(p) The Administrator will specify appropriate reporting and recordkeeping requirements where the owner or operator of an affected facility complies with the standards specified under §60.662 other than as provided under §60.663(a), (b), (c) and (d).

40 CFR 60.666 Reconstruction.

For purposes of this subpart "fixed capital cost of the new components," as used in §60.15, includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 30, 1983. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

See section 40 CFR 60.667 for the listing of chemicals affected by subpart NNN.
40 CFR 60.668 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under §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: §60.663(e).

III. Requirements of 40 CFR Part 63, Subpart A

40 CFR 63.1 Applicability.

(a) *General*.

(1) Terms used throughout this part are defined in section 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in section 63.2.
(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.
(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.
(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.
(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.
(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.
(5) [Reserved]
(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.
(7) [Reserved]

(8) [Reserved]
(9) [Reserved]
(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.
(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.
(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in section 63.9(i).
(13) [Removed]
(14) [Removed]
(b) *Initial applicability determination for this part*.
(1) The provisions of this part apply to the owner or operator of any stationary source that:
(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and
(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.
(2) [Reserved]
(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in section 63.10(b)(3).
(c) *Applicability of this part after a relevant standard has been set under this part*.
(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4)of this section.
(2) Except as provided in section 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether:
(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);
(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3) [Reserved]

(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

40 CFR 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term

"affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.
Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance plan [Removed]

Compliance schedule means: (1) In the case of an affected source that is in compliance with all

applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or
(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or
(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.
Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:
(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or
(2) With regard to an alternative emission limitation or equivalent emission limitation determined by

the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:
(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;
(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;
(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;
(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);
(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;
(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:
(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;
(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";
(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and
(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and
(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.
Issuance of a part 70permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Lesser quantity [Removed]

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:
(1) Indicator(s) of performance: the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.
(2) Measurement techniques: the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.
(3) Monitoring frequency: the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.
(4) Averaging time: the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:
(1) Emission reduction impacts of controlling individual sources versus groups of sources;
(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;
(4) Cost/benefits of emissions averaging;
(5) Incentives for pollution prevention;
(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
(7) Feasibility and cost of monitoring; and
(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.
Part 70 permit [Removed]

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.
Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).
Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means: (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70

of this chapter; or
(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:
(1) *Source reduction* is any practice that:
(i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
(ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.
(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.
(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:
(1) An emission standard;
(2) An alternative emission standard;

(3) An alternative emission limitation; or
(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by section 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:
(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or
(ii) The delegation of authority to such representative is approved in advance by the Administrator.
(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).
(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.
Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at *www.epa.gov/PerformanceTrack*) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the

use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68EF) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:
(1) The provisions of this part and/or
(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of Appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.
Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

40 CFR 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:
(a) *System International (SI) units of measure:*
A = ampere
g = gram
Hz = hertz
J = joule
EK = degree Kelvin
kg = kilogram
l = liter
m = meter

m^3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^6 gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
V = ohm
Fg = microgram = 10^{-6} gram
Fl = microliter = 10^{-6} liter

(b) *Other units of measure:*

Btu = British thermal unit
EC = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
EF = degree Fahrenheit
ft = feet
ft^2 = square feet
ft^3 = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H_2O = inches of water

K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
ER = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
scmm = cubic meter at standard conditions per minute
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd^2 = square yards
yr = year

(c) *Miscellaneous:*
act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

40 CFR 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities*.

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.
(3) [Reserved]

(4) [Reserved]
(5) [Reserved]

(b) *Circumvention*. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to:
(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and
(3) [Removed]

(c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

40 CFR 63.5 Preconstruction review and notification requirements.

(a) *Applicability*.

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed affected sources*.
(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]
(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:
(i) Construct a new affected source that is major-emitting and subject to such standard;
(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or
(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in section 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]
(d) *Application for approval of construction or reconstruction*. The provisions of this paragraph implement section 112(i)(1) of the Act.
(1) *General application requirements*.
(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial

notification requirements of section 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:
(A) The applicant's name and address;
(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in section 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;
(D) An identification of the relevant standard that is the basis of the application;
(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;
(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and
(I) [Reserved]
(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.
(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in section 63.9(h) [see section 63.9(h)(5)].
(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each

control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction*. Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section:
(i) A brief description of the affected source and the components that are to be replaced;
(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;
(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;
(iv) The estimated life of the affected source after the replacements; and
(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.
(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information*. The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.
(e) *Approval of construction or reconstruction*.
(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.
(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:
(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;
(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and
(D) Any economic or technical limitations on compliance with relevant standards that are inherent

in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with:

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall:

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review*.

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of

construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also section 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

40 CFR 63.6 Compliance with standards and maintenance requirements.

(a) *Applicability*.

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with section 63.1(a)(4) unless:

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or
(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.
(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.
(b) *Compliance dates for new and reconstructed affected sources.*
(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to sections 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:
(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the

promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with section 63.9(d).

(6) [Reserved]

(7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) *Compliance dates for existing sources*.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii)of this section, whichever is later.

(3) [Reserved]

(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements*.

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, Shutdown, and Malfunction Plan*.

(i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to:

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the

general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).
(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in section 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in section 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with section 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii)of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan

available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the owner or operator submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i)of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;
(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in section 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by section 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the

owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards:*
(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance*.
(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in section 63.7, unless otherwise specified in an applicable subpart of this part.
(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in section 63.6(e) and applicable subparts of this part.
(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if:
(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;
(B) The performance test was conducted under representative operating conditions for the source;
(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in section 63.7(e) of this subpart; and
(D) The performance test was appropriately quality-assured, as specified in section 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance*. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard*.

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with section 63.7 and section 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in section 63.7 and section 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards:*

(1) *Applicability*. The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point

shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance*.
(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.
(ii) [Reserved]
(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if:
(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;
(B) The opacity or visible emission test was conducted under representative operating conditions for the source;
(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in section 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in section 63.7(c) of this section.
(3) [Reserved]
(4) *Notification of opacity or visible emission observations*. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with section 63.9(f), if such observations are required for the source by a relevant standard.
(5) *Conduct of opacity or visible emission observations*. When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:
(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in section 63.7 unless one of the following conditions applies:
(A) If no performance test under section 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under section 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance

date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under section 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under section 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in Appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of section 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records*. The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system*.

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under section 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of section 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see Appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under section 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under section 63.7(b) of the date the performance test is scheduled to begin.

Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under section 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under section 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under section 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of section 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in section 63.8(c) and section 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in section 63.8(c), and met Performance Specification 1 in Appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance*. The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by section 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard*.

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under section 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that:

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source

meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards*.

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions:*

(i) *Early reductions*. Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions*. Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) [as defined in section 169(3) of the Act] or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance*. Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part [except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part].

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B)of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process

change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and
(4) The date by which final compliance is to be achieved;
(C) [Reserved]

(D) [Reserved]

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.
(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).
(8) *Approval of request for extension of compliance*. Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.
(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.
(10) The extension will be in writing and will:
(i) Identify each affected source covered by the extension;
(ii) Specify the termination date of the extension;
(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;
(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and
(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or
(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.
(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.
(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request

submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with:

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with:

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30

calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards*. The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

40 CFR 63.7 Performance testing requirements.

(a) *Applicability and performance test dates*.

(1) The applicability of this section is set out in section 63.1(a)(4).

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed [see section 63.6(b)(3)], the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated

standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(b) *Notification of performance test*.

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program*.

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan*. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan*.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with:

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i)of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall:

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be

obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.
(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.
(d) *Performance testing facilities*. If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:
(1) Sampling ports adequate for test methods applicable to such source. This includes:
(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;
(2) Safe sampling platform(s);
(3) Safe access to sampling platform(s);
(4) Utilities for sampling and testing equipment; and
(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.
(e) *Conduct of performance tests*.
(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under section 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61 and 63 of this chapter unless the Administrator:
(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in section 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in section 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process

variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that:

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method:*

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator:

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after

submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2)of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under section 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting*.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator [see section 63.9(i)]. The results of the performance test shall be submitted as part of the notification of compliance status required under section 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests*.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in

the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test*.

(i) If a request is made for an extension of compliance under section 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under section 63.6(i), section 63.9(h), and section 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test*. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she:

(i) Approves or denies an extension of compliance under section 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under section 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

40 CFR 63.8 Monitoring requirements.

(a) *Applicability*.

(1) The applicability of this section is set out in section 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in section 63.11.

(b) *Conduct of monitoring*.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator:

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see section 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see section 63.90(a) for definition).

(iii) Owners or operators with flares subject to section 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is:

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) *Operation and maintenance of continuous monitoring systems*.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source must maintain and operate each CMS as specified in section 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan for CMS as specified in section 63.6(e)(3).

(2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out

(that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under section 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photo detector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7) (i) A CMS is out of control if:

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the

relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in section 63.10(e)(3).

(d) *Quality control program*.

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems:*

(1) *General*. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in

the relevant standard.

(2) *Notification of performance evaluation*. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under section 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan*. Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in section 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart, using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if

he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall:

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates*. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under section 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under section 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under section 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under section 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in section 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results*.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under section 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under section 63.7 and described in section 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under section 63.7 is conducted.

(f) *Use of an alternative monitoring method:*

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in section 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;
(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;
(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;
(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;
(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;
(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;
(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or
(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.
(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.
(4) (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under section 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in section 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.
(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this

section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with:

(A) Notice of the information and findings on which the intended disapproval is based; and
(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.
(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.
(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by section 63.8(f).
(6) *Alternative to the relative accuracy test*. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:
(i) *Criteria for approval of alternative procedures*. An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in section 63.7, or other tests performed following the criteria in section 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.
(ii) *Petition to use alternative to relative accuracy test*. The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS

data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test*. The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data*.

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5)of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in section 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of section 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

40 CFR 63.9 Notification requirements.

(a) *Applicability and general information*.

(1) The applicability of this section is set out in section 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in section 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications*.

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under section 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an

identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.
(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under section 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in section 63.5(d)(1)(i); and

(ii) [Reserved]
(iii) [Reserved]
(iv) [Reserved]
(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under section 63.5(d) must provide the following information in writing to the Administrator:
(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and
(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in section 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in section 63.5(d)(1)(i).

