West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin III
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Union Carbide Corporation
Institute Plant
EO Catalyst/Glycol Recovery (Group 1 of 5)
R30-03900005-2006

John A. Benedict
Director

Permit Number: **R30-03900005-2006**
Permittee: **Union Carbide Corporation**
Facility Name: **Institute Plant**
Business Unit: **EO Catalyst/Glycol Recovery (Group 1 of 5)**
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
Mailing Address:	P. O. Box 8361, South Charleston, WV 25303
Telephone Number:	(304) 747-7000
Type of Business Entity:	Corporation
Facility Description:	EO Catalyst and Glycol Recovery Plants
SIC Codes:	2869
UTM Coordinates:	432.00 km Easting • 4,284.31 km Northing • Zone 17

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.Group

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
		EO Catalyst Plant			
A070	070A	#3 Baghouse	1977	NA	None
B070	070B	#2 Baghouse	1977	NA	None
C070	070C	#1 Baghouse	1977	NA	None
D070	070D	#5 Baghouse	1977	NA	None
E070	070E	#4 Baghouse	1977	NA	None
G070	070G	#6 Baghouse	1977	NA	None
Z070	070Z	#7 Baghouse	1998	NA	None
K103	103K	Lab Baghouse	1997	NA	None
070-04	070Q	Loading Rack	1977	NA	None
070-05	070R	Drum Loading	1977	NA	None
T-111	070I	Tank 111	1977	Confidential	None
T-121	075G	Tank 121	1977	Confidential	None
T-131	075G	Tank 131	1977	Confidential	None
T-154B	075C	Tank 154B	1977	Confidential	None
T-154T	075E	Tank 154T	1977	Confidential	None
T-155	075D	Tank 155	1977	Confidential	None
T-208	075I	Tank 208	1977	Confidential	None
T-326	075B	Tank 326	1977	Confidential	None
T-327	075K	Tank 327	1977	Confidential	None
T-328	075K	Tank 328	1977	Confidential	None
T-527	075A	Tank 527	1977	Confidential	None
T-1004	075M	Tank 1004	1977	Confidential	None
T-1796	No Vent	Tank 1796	Prior to 1977	Confidential	None
J070	070J	Feed Vessel	1977	Confidential	None
H070	070H	Emission Reduction System	1977	NA	None
F-306	070H	Fired Heater	1977	Confidential	None
S&H A, B, C, D, E, G, and Z	070A, 070B, 070C, 070D, 070E, 070G, and 070Z	Bins and Handling	1977	NA	A070, B070, C070, D070, E070, G070, and Z070
Y-201	070K	Vessel Y201	1977	Confidential	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-202	None	Vessel V202	1977	Confidential	None
Y-320	070H	Process Equipment	1977/2004	Confidential	H070
Y-320A	070H	Cleaning Section	1977/2004	NA	H070
Y-320B	070S	Cooling Zone 1	2004	NA	None
Y-320C	070T	Cooling Zone 2	2004	NA	None
S075	075S	T1796 Scrubber	2003	NA	None
K-1003	None	Chiller System	1977	NA	None
		Glycol Recovery Plant			
V26805	080A	Forecolumn 26805 and Jets	July 1994	Confidential	None
V26802	080A	Refining Column 26802 and Jets	March 1992	Confidential	None
V2206	080B	Evaporator 2206 and Jets	May 1960	Confidential	None
C320	085EE	HON Column	Aug. 1999	Confidential	None
ADSI	085FF	Adsorber #1	Oct. 1993	Confidential	None
ADS2	085GG	Adsorber #2	Oct. 1993	Confidential	None
T1005	085Q	Tank 1005	March 1942	1,450,000 Gal.	None
T1010	085R	Tank 1010	June 1942	1,450,000 Gal.	None
T1401	085EE	Tank 1401	Feb. 1948	10,000 Gal.	None
T1402	085EE	Tank 1402	May 1948	10,000 Gal.	None
T1403	085EE	Tank 1403	Feb. 1948	10,000 Gal.	None
T1404	085EE	Tank 1404	Feb. 1948	10,000 Gal.	None
T1405	085EE	Tank 1405	Feb. 1948	10,000 Gal.	None
T1406	085EE	Tank 1406	Feb. 1948	10,000 Gal.	None
T1408	085EE	Tank 1408	Feb. 1948	10,000 Gal.	None
T1411	085L	Tank 1411	Oct. 1953	10,000 Gal.	None
T1413	085M	Tank 1413	June 1942	10,000 Gal.	None
T1414	085N	Tank 1414	June 1942	10,000 Gal.	None
T1415	085H	Tank 1415	July 1951	10,000 Gal.	None
T1416	085P	Tank 1416	June 1942	10,000 Gal.	None
T1417	085W	Tank 1417	Aug. 1942	6,000 Gal.	None
T1418	085U combines to 085W	Tank 1418	March 1966	10,000 Gal.	None
T1423	085F	Tank 1423	June 1942	10,000 Gal.	None
T1424	085I	Tank 1424	Dec. 1947	10,000 Gal.	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T1426	085T	Tank 1426	May 1944	10,000 Gal.	None
T1427	085K	Tank 1427	June 1960	10,000 Gal.	None
T1428	085E	Tank 1428	Aug. 1959	1,000 Gal.	None
T1491	085EE	Tank 1491	April 1966	10,000 Gal.	None
T1492	085EE	Tank 1492	March 1964	30,000 Gal.	None
T1493	085EE	Tank 1493	March 1964	30,000 Gal.	None
T1494	085AA	Tank 1494	Jan. 1956	10,000 Gal.	None
T1495	085BB	Tank 1495	Jan. 1956	10,000 Gal.	None
T1496	085V combines with 085W	T1496	Nov. 1955	10,000 Gal.	None
T1497	085EE	Tank 1497	Nov. 1955	10,000 Gal.	None
T1498	085CC	Tank 1498	Jan. 1956	10,000 Gal.	None
T1499	085DD	Tank 1499	Jan. 1956	10,000 Gal.	None
T1601	085A	Tank 1601	June 1943	2,400,000 Gal.	None
T1602	085BB	Tank 1602	June 1943	2,400,000 Gal.	None
T1615	085C	Tank 1615	Sept. 1959	500,000 Gal.	None
T1616	085D	Tank 1616	May 1960	500,000 Gal.	None
T1617	085X	Tank 1617	Oct. 1963	500,000 Gal.	None
T1618	085Y	Tank 1618	Sept. 1959	280,000 Gal.	None
T1619	085S	Tank 1619	Sept. 1959	280,000 Gal.	None
TT080	080TT	Tank Truck Residue Loading	NA	NA	None
L5TC	L5TC	West Tank Car Rack	NA	NA	None
L1B	B1L	Barge Loading operated by Logistics Group	NA	NA	None

