ADEQ
OPERATING
AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation #26:

Permit #: 1085-AOP-R1

IS ISSUED TO:

Eastman Chemical Company, Arkansas Eastman Division

2800 Gap Road

Batesville, AR 72503

AFIN: 32-00036

IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

And

IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith Michaels

Date

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Table 1 - List of Acronyms

A.C.A.	Arkansas Code Annotated
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSN	County Serial Number
HAP	Hazardous Air Pollutant
lb/hr	Pound per hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate matter
PM_{10}	Particulate matter smaller than ten microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Ton per year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	Eastman Chemical Company
AFIN:	32-00036
PERMIT NUMBER:	1085-AOP-R1
FACILITY ADDRESS:	2800 Gap Road Batesville, AR 72501
MAILING ADDRESS	P.O. Box 2357 Batesville, AR 72503-2357
COUNTY:	Independence
CONTACT POSITION:	J.W. Ross
TELEPHONE NUMBER:	(870)-698-5361
REVIEWING ENGINEER:	Paula Parker
UTM North - South (X):	3953.5 km
UTM East - West (Y):	633.5 km

SECTION II: INTRODUCTION

Arkansas Eastman Division of Eastman Chemical Company, located in Batesville, Arkansas, is a world-class supplier of specialty organic chemical intermediates used in the manufacture of color film and photographic paper, paints and coatings, plastics and bottle polymers, medical supplies, prescription medicines, food supplements, household detergents, and agricultural products.

Summary of Permit Activity

This permit is being issued in response to a Permit Appeal Resolution (PAR, Docket No. 02-006-P) concerning Air Permit 1085-AOP-R0. Changes based upon the PAR include:

- the deletion of individual unit pound-per-hour emission limits for Hazardous Air Pollutants (HAPs), given the specific compliance mechanisms in Plantwide Conditions 10 and 11 for non-criteria air pollutants, including HAPs;

- the addition of a plantwide condition (Plantwide Condition 25) to clarify which permit deviations must be reported by the next business day, and which deviations may be deferred until the next semi-annual report;

- the removal of the carbon monoxide (CO) stack testing requirement for the Chemical Waste Destructor (SN-6M03-05), given the continuous emissions monitoring systems (CEMS) already required at this source;

- the addition of a mechanism by which the facility may use a correlation study to petition the Department for less frequent (non-MACT) stack testing of NO_X, SO_2, and/or PM at SN6M03-05, once compliance has been attained with original stack test requirements;

- the revision of conditions related to 40 CFR Part 63, Subpart EEE, in order to reflect the most recent version of the interim rule, including associated corrections and amendments as published in the CFR;

- a modification of former Plantwide Condition 23, clarifying that a compliance report is required for state-only enforceable terms and conditions (instead of a compliance certification for state-only requirements);

This permit also incorporates the requirements of 40 CFR Part 63, Subpart GGG, *National Emission Standards for Pharmaceuticals Production*.

Regulations

The following table contains the regulations applicable to this permit.

Table 2 – Regulations

Source (SN)	Regulation
All Sources	Arkansas Air Pollution Code (Regulation 18)
All Sources	Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19)
All Sources	Regulations of Arkansas Air Permit Operating Program (Regulation 26)
Organic Chemical Intermediates Section	40 CFR Part 63 Subpart GGG
TF-13 (SN-5N03-43) WB-06 (SN-6M-03-08) WB-07 (SN-6M-03-09) WB-08 (SN-6M-03-10) WB-09 (SN-6M-03-11) TFS-60 PT-60 PT-68 PT-69A PT-69B PB-51 PB-52 PM-50A PM-50B TBA-100 RNS-100 (SN-4P94-11) T-280 (SN-5N03-51) T-265 (SN-5N03-53) T-251 T-220 T-211A T-211B T-241 PA-50	40 CFR Part 60 Subpart Kb