(c) *Request for extension of compliance*. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with section 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in section 63.6(i)(4) through section 63.6(i)(6).
(d) *Notification that source is subject to special compliance requirements*. An owner or operator of a new source that is subject to special compliance requirements as specified in section 63.6(b)(3) and section 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.
(e) *Notification of performance test*. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve

the site-specific test plan required under section 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations*. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in section 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under section 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems*. The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under section 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under section 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under section 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by section 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by section 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by section 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status*.

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list:

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods

that were conducted;
(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;
(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.
(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.
(4) [Reserved]
(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in section 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of section 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.
(6) Advice on a notification of compliance status may be obtained from the Administrator.
(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications*.

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided*. Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

40 CFR 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information*.

(1) The applicability of this section is set out in section 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in section 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the

State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in section 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in section 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60part 61 or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in section 63.9(i).

(b) *General recordkeeping requirements*.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of:

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the required air pollution control and

monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see section 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see section 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);
(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii)of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii)of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately

assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
(x) All CMS calibration checks;
(xi) All adjustments and maintenance performed on CMS;
(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;
(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under section 63.8(f)(6); and
(xiv) All documentation supporting initial notifications and notifications of compliance status under section 63.9.
(3) *Recordkeeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under section 63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems*. In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of:

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
(2) [Reserved]
(3) [Reserved]
(4) [Reserved]
(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
(6) The date and time identifying each period during which the CMS was out of control, as defined in section 63.8(c)(7);
(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
(9) [Reserved]
(10) The nature and cause of any malfunction (if known);
(11) The corrective action taken or preventive measures adopted;
(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
(13) The total process operating time during the reporting period; and
(14) All procedures that are part of a quality control program developed and implemented for CMS under section 63.8(d).
(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in section 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements*.

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in section 63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests*. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under section 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the

notification of compliance status required under section 63.9(h).

(3) *Reporting results of opacity or visible emission observations*. The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under section 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under section 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports*. The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under section 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see section 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Such a report shall identify any instance where any action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the affected source's startup, shutdown, and malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e)of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph

(d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in section 63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems:*
(1) *General*. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.
(2) *Reporting results of continuous monitoring system performance evaluations*.
(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under section 63.8(e), simultaneously with the results of the performance test required under section 63.7, unless otherwise specified in the relevant standard.
(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under section 63.7 and described in section 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under section 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under section 63.7 is conducted.
(3) *Excess emissions and continuous monitoring system performance report and summary report*.
(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when:
(A) More frequent reporting is specifically required by a relevant standard;
(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or
(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of section 63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports*. Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii)and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports*. All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control

system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in section 63.8(c)(7) and section 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report*. As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report: Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for

the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test*. The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under section 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements*.

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under section 63.6(i), any required compliance progress report or compliance status report required under this part [such as under section 63.6(i) and section 63.9(h)] or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she:

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

40 CFR 63.11 Control device requirements.

(a) *Applicability.* The applicability of this section is set out in section 63.1(a)(4).

(b) *Flares*.

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor

these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in Appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max}, as determined by the following equation:

$V_{max}=(X_{H2}-K_1)* K_2$

Where:

V_{max}=Maximum permitted velocity, m/sec.

K_1=Constant, 6.0 volume-percent hydrogen.

K_2=Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2}=The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in section 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25EC and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20EC.

K = Constant = 1.740×10^{-7}[1/ppmv][g-mole/scm][MJ/kcal]

where the standard temperature for (g-mole/scm) is 20EC.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in section 63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25EC and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in section 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Methods 2, 2A, 2C, or 2D in Appendix A to 40 CFR part 60, of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$Log_{10}(V_{max})=(H_T+28.8)/31.7$

Where:

V_{max}=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

H_T=The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$V_{max}=8.71 + 0.708(H_T)$

Where:

V_{max}=Maximum permitted velocity, m/sec.
8.71=Constant.
0.708=Constant.
H_T=The net heating value as determined in paragraph (b)(6)(ii) of this section.

40 CFR 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:
(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;
(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or
(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.
(b) (1) section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.
(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.
(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

40 CFR 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional Offices.
EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air, Pesticides and Toxics Division, J.F.K. Federal Building, Boston, MA 02203-2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.
EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.
EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.
EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.
EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202-2733.
EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, U.S. Environmental Protection Agency, 901 N. 5th Street, Kansas City, KS 66101.
EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, CO 80202-2405.
EPA Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.
EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.
(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

40 CFR 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capital Street, NW, suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for section 63.782.
(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.1.1 and 7.4.2.
(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.
(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for section 63.788, Appendix A.
(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for section 63.11(b)(6).
(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for section 63.788, Appendix A.
(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for section 63.11(b)(6).
(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for section 63.111 and section 63.2406.
(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for section 63.786(b).
(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for section 63.365(e)(1) of Subpart O.
(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for section 63.788, Appendix A.
(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for section 63.782.
(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for section 63.788, Appendix A.
(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for section 63.782.
(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for section 63.782.
(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for section 63.11(b)(6).
(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for section 63.786(b).
(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for sections 63.750(b)(2) and 63.786(b)(5).
(19) [Reserved]
(20) [Reserved]
(21) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for section 63.5350.
(22) [Reserved]
(23) [Reserved]
(24) ASTM D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," IBR approved for sections 63.3161(f)(1), 63.3521(b)(1),

63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093-97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," IBR approved for sections 63.3161(f)(1), 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

[section 63.14(b)(25) added at 67 FR 39812, June 10, 2002; amended at 67 FR 48262, July 23, 2002; 68 FR 28619, May 23, 2003; 68 FR 31760, May 28, 2003; 68 FR 64446, Nov. 13, 2003; 69 FR 157, Jan. 2, 2004; 69 FR 22623, April 26, 2004]

(26) ASTM D1475-98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," IBR approved for sections 63.3151(b), 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), 63.4141(c), and 63.4551(c).

(27) ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for section 63.9307(c)(2).

(28) [Reserved]

(29) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for sections 63.5799 and 63.5850.

(30) ASTM E 515-95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for section 63.425(i)(2).

(31) ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for section 63.3981, appendix A.

(32) ASTM D5965-02, "Standard Test Methods for Specific Gravity of Coating Powders," IBR approved for sections 63.3151(b) and 63.3951(c).

(33) ASTM D6053-00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for section 63.3981, appendix A.

(34) E145-94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for section 63.4581, Appendix A.

(35) [Reserved]

(36) ASTM D5066-91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis," IBR approved for section 63.3161(g).

(37) ASTM D5087-02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a

VOC Control Device (Abatement)," IBR approved for sections 63.3165(e) and 63.3176, appendix A.

(38) ASTM D6266-00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," IBR approved for section 63.3165(e).

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.
(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for section 63.111 and section 63.2406.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for section 63.150(g)(3)(i)(C) of subpart G of this part.

(d) *State and Local Requirements.* The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program,* January 5, 1999, IBR approved for section 63.99(a)(5)(ii) of subpart E of this part.
(2) New Jersey's *Toxic Catastrophe Prevention Act Program*, (July 20, 1998), Incorporation By Reference approved for section 63.99(a)(30)(i) of subpart E of this part.
(3) (i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.
(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for section 63.99(a)(8)(i) of subpart E of this part.
(iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for section 63.99(a)(8)(ii)-(v) of subpart E of this part.
(4) Massachusetts Regulations Applicable to Hazardous Air Pollutants (July 2002). Incorporation By Reference approved for section 63.99(a)(21)(ii) of subpart E of this part.
(5) New Hampshire Regulations Applicable to Hazardous Air Pollutants, March, 2003. Incorporation by Reference approved for section 63.99(a)(29)(iii) of subpart E of this part.
(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.
(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for section 63.1303(e)(3).
(2) [Reserved]
(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at http://www.ncasi.org: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for section 63.457(c)(3)(ii) of subpart S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for section 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for section 63.606(c)(3)(ii) and section 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus section P_2O_5 or $Ca_3(PO_4)_2$, Method A-Volumetric Method, IBR approved for section 63.606(c)(3)(ii) and section 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B: Gravimetric Quimociac Method, IBR approved for section 63.606(c)(3)(ii) and section 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method C: Spectrophotometric Method, IBR approved for section 63.606(c)(3)(ii) and section 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A: Volumetric Method, IBR approved for section 63.606(c)(3)(ii), section 63.626(c)(3)(ii), and section 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B: Gravimetric Quimociac Method, IBR approved for section 63.606(c)(3)(ii), section 63.626(c)(3)(ii), and section 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C: Spectrophotometric Method, IBR approved for section 63.606(c)(3)(ii), section 63.626(c)(3)(ii), and section 63.626(d)(3)(v).

(i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007-2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

(1) ASME standard number QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for section 63.1206(c)(6)(iii).

(2) ASME standard number QHO-1a-1996 Addenda to QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for section 63.1206(c)(6)(iii).

(3) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for sections 63.865(b), 63.3166(a)(3), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 63.9323(a)(3).

(j) The following material is available for purchase from: British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.
(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing: Bubble Emission Techniques, IBR approved for section 63.425(i)(2).
(2) [Reserved]

(k) The following material may be obtained from U.S. EPA, Office of Solid Waste (5305W), 1200 Pennsylvania Avenue, NW., Washington, DC 20460:
(1) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998) as published in EPA Publication SW-846: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The incorporation by reference of Method 9071B is approved for Section 63.7824(e) of Subpart FFFFF of this part.

