

West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
Union Carbide Corporation
Institute Facility
Catalyst Plant (Group 1 of 8)
R30-03900005-2016



William F. Durham
Director

Issued: December 5, 2016 • Effective: January 1, 2017
Expiration: December 5, 2021 • Renewal Application Due: June 5, 2021

Permit Number: **R30-03900005-2016**
Permittee: **Union Carbide Corporation**
Business Unit: **Catalyst Plant (Group 1 of 8)**
Facility Name: **Institute Facility**
Permittee Mailing Address: **P. O. Box 8361, South Charleston, WV 25303**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Institute, Kanawha County, West Virginia
Telephone Number:	(304) 747-7000
Type of Business Entity:	Corporation
Facility Description:	Catalyst Plant
SIC Codes:	2869
UTM Coordinates:	432.189 km Easting • 4,248.754 km Northing • Zone 17

Permit Writer: Mike Egnor

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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Appendix - Consent Order CO-R21-97-41 ATTACHMENTS A and B

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
<i>Catalyst Plant</i>					
S-476	070A	Packaging	1977	Confidential	A070 #3 Baghouse
S-420 S-422	070B	Blending and Conveying – non-HAP particulate matter	1977	Confidential	B070 #2 Baghouse
S-427	070C	First Dip Baggers	2014	Confidential	C070 #1 Baghouse
D-407	070C	Storage Bins and Conveying – non-HAP particulate matter	1977	Confidential	C070 #1 Baghouse
None	070D	House-keeping vacuum system (vents outside building)	1977	NA	D070 #5 Baghouse
Y-202	070E	Vessel Y202 and Conveying	1977	Confidential	E070 #4 Baghouse
V-160	070G	Storage and Conveying	1977	Confidential	G070 #6 Baghouse
F-306	070H	Fired Heater	1977	Confidential	None
Y-320	070H	Process Equipment	1977/2004	Confidential	H070 Emission Reduction System
Y-320A	070H	Cleaning Section	1977/2004	NA	H070 Emission Reduction System
T-111	070I	Tank 111	1977	Confidential	None
J070	070J	Feed Vessel	1977	Confidential	None
Y-201	070K	Vessel Y-201	1977	Confidential	None
070-04	070Q	Loading Rack	1977	NA	None
070-05	070R	Drum Loading	1977	NA	None
Y-320B	070S	Cooling Zone 1	2004	NA	None
Y-320C	070T	Cooling Zone 2	2004	NA	None
T-154B	075C	Tank 154B	1977	Confidential	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-155	075D	Tank 155	1977	Confidential	None
T-154T	075E	Tank 154T	1977	Confidential	None
T-121	075G	Tank 121	1977	Confidential	None
T-131	075G	Tank 131	1977	Confidential	None
T-327	075K	Tank 327	1977	Confidential	None
T-328	075K	Tank 328	1977	Confidential	None
T-208	075I	Tank 208	1977	Confidential	None
T-1004	075M	Tank 1004	1977	Confidential	None
T-253	No Vent	Tank 253	Prior to 1977	Confidential	None
S075	075S	T-253 Scrubber	2003	NA	None
None	070Z	House-keeping vacuum system (vents inside building)	1998	NA	Z070 # 7 Baghouse
None	103K	House-keeping vacuum system (vents to laboratory hood)	1997	NA	K103 Lab Baghouse
K-1003	None	Chiller System	1977	NA	None