Source (SN)	Regulation
T-270 RA-TF-01 AA-100 TBA-75 FAA-TF-01 FAA-TF-02 FAA-TF-101 FAA-TF-102 PROD-TF-02 PROD-TF-15 PROD-TF-302 RA-TF-01 RA-TF-02 SPS-TF-04 SPS-TF-204	40 CFR Part 60 Subpart Kb
Utilities Section (coal processing activities)	40 CFR Part 60 Subpart Y
Organic Sulfonation Section. DIPB Production. (Equipment Leaks)	40 CFR Part 60 Subpart VV
5M01-02	40 CFR Part 60 Subpart NNN
DIPB Production (equipment Leaks, benzene)	40 CFR Part 61 Subpart J
DIPB Production (equipment leaks, VHAP)	40 CFR Part 61 Subpart V
Tank T-210 (benzene vessel)	40 CFR Part 61 Subpart Y
DIPB Production T9, D9 (benzene waste streams).	40 CFR Part 61 Subpart FF
Facility (waste management/recovery operations).	40 CFR Part 63 Subpart DD
6M03-05	40 CFR Part 63 Subpart EEE

Eastman Chemical is also classified as a major stationary source as defined by 40 CFR 52.21, *Prevention of Significant Deterioration of Air Quality* (PSD).

The following table is a summary of emissions from the facility. The following table contains cross-references to the pages containing specific conditions and emissions for each source. This table, in itself, is not an enforceable condition of the permit.

Table 3 – Emission Summary

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
Total Allowable Emissions			PM_{10} SO_2 VOC CO NO_x Inorganics* Organic HAPs**	84.5 1,440.2 173.6 424.3 179.9 241.6 ***	340.3 6,308.1 715.6 1,858.3 787.8 940.0 715.6	N/A
Organic Chemical Intermediates						
5N09-01	Regenerative Thermal Oxidizers (2 Units)		PM_{10} SO_2 VOC CO NO_x Inorganics* Organic HAPs**	3.5 8.4 42.1 5.3 8.7 10.0 ***	15.3 36.8 184.1 23.2 38.1 43.8 184.1	23
OCI-FUG	Organic Chemical Intermediates Fugitive Emissions		VOC Organic HAPs**	3.3 ***	14.3 14.3	23
Utilities						
6M01	Coal Pile		PM_{10}	0.1	0.1	47

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
6M01-01	3 Coal Fired Boilers (70 MMBtu/hr each)		PM_{10} SO_2 VOC CO NO_x Inorganics* Organic HAPs**	46.9 1,418.7 0.5 384.4 111.5 227.4 ***	205.3 6,213.8 2.3 1,683.7 488.2 877.9 2.3	47
6M01-01A	Coal Bunker Fabric Filter		PM_{10}	0.2	0.7	47
6M06-01	#4 Boiler (78 MMBtu/hr) Natural Gas		PM_{10} SO_2 VOC CO NO_x Organic HAPs**	1.1 1.2 0.5 2.8 13.3 ***	4.8 5.3 2.0 12.3 58.3 2.0	47
6M07-01	#5 Boiler (221 MMBtu/hr) Natural Gas		PM_{10} SO_2 VOC CO NO_x Organic HAPs**	1.1 0.1 2.9 18.0 22.0 ***	4.9 0.6 12.7 78.8 96.4 12.7	47
Organic Sulfonation						
5M01-01	SPS-S-01	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M01-02	SPS-VE-03	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
5M01-05	PROD-VE-04	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M01-06	SPS-S-02	Scrubber	VOC Organic HAPs**	0.5 ***	1.8 1.8	54
5M01-07	PROD-VE-05	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M01-08	EX-VE-01	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M01-09	SPS-S-03	Scrubber	VOC Organic HAPs**	0.2 ***	0.9 0.9	54
5M03-01	PROD-VE-02	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M03-02	SPS-VE-01	Scrubber	VOC Organic HAPs**	0.2 ***	0.8 0.8	54
5M04-01	SPS-VE-02	Scrubber	VOC Organic HAPs**	0.6 ***	2.3 2.3	54
5M04-02	PROD-VE-01	Scrubber	VOC Organic HAPs**	0.2 ***	0.7 0.7	54
5M04-10	SPS-VE-04	Scrubber	SO_2	0.1	0.4	54