40 CFR 63.15 Availability of information and confidentiality.

(a) *Availability of information*.
(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.
(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.
(b) *Confidentiality*.
(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

40 CFR 63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.
(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c)of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:
(1) Reduced its total HAP emissions to less than 25 tons per year;
(2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
(3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.
(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:
(1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
(2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
(3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all

required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

IV. Requirements of 40 CFR Part 61, Subpart FF

Benzene waste operations

a. [40 CFR 61.342(a)]
The permittee of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) shall be exempt from the requirements of 40 CFR 61.342(b) and (c). The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are listed in 40 CFR 61.342(a)(1) through (a)(4).

b. [40 CFR 61.355(a)]
The permittee shall determine the total annual benzene quantity from facility waste by the following procedure:

i. [40 CFR 61.355(a)(1)]
For each waste stream subject to 40 CFR Part 61, Subpart FF having a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in 40 CFR 61.342(a), the permittee shall:

(1) determine the annual waste quantity for each waste stream using the procedures specified in 40 CFR 61.355(b) and A.4.c.
(2) determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in 40 CFR 61.355(c) and A.4.d.
(3) calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.

ii. [40 CFR 61.355(a)(2)]
Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to 40 CFR 61.355(b)(4).

iii. [40 CFR 61.355(a)(3)]
If the total annual benzene quantity from facility waste is equal to or greater than 10 mg/yr, then the permittee shall comply with the requirements of 40 CFR 61.342 (c), (d), or (e).

iv. [40 CFR 61.355(a)(4)]
If the total annual benzene quantity from facility waste is less than 10 Mg/yr but is equal to or greater than 1 Mg/yr, then the permittee shall:
(1) comply with the recordkeeping requirements of 40 CFR 61.356, A.6.e, A.4.f and the reporting requirements of 40 CFR 61.357 and A.4.f; and
(2) repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or more.

v. [40 CFR 61.355(a)(5)]
If the total annual benzene quantity from facility waste is less than 1 Mg/yr, then the permittee shall:
(1) comply with the recordkeeping requirements of 40 CFR 61.356, A.4.e, and A.4.f and the reporting requirements of 40 CFR 61.357 and A.4.g; and
(2) repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more.

c. [40 CFR 61.355(b)]
For purposes of the calculation required by 40 CFR 61.355(a), the permittee shall determine the annual waste quantity at the point of waste generation, unless otherwise provided in 40 CFR 61.355 (b) (1), (2), (3), and (4), by one of the methods given in 40 CFR 61.355(b) (5) through (7) and A.4.c.i through A.4.c.iii.

i. select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility;
ii. use the maximum design capacity of the waste management unit; or
iii. use measurements that are representative of maximum waste generation rates.

d. [40 CFR 61.355(c)]

For the purposes of the calculation required by 40 CFR 61.355(a), the permittee shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in 40 CFR 61.355(c)(1) and A.4.d.i using either of the methods given in 40 CFR 61.355(c)(2), (c)(3), A.4.d.ii and A.4.d.iii.

i. [40 CFR 61.355(c)(1)]
The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria:
(1) The determination shall be made at the point of waste generation except for the specific cases given in 40 CFR 61.355(c)(1)(i)(A) through (D).
(2) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration.
(3) Mixing or diluting the waste stream with other wastes or other materials shall not be used in the determination-to reduce the benzene concentration.
(4) The determination shall be made prior to any treatment of the waste that removes benzene, except as specified in 40 CFR 61.355(c)(1)(i)(A) through (D).
(5) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases.

ii. [40 CFR 61.355(c)(2)]
Knowledge of the waste. The permittee shall provide sufficient information to document the flow-weighted annual average benzene concentration of each waste stream. Examples of information that could constitute knowledge include material balances, records of chemicals purchases, or previous test results provided the results are still relevant to the current waste stream conditions. If test data are used, then the permittee shall provide documentation describing the testing protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the flow-weighted annual average benzene concentration for the waste stream. When the permittee and the Administrator do not agree on determinations of the flow-weighted annual average benzene concentration based on knowledge of the waste, the procedures under 40 CFR 61.355(c)(3) and A.6.d.iii shall be used to resolve the disagreement.

iii. [40 CFR 61.355(c)(3)]
Measurements of the benzene concentration in the waste stream in accordance

with the following procedures:

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

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

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

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

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

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

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

(f) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10 °C.

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

(h) The sample containers shall immediately be cooled and maintained at a temperature below 10 °C for transfer to the laboratory.

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

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

(a) Method 8020, Aromatic Volatile Organics, in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW-846;

(b) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW-846;

(c) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW-846;

(d) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,'' EPA Publication No. SW-846;

(e) Method 602, Purgeable Aromatics, as described in 40 CFR Part 136,

Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or

(f) Method 624, Purgeables, as described in 40 CFR Part 136, Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method.

(5) The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses using the equation in 40 CFR 61.355(c)(3)(v):
Where:
C=Flow-weighted annual average benzene concentration for waste stream, ppmw.
Qt=Total annual waste quantity for waste stream, kg/yr.
n=Number of waste samples (at least 3).
Qi=Annual waste quantity for waste stream represented by Ci, kg/yr.
Ci=Measured concentration of benzene in waste sample i, ppmw.

e. [40 CFR 61.356(a)]
The permittee shall comply with the recordkeeping requirements of 40 CFR 61.356, A.4.e, and A.4.f. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

f. [40 CFR 61.356(b)]
The permittee shall maintain records that identify each waste stream at the facility subject to 40 CFR Part 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 CFR Part 61, Subpart FF. In addition the permittee shall maintain the following records:

i. [40 CFR 61.356(b)(1)]
For each waste stream not controlled for benzene emissions in accordance with 40 CFR Part 61, Subpart FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. ii.[40 CFR 61.356(b)(2)]
For each waste stream exempt from 40 CFR 61.342(c)(1) in accordance with 40 CFR 61.342(c)(3), the records shall include:

(1) all measurements, calculations, and other documentation used to determine that the continuous flow of process wastewater is less than 0.02 liters per minute or the annual waste quantity of process wastewater is less than 10 Mg/yr in accordance with 40 CFR 61.342(c)(3)(i), or

(2) all measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt

waste streams does not exceed 2.0 Mg/yr in accordance with 40 CFR 61.342(c)(3)(ii).

g. If the total annual benzene quantity from facility waste is less than 1 Mg/yr, then the permittee shall submit to the Administrator, with a copy to the Portsmouth Local Air Agency, a report that updates the information listed in 40 CFR 61.357(a)(1) through (a)(3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more.

V.

VI. Requirements of 40 CFR Part 63, Subparts F, G, and H,

The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subparts F, G, and H in accordance with 40 CFR Part 63, Subparts F, G, and H (including the Table(s) and Appendix(ices) referenced in Subparts F, G, and H which are included in the text of Attachments 1 through **3** hereto, and are hereby incorporated into this permit as if fully written.

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

I. Air Toxic Policy

1. The permit to install for the Cumene Oxidation and Phenol II emissions units (P001 & P007) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC).

   The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: Acetone
   TLV (mg/m3): 1,187,100
   Maximum Hourly Emission Rate (lbs/hr): modeled 2.12 lbs/hr (thermal oxidizer), 2.12 lb/hr (regenerative thermal oxidizer)
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12.92 (thermal oxidizer), 34.97 (regenerative thermal oxidizer)
   MAGLC (ug/m3): 28,265

   Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value

previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(AAA)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (AAA)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment		
P001 - cumene oxidation process unit with the following air pollution control devices: condenser (3231-C) thermal oxidizer (2007-L) regenerative thermal oxidizer (RTO) (This PTI is for the following modifications: (a) installation of the train two oxidation reactors (201-DJ, 201-DK, 201-DL, 201-DM, 201-DH); (b) installation of an air compressor (201-JB); (c) installation of a larger condenser (227-CR) for the cumene oxidizers; and (d) replacement of the existing thermal oxidizer (2007-L) with a regenerative thermal oxidizer (RTO). The terms and conditions of this permit supersede those in PTI #07-030 issued 10/04/78.)	administrative modification to change acetone and VOC emissions limitations to include emissions from oxygen analyzer vents associated with the cumene oxidation reactors	

Emissions Unit ID: **P001**

Applicable Rules/Requirements		
OAC rule 3745-31-05(A)(3)		
		40 CFR Part 63, Subparts F, G, and H
		40 CFR Part 60, Subpart VV
		OAC rule 3745-21-09(DD)
		40 CFR Part 60, Subpart III
		OAC rule 3745-21-09(EE)
		40 CFR Part 61, Subpart FF
	OAC rule 3745-31-10 through OAC rule 3745-31-20	OAC rule 3745-18-06(E)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

Applicable Emissions Limitations/Control Measures		
Volatile organic compound emissions from all equipment except for the thermal oxidizer (2007-L), regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 47.60 pounds per day and 8.69 tons per year, as a rolling, 12-month summation.	to the thermal oxidizer, shall not exceed 0.1 pound per hour and shall be less than 1 ton per year.	3745-31-20, and 40 CFR Part 63, Subparts F, G, and H, 40 CFR Part 60, Subparts VV and III, 40 CFR Part 61, Subpart FF, and OAC rule 3745-21-09(DD) and (EE).
	Total carbon monoxide emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 8.24 pounds per hour and 36.07 tons per year.	
	Total particulate emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 0.68 pound per hour and 3.0 tons per year.	Total volatile organic compound emissions (including acetone) from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer serving emissions units P001 and P007, shall not exceed 6.11 pounds per hour and 26.77 tons per year, as a rolling, 12-month summation from the thermal oxidizer stack.
Total particulate emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 0.5 pound per hour and 2.19 tons per year.	Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 1.66 pounds per hour and 7.25 tons per year.	Total volatile organic compound emissions (including acetone) from the regenerative thermal oxidizer (RTO) , for all equipment vented to the regenerative thermal oxidizer, shall not exceed 6.11 pounds per hour and 26.77 tons per year, as a rolling, 12-month summation from the regenerative thermal oxidizer stack.
Total nitrogen oxides emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 7.50 pounds per hour and 32.85 tons per year.	Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.56 pounds per hour and 33.11 tons per year.	See section A.I.2.a below.
Total sulfur dioxide emissions from the thermal oxidizer (2007-L), for all equipment vented	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through OAC rule	See sections A.I.2.b. below and Part II, section A.1 and Attachments 1, 2, and 3.

See Part II, section A.1 .

See Part II, section A.1 .

See section A.I.2. c below.

See section A.I.2. d and A.I.2. e below.

See sections A.III. 10 and A.IV. 6 below and Part II, section A.IV.

See section A.I.2. f below.

See section A.I.2. h below.

See section A.I.2. i below.

2. Additional Terms and Conditions

2.a This prevention of significant deterioration (PSD) best available control technology (BACT) determination requires volatile organic compound emissions that are vented to the thermal oxidizer (2007-L) and/or the regenerative thermal oxidizer (RTO) to be reduced by not less than 99%, by weight.

The VOC emissions from the following modified equipment shall be vented to the thermal oxidizer and/or the regenerative thermal oxidizer (RTO):

i. oxidation reactors (201-DA, 201-DB, 201-DC, 201-DD, 201-DE, 201-DF, 201-DG, 201-DH, 201-DJ, 201-DK, 201-DL, 201-DM) excluding emissions from the oxygen analyzer vents in accordance with 40 CFR sections 63.107(a); 63.107(h)(9) and 63.114(d),

ii. oxidation product surge drum (208-F), and

iii. the spent air regeneration condenser receiver (229-F).