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.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**PM_{10}**	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	**SO_2**	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 *or* mmbtu/hr	Million British Thermal Units per Hour		
MMCF/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour		
NA	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, firm, corporation, association or public agency 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, suffer, allow or permit 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 and/or 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 or owner/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). A copy of this notice should be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.
[40 C.F.R. 61 and 45CSR15]

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. NA

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.

[WV Code § 22-5-4(a)(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. 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 Enforcement and Permits Review (3AP12)
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 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. NA

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 DDDDD – "National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters." The process heater (F-306) operated by the EO Catalyst Plant is a natural gas fired unit less than 10 MMBTU/hr and is therefore exempt.

b. 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. EO Catalyst Plant Requirements

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 NO_x PM_{10} SO_2 VOC	0.38 20.0 0.83 0.30 4.1	1.66 38.0 3.64 1.20 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 nitric acid	0.10 0.01	0.05 0.002
070R	Drum Loading (070-05)	VOC nitric acid	0.10 0.01	0.05 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 PM_{10} 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, B.13; 45CSR§7-9.1]**

4.1.10. **MON Requirements for EO Catalyst Plant.** The permittee shall comply with all applicable requirements of 40 C.F.R. 63, Subpart FFFF - "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing" no later than May 10, 2008 if it is determined that the EO Catalyst Plant is an affected source. If subject to 40 C.F.R. 63, Subpart FFFF, the permittee is required by 40 C.F.R. §63.2520(d)(1) to submit a notification of compliance status report no later than 150 days after the compliance date of May 10, 2008, containing the information specified in 40 C.F.R. §63.2520(d)(2). Upon submittal of the notification of compliance status report required by 40 C.F.R. §63.2520(d)(1), if required, the permittee shall also submit a complete Title V application for a significant modification to the facility's Title V Operating Permit. **[45CSR34; 40 C.F.R. §§63.2445(b), 63.2520(d), 63.2520(d)(1), and 63.2520(d)(2); 45CSR§30-6.5.b.2]**