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
5M05-01	PROD-VE-03	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M05-02	EX-C-20	Filter	PM_{10}	0.1	0.4	54
5M11-01	SPS-S-201	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M11-04	PROD-VE-304	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M11-05	SPS-S-202	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M11-06	PROD-VE-305	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M11-07	EX-VE-401	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M11-08	SER-VE-501	Scrubber	PM_{10}	1.1	4.7	54
5M11-09	SER-VE-502	Filter	PM_{10}	1.1	0.9	54
5M11-15	SPS Supersack Load Hopper Dust Control System		PM_{10}	0.1	0.3	54
5M13-01	PROD-VE-302	Scrubber	VOC Organic HAPs**	0.1 ***	0.4 0.4	54
5M16-01	Supersack Loadout Dust Control System		PM_{10}	0.1	0.4	54

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
5M18-01	SER-VE-01	Continuous Dust Control System	PM_{10}	0.9	3.9	54
5M18-02	SER-VE-02	Central Vacuum Cleaning System	PM_{10}	3.4	3.7	54
5M18-03	SER-VE-03	Bin Vacuum Cleaning System	PM_{10}	0.3	0.9	54
5MNOBS-TNK	Aggregate Tank (4 tanks)		VOC Organic HAPs**	0.4 ***	1.8 1.8	54
NOBS-FUG	Fugitive Emissions from Organic Sulfonation Process		VOC Organic HAPs**	6.2 ***	27.0 27.0	54
5M01-TSP	Dust Control Maintenance Fugitives		PM_{10}	3.1	0.1	54
Chemical Destructor						
6M03-05	Chemical Waste Destructor (50 MMBtu/hr)		PM_{10} SO_2 VOC CO NO_x Inorganics* Organic HAPs**	20.0 11.6 2.4 11.4 23.0 4.0 ***	87.6 50.8 10.5 49.9 100.7 17.5 10.5	59
DEST-FUG	Destructor Fugitives		VOC Organic HAPs**	1.2 ***	5.1 5.1	59
Solvent Recovery						

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
4PSR-00	Solvent Recovery Facility		VOC Organic HAPs**	27.8 ***	79.0 79.0	76
SR-FUG	Solvent Recovery Fugitive Emissions		VOC Organic HAPs**	12.7 ***	55.6 55.6	76
Waste Water Treatment						
7K01-01	Wastewater Treatment System		VOC Organic HAPs**	45.7 ***	200.0 200.0	78
7M01-02	EQ-C-05	Wastewater Decant Tank	VOC Organic HAPs**	0.8 ***	3.5 3.5	78
Polymer Production						
5NPOLY-TNK	Tank Bubble (4 Tanks at Polymer Production)		VOC Organic HAPs**	4.7 ***	20.6 20.6	79
POLY-FUG	Fugitive Emissions from Polymer Production		VOC Organic HAPs**	1.8 ***	7.8 7.8	79
Isopropyl Benzene						
5NDIPB-TNK	Tank Bubble (8 tanks)		VOC Organic HAPs**	0.5 ***	2.2 2.2	80
5N03-48	D-10	Scrubber	Inorganics*	0.1	0.4	80

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
5N03-52	T-251	Tank	VOC Organic HAPs**	0.4 ***	1.8 1.8	80
5N03-54	Flare		PM_{10} SO_2 VOC CO NO_x Organic HAPs**	0.1 0.1 0.9 2.4 1.4 ***	0.4 0.4 3.9 10.4 6.1 3.9	80
5N03-55	D-270	Scrubber	Inorganics*	0.1	0.4	80
5Q94-01	T-241	Tank	VOC Organic HAPs**	0.4 ***	1.8 1.8	80
DIPB-FUG	Fugitive Emissions from Isopropyl Benzene Process		VOC Organic HAPs**	5.7 ***	25.0 25.0	80
Kilo Lab (Research and Development)						
4P03-05	Kilo Lab Hood		Insignificant activity.			
Storage Tanks and Miscellaneous Sources						
5N03TK-01	Process Tanks (35 Tanks)		VOC Organic HAPs**	8.0 ***	35.0 35.0	85
6N01-02	Diesel	Tank	VOC Organic HAPs**	0.1 ***	0.4 0.4	85