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1991B	May 23, 2003

2.0 General Conditions

2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2 Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM₁₀	Particulate Matter less than 10µm in diameter
CES	Certified Emission Statement	pph	Pounds per Hour
C.F.R. or CFR	Code of Federal Regulations	ppm	Parts per Million
CO	Carbon Monoxide	PSD	Prevention of Significant Deterioration
C.S.R. or CSR	Codes of State Rules	psi	Pounds per Square Inch
DAQ	Division of Air Quality	SIC	Standard Industrial Classification
DEP	Department of Environmental Protection	SIP	State Implementation Plan
FOIA	Freedom of Information Act	SO₂	Sulfur Dioxide
HAP	Hazardous Air Pollutant	TAP	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	TPY	Tons per Year
HP	Horsepower	TRS	Total Reduced Sulfur
lbs/hr or lb/hr	Pounds per Hour	TSP	Total Suspended Particulate
LDAR	Leak Detection and Repair	USEPA	United States Environmental Protection Agency
m	Thousand	UTM	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	VEE	Visual Emissions Evaluation
mm	Million	VOC	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

- 2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

- 2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

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

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

- 2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1 Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.
- [40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.2. Monitoring Requirements

- 3.2.1. None.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
 - d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition.
3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. Deviations.

- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
 1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
 2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
 3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
 4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

- 3.5.10. Reports of excess emissions.** Except as provided in 3.5.11, the owner or operator of any facility containing sources subject to 45CSR§21-5. shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:

- a. The name and location of the facility;
- b. The subject sources that caused the excess emissions;
- c. The time and date of first observation of the excess emissions; and
- d. The cause and expected duration of the excess emissions.

- e. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
- f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

[45CSR§21-5.2; CO-R21-97-41, III.3 (State-Enforceable only)]

- 3.5.11. **Variance.** If the provisions of 45CSR21 cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to 45CSR21 to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.
- [45CSR§21-9.3; CO-R21-97-41, III.3 (State-Enforceable only)]**

3.6. Compliance Plan

- 3.6.1. None.

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- a. 40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline).” Tank T-1004 is used to store an organic liquid containing HAPs, but is exempt from the control requirements because the liquid vapor pressure is less than 0.1 psia.

4.0 Catalyst Plant

4.1. Limitations and Standards

4.1.1. Emissions to the atmosphere shall not exceed the hourly and annual emission limits as set forth in the following table:

Emission Point	Source	Pollutant	Emission Limit	
			lb/hr	ton/yr
070A	[#3 Baghouse (A070)]	PM ₁₀	0.05	0.22
070B	[#2 Baghouse (B070)]	PM ₁₀	0.02	0.09
070C	[#1 Baghouse (C070)]	PM ₁₀	0.03	0.14
070D	[#5 Baghouse (D070)]	PM ₁₀	0.03	0.01
070E	[#4 Baghouse (E070)]	PM ₁₀	0.04	0.18
070G	[#6 Baghouse (G070)]	PM ₁₀	1.00	1.05
070H	Fired Heater (F-306) Process Equipment (Y-320) Cleaning Section (Y-320A) [Emission Reduction System (H070)]	CO	0.38	1.66
		NO _x	20.0	38.0
		PM ₁₀	0.83	3.64
		SO ₂	0.30	1.20
		VOC	4.1	18.0
070I	Tank (T-111)	VOC	0.10	0.21
070J	Feed Vessel	VOC	0.10	0.001
070K	Vessel (Y-201)	VOC	2.00	2.45
070Q	Loading Rack (070-04)	VOC	0.10	0.05
		nitric acid	0.01	0.002
070R	Drum Loading (070-05)	VOC	0.10	0.05
		nitric acid	0.01	0.002
070S	Cooling Zone 1 (Y-320B)	PM ₁₀	0.20	0.88
070T	Cooling Zone 2 (Y-320C)	PM ₁₀	0.10	0.05
075C	Tank (T-154B)	VOC	0.10	0.05
075D	Tank (T-155)	VOC	0.10	0.05
075E	Tank (T-154T)	VOC	0.10	0.05
075G	Tank (T-121), Tank (T-131)	VOC	0.10	0.05
075K	Tank (T-327), Tank (T-328)	nitric acid	0.17	0.006
075M	Tank (T-1004)	VOC	0.10	0.42