4.1.11. The permittee shall comply with the following applicable requirements from CO-R21-97-41 for the EO Catalyst Plant:

4.1.11.1. 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 EO Catalyst Plant are provided in APPENDIX A 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]**

4.1.11.2. 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 APPENDIX A 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)]**

4.1.11.3. 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)]**

4.1.12. **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)]**

4.1.13. 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, R13-1991B, B.12; 45CSR§2-3.1]**

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, R13-1991B, B.1]

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, R13-1991B, 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
$K = 1.194 \times 10^{-7}$, (lb/scf)/ppm_v
$C = NO_x$ concentration, ppm_v
$Q = 44{,}881$ (pph) x 385 (scf/lb-mole) / 29 (lb/lb-mole)

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

4.4.2. The permittee shall maintain and operate all baghouse and any other air emissions control devices installed at the EO 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 EO 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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, R13-1991B, 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)]**

4.5. 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)]**

4.6. Compliance Plan

4.6.1. NA

5.0. Glycol Recovery Plant Requirements

5.1. Limitations and Standards

5.1.1. Maximum emission rates from emission point 085EE shall be limited as follows:

Pollutant	lbs/hr
Ethylene Glycol	0.031
Methanol	4.45
Diethylene Glycol	0.0083
2-methyl-1,3-dioxolane	0.088

[45CSR13, R13-1215, A.1]

5.1.2. Maximum emission rates from emission point 080TT shall be limited to the following rates while using ethylene glycol as a diluent:

Pollutant	lbs/hr
Ethylene Glycol	0.11
Diethylene Glycol	1.0×10^{-4}

or to the following rates while using diethylene glycol as a diluent:

Pollutant	lbs/hr
Ethylene Glycol	0.0025
Diethylene Glycol	0.0058

[**45CSR13, R13-1215, A.2]**

5.1.3. Emissions from storage tanks 1494, 1495, 1498, and 1499 venting to the atmosphere from the following emission points shall not exceed:

Emission Point	lbs/hr	lbs/yr
085AA (Tank 1494)		
Methanol	0.88	440.5
2-methyl-1,3, dioxolane	0.03	20.8
085BB (Tank 1495)		
Methanol	0.88	440.5
2-methyl-1,3, dioxolane	0.03	20.8
085CC (Tank 1498)		
Methanol	0.88	440.5
2-methyl-1,3, dioxolane	0.03	20.8
085DD (Tank 1499)		
Methanol	0.88	440.5
2-methyl-1,3, dioxolane	0.03	20.8

[45CSR13, R13-1127, A.1]

5.1.4. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator of a Group 2 process vent with a TRE index value greater than 4.0 shall maintain a TRE index value greater than 4.0. *(V26805, V26802, V2206)* **[45CSR34; 40 C.F.R. §63.113(e)]**

5.1.5. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 5.4.3. *(Tank 1005, Tank 1010, Tank 1401, Tank 1402, Tank 1403, Tank 1404, Tank 1405, Tank 1406, Tank 1408, Tank 1411, Tank 1413, Tank 1414, Tank 1415, Tank 1416, Tank 1418, Tank 1423, Tank 1424, Tank 1426, Tank 1427, Tank 1491, Tank 1492, Tank 1493, Tank 1494, Tank 1495, Tank 1496, Tank 1497, Tank 1498, Tank 1499, Tank 1601, Tank 1602, Tank 1615, Tank 1616, Tank 1617, Tank 1618, and Tank 1619)* **[45CSR34; 40 C.F.R. §63.119(a)(3)]**

5.1.6. **Group 2 Transfer Operations.** For each Group 2 transfer rack, the owner or operator shall maintain records as required in 5.4.4. *(080TT)* **[45CSR34; 40 C.F.R. §63.126(c)]**

5.1.7. **Group 2 Process Wastewater Streams.** For wastewater streams that are Group 2 for table 9 compounds, the owner or operator shall comply with the recordkeeping requirements specified in 5.4.5. *(GR-01 – Byproduct Run – Forecolumn/Refining Still Jet Condensate Collection Pot, GR-02 – Regular Run – Forecolumn/Refining Still Jet Condensate Collection Pot, GR-03 – Regular Run – Tails Collected from HON Column when less than 1,000 ppm HAP, GR-04 – Methanol Run – Forecolumn/Refining Still Jet Condensate Collection Pot, and GR-05 – Methanol Run – Tails collected from HON Column when less than 1,000 ppm HAP)* **[45CSR34; 40 C.F.R. §63.132(a)(3)]**