PES #	ARK ID#	Description	Pollutant	Emission Rates		Cross Reference Page
				lb/hr	tpy	
6N01-03	Gasoline	Tank	VOC Organic HAPs**	1.4 ***	6.0 6.0	85
7N02-01	Cement Plant Fabric Filter		PM_{10}	0.3	1.3	85
Acrylic Resins Process						
5N07-06	Acrylic Resin Bagging System		PM_{10}	0.09	0.40	89
5N07-FUG	Acrylic Resin Fugitives		PM_{10} VOC Organic HAPs**	0.13 0.27 ***	0.58 1.79 1.79	89

The ARK ID# is for Arkansas Eastman use only.

Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

Note: Acrylic acid is an organic HAP, rather than an inorganic compound. The Permit Application Rate Table for the Acrylic Resin modification indicated no inorganic compounds. Combining the HAP (acrylic acid) with the VOC produces the numbers listed above.

SECTION III: PERMIT HISTORY

262-A	The permit was issued to Arkansas Eastman in December of 1974 for the installation of a facility to manufacture various specialty and organic intermediate chemicals through batch operations. Three 70 MM Btu/hr coal-fired boilers were installed to provide steam for the processes.
262-AR-1	Issued in 1976, this permit recognized suspension of construction plans for the hydroquinone plant, authorized a higher number of reactors for the chemical intermediates plant, acknowledged the use of ESPs for control of boiler emissions, and permitted the chemical destructor at 9 pounds of particulate per hour.
487-A	Permit was issued in 1978. This permit allowed the facility to add 8 batch reactors and 10 storage tanks. Each of the reactors were vented through a caustic scrubber. The particulate emissions were routed through fabric filters.
262-AR-2	This permit, issued in 1978, authorized an expansion of the chemical products and intermediates. Emission control was provided by caustic and water scrubbers. The permit required the facility to develop an ambient air monitoring program in order to evaluate emission concentrations beyond the property line.
262-AR-3	Issued on July 25, 1980. This permit approved an expansion in production to allow a greater variety and larger quantity of chemicals. New process equipment included reactors, filters, dryers, distillation columns, and storage tanks. Emission control equipment included scrubbers using sodium hydroxide or water. The permit also allowed the installation of a new coal fired boiler (193 MM Btu/hr). The coal boiler utilized an ESP for particulate control, and the boiler was limited to coal at or below 1 percent sulfur, and a heat content of 12,500 Btu per pound. This permitting action required PSD review.
PSD-AR-311	Issued by the U.S. Environmental Protection Agency on March 27, 1981. This was a PSD permit which addressed the installation and operation of (coal-fired) Boiler #4 and the associated coal handling system. The permit imposed a coal sulfur limit of 1 percent by weight and an ash content of 20 percent by weight. The permit also specified limits on throughput, opacity, emissions, monitoring, and stack testing for the new boiler.
262-AR-4	Permit was issued on September 25, 1981. This permit allowed the installation of additional process equipment and a coal-fired boiler. The permit also authorized cessation of certain continuous monitoring equipment, subsequent to the demonstration that criteria pollutant concentrations were well below the NAAQS.