Compliance with the hourly PM₁₀ emission limits for 070A, 070B, 070C, 070D, 070E, 070G, 070H, 070S, and 070T shall demonstrate compliance with the less stringent hourly PM emission limits of 45CSR§7-4.1. Compliance with the hourly and annual nitric acid emission limits for 070Q, 070R, and 075K shall demonstrate that emissions are insignificant under 45CSR§7-10.6 and are not subject to the requirements of 45CSR§7-4.2 [45CSR13, R13-1991, A.1 and B.13; 45CSR§§7-4.1 and 10.6]

4.1.2. To determine compliance with the annual mass emission limits for each pollutant, except for NO_x, set forth in 4.1.1, engineering calculations and annual actual operating throughputs shall be used. [45CSR13, R13-1991, B.8]

4.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 4.1.4. Section 45CSR§7-3.1 is applicable to emission points 070A, 070B, 070C, 070D, 070E, 070G, 070H, 070S, and 070T. [45CSR13, R13-1991, B.13; 45CSR§7-3.1]

- 4.1.4. The provisions of 4.1.3 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (070A, 070B, 070C, 070D, 070E, 070G, 070H, 070S, and 070T) [45CSR13, R13-1991, B.13; 45CSR§7-3.2]
- 4.1.5. No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. [45CSR13, R13-1991, B.13; 45CSR§7-4.3]
- 4.1.6. Potential Hazardous Material Emissions – Persons responsible for manufacturing process source operations from which hazardous particulate matter material may be emitted such as, but not limited to, lead, arsenic, beryllium and other such materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluations of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Director working in conjunction with other appropriate governmental agencies. [45CSR13, R13-1991, B.13; 45CSR§7-4.13]
- 4.1.7. The permittee shall not cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operations and maintenance procedures, to minimize the emission of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate emissions reasonably achievable. [45CSR13, R13-1991, B.13; 45CSR§7-5.1]
- 4.1.8. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR13, R13-1991, B.13; 45CSR§7-5.2]
- 4.1.9. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. [45CSR13, R13-1991, B.13; 45CSR§7-9.1]
- 4.1.10. The permittee shall comply with the following applicable requirements from CO-R21-97-41 for the Catalyst Plant:
 - 4.1.10.1. On or after the effective date of Consent Order CO-R21-97-41 (October 20, 1997), the COMPANY shall, reduce VOC emissions in accordance with the alternate emissions reduction plan (AERP). The permittee shall reduce emissions as set forth in Attachment A of CO-R21-97-41; and shall continue to comply with such emissions reduction requirements and the emission limits set forth in Attachment A as Consent Order CO-R21-97-41 expressly provides. Compliance with the emission limits set forth in Attachment A of Consent Order CO-R21-97-41 shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR21. The Attachment A limits from Consent Order CO-R21-97-41 for the Catalyst Plant are provided in the Appendix of this permit. [45CSR§21-40 (State-Enforceable only); CO-R21-97-41, III.1 and Attachment A (State-Enforceable only); June 14, 2006 letter from J. L. Blatt]