2.b In accordance with 40 CFR 63.113(a)(2) [see Attachment 2], for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen.

The VOC emissions from the following equipment shall be vented to the thermal oxidizer and/or the regenerative thermal oxidizer (RTO):

i. oxidation reactors (201-DA, 201-DB, 201-DC, 201-DD, 201-DE, 201-DF, 201-DG, 201-DH, 201-DJ, 201-DK, 201-DL, 201-DM) excluding emissions from the oxygen analyzer vents in accordance with 40 CFR sections 63.107(a); 63.107(h)(9) and 63.114(d),

ii. oxidation product surge drum (208-F), and

iii. the spent air regeneration condenser receiver (229-F).

The VOC emissions from the emergency CHP surge tank shall be vented to the 3231-C condenser.

The VOC emissions from the following equipment are uncontrolled: carbonate slurry tank (222-F), carbonate dilution tanks (206-FA and 206-FB), oxidation reactor feed surge drum (202-F), air compressor oil drums (201-J, 201-JA, 201-JB, 224-J, 224-JA, and the cumene wash column (201-E).

2.c The following Group 1 process vents are subject to the provisions of 40 CFR 60, Subpart III, but are required to comply only with the requirements of 40 CFR Part 63, Subparts F, G and H [see Attachments 1, 2, and 3]:

Air oxidation reactor train and its combined spent air vent stream (201-DA, 201-DB, 201-DC, 201-DD, 201-DE, 201-DF, 201-DG, 201-DH, 201-DJ, 201-DK, 201-DL, and 201-DM)

Oxidation Product Surge Drum (208-F)

2.d [OAC rule 3745-21-09(EE)(1)]
Except where exempted under OAC rule 3745-21-09(EE)(2), the permittee shall vent process vent streams from air oxidation processes, producing a chemical listed in Appendix A of OAC rule 3745-21-09, to a combustion device which:

i. reduces the VOC emissions vented to it with an efficiency of at least 98 percent by weight; or

ii. emits a VOC concentration less than 20 ppm by volume, dry basis.

2.e [OAC rule 3745-21-09(EE)(2)(b)]
Any process vent stream or combination of process vent streams which maintain a TRE of value greater than 1.0 shall be exempt from the requirements of OAC rule 3745-21-09(EE)(1). If an air oxidation process has more than one process vent stream, the TRE shall be based upon a combination of the process vent streams. The TRE shall be calculated in accordance with section OAC rule 3745-21-09(EE)(3).

2.f The thermal oxidizer (2007-L) and/or the regenerative thermal oxidizer (RTO) are fueled with natural gas and process vent gas only and have no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this equipment is exempt from the emissions limitation established in OAC rule 3745-18-06(E).

2.g There are no uncontrolled particulate emissions from the Cumene Oxidation process unit ; therefore, OAC rules 3745-17-07(A) and 3745-17-11 are not applicable to the Cumene Oxidation process unit .

2.h The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00500.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.i The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00500.

II. Operational Restrictions

1. In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from Group 1 process vents from the Cumene Oxidation process unit to a thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) in order to comply with the percent reduction requirement or concentration limit specified in 40 CFR 63.113(a)(2) [see Attachment 2]. The minimum firebox temperature of the thermal oxidizer shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily (calendar) average. The minimum firebox temperature of the regenerative thermal oxidizer will be established during the initial emissions testing required in A.V.2.

2. The permittee shall burn only process vent gases and/or natural gas in the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO).

3. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in 40 CFR 63.170 [see Attachment 3] shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of 40 CFR 63.172 [see Attachment 3] or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks do not exceed the threshold triggers of 40 CFR 63.170 [see Attachment 3]. Therefore, these vessels are not required to meet the conditions listed in 40 CFR 63.170 [see Attachment 3] at the time of permit issuance: 206-FA, 206-FB, 202-F, and 3232-F.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer (2007-L) or regenerative thermal oxidizer (RTO) in accordance with the requirements of 40 CFR 63.114(a) [see Attachment 2]. The permittee shall maintain records of the thermal oxidizer or regenerative thermal oxidizer firebox temperature in accordance with 40 CFR 63.118(a) [see Attachment 2].

2. The permittee shall monitor any bypass line(s) that could divert a Group 1 process vent away from the thermal oxidizer (2007-L) or regenerative thermal oxidizer (RTO) in accordance with 40 CFR 63.114(d) [see Attachment 2]. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to 40 CFR 63.114(d) [see Attachment 2].

   a. Properly install, maintain, and operate a flow indicator that takes a reading at

least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3) [see Attachment 2]. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

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

The permittee shall maintain records of the flow indicator or monthly visual inspection requirements for bypass lines that could divert a Group 1 process vent away from the thermal oxidizer (2007-L) or regenerative thermal oxidizer (RTO) in accordance with 40 CFR 63.118(a)(3) & (4) [see Attachment 2].

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with 40 CFR 63.115(e) [see Attachment 2].

   The permittee shall maintain records of process vent group determinations in accordance with 40 CFR 63.117, 63.118(c), (d), and (e) [see Attachment 2].

4. For each Group 2 storage vessel, the permittee shall comply with the recordkeeping requirements of 40 CFR 63.123(a) [see Attachment 2].

5. For each Group 1 process wastewater stream, the permittee shall comply with the requirements of 40 CFR 63.132 through 63.149 [see Attachment 2].

6. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with 40 CFR 63.105 [see Attachment 1].

7. [OAC rule 3745-21-09(EE)(3)(a)]
The total resource effectiveness value for an air oxidation process shall be calculated in accordance with the following equations:

   a. For nonchlorinated process vent streams with a net heating value less than or equal to 3.6 and for all chlorinated process vent streams:
   TRE =[a+bW.88 + cW + dWH + eW.88 H.88 + f W.5]/E
   where,
   TRE = total resource effectiveness value;

   E = maximum hourly VOC emission rate at the vent stream design flow rate (W), in kilograms of VOC per hour (kg/hr);
   W = vent stream design flow rate at a standard temperature of twenty degrees Celsius, in standard cubic meters per minute (scm/min);
   H = vent stream net heating value, as determined in accordance with OAC rule 3745-21-10(P)(2), in megajoules per standard cubic meter (10^6 J/scm); and
   a, b, c, d, e, and f = applicable coefficients from Appendix B of OAC rule 3745-21-09.

   b. For nonchlorinated process vent streams with a net heating value greater than 3.6:
   TRE = [a+bW.88 + cW + dWH + eW.88 H.88 + f(WH / 3.6).5]/E
   where TRE, E, W, H, a, b, c, d, e and f are defined as above.

8. [OAC rule 3745-21-09(EE)(3)(b)]
The parameters used in the total resource effectiveness equations required by OAC rule 3745-21-09(EE)(3) shall be measured at the outlet(s) of the final product recovery device(s) where VOC is reclaimed for beneficial reuse (recycle, sale, or use in another part of the process).

9. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the thermal oxidizer (2007-L) or regenerative thermal oxidizer (RTO), the permittee shall maintain a record of the type and quantity of fuel burned.

10. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.356 and section A.IV of Part II - Facility Specific Terms and Conditions.

IV. Reporting Requirements

1. The permittee shall submit periodic reports in accordance with 40 CFR 63.152(c) [see Attachment 2]. The periodic reports shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The reports shall include all

information specified in 40 CFR 63.117 and 63.118 for process vents and all information specified in 40 CFR 63.146 for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.152(d)(1) [see Attachment 2] and 40 CFR 63.10(d)(5) [see section A.III of Part II - Facility Specific Terms and Conditions]. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the periodic reports required under 40 CFR 63.152(c) instead of the schedule specified in 40 CFR 63.10(d)(5).

3. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process ventdetermine one of the criteria below have been met, the permittee shall submit a report as specified in 40 CFR 63.118 (g) through (j) [see Attachment 2] and the permittee shall comply with the appropriate provisions in 40 CFR 63.113 [see Attachment 2] by the dates specified in 40 CFR 63.100 [see Attachment 1].

   a. the recalculated TRE index value is less than or equal to 1.0;
   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;
   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or
   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

4. The permittee shall submit reports of any fuels burned other than process vent gases and/or natural gas in the thermal oxidizer (2007-L) or regenerative thermal oxidizer (RTO) within 30 days of such occurrence to the Portsmouth Local Air Agency, including the date, type, and amount of any such fuel burned.

5. Reports required by 40 CFR Part 63, Subparts F, G, and H [see Attachments 1, 2, and 3] shall be submitted to USEPA Region 5, with a copy to the Portsmouth Local Air Agency, in accordance with 40 CFR 63.103(c) [see Attachment 1].

6. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.357 and section A.IV of Part II - Facility Specific Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

VOC emissions from all equipment except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 47.60 pounds per day.

VOC emissions from all equipment except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 8.69 tons per year, as a 12-month rolling summation.

Applicable Compliance Method:

The VOC emissions (potential to emit) from the following equipment as listed below shall be summed. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A.

Equipment ID	Equipment Description	Egress Point	Control Device	VOC (lb/day)	VOC (tpy)	Notes
222-F	Carbonate slurry tank	OX02	None	14.92	2.61	2
206-FA	Carbonate dilution tank	OX03	None	4.85	0.89	2
206-FB	Carbonate dilution tank	OX04	None	4.85	0.89	2
202-F	Oxidation reactor feed surge drum	OX05	None	9.27	1.69	2
201-J	Air compressor oil drum	OX08	None	<0.01	<0.01	2
201-JA	Air compressor oil drum	OX09	None	<0.01	<0.01	2
201-JB	Air compressor oil drum	OX10	None	<0.01	<0.01	2
224-J	Air compressor oil drum	OX11	None	<0.01	<0.01	2
224-JA	Air compressor oil drum	OX12	None	<0.01	<0.01	2
201-E	Cumene wash column	OX13	None	0.02	<0.01	2
3232-F	Emergency CHP surge tank	OX14	3231-C Condenser	11.41	2.08	1

AOxA	**Oxygen Analyzer #1**	**OX15**	**None**	**0.22**	**0.04**	**3**
AOxB	**Oxygen Analyzer #2**	**OX16**	**None**	**0.22**	**0.04**	**3**
AOxC	**Oxygen Analyzer #3**	**OX17**	**None**	**0.22**	**0.04**	**3**
AOxD	**Oxygen Analyzer #4**	**OX18**	**None**	**0.22**	**0.04**	**3**
AOxE	**Oxygen Analyzer #5**	**OX19**	**None**	**0.22**	**0.04**	**3**
AOxF	**Oxygen Analyzer #6**	**OX20**	**None**	**0.22**	**0.04**	**3**
AOxG	**Oxygen Analyzer #7**	**OX21**	**None**	**0.22**	**0.04**	**3**
AOxH	**Oxygen Analyzer #8**	**OX22**	**None**	**0.22**	**0.04**	**3**
AOxJ	**Oxygen Analyzer #9**	**OX23**	**None**	**0.22**	**0.04**	**3**
AOxK	**Oxygen Analyzer #10**	**OX24**	**None**	**0.22**	**0.04**	**3**
AOL	**Oxygen Analyzer #11**	**OX25**	**None**	**0.22**	**0.04**	**3**
AOxM	**Oxygen Analyzer #12**	**OX26**	**None**	**0.22**	**0.04**	**3**
N/A	**Oxygen Analyzer #13**	**OX27**	**None**	**0.22**	**0.04**	**3**

1. VOC emissions (lb/day and tpy) from this equipment are controlled. The VOC emissions include the emissions reductions due to the control device. These values represent the controlled potentials to emit and are identified in previous application submittals (PTI 07-500). Individual equipment VOC (lb/day and tpy) values are not independently enforceable in this permit.