5.1.8. **Maintenance Wastewater.** Each owner or operator of a source subject to 40 C.F.R. 63, Subpart F shall comply with the requirements of 5.1.8.1 through 5.1.8.3 for maintenance wastewaters containing those organic HAP's listed in table 9 of 40 C.F.R. 63, Subpart G. **[45CSR34; 40 C.F.R. §63.105(a)]**

5.1.8.1. The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turn-around) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall: **[45CSR34; 40 C.F.R. §63.105(b)]**

a. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. **[45CSR34; 40 C.F.R. §63.105(b)(1)]**

b. Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and **[45CSR34; 40 C.F.R. §63.105(b)(2)]**

c. Specify the procedures to be followed when clearing materials from process equipment. **[45CSR34; 40 C.F.R. §63.105(b)(3)]**

5.1.8.2. The owner or operator shall modify and update the information required by 5.1.8.1 as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure. **[45CSR34; 40 C.F.R. §63.105(c)]**

5.1.8.3. The owner or operator shall implement the procedures described in 5.1.8.1 and 5.1.8.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). **[45CSR34; 40 C.F.R. §63.105(d)]**

5.1.9. **Equipment Leaks.** The permittee shall comply with all applicable standards of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." The pertinent equipment leak standards include: 40 C.F.R. §§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.166 (Standards: Sampling connection systems), 63.167 (Standards: Open-ended valves or lines), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), 63.170 (Standards: Surge control vessels and bottom receivers), 63.171 (Standards: Delay of repair), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service). **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §§63.162, 63.163, 63.166, 63.167, 63.168, 63.169, 63.170, 63.171, and 63.174; 45CSR§27-4.1 (State-Enforceable only); CO-R27-99-14-A(92), III.3 (State-Enforceable only)]**.

5.1.10. The permittee shall maintain a TRE index value greater than 1.0 without use of VOC emission control devices. *(V26805 and V26802)* **[45CSR16; 40 C.F.R. §60.662(c)]**

5.1.11. The permittee shall comply with the following applicable requirements from CO-R21-97-41 for the Glycol Recovery Plant:

5.1.11.1. 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 Glycol Recovery Plant are provided in APPENDIX A 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]**

5.1.11.2. 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 APPENDIX A 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)]**

5.1.11.3. 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)]**

5.1.12. **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)]**

5.1.13. Emissions to the air of ethylene oxide from the Forecolumn (V26805) and the Refining Still (V26802) shall not exceed the following:

Emission Source	Emission Point	Ethylene Oxide Emission Limit after BAT	
		lb/hr	lb/yr
Glycol Forecolumn (V26805)	080A	0.08	400
Refining Still (V26802)	080A	0.08	660

[45CSR§27-3.1 (State-Enforceable only); CO-R27-99-14-A(92), III.2 and Attachment B (State-Enforceable only)]

5.2. Monitoring Requirements

5.2.1. NA

5.3. Testing Requirements

5.3.1. **Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.180. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.180]**

5.3.2. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 5.1.11, except as otherwise approved by the Director. [**45CSR§21-41; CO-R21-97-41, III.5 (State-Enforceable only)]**

5.3.3. **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)]**

5.4. Recordkeeping Requirements

5.4.1. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator of a Group 2 process vent with a TRE index value greater than 4.0 as specified in 5.1.4, shall maintain records of measurements, engineering assessments, and calculations performed to determine the TRE index value of the vent stream, submitted as part of the Notification of Compliance Status report dated September 19, 1997 or any amendments thereto. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in 40 C.F.R. §63.115(d)(1). *(V26805, V26802, V2206)* **[45CSR34; 40 C.F.R. §63.117(b)]**

5.4.2. **Group 2 Process Vents with a TRE index value greater than 4.0.** Each owner or operator subject to the provisions of 40 C.F.R. 63, Subpart G and who elects to demonstrate compliance with the TRE index value greater than 4.0 under 5.1.4 shall keep up-to-date, readily accessible records of: **[45CSR34; 40 C.F.R. §63.118(c)]**