- 4.1.10.2. At all times, including periods of start-up, shutdown, and malfunction, the COMPANY shall maintain and operate the VOC emitting sources and associated air pollution control devices subject to the provisions of Consent Order CO-R21-97-41 in a manner consistent with good air pollution control practices for minimizing emissions. Compliance with the emission limits set forth in Attachment A of Consent Order CO-R21-97-41 shall be demonstrated at all times unless exception periods are provided for in accordance with this paragraph. The COMPANY shall comply with 3.5.10 and 3.5.11 (45CSR§§21-5.2 and 9.3) with respect to all periods of non-compliance with the emission limitations and emission reduction requests set forth in Attachment A of Consent Order CO-R21-97-41 resulting from unavoidable malfunctions of equipment. In the event that the emission limitation and/or emission reduction requirements for a source listed in Attachment A of CO-R21-97-41 cannot be met during routine start-ups, shutdowns, or routine maintenance activities, the COMPANY shall, within 180 days of the effective date of Consent Order CO-R21-97-41 (October 20, 1997), submit an operation and VOC emissions mitigation plan for such periods. If such plan is submitted, it shall contain the information outlined in Attachment B of CO-R21-97-41 and provided in the Appendix of this permit, and shall become an Appendix to Consent Order CO-R21-97-41. The Director may require reasonable revisions to the COMPANY's plan if he or she finds the routine start-up, shutdown, or maintenance resulting in excess VOC emissions not addressed by the plan occur or that the plan fails to provide for operation in a manner consistent with good air pollution control practices for minimizing emissions. VOC emissions and associated control procedures conforming to the COMPANY's plan submitted under this provision shall not be subject to the variance approval process of 3.5.11 (45CSR§21-9.3) provided that the COMPANY maintains test, monitoring, operating, and maintenance records containing sufficient information and detail to enable the COMPANY and the Director to verify compliance with the plan and associated VOC emissions control requirements. These records shall be maintained on-site for not less than three (3) years and be made available to the Director or his or her authorized representative upon request. The Director also may request submission of copies of such records. **[45CSR§21-40 (State-Enforceable only); CO-R21-97-41, III.3 and Attachment B (State-Enforceable only)]**
- 4.1.10.3. Unless granted a variance pursuant to 3.5.11, the COMPANY shall operate all emission control equipment for those emission sources listed in Attachment A of Consent Order CO-R21-97-41, at all times when the production unit is in operation or when any VOC emitting activity is occurring. In the event that the control equipment is inoperable, the production unit shall be shut down or the activity shall be discontinued as expeditiously as possible. **[45CSR§21-40 (State-Enforceable only); CO-R21-97-41, IV.7 (State-Enforceable only)]**
- 4.1.11. **45CSR§21-37 Requirements for Equipment Leaks.** The permittee shall comply with all applicable requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment.” The pertinent equipment leak standards include Sections 45CSR§§21-37.3 through 37.8. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.3 through 37.8 and 37.1.c (State-Enforceable only); CO-R21-97-41, III.2 (State-Enforceable only)]**
- 4.1.12. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. (070H) **[45CSR13, R13-1991, B.12; 45CSR§2-3.1]**
- 4.1.13. The permittee must operate and maintain the Fired Heater (F-306), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures

are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **[45CSR34, 40CFR§63.7500(a)(3)]**

4.1.14. The permittee shall conduct a tune-up of the Fired Heater (F-306) every 5 years in accordance with the provisions of 40 CFR 63 Subpart DDDDD. Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. The Permittee may delay the burner inspection specified in Condition 4.1.14.1 until the next scheduled or unscheduled unit shutdown, but the Permittee must inspect each burner at least once every 72 months. If the Fired Heater is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. The tune-up shall include the following:

4.1.14.1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be performed at any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

4.1.14.2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

4.1.14.3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown).

4.1.14.4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;

4.1.14.5. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

4.1.14.6. Maintain on-site and submit, if requested by the Director, a tune-up report containing the information in paragraphs 4.1.14.6.1 through 4.1.14.6.3.

4.1.14.6.1. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

4.1.14.6.2. A description of any corrective actions taken as a part of the tune-up; and

4.1.14.6.3. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[45CSR34, 40CFR§63.7500(a)(1) and Table 3, 40CFR§63.7500(e), 40CFR§63.7515(d), 40CFR§63.7540(a), (a)(10)(i) through (vi), (12), and (13)]

4.2. Monitoring Requirements

4.2.1. The permitting shall conduct opacity monitoring for all emission points and equipment subject to an opacity limit under 45CSR7. These emission points include the following: 070A, 070B, 070C, 070D, 070E, 070G, 070S, 070T, and 070H. The opacity monitoring for particulate matter shall include:

- a. A visual evaluation of each emission unit with a visible emissions limit contained in this permit shall be performed at least once each calendar month during periods of normal facility operation. If a unit has any visible emissions observed during a monthly evaluation, a visible observation using 40 C.F.R. 60, Appendix A, Method 22 shall be performed.