2. VOC emissions (lb/day and tpy) from this equipment are uncontrolled. These values represent the potentials to emit and are identified in previous application submittals (PTI 07-500). Individual equipment VOC (lb/day and tpy) values are not independently enforceable in this permit.

3. VOC emissions (lb/day and tpy) from this equipment are uncontrolled. These values represent the potentials to emit. Each analyzer vent emits 0.0093 lb/hr and the calculation is based on a small slip stream of spent air from each oxidizer routed to the oxygen analyzer then vented to atmosphere. Individual equipment VOC (lb/day and tpy) values are not independently enforceable in this permit.

1.b Emission Limitation:

Total particulate emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 0.5 pound per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements

specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1.c Emission Limitation:

Total particulate emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 2.19 tons per year, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

1.d Emission Limitation:

Total nitrogen oxides emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 7.50 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1.e Emission Limitation:

Total nitrogen oxides emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 32.85 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.f Emission Limitation:

Total sulfur dioxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 0.1 pound per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1.g Emission Limitation:

Total sulfur dioxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall be less than 1 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.h Emission Limitation:

Total p articulate emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 0.68 pound per hour.

Applicable Compliance Method:

If required , compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1.i Emission Limitation:

Total particulate emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 3.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided

compliance with the hourly emission limitation is maintained.

1.j Emission Limitation:

Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 1.66 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1.k Emission Limitation:

Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.25 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.l Emission Limitation:

Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.56 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

1.m Emission Limitation:

Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 33.11 tons per

year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.n Emission Limitation:

Total volatile organic compound (including acetone) emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 6.11 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A.

1.o Emission Limitation:

Total volatile organic compound emissions (including acetone) from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 26.77 tons per year, as a 12-month rolling summation..

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

1.p Emission Limitation:

Total volatile organic compound (including acetone) emissions from the regenerative thermal oxidizer (RTO), of all vented to the regenerative thermal oxidizer, shall not exceed 6.11 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A, as appropriate.

1.q Emission Limitation:

Total volatile organic compound (including acetone) emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 26.77 tons per year, as a 12-month rolling summation of VOC emissions.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

1.r Emission Limitation:

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the regenerative thermal oxidizer (RTO) or if required, the thermal oxidizer (2007-L), shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

1.s Emission Limitation:

Volatile organic compound emissions that are vented to the thermal oxidizer (2007-L) and/or the regenerative thermal oxidizer (RTO) shall be reduced by not less than 99%, by weight.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the regenerative thermal oxidizer (RTO) or the thermal oxidizer (2007-L), shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A as appropriate. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

1. t Emission Limitation:

Total carbon monoxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 8.24 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

1. u Emission Limitation:

Total carbon monoxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 36.07 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

2. The permittee shall conduct, or have conducted, the initial emission testing for the regenerative thermal oxidizer (RTO) or thermal oxidizer (2007-L) in accordance with the following requirements:

a. The emission testing shall be conducted within 180 days after initial startup of the regenerative thermal oxidizer (RTO) or within 180 days after permit to install issuance for the thermal oxidizer.

b. The emission testing shall be conducted to demonstrate compliance with the

following:

	Allowable Limit	Test Methods**
i.)	The hourly VOC emission limitation	U. S. EPA Methods 1 through 4, and 18, 25 or 25A, as appropriate, 40 CFR Part 60, Appendix A
ii.)	the VOC control efficiency*	U. S. EPA Methods 1 through 4, and 18, 25 or 25A, as appropriate, 40 CFR Part 60, Appendix A
iii.)	the HAP concentration (ppm) and/or control efficiency*	U. S. EPA Methods 1 through 4, and 18, 40 CFR Part 60, Appendix A

* The percent reduction in mass emissions between the inlet and outlet of the RTO or thermal oxidizer (2007-L).

** Alternative U. S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

d. The hourly VOC emission limitation and VOC control efficiency shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C) or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's

refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment		
P007 - phenol II process unit with the following air pollution control devices: condenser (3301-C), scrubber (3310-E), thermal oxidizer (2007-L), regenerative thermal oxidizer (RTO) (This PTI is for the following modifications: (a) installation of two feed pre-heaters (3343-C, 3343-CA) on the crude acetone column (3301-E); (b) installation of a side stream pre-heater (3325-C) on the hydrocarbon removal system (3305-E); (c) installation of a larger condenser (3209-CR) on the primary cumene stripper (3202-E); (d) installation of a condenser (3214-CA) for the cleavage reactor (3202-DR); and (e) replacement of the existing thermal oxidizer (2007-L) with a regenerative thermal oxidizer (RTO).		The terms and conditions of this permit supersede those in PTI #07-451 issued on 2/18/98 and modified on 07/24/04

Emissions Unit ID: **P007**

Applicable Rules/Requirements
OAC rule 3745-31-05(A)(3)
40 CFR Part 63, Subparts F, G, and H
40 CFR Part 60, Subpart VV
OAC rule 3745-21-09(DD)
OAC rule 3745-31-10 through OAC rule 3745-31-20
40 CFR Part 60, Subpart NNN
40 CFR Part 61, Subpart FF
OAC rule 3745-18-06(E)
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

Applicable Emissions Limitations/Control Measures

Total volatile organic compound emissions (including acetone) from all equipment except for the thermal oxidizer (2007-L), regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 208.43 pounds per day and 38.04 tons per year, as a 12-month rolling summation.

Total particulate emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 0.5 pound per hour and 2.19 tons per year.

Total nitrogen oxides emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 7.50 pounds per hour and 32.85 tons per year.

Total sulfur dioxide emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 0.1 pound per hour and shall be less than 1 ton per year.

Total carbon monoxide emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer, shall not exceed 8.24 pounds per hour and 36.07 tons per year.

Total particulate emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 0.68 pound per hour and 3.0 tons per year.

Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 1.66 pounds per hour and 7.25 tons per year.

Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), for all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.56 pounds per hour and 33.11 tons per year.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through OAC rule 3745-31-20, and 40 CFR Part 63, Subparts F, G, and H, 40 CFR Part 60, Subpart VV and NNN, 40 CFR Part 61, Subpart FF, and OAC rule 3745-21-09(DD).

Total v olatile organic compound (including acetone) emissions from the thermal oxidizer (2007-L), for all equipment vented to the thermal oxidizer serving emissions units P001 and P007, shall not exceed 6.11 pounds per hour and 26.77 tons per year, as a 12-month rolling summation.

Total v olatile organic compound emissions (including acetone) from all modified equipment (including egress points P201 (including primary cumene stripper3202-E jet condenser system (3204-L)), P216, and P219) except for the thermal oxidizer (2007-L), regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 3.59 pounds per day and 0.66 ton per year, as a 12-month rolling summation.

Total volatile organic compound emissions (including acetone) from the regenerative thermal oxidizer (RTO) shall not exceed 6.11 pounds per hour and 26.77 tons per year, as a 12-month rolling summation.

See section A.I.2.a below.

See section A.I.2.b and A.I.2 c . below and Part II, section A.1 and Attachments 1 through 3 .

See Part II, section A.1 .

See Part II, section A.1 .

See sections A.I.2. d through A.I.2. g below and Part II, section A.II.

See sections A.III. 19 and A.IV. 10 below and Part II, section A.IV.

See section A.I.2. h below.

See section A.I.2. l below.

See section A.I.2. m below.

2. Additional Terms and Conditions

2.a This prevention of significant deterioration (PSD) best available control technology (BACT) determination requires volatile organic compound emissions that are vented to the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) to be reduced by not less than 99%, by weight. The VOC emissions from the following modified equipment shall be vented to the thermal oxidizer and/or regenerative thermal oxidizer: the crude acetone column reflux drum (3304-F) and the acetone topping column reflux drum (3307-F).

The VOC emissions from the following modified equipment is uncontrolled: primary cumene stripper 3202-E jet condenser system (3204-L), hydrocarbon removal column 3305-E reflux drum (3318-F) and cleavage reactor 3202-DR jet condenser system (3207-L).

The PSD BACT determinations for the process vent emissions from the hydrocarbon removal system (3305-E), the primary cumene stripper (3202-E), and the cleavage reactor (3202-DR) requires maintaining existing operating

conditions and does not require add on controls.
The PSD BACT determination for fugitive emissions from the Phenol II process unit requires compliance with the leak detection and repair program required by 40 CR Part 63, Subpart H [see Attachment 3].

2.b In accordance with 40 CFR 63.113(a)(2) [see Attachment 2], for all Group 1 process vent streams, the emissions of total organic HAPs shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen.

The VOC emissions from the following equipment shall be vented to the thermal oxidizer: crude acetone column reflux drum (3304-F) and the acetone topping column reflux drum (3307-F).

The VOC emissions from the following equipment is uncontrolled: preflash separator 3209-F jet condenser system (3203-LR), primary cumene stripper 3202-E jet condenser system (3204-L), secondary cumene stripper 3203-E jet condenser system (3205-L), CHP drain vessel (3214-F), pre-secondary cumene stripper 3227-E jet condenser system (3227-L), crude acetone column 3301-E preheater wash tank (3343-F), phenol rundown tanks (3321-FA and 3321-FB), neutralizer drain vessel (3226-F), phenol drain tank (3330-F), phenol finishing column 3304-E jet condenser system (3320-F), hydrocarbon removal column 3305-E reflux drum (3318-F), acetone finishing column 3303-E jet condenser system (3302-L), crude phenol column 3304-E jet condenser system (3303-L), and cleavage reactor 3202-DR jet condenser system (3207-L).