5.4.2.1. Any process changes as defined in 40 C.F.R. §63.115(e). **[45CSR34; 40 C.F.R. §63.118(c)(1)]**

5.4.2.2. Any recalculation of the TRE index value pursuant to 40 C.F.R. §63.115(e). **[45CSR34; 40 C.F.R. §63.118(c)(2)]**

(V26805, V26802, V2206)

5.4.3. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 2 status and is in operation. *(Tank 1005, Tank 1010, Tank 1401, Tank 1402, Tank 1403, Tank 1404, Tank 1405, Tank 1406, Tank 1408, Tank 1411, Tank 1413, Tank 1414, Tank 1415, Tank 1416, Tank 1418, Tank 1423, Tank 1424, Tank 1426, Tank 1427, Tank 1491, Tank 1492, Tank 1493, Tank 1494, Tank 1495, Tank 1496, Tank 1497, Tank 1498, Tank 1499, Tank 1601, Tank 1602, Tank 1615, Tank 1616, Tank 1617, Tank 1618, and Tank 1619)* **[45CSR34; 40 C.F.R. §63.123(a)]**

5.4.4. **Group 2 Transfer Operations.** Each owner or operator of a Group 2 transfer rack shall record, update annually, and maintain the information specified in 5.4.4.1 through 5.4.4.3 in a readily accessible location on site: **[45CSR34; 40 C.F.R. §63.130(f)]**

5.4.4.1. An analysis demonstrating the design and actual annual throughput of the transfer rack; **[45CSR34; 40 C.F.R. §63.130(f)(1)]**

5.4.4.2. An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. **[45CSR34; 40 C.F.R. §63.130(f)(2)]**

5.4.4.3. An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. **[45CSR34; 40 C.F.R. §63.130(f)(3)]**

a. For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. **[45CSR34; 40 C.F.R. §63.130(f)(3)(i)]**

b. For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. **[45CSR34; 40 C.F.R. §63.130(f)(3)(ii)]**

(080TT)

5.4.5. **Group 2 Process Wastewater Streams.** The owner or operator shall keep in a readily accessible location the records specified in 5.4.5.1 through 5.4.5.4. **[45CSR34; 40 C.F.R. §63.147(b)(8)]**

5.4.5.1. Process unit identification and description of the process unit. **[45CSR34; 40 C.F.R. §63.147(b)(8)(i)]**

5.4.5.2. Stream identification code. **[45CSR34; 40 C.F.R. §63.147(b)(8)(ii)]**

5.4.5.3. For existing sources, concentration of table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine the concentration. **[45CSR34; 40 C.F.R. §63.147(b)(8)(iii)]**

5.4.5.4. Flow rate in liter per minute. **[45CSR34; 40 C.F.R. §63.147(b)(8)(iv)]**

(GR-01 – Byproduct Run – Forecolumn/Refining Still Jet Condensate Collection Pot, GR-02 – Regular Run – Forecolumn/Refining Still Jet Condensate Collection Pot, GR-03 – Regular Run – Tails Collected from HON Column when less than 1,000 ppm HAP, GR-04 – Methanol Run – Forecolumn/Refining Still Jet Condensate Collection Pot, and GR-05 – Methanol Run – Tails collected from HON Column when less than 1,000 ppm HAP)

5.4.6. **Maintenance Wastewater.** The owner or operator shall maintain a record of the information required by 5.1.8.1 and 5.1.8.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). **[45CSR34; 40 C.F.R. §63.105(e)]**

5.4.7. **Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.181. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.181]**

5.4.8. To demonstrate compliance with 5.1.10, the permittee shall keep up-to-date, readily accessible records of:

5.4.8.1. Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

5.4.8.2. Any recalculation of the TRE index value performed pursuant to 40 C.F.R. §60.664(f); and

5.4.8.3. The results of any performance test performed pursuant to the methods and procedures required by 40 C.F.R. §60.664(d).