If visible emissions from any of the emissions units are observed during these Method 22 observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the emission unit, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practical, but no later than one (1) month from the time of the observation.

A Method 22 observation or 45CSR7A evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.

- b. The visual evaluation required by this section shall not apply to visible emissions of NO_x from emission point 070H. The permittee shall correct any visible NO_x emission condition in a timely manner.

[45CSR13, R13-1991, B.1]

4.2.2. The permittee shall monitor the catalytic oxidation bed outlet gas temperature of the Emission Reduction System (H070) once per hour when catalyst is being fed through Y-320. The catalytic oxidation bed outlet gas temperature shall be measured with a temperature monitoring device installed downstream of the first oxidation bed. The temperature monitoring device shall have an accuracy/precision of at least $\pm 2\%$. The hourly catalytic oxidation bed outlet gas temperatures shall be averaged for each 24 hour period in order to obtain a daily average temperature. An excursion is defined as a daily average catalytic oxidation bed outlet gas temperature downstream of the first oxidation bed of less than 500 °C, except during periods of startup. Excursions trigger a system inspection and corrective action.

Failure of the temperature monitoring device shall result in transmitter readings to default to full scale value and shall initiate hardware failure alarm. Diagnostic testing of the temperature monitoring device and signal transmitter shall be performed annually.

[45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(b), 64.7(c), 64.7(d)]

4.2.3. The permittee shall monitor the NO_x concentration in the exhaust gas vent for the Emission Reduction System (H070) once per 24 hour period, when Y-320 and/or Y-320A are operating. Samples shall be taken from the exhaust stack, downstream of the Emission Reduction System (H070) and fired heater (F-306) vent using a nitrogen oxides analyzer with a minimum acceptable accuracy of $\pm 2\%$. A probe shall be inserted into the exhaust gas stream through a sample port. The sample port shall be sealed to prevent the ingress of air. An excursion is defined as an upper operating limit of NO_x concentration in control device exhaust gas of greater than 280 ppm_v. Excursions trigger a system inspection and corrective action; and the calculation of the NO_x emissions using the measured NO_x concentration and the stack gas flow rate (calculated using engineering methods and actual operating data during the time of the NO_x concentration measurement).

The nitrogen oxides analyzer span shall be set to obtain measurements that are accurate and representative of the monitored parameter. The analyzer shall be calibrated in accordance with manufacturer's specifications and recommendations. Analyzer calibration shall be performed using certified gases. The analyzer shall be calibrated at least every six months.

[45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(b), 64.7(c), 64.7(d)]

- 4.2.4. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring specified in 4.2.2 and 4.2.3, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **[45CSR§30-5.1.c; 40 C.F.R. §64.7(b)]**
- 4.2.5. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **[45CSR§30-5.1.c; 40 C.F.R. §64.7(c)]**
- 4.2.6. *Response to excursions or exceedances.*
- a. Upon detecting an excursion or exceedance, the owner or operation shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c; 40 C.F.R. §64.7(d)]

- 4.2.7. *Documentation of need for improved monitoring.* After approval of monitoring under 40 C.F.R. 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator

ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address then necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **[45CSR§30-5.1.c; 40 C.F.R. §64.7(e)]**

4.2.8. Quality Improvement Plan (QIP)

- a. Based on the results of a determination made under permit condition 4.2.6.b, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8(b) through (e). Refer to permit condition 4.5.2.b.iii for the reporting required when a QIP is implemented.
- b. If during a calendar quarter, an excursion (as defined under 4.2.2 and 4.2.3) occurred on more than five (5) percent of the days that the Emission Reduction System (H070) was operated, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to permit condition 3.3.1.

[40 C.F.R. §64.8; 45CSR§30-5.1.c.]