262-AR-5	Permit revision was issued on July 23, 1982. This permit authorized an increase in sulfur content of the coal fueling the coal boilers. The sulfur limit was raised from 1 to 4 percent. Upon evaluation of emission increases and dispersion modeling, this permitting action did not require PSD review.
262-AR-6	Issued on March 21, 1986. This permit authorized the installation and operation of an oxidized cellulose facility. Emission control was provided by a packed column scrubber using sodium hydroxide.
744-A	Issued on November 5, 1984. This permit was issued to allow the operation of a new isopropylbenzene production process. Emission control included a fabric filter and a water scrubber for the catalyst storage and transfer system. Reaction and refining emissions were routed to a flare.
829-A	Issued on July 14, 1987. This permit authorized the installation and operation of one 78 MMBtu/hr steam boiler. Nitrogen oxides emissions from this boiler were estimated at above the 40 ton/yr Prevention of Significant Deterioration (PSD) threshold, and the permit application was therefore required to undergo PSD review. The BACT analysis found that emissions controlled by either staged combustion/low excess air burners or flue gas recirculation would not substantially improve ambient air quality and were not economically feasible. No additional controls were therefore required, and standard-register burners were approved for use.
981-A	Issued on February 20, 1990. This permit was issued to allow the operation of a new polymer production facility. Emissions were controlled by conservation vents on the tanks and 2-stage scrubbers on the centrifuges, reactors, and distillation columns.
268-I	Permit issued on March 25, 1976 in order to permit the facility's incinerator.
1085-A	Issued on January 11, 1991. This permit was issued to modernize some of the older permits and to put all of the company's permits into one package. This permit also required Eastman to install and operate a Regenerative Thermal Oxidizer (RTO) on the batch organic chemicals production facilities in buildings 5N01 and 5N03 for the control of VOC emissions by July, 1992.
1085-AR-1	Issued on May 14, 1992. This permit involved the installation of a 221 MMBtu/hr natural gas fired boiler (6M-07-01), which required a PSD permit due to significant nitrogen oxide emissions (98 tons per year).
1085-AR-2	Issued on February 9, 1994. This permit was issued to document the burning of wastewater sludge in all three of the coal fired boilers at the facility. Eastman proposed to dewater wastewater treatment plant sludge before atomizing it using compressed air, into the high temperature combustion zone of the boilers.

1085-AR-3	Issued on April 18, 1994. The modification involved the addition of a packed-bed water scrubber to source 5N01-45, a 24,000 gallon aboveground storage tank which stores crotonaldehyde. This was an uncontrolled source prior to this minor permit modification. Potential emissions from this source were calculated to be 5.7 tons per year after the controls.
1085-AR-4	Issued on October 20, 1994. This permit involved venting several temporary storage tanks to the RTOs. The main purpose for this modification was to control the odor generated from the use of ethyl mercaptan, which is mainly used to odorize natural gas. The following tanks were vented to the RTO: 5N01-11, 5N01-12, 5N01-13, 5N01-14, 5N01-16, 5N01-19, 5N01-20, 5N01-21, 5N01-29, 5N01-30, 5N01-34, 5N01-35, 5N01-36, 5N01-37, 5N01-50, 5N01-51, 5N01-52, 5N01-53, 5N01-60, 5N01-62, 5N03-09, 5N03-10, and 5N03-61.
1085-AR-5	Issued on October 18, 1994. This was a minor modification for producing a new polymer in the Polymer Production Facility. Emissions from this modification were controlled by the RTOs, scrubbers, and conservation vents on tanks.
1085-AR-6	Issued on June 6, 1995. This modification involved modifying existing solvent recovery equipment used to recover additional solvent and to remove potential odor producing compounds by destroying them in the existing RTOs. The main purpose of this modification was to control the odor generated from the use of ethyl mercaptan. Ethyl mercaptan is mainly used to odorize natural gas. The odor threshold of ethyl mercaptan is 0.4 ppb. To eliminate this odor, the facility proposed that the scrubber atmospheric vents be connected to the RTOs. Additionally, the permittee proposed to modify the existing wastewater treatment system by closing the existing equalization basin, discontinuing the use of the existing diversion basin for processing wastewater, and constructing aboveground tanks for equalization/neutralization and diversion of the wastewater. The system modification included the addition of two 30,000 gallon pump station clearwells, two 750,000 gallon equalization tanks, and one 1,000,000 gallon diversion tank. Also a new lift station, neutralization system, and a floating organic skimmer and decant system was to be provided. The existing diversion basis was to be used to capture noncontact cooling water and storm water runoff should it become contaminated.
1085-AR-7	Permit was issued on November 27, 1995. This permit was issued to raise the particulate emission limit on the RTOs.