The VOC emissions from the following equipment shall be vented to the 3301-C condenser: neutralizer tank (3217-F), acid wash drum (3218-F), fractionation feed tank (3301-F), phenolic water tank (3303-F).

The acetone rundown tanks (3312-FA and 3312-FB) shall be equipped with an internal floating roof.

The VOC emissions from the crude acetone column 3301-E bottoms surge tank shall be controlled by the 3310-E scrubber.

2.c In accordance with 40 CFR 63.172(b) [see Attachment 3], the scrubber (3310-E) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to it with an

efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

2.d The requirements of 40 CFR Part 60, Subpart NNN apply to the following distillation units and associated recovery equipment within the Phenol II process unit:

Egress Point	Distillation Column (equipment number)
P201	Pre-Secondary Cumene Stripper (3227-E)
UT09	Crude Acetone Column (3301-E)
P215	Phenol Finishing Column (3307-E)
P216	Hydrocarbon Removal Column (3305-E)
P217	Acetone Finishing Column (3303-E) and Acetone Stripper (3309-E)
P218	Crude Phenol Column (3304-E)
P201	Secondary Cumene Stripper (3203-E)
P201	Primary Cumene Stripper (3202-E)
P201	Preflash Separator Drum (3209-F)
UT09	Acetone Topping Column (3302-E)

2.e [40 CFR 60.660(c)(4)]
The equipment subject to 40 CFR Part 60, NNN which have a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). In accordance with the permittees's permit application, the following distillation columns have a TRE index value greater than 8.0: 3227-E, , 3304-E, and 3305-E.

2.f [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN which have vent stream flow rate less than 0.008 standard cubic meters per minute (scm/min) are exempt from the requirements of 40 CFR Part 60 Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). At the time of permit issuance, the following distillation columns have a flow rate less than 0.008 standard cubic meters per minute: 3307-E, 3303-E, 3202-E, 3209-F, , and 3203-E.

2.g [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN which have a TRE index of less than 8.0 and a flow rate greater than 0.008 standard cubic meters per minute shall comply with one of the following:

i. Reduce the emissions of total organic compounds (TOC) by 98% by weight or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

ii. Combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iii. Maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

2.h The thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO)is fueled with natural gas and process vent gas only and has no process weight as defined in OAC rule 3745-18-01(B)(13). Therefore, this equipment is exempt from the emissions limitation established in OAC rule 3745-18-06(E).

2.i There are no uncontrolled particulate emissions from the Phenol II process unit ; therefore, OAC rules 3745-17-07(A) and 3745-17-11 are not applicable to the Phenol II process unit .

2.j The crude acetone columns bottom surge tank (3302-F) is a bottoms receiver tank with a capacity of 640.5 cubic meters, containing material with a maximum true organic HAP vapor pressure of 11.17 psia at operating temperature, and the organic vapors vented from
the tank are not vented back to the process. Therefore, the bottoms receiver tank shall be vented to a control device that complies with the requirements in 40 CFR 63.172 [see Attachment 3].

In accordance with the permittee's permit application, the permittee is operating by routing the organic vapors from the bottoms receiver tank to a scrubber

(3310-E). Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with 40 CFR Part 63 Subpart H [see Attachment 3], such system or control device shall be operating. The scrubber (3310-E) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compound emissions vented to it with an efficiency of 95% or greater, or to an exit concentration of 20 ppmv, whichever is less stringent.

2.k Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in 40 CFR 63.170 [see Attachment 3] shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of 40 CFR 63.172 [see Attachment 3] or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks do not exceed the threshold triggers of 40 CFR 63.170 [see Attachment 3]. Therefore, the following vessels are not required to meet the conditions listed in 40 CFR 63.170 [see Attachment 3] at the time of permit issuance: 3214-F, 3342-F, 3343-F, 3217-F, 3218-F, 3301-F, 3303-F, 3321-FA, 3321-FB, 3226-F, , 3330-F.

2.l The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00500.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.m The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00500.

II. Operational Restrictions

1. The average temperature of the liquid ammonia coolant in the condenser (3301-C), on a daily calendar basis, shall not be greater than 41 degrees Fahrenheit.

2. The scrubber (3310-E) water flow rate shall be continuously maintained at a value of not less than 6 gallons per minute as a daily average at all times while the Phenol II process unit is in operation.

3. In accordance with the permittee's permit application, the permittee is operating by routing the Group 1 process vents from the Phenol II process unit to a thermal oxidizer (2007-L) and/or regenerative thermal ozidizer (RTO) in order to comply with the percent reduction requirement or concentration limit specified in 40 CFR 63.113(a)(2) [see Attachment 2]. The minimum firebox temperature of the thermal oxidizer (2007-L) shall be 1,450 degrees Fahrenheit (788 degrees Celsius) as a daily average. The minimum firebox temperature of the regenerative thermal oxidizer will be established during the initial emissions testing required in A.V.2.

4. The permittee shall burn only process vent gases and/or natural gas in the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO).

5. The Phenol II Hub and the CHP Hub shall be equipped with tightly fitting solid covers in accordance with 40 CFR 63.149 [see Attachment 2].

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the liquid ammonia coolant in the condenser (3301-C) at least once every 15 minutes when the Phenol II process unit is in operation. The equipment used to monitor temperature must have a minimum accuracy of (a) +/- 1 percent of the temperature being monitored expressed in degrees Celsius (ºC) or (b) +/- 0.5 degrees (ºC), whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instruction, and operating manuals.

   The permittee shall collect and record the following information each day the Phenol II process unit is in operation:

   a. the average temperature of the liquid ammonia coolant in the condenser (3301-C) on a daily calendar basis; and

   b. a log or record of downtimes for the capture (collection) system, control device,

monitoring equipment, and the Phenol II process unit .

2. The permittee shall monitor the closed vent system which routes the organic vapors from the crude acetone columns bottom surge tank (3302-F) to the scrubber (3310-E) in accordance with 40 CFR 63.172(f) through 63.172(l) [see Attachment 3].

   The permittee shall monitor the scrubber (3310-E) to ensure that it is operated and maintained in conformance with its design as required by 40 CFR 63.172(e) [see Attachment 3]. The permittee shall properly install, operate and maintain equipment to monitor and record the scrubber water flow rate for the scrubber (3310-E) while the Phenol II process unit is in operation. The monitoring devices and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information once per day:

   a. the daily average scrubber water flow rate, in gallons per minute; and

   b. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the Phenol II process unit .

3. The permittee shall maintain a temperature monitoring device, equipped with a continuous recorder, in the firebox of the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) in accordance with the requirements of 40 CFR 63.114(a) [see Attachment 2].

   The permittee shall maintain records of the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) firebox temperature in accordance with 40 CFR 63.118(a) [see Attachment 2].

4. The permittee shall monitor any bypass line(s) that could divert a Group 1 process vent away from the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) in accordance with 40 CFR 63.114(d) [see Attachment 2]. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to 40 CFR 63.114(d) [see Attachment 2].

   a. Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3) [see Attachment 2]. The flow indicator shall be installed at the

entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

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

The permittee shall maintain records of the flow indicator or monthly visual inspection requirements for bypass lines that could divert a Group 1 process vent away from the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) in accordance with 40 CFR 63.118(a)(3) & (4) [see Attachment 2].

5. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with 40 CFR 63.115(e) [see Attachment 2].

   The permittee shall maintain records of process vent group determinations in accordance with 40 CFR 63.117, 63.118(c), (d), and (e) [see Attachment 2].

6. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of 40 CFR 63.123(a) [see Attachment 2].

7. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of 40 CFR 63.147 [see Attachment 2].

8. The permittee shall monitor the cooling water at the inlet and outlet of the Phenol II heat exchange system for the presence of cumene in accordance with 40 CFR 63.104(b), (d) and (e) [see Attachment 1]. On a quarterly basis, the permittee shall obtain three samples from the inlet and three samples from the outlet of the heat exchanger. The permittee shall analyze the samples in accordance with the methods and procedures of Method 624 of 40 CFR Part 136, Appendix A. The results of the analysis shall be evaluated as specified in 40 CFR 63.104(b) [see Attachment 1].

   The permittee shall maintain heat exchange system records in accordance with 40 CFR 63.104(f)(1) [see Attachment 1].

9. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with 40 CFR 63.105 [see Attachment 1].

10. [40 CFR 60.664(d)]
    The net heating value of the gas combusted for determining the process vent stream

TRE index value to determine compliance under 40 CFR 60.662(c) shall be determined in accordance with the equations and procedures in 40 CFR 60.664(d).

11. [40 CFR 60.664(e)]
For purposes of complying with 40 CFR 60.662(c), the permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values.

12. [40 CFR 60.663(a)]
The permittee uses a thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) to comply with the TOC emission limit specified under 60.662(a) for two distillation columns with TRE index values less than 1.0 (or assumed to be less than 1.0): 3301-E and 3302-E. For these two distillation columns, the permittee shall comply only with the monitoring, testing, record keeping, and reporting of 40 CFR 63 Subpart G for Group 1 process vents in accordance with procedures for regulatory overlap in 40 CFR 63.110(d) [see Attachment 2].

13. [40 CFR 60.664(f)]
The permittee seeking to comply with 40 CFR 60.660(c)(4) or 40 CFR 60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

    a. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify the Administrator, with a copy to the Portsmouth Local Air Agency, within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

    b. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.664 and shall comply with 40 CFR 60.663, 60.664 and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

14. [40 CFR 60.663(d)]
For distillation columns complying with the TRE index value limit specified under 40 CFR 60.662(c) of greater than or equal to 1.0, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the equipment specified in 40 CFR 60.663(d).

15. [40 CFR 60.665(h)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.662(c):

    a. any changes in production capacity feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or a distillation unit;
    b. any recalculation of the TRE performed pursuant to 40 CFR 60.664(f); and
    c. the results of any performance test performed pursuant to 40 CFR 60.664(d).

16. [40 CFR 60.664(g)]

The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

17. [40 CFR 60.665(i)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

    a. that the vent stream flow rate is less than 0.008 scm/min; and
    b. any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.

18. For each day during which the permittee burns a fuel other than process vent gases and/or natural gas in the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO), the permittee shall maintain a record of the type and quantity of fuel burned.

19. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.356 and section A.IV of Part II - Facility Specific Terms and Conditions.

IV. Reporting Requirements

1. The permittee shall submit quarterly temperature deviation (excursion) reports that identify all periods during which the average temperature of the liquid ammonia coolant in the condenser (3301-C) on a daily calendar average exceeded the temperature limitation specified above.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber (3310-E) water flow rate was not maintained at or above the required levels.

3. The permittee shall submit periodic reports in accordance with 40 CFR 63.152(c) [see Attachment 2]. The periodic reports shall be submitted semi-annually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in 40 CFR 63.117 and 63.118 for process vents, all information specified in 40 CFR 63.146 for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

4. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.152(d)(1) [see Attachment 2], 40 CFR 63.10(d)(5) and section A.III of Part II - Facility Specific Terms and Conditions. The semi-annual

start-up, shutdown and malfunction reports may be submitted on the same schedule as the periodic reports required under 40 CFR 63.152(c) instead of the schedule specified in 40 CFR 63.10(d)(5).

5. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in 40 CFR 63.118 (g) through (j) [see Attachment 2] and the permittee shall comply with the appropriate provisions in 40 CFR 63.113 [see Attachment 2] by the dates specified in 40 CFR 63.100 [see Attachment 1].

   a. the recalculated TRE index value is less than or equal to 1.0;
   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;
   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or
   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

6. For each heat exchange system, the permittee shall comply with the reporting requirements of 40 CFR 63.104(f)(2) [see Attachment 1].

7. The permittee shall submit the information required in 40 CFR 60.665(b)(4) when demonstrating compliance with the TRE index value of greater than 1.0 option of 40 CFR 60.662(c).

8. [40 CFR 60.665(l)]
   The permittee shall submit semiannual reports of the following recorded information:

   a. Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semi-annual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC. The performance test is subject to the requirements of 40 CFR 60.8. Unless the facility qualifies for an exemption under the low capacity exemption status in 40 CFR 60.660(c)(5), the facility must begin compliance with the requirements set forth in 40 CFR 60.662.

   b. Any recalculation of the TRE index value, as recorded under 40 CFR 60.665(h).

9. The permittee shall submit reports of any fuels burned in the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) other than process vent gases and/or natural gas within 30 days to the Portsmouth Local Air Agency, including the date, type, and amount of any such fuel burned.

10. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.357 and section A.IV of Part II - Facility Specific Terms and Conditions.

11. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Terms and Conditions A.1.c of this permit.

12. Reports required by 40 CFR Part 63, Subparts F, G, and H [see Attachments 1, 2, and 3] shall be submitted to USEPA Region 5, with a copy to the Portsmouth Local Air Agency, in accordance with 40 CFR 63.103(c) [see Attachment 1].

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

VOC emissions (including acetone) from all equipment except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 208.43 pounds per day.

VOC emissions (including acetone) from all equipment except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 38.04 tons per year, as a 12-month rolling summation

VOC emissions (including acetone) from all modified equipment (including egress points P201 (including primary cumene stripper 3202-E jet condenser system (3204-L)), P216 and P219) except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 3.59 pounds per day.

VOC emissions (including acetone) from all modified equipment (including egress points P201 (including primary cumene stripper 3202-E jet condenser system (3204-L)), P216 and P219) except for the thermal oxidizer (2007-L) and/or regenerative thermal oxidizer (RTO) and fugitive equipment leaks shall not exceed 0.66 ton per year, as a 12-month rolling summation

Applicable Compliance Method:

The VOC and acetone emissions (potential to emit) from the equipment listed below shall be summed. . Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

If required , compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A.

Emissions Unit ID: **P007**

Equipment ID	Equipment Description	Egress Point	Control Device	VOC (lb/day)	VOC (tpy)	Acetone (lb/day)	Acetone (tpy)	Notes
3203-LR	Preflash separator 3209-F jet condenser system	P201	None	0.05	0.01	0.00	0.00	2
3204-L	Primary cumene stripper 3202-E jet condenser system	P201	None	<0.01	<0.01	0.00	0.00	2
3205-L	Secondary cumene stripper 3203-E jet condenser system	P201	None	0.02	<0.01	0.00	0.00	2
3214-F	CHP drain vessel	P201	None	1.73	0.32	0.00	0.00	2
3227-L	Pre-secondary cumene stripper 3227-E jet condenser system	P201	None	0.06	0.01	0.00	0.00	2
3342-F	Caustic dilution tank	P202	None	0.00	0.00	0.00	0.00	2
3343-F	Crude acetone column 3301-E preheater wash tank	P203	None	<0.01	<0.01	0.01	<0.01	2
3217-F	Neutralizer tank	P204	3301-C Condenser	0.04	0.01	2.12	0.39	1
3218-F	Acid wash drum	P204	3301-C Condenser	0.04	0.01	2.30	0.42	1
3301-F	Fractionation feed tank	P204	3301-C Condenser	0.66	0.12	37.26	6.80	1
3303-F	Phenolic water tank	P204	3301-C Condenser	<0.01	<0.01	<0.01	<0.01	1
3321-FA	Phenol rundown tank	P205	None	40.63	7.42	0.00	0.00	2

3321-FB	Phenol rundown tank	P206	None	40.63	7.42	0.00	0.00	2
3312-FA	Acetone rundown tank	P207	Internal floating roof	0.00	0.00	35.71	6.52	1
3312-FB	Acetone rundown tank	P208	Internal floating roof	0.00	0.00	35.71	6.52	1
3302-F	Crude acetone column 3301-E bottoms surge tank	P209	3310-E Scrubber	7.44	1.36	0.00	0.00	1
3226-F	Neutralizer drain vessel	P210	None	<0.01	<0.01	0.01	<0.01	2
3330-F	Phenol drain tank	P214	None	<0.01	<0.01	0.01	<0.01	2
3320-F	Phenol finishing column 3304-E jet condenser system	P215	None	0.12	0.02	0.00	0.00	2
3318-F	Hydrocarbon removal column 3305-E reflux drum	P216	None	2.12	0.39	0.98	0.18	2
3302-L	Acetone finishing column 3303-E jet condenser system	P217	None	<0.01	<0.01	<0.01	<0.01	2
3303-L	Crude phenol column 3304-E jet condenser system	P218	None	0.30	0.05	0.01	<0.01	2
3207-L	Cleavage reactor 3202-DR jet condenser system	P219	None	0.01	<0.01	0.48	0.09	2

1. VOC and acetone emissions (lb/day and tpy) from this equipment are controlled. The VOC emissions include the emissions reductions due to the control device. These values represent the controlled potentials to emit and are identified in previous application submittals (PTI 07-500). Individual equipment VOC and acetone (lb/day and tpy) values are not independently enforceable in this permit.

1.a VOC and acetone emissions (lb/day and tpy) from this equipment are uncontrolled. These values represent the potential to emit and are identified in previous

application submittals (PTI 07-500). Individual equipment VOC and acetone (lb/day and tpy) values are not independently enforceable in this permit.

1.b Emission Limitation:

Total p articulate emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 0.5 pound per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1.c Emission Limitation:

Total particulate emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 2.19 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.d Emission Limitation:

Total nitrogen oxides emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 7.50 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1.e Emission Limitation:

Total nitrogen oxides emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 32.85 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission

limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.f Emission Limitation:

Total sulfur dioxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 0.1 pound per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or 6c.

1.g Emission Limitation:

Total sulfur dioxide emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall be less than 1 ton per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.h Emission Limitation:

Total p articulate emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 0.68 pound per hour.

Applicable Compliance Method:

If required , compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures and methods required in OAC rule 3745-17-03(B)(9).

1.i Emission Limitation:

Total particulate emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 3.0 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.j Emission Limitation:

Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 1.66 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or 7e.

1.k Emission Limitation:

Total nitrogen oxides emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.25 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.l Emission Limitation:

Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 7.56 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements

specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

1.m Emission Limitation:

Total carbon monoxide emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 33.11 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

1.n Emission Limitation:

Total volatile organic compound (including acetone) emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 6.11 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A.

1.o Emission Limitation:

Total volatile organic compound emissions from the thermal oxidizer (2007-L), of all equipment vented to the thermal oxidizer, shall not exceed 26.77 tons per year, as a 12-month rolling summation of VOC emissions.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation by Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

1.p Emission Limitation:

Total volatile organic compound (including acetone) emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 6.11 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A, as appropriate.

1.q Emission Limitation:

Total volatile organic compound (including acetone) emissions from the regenerative thermal oxidizer (RTO), of all equipment vented to the regenerative thermal oxidizer, shall not exceed 26.77 tons per year, as a 12-month rolling summation of VOC emissions.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.

1.r Emission Limitation:

The emissions of total organic HAP from Group 1 process vents shall be reduced by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3% oxygen.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the regenerative thermal oxidizer (RTO) or if required, the thermal oxidizer (2007-L), shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

1.s Emission Limitation:

Volatile organic compound emissions that are vented to the thermal oxidizer (2007-L) and/or the regenerative thermal oxidizer (RTO) shall be reduced by not less than 99%, by weight.

Applicable Compliance Method:

The concentration (ppm) and/or control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the regenerative thermal oxidizer (RTO) or if required, the thermal oxidizer (2007-L), shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4, and 18, 25 or 25A, as appropriate. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

2. The permittee shall conduct, or have conducted, the initial emission testing for the regenerative thermal oxidizer (RTO) or thermal oxidizer (2007-L) in accordance with the following requirements:

   a. The emission testing shall be conducted within 180 days after initial startup of the regenerative thermal oxidizer (RTO) or within 180 days after permit to install issuance for the thermal oxidizer.

   b. The emission testing shall be conducted to demonstrate compliance with the following:

	Allowable Limit	Test Methods**
i.)	The hourly VOC emission limitation	U. S. EPA Methods 1 through 4, and 18, 25 or 25A, as appropriate, 40 CFR Part 60, Appendix A
ii.)	the VOC control efficiency*	U. S. EPA Methods 1 through 4, and 18, 25 or 25A, as appropriate, 40 CFR Part 60, Appendix A
iii.)	the HAP concentration (ppm) and/or control efficiency*	U. S. EPA Methods 1 through 4, and 18, 40 CFR Part 60, Appendix A

* The percent reduction in mass emissions between the inlet and outlet of the RTO or thermal oxidizer (2007-L).