4.3. Testing Requirements

- 4.3.1. To determine compliance with the nitric acid mass emission standards set forth in 4.1.1, the permittee shall conduct tests in accordance with 45CSR7A upon the request of the Director of the Division of Air Quality. **[45CSR13, R13-1991, B.3]**
- 4.3.2. To determine compliance with the nitrogen oxides mass emission standards set forth in 4.1.1, the permittee shall conduct stack tests on a quarterly basis of the emission point designated as 070H. For the purpose of this permit, “quarterly basis” shall be defined as any successive three month period. The first quarterly stack test shall be conducted within ninety (90) days of startup of the modified equipment authorized by R13-1991B.

Additional testing shall be scheduled in thirty (30) to ninety (90) day periods, from the end of the previous calendar quarter (typically fifty (50) to seventy (70) days). In no circumstance shall the testing be scheduled in less than thirty (30) days from the end of the previous quarter without permission from the Director of the Division of Air Quality.

If an unscheduled shut-down of the unit occurs, testing shall be rescheduled as soon as practical after normal operation resumes. These stack tests shall be conducted at or near full production capacity and shall follow the procedures outlined in 40 C.F.R. 60, Appendix A, Method 7E – “Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure).” The calculation of the nitrogen oxides emissions shall be performed as follows:

$$E = K \times C \times Q$$

where:

E = NO_x mass emission rate, pph

K = 1.194 x 10⁻⁷, (lb/scf)/ppm_v

C = NO_x concentration, ppm_v

Q = 44,881 (pph) x 385 (scf/lb-mole) / 29 (lb/lb-mole)

[45CSR13, R13-1991, B.4]

- 4.3.3. To determine compliance with mass emission limits for particulate matter set forth in 4.1.1, and the visible emission standards of 45CSR7, the permittee shall conduct tests in accordance with 45CSR7A, upon the request of the Director of the Division of Air Quality. **[45CSR13, R13-1991, B.5]**
- 4.3.4. To determine compliance with the mass emission limits for volatile organic compounds set forth in 4.1.1, the permittee shall conduct tests in accordance with 40 C.F.R. 60, Appendix A, Method 18 and/or 25A – “Determination of Total Gaseous Nonmethane Organic Emissions as Carbon,” upon the request of the Director of the Division of Air Quality. **[45CSR13, R13-1991, B.6]**
- 4.3.5. In the event that the result from 4.4.3 (calculation of tons per year of nitrogen oxides emissions) exceeds thirty (30) tons, the Director of the Division of Air Quality reserves the discretion to invoke more frequent stack testing or use of a continuous emissions monitoring device to track such emissions. **[45CSR13, R13-1991, B.10]**
- 4.3.6. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR13, R13-1991, B.5 and B.13; 45CSR§7-8.1]**
- 4.3.7. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. **[45CSR13, R13-1991, B.13; 45CSR§7-8.2]**
- 4.3.8. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c and 37.9 (State-Enforceable only); CO-R21-97-41, III.2 (State-Enforceable only)]**

4.4. Recordkeeping Requirements

- 4.4.1. A record of each monthly visual evaluation conducted in accordance with 4.2.1 shall be maintained. The record shall include, at a minimum, the date and time, the emission point or equipment identification number, the results of the observation, and the name of the observer. Should a visible emission observation be required to be performed per 40 C.F.R. 60, Appendix A, Method 22 or Method 9, data records of each observation shall be maintained per the method requirements. **[45CSR13, R13-1991, B.1]**
- 4.4.2. The permittee shall maintain and operate all baghouse and any other air emissions control devices installed at the Catalyst Plant in accordance with proper operational guidelines to minimize emissions. The permittee shall keep accurate records of filter changes, maintenance activities, and malfunctions and other operational shutdowns of all baghouses and any other air emissions control devices installed at the Catalyst Plant.