(V26805 and V26802) **[45CSR16; 40 C.F.R. §§60.665(h), (h)(1), (h)(2), and (h)(3)]**

5.4.9. **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)]**

5.5. Reporting Requirements

5.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c), except that semi-annual periodic monitoring reports are due within 60 calendar days following June 30 and December 31, for each calendar year. The reports cover the periods January 1 through June 30 and July 1 through December 31. **[45CSR34; 40 C.F.R. §§63.152(a)(4) and 63.152(c)]**

5.5.2. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 5.5.1. **[45CSR34; 40 C.F.R. §§63.152(a)(5) and 63.152(d)(1)]**

5.5.3. Reserved. ~~Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under 5.5.2, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, 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, 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 shall consist of a telephone call (or facsimile (FAX) transmission) to the Director 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, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i). [45CSR34; 40 C.F.R. §63.10(d)(5)(ii)]~~

5.5.4. **Group 2 Process Vents with a TRE index value greater than 4.0.** Whenever a process change, as defined in 40 C.F.R. §63.115(e), is made that causes a Group 2 process vent to become a Group 1 process vent, the owner or operator shall submit a report within 180 calendar days after the process change as specified in 40 C.F.R. §63.151(j). The report shall include: **[45CSR34; 40 C.F.R. §63.118(g)]**

5.5.4.1. A description of the process change; **[45CSR34; 40 C.F.R. §63.118(g)(1)]**

5.5.4.2. The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under 40 C.F.R. §63.115(e) and recorded under 5.4.2; and **[45CSR34; 40 C.F.R. §63.118(g)(2)]**

5.5.4.3. A statement that the owner or operator will comply with the provisions of 40 C.F.R. §63.113 for Group 1 process vents by the dates specified in 40 C.F.R. 63, Subpart F. **[45CSR34; 40 C.F.R. §63.118(g)(3)]**

(V26805, V26802, V2206)

5.5.5. **Group 2 Process Vents with a TRE index value greater than 4.0.** Whenever a process change as defined in 40 C.F.R. §63.115(e), is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next periodic report. The report shall include: **[45CSR34; 40 C.F.R. §63.118(h)]**

5.5.5.1. A description of the process change, **[45CSR34; 40 C.F.R. §63.118(h)(1)]**

5.5.5.2. The results of the recalculation of the TRE index value required under 40 C.F.R. §63.115(e) and recorded under 5.4.2, **[45CSR34; 40 C.F.R. §63.118(h)(2)]**

5.5.5.3. A statement that the owner or operator will comply with the requirements specified in 40 C.F.R. §63.113(d). **[45CSR34; 40 C.F.R. §63.118(h)(3)]**

(V26805, V26802, V2206)

5.5.6. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator is not required to submit a report of a process change if one the conditions listed in 5.5.6.1 through 5.5.6.4 is met. **[45CSR34; 40 C.F.R. §63.118(k)]**

5.5.6.1. The process change does not meet the definition of a process change in 40 C.F.R. §63.115(e), or **[45CSR34; 40 C.F.R. §63.118(k)(1)]**

5.5.6.2. The vent stream flow rate is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is less than 0.005 standard cubic meter per minute, or **[45CSR34; 40 C.F.R. §63.118(k)(2)]**

5.5.6.3. The organic HAP concentration of the vent stream is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is less than 50 parts per million by volume, or **[45CSR34; 40 C.F.R. §63.118(k)(3)]**

5.5.6.4. The TRE index value is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is greater than 4.0. **[45CSR34; 40 C.F.R. §63.118(k)(4)]**

(V26805, V26802, V2206)

5.5.7. **Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.182. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.182]**

5.5.8. The permittee shall submit to the Administrator semiannual reports of any recalculation of the TRE index value, as recorded under 5.4.8. *(V26805 and V26802)* **[45CSR16; 40 C.F.R. §§60.665(l) and (l)(7)]**

5.5.9. **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)]**

5.6. Compliance Plan

5.6.1. NA

APPENDIX A – 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
Glycol Recovery 080	Methanol Distillation	9.10[1]	080A	None	No Device	0	8,760[1]	9.10[1]	6.60[1]
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.

ATTACHMENT B

ROUTINE/NORMAL OPERATING & MAINTENANCE SCENARIOS RESULTING IN EXCESS EMISSIONS*

Process Area Description and Identification Number	Emission Point Identification Number	Description of Excess Emission Scenario SU – Start-up SD – Shutdown M – Maintenance (Describe Activity)	Description of Controls and Measures used to Minimize VOC Emissions (During each Scenario)	Duration of Excess Emission Scenario (Hours)	Typical/Maximum Number of Events per Year /	Average/Peak VOC Emissions per Event (Pounds per Hour) /

*Do not include malfunction scenarios