** Alternative U. S. EPA-approved test methods may be used with prior

approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

d. The hourly VOC emission limitation and VOC control efficiency shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C) or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

VI. Miscellaneous Requirements

None

Emissions Unit ID: **P007**

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P013 - AMS distillation process unit	OAC rule 3745-31-05(A)(3)
(This PTI is for the following modifications: (a) replacement of condenser (3501-CR) for AMS topping columns (3501-E, 3500-E); (b) replacement of condenser (3503-CR) for AMS tailing column (3502-E); and	
(c) removal of the AMS distillation process unit from existing units P008 and P00 7 and establish as a separate process unit.)	OAC rule 3745-31-10 through OAC rule 3745-31-20

	Applicable Emissions Limitations/Control Measures	See section A.I.2.a below.
40 CFR Part 63, Subparts F, G, and H	Total volatile organic compound (including acetone) emissions from all equipment except for the fugitive equipment leaks shall not exceed 75.16 pounds per day and 13.72 tons per year, as a 12-month rolling summation.	See Part II, section A.1 and Attachments 1 through 3. See Part II, section A.1 . See Part II, section A.1 . See sections A.I.2. b through A.I.2. e below and Part II, section A.II.
40 CFR Part 60, Subpart VV OAC rule 3745-21-09(DD)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through OAC rule 3745-20 and 40 CFR Part 63, Subparts F, G, and H, 40 CFR Part 60, Subpart VV and NNN, 40 CFR Part 61, Subpart FF, and OAC rule 3745-21-09(DD).	See sections A.III. 12 and A.IV. 7 below and Part II, section A.IV.
40 CFR Part 60, Subpart NNN 40 CFR Part 61, Subpart FF	Total v olatile organic compound (including acetone) emissions from all modified equipment (including egress points AMS223 and AMS224) except for the fugitive equipment leaks shall not exceed 14.6 pounds per day and 2.66 tons per year, as a 12-month rolling summation.	

2. Additional Terms and Conditions

2.a These PSD BACT determinations for process vent emissions from the AMS topping column (3501-E) and the AMS tailing column (3502-E) require maintaining existing operating conditions and do not require additional control.

This PSD BACT determination for fugitive emissions from the AMS Distillation process unit requires compliance with the leak detection and repair program required by 40 CR Part 63, Subpart H [see Attachment 3].

2.b The requirements of 40 CFR Part 60, Subpart NNN apply to the following distillation units and associated recovery equipment within the AMS Distillation process unit :

Egress Point	Distillation Column (equipment number)
AMSP223	AMS Super Topper (3500-E) and AMS Topping Column (3501-F)
AMSP224	AMS Tailing Column (3502-E)
AMSP128	AMS Topping Column (501-E)
AMSP132	Ethylbenzene Removal Column (503-E)

2.c [40 CFR 60.660(c)(4)]
The equipment subject to 40 CFR Part 60, NNN which have a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). At the time of permit issuance, the following distillation column has a TRE index value greater than 8.0: 3500-E, 501-E, 503-E.

2.d [40 CFR 60.660(c)(6)]
The equipment subject to 40 CFR Part 60, Subpart NNN which have vent stream flow rate less than 0.008 standard cubic meters per minute (scm/min) are exempt from the requirements of 40 CFR Part 60 Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). At the time of permit issuance, the following distillation column has a flow rate less than 0.008 standard cubic meters per minute: 3502-E.

2.e [40 CFR 60.662]
The equipment subject to 40 CFR Part 60, Subpart NNN which have a TRE index of less than 8.0 and a flow rate greater than 0.008 standard cubic meters per minute shall comply with one of the following:

i. Reduce the emissions of total organic compounds (TOC) by 98% by weight or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;

ii. Combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

iii. Maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

II. Operational Restrictions

1. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in 40 CFR 63.170 [see Attachment 3] shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of 40 CFR 63.172 [see Attachment 3] or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

   In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks, do not exceed the threshold triggers of 40 CFR 63.170 [see Attachment 3]. Therefore, these vessels are not required to meet the conditions listed in 40 CFR 63.170 [see Attachment 3] at the time of permit issuance: 3505-F, 3507-FA, 3507-FB, 314-FA, 351-F.

III. Monitoring and/or Recordkeeping Requirements

1. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with 40 CFR 63.115(e) [see Attachment 2].

   The permittee shall maintain records of process vent group determinations in accordance with 40 CFR 63.117, 63.118(c), (d), and (e) [see Attachment 2].

2. For each Group 2 storage vessel, the permittee shall comply with the recordkeeping requirements of 40 CFR 63.123(a) [see Attachment 2].

3. For each Group 2 process wastewater stream, the permittee shall comply with the recordkeeping requirements of 40 CFR 63.147 [see Attachment 2].

4. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with 40 CFR 63.105 [see Attachment 1].

5. [40 CFR 60.664(d)]
The net heating value of the gas combusted for determining the process vent stream TRE index value to determine compliance under 40 CFR 60.662(c) shall be determined in accordance with the equations and procedures in 40 CFR 60.664(d).

6. [40 CFR 60.664(e)]
For purposes of complying with 40 CFR 60.662(c) , the permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values.

7. [40 CFR 60.664(f)]
The permittee seeking to comply with 40 CFR 60.660(c)(4) or 40 CFR 60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

   a. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify the Administrator, with a copy to the Portsmouth Local Air Agency, within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

   b. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.664 and shall comply with 40 CFR 60.663, 60.664 and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

8. [40 CFR 60.663(d)]
For distillation columns complying with the TRE index value limit specified under 40 CFR 60.662(c) of greater than or equal to 1.0, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the equipment specified in 40 CFR 60.663(d).

9. [40 CFR 60.665(h)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.662(c):

   a. any changes in production capacity feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or a distillation unit;
   b. any recalculation of the TRE performed pursuant to 40 CFR 60.664(f); and
   c. the results of any performance test performed pursuant to 40 CFR 60.664(d).

10. [40 CFR 60.664(g)]
The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).

11. [40 CFR 60.665(i)]
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

   a. that the vent stream flow rate is less than 0.008 scm/min; and

   b. any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.

12. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.356 and section A.IV of Part II - Facility Specific Terms and Conditions.

IV. Reporting Requirements

1. The permittee shall submit periodic reports in accordance with 40 CFR 63.152(c) [see Attachment 2]. The periodic reports shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in 40 CFR 63.117 and 63.118 for process vents, all information specified in 40 CFR 63.146 for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

2. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.152(d)(1) [see Attachment 2], 40 CFR 63.10(d)(5) and section A.III of Part II - Facility Specific Terms and Conditions. The semiannual start-up, shutdown and malfunction reports may be submitted on the same schedule as

the Periodic Reports required under 40 CFR 63.152(c) instead of the schedule specified in 40 CFR 63.10(d)(5).

3. Whenever the recalculations (performed whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine one of the criteria below have been met, the permittee shall submit a report as specified in 40 CFR 63.118 (g) through (j) [see Attachment 2] and the permittee shall comply with the appropriate provisions in 40 CFR 63.113 [see Attachment 2] by the dates specified in 40 CFR 63.100 [see Attachment 1].

   a. the recalculated TRE index value is less than or equal to 1.0;

   b. the recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

   c. the recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or

   d. the recalculated concentration is greater than or equal to 50 parts per million by volume.

4. The permittee shall submit the information required in 40 CFR 60.665(b)(4) when demonstrating compliance with the TRE index value of greater than 1.0 option of 40 CFR 60.662(c).

5. [40 CFR 60.665(l)]
   The permittee shall submit semi-annual reports of the following recorded information:

   a. Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semi-annual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC. The performance test is subject to the requirements of 40 CFR 60.8. Unless the facility qualifies for an exemption under the low capacity exemption status in 40 CFR 60.660(c)(5), the facility must begin compliance with the requirements set forth in 40 CFR 60.662.

   b. Any recalculation of the TRE index value, as recorded under 40 CFR 60.665(h).

6. The deviation (excursion) reports shall be submitted in accordance with Part I - General Terms and Conditions of this permit under section (A)(1).

7. The permittee shall submit reports for benzene waste operations in accordance with the requirements specified in 40 CFR Part 61.357 and section A.IV of Part II - Facility Specific Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

VOC (including acetone) emissions from all equipment except for fugitive equipment leaks shall not exceed 75.16 pounds per day.

VOC emissions (including acetone) from all equipment except for fugitive equipment leaks shall not exceed 13.72 tons per year, as a 12-month rolling summation.

VOC emissions (including acetone) from all modified equipment (including egress points AMS223 and AMS 224) except for fugitive equipment leaks shall not exceed 14.6 pounds per day..

VOC emissions (including acetone) from all modified equipment (including egress points AMS223 and AMS224) except for fugitive equipment leaks shall not exceed 2.66 tons per year, as a 12-month rolling summation.

Applicable Compliance Method:

The VOC emissions and acetone emissions (potential to emit) from the equipment listed below shall be summed.. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation per month and the conversion factor of ton/2000 lbs, to arrive at the tons per month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-months total emissions.
If required , compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A.

Equipment ID	Equipment Description	Egress Point	Control Device

Emissions Unit ID: **P013**

				VOC (lb/day)	VOC (tpy)	Acetone (lb/day)	Acetone (tpy)	Notes
314-FA	Crude AMS storage tank	AMSP114	None	12.38	2.26	0.00	0.00	1
502-F	501-E AMS topping column overhead accumulator	AMSP128	None	0.08	0.01	0.00	0.00	1
505-F	503-E ethylbenzene removal column accumulator	AMSP132	None	1.86	0.34	3.16	0.58	1
351-F	AMS lights surge tank	AMSP137	None	0.34	0.06	9.26	1.69	1
3505-F	AMS feed tank	AMSP211	None	28.75	5.25	0.00	0.00	1
3507-FA	AMS product tank	AMSP212	None	2.36	0.43	0.00	0.00	1
3507-FB	AMS product tank	AMSP213	None	2.36	0.43	0.00	0.00	1
3502-F	3501-E and 3500-E AMS topping columns reflux drum	AMSP223	None	1.13	0.21	13.39	2.44	1
3503-F	3502-E AMS tailing column reflux drum	AMSP224	None	0.08	0.01	0.00	0.00	1

1. VOC and acetone emissions (lb/day and tpy) from this equipment are uncontrolled. These values represent the potential to emit and are identified in previous application submittals (PTI 07-00500). Individual equipment VOC and acetone (lb/day and tpy) values are not independently enforceable in this permit.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None