The referenced baghouses and control devices include, but are not limited to those identified as: baghouses A070, B070, C070, D070, E070, and G070, and Emissions Reduction System H070.

For each malfunction of a control device that results in excess emissions, the following additional information must be recorded, at a minimum:

- a. The equipment involved and associated cause of the malfunction.
- b. Steps taken to correct the malfunction.
- c. Steps taken to minimize emissions during the malfunction.
- d. The duration of the malfunction.
- e. The estimated increase in emissions during the malfunction.
- f. Any changes or modifications to equipment or procedure that would help prevent future recurrences of the malfunction.

These records may be maintained electronically or in hard copy form, and made available for review upon the request of the Director of the Division of Air Quality.

[45CSR13, R13-1991, B.2]

- 4.4.3. To determine compliance with the nitrogen oxides mass emission limits set forth in 4.1.1, the permittee shall provide data and develop a mathematical model relating reactor operating rate to NO_x emissions. The quarterly stack tests required in 4.3.2 shall be used as the basis of the model.

Within fifteen (15) days of the end of each calendar month, NO_x emissions will be calculated from model data for the preceding month. Annual NO_x emissions will be calculated as the sum of the monthly emissions on a twelve (12) month rolling total basis. Upon the request of the Director of the Division of Air Quality, NO_x emission data calculated on a daily basis shall be provided. The permittee shall respond to such request within ninety (90) days. **[45CSR13, R13-1991, B.7]**

- 4.4.4. The permittee shall maintain records of data which will allow for the computation of the daily production rate and hours of operation. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request. **[45CSR13, R13-1991, B.9]**

- 4.4.5. All records required under the terms and conditions of R13-1991B shall be kept and maintained onsite for a period of not less than five (5) years from the date of observation. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request. All reports required under the terms and conditions of this permit shall be forwarded to the current address of the WV DEP Division of Air Quality, to the attention of the Director of the Division of Air Quality. **[45CSR13, R13-1991, B.11]**
- 4.4.6. **45CSR§21-37 Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.10, with the exception that all records shall be maintained for a period of five (5) years instead of three (3) years. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c and 37.10 (State-Enforceable only); 45CSR§30-5.1.c; CO-R21-97-41, III.2 (State-Enforceable only)]**
- 4.4.7. The permittee shall maintain the following records in the manner specified under Condition 3.4.2:
- a. Records of the hourly catalytic oxidation bed outlet gas temperature measurements and the daily average catalytic oxidation bed outlet gas temperature. The temperature monitoring data shall be recorded using either the process distributed control system, operating log, or other equivalent method approved by the Director.
 - b. For each occurrence that the daily average catalytic oxidation bed outlet gas temperature downstream of the first oxidation bed is less than 500 °C, a record shall be maintained indicating the date of occurrence and all corrective action taken.
 - c. Date(s) and time(s) of startup of Y-320 along with date(s) and time(s) of commencement of steady-state operation of Y-320.
 - d. Records of all diagnostic testing of the oxidation bed outlet gas temperature monitoring device and signal transmitter.
 - e. Records of all instances where an oxidation bed outlet gas temperature monitoring device fails and there is a hardware failure alarm.
 - f. Records of the corrective action taken when both redundant oxidation bed outlet gas temperature monitoring devices fail.

[45CSR§30-5.1.c; 40 C.F.R. §64.9(b)]

- 4.4.8. The permittee shall maintain daily records of the NO_x concentration measured in the Emission Reduction System (H070) exhaust gas vent. These records shall be maintained either by electronic or field operating log. Records shall include the date, time, and person's name performing sampling and the results of the sampling. For each occurrence that the NO_x concentration exceeds 280 ppm_v, a record shall be maintained indicating the following: 1) the date of the occurrence and all corrective action taken; and 2) the NO_x emissions calculated using the measured NO_x concentration and the stack gas flow rate (calculated using engineering methods and actual operating data during the time of the NO_x concentration measurement).

Records of the NO_x emissions shall include all process data used to calculate the stack gas flow rate and shall show all NO_x emissions and stack gas flow rate calculations.

Records of all periodic testing/checks, calibration, and maintenance per manufacturer's specifications and recommendations shall be maintained.

All records shall be maintained in the manner specified in Condition 3.4.2.

[45CSR§30-5.1.c; 40 C.F.R. §64.9(b)]

- 4.4.9. *General recordkeeping requirements for 40 C.F.R. Part 64 (CAM).* The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 (Condition 4.2.8) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). **[40 C.F.R. § 64.9(b); 45CSR§30-5.1.c.]**
- 4.4.10. To demonstrate compliance with Condition 4.1.14, the permittee shall maintain a record of the Fired Heater (F-306) tune-up in accordance with Condition 4.4.13.b.
- 4.4.11. To demonstrate compliance with Condition 4.4.12, the permittee must maintain a copy of the Fired Heater (F-306) one-time energy assessment.
- 4.4.12. The permittee must keep a record of each notification and report that they submitted, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that they submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv). **[45CSR34, 40 C. F. R. §63.7555(a)(1)]**
- 4.4.13. The permittee must keep the records specified in Conditions 4.4.10 through 4.4.12 as follows:
- The records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
 - As specified in 40 C.F.R. §63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
 - The Permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years.

[45CSR34, 40 C. F. R. §63.7560]

4.5. Reporting Requirements

- 4.5.1. **45CSR§21-37 Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§§21-37.11 and 5.2. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c, 37.11, and 5.2 (State-Enforceable only); CO-R21-97-41, III.2 (State-Enforceable only)]**

4.5.2. *General reporting requirements for 40 C.F.R. Part 64 (CAM)*

- a. On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit monitoring reports to the DAQ in accordance with permit condition 3.5.6.
- b. A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. § 64.9(a); 45CSR§30-5.1.c.]

4.5.3. The permittee shall submit the results of stack testing required under Condition 4.3.2 in accordance with Section 3.3.1.d, with the exception that reports shall be submitted within 90 days of completion of the test. **[45CSR§30-5.1.c]**

4.5.4. The permittee must submit a compliance report for the Fired Heater (F-306) every five years. The first report will cover the reporting period of January 31, 2016 to December 31, 2021. Each subsequent 5-year report will cover the period from January 1 to December 31st. The compliance reports shall be submitted by March 15th following the reporting period. **[45CSR34, 40 C. F. R. §§63.7550(a) and (b)]**

4.5.5. A compliance report must contain the following information:

- (i) Company and Facility name and address.
- (ii) Process unit information, emissions limitations, and operating parameter limitations.
- (iii) Date of report and beginning and ending dates of the reporting period
- (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
- (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

Compliance reports required by Condition 4.5.4 shall be submitted electronically to the EPA via the CEDRI. The permittee must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that a report is due, submit the report to the Director. **[45CSR34, 40 C. F. R. §§63.7550(c)(5)(i) through (iii), (xiv), (xvii), and (h)(3)]**

4.6. Compliance Plan

4.6.1. None.

**Appendix – Consent Order CO-R21-97-41
ATTACHMENTS A AND B**

ATTACHMENT A

Process Area Description and Identification Number	Name of Process Equipment Vented to Control Device and Equipment Identification Number	Maximum Theoretical Emissions (MTE) of the Source (lbs/hr)	Emission Point Identification Number	Control Device Identification Number	Control Device Description	Efficiency of Control Device	Maximum Allowable Hours of Operation (hrs/yr)	Maximum Allowable VOC Emissions	
								lbs/hr	tons/yr
EO Catalyst ¹	Header to Emission Reduction/System ¹	381.00 ¹	070H ¹	H070 ¹	Oxidation/Reduction ¹	99 ¹	8760 ¹	4.10 ¹	18.00 ¹

¹ Revised based on June 14, 2006 letter from J. L. Blatt.