1085-AR-8	Permit was issued on May 8, 1996. This permit covered routing emissions from eleven waste storage tanks to the coal-fired boilers to abate odors within the utilities area of the plant, to burn waste solvent fuel in the boilers at the rates certified under the Boiler and Industrial Furnace regulation (BIF), to increase the rate of rubber and paper pellet fuel burning to 100% of the total heat input of the coal-fired boilers, and to construct one 20,000 gallon storage tank containing a final polymer product.
1085-AR-9	Permit was issued on November 12, 1996. This permit involved increasing potential VOC emission from the Waste Chemical Destructor from 0.5 tpy to 8.8 tpy due to an anticipated future increase in business and a corresponding increase in the amount of wastes that could potentially be generated; and to increase potential inorganic emissions from 16.3 tpy to 43.8 tpy from the two RTOs due to an anticipated increase in chlorinated compounds production.
1085-AR-10	Permit was issued on March 11, 1997. This permit involved the construction and operation of a continuous dust collection system and central vacuum cleaning system. Five additional emission points discharging from venturi scrubbers and fabric filters, and an emission point designating fugitive emission from maintenance activities, were created with the startup of this dust collection and vacuum cleaning system. This permit also allowed the organic sulfonation facility to produce alternative products, which required minor changes in the process chemistry to meet new markets. Eight new emission points were created with this modification.
1085-AOP-R0	This permit (1085-AOP-R0) was issued in order to satisfy the requirements of Title V of the Clean Air Act. This permit also incorporated the requirements of 40 CFR Part 60, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*, promulgated on September 30, 1999. In addition, the facility was authorized to: burn wood chips in the three coal-fired boilers; install a system of tanks, strippers, dryers, and distillation columns necessary to recover dimethyl sulfoxide from wastewater; incorporate a project to collect and reduce the accumulation of process dust within the organic sulfonate manufacturing area; install a small-scale laboratory for research and development activities; re-route emissions from 23 tanks to the Regenerative Thermal Oxidizer (RTO); replace five waste storage tanks; and to re-route three distillation column vents to the Regenerative Thermal Oxidizer (RTO) control system for the purpose of odor abatement.

SECTION IV: EMISSION UNIT INFORMATION

Organic Chemical Intermediates: 5N09-01, OCI-FUG

Process Description

Arkansas Eastman's batch organic chemical intermediates facilities are located in Buildings 5N01, 5N03, and 5N07. These production buildings contain multi-purpose/product equipment which may produce a variety of chemicals. The contained or captured vapors from the equipment in both batch production buildings are vented through a collection system to the RTO units via a common duct. Volatile organic compounds (VOCs) are destroyed by combustion.

The two RTOs are designated by source number 5N09-01. Fugitive emissions from organic chemical intermediates are designated as source number OCI-FUG.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The lb/hr rates are based on maximum measured test data. [Regulation No. 19 §19.501 et seq. effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 4 – Maximum Criteria Emission Rates for Organic Chemical Intermediates

PES #	Description	Pollutant	lb/hr
5N09-01	Regenerative Thermal Oxidizer (2 Units)	PM_{10} SO_2 VOC CO NO_x	3.5 8.4 42.1 5.3 8.7
OCI-FUG	Fugitives	VOC	3.3

2. The permittee shall not exceed the emission rates set forth in the following table. The lb/hr rates are based on maximum measured test data. [Regulation No.§18.801 effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 5 – Maximum Non-Criteria Emission Rates for Organic Chemical Intermediates

PES #	Description	Pollutant	lb/hr
5N09-01	Regenerative Thermal Oxidizer (2 Units)	PM Inorganics* Organic HAPs**	3.5 10.0 ***
OCI-FUG	Fugitives	Organic HAPs**	***

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Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

3. The permittee shall perform testing of 5N09-01 (RTO) within 120 days of permit issuance for SO_2, VOC, CO, and NO_x, using Methods 6C, 25A, 10, and 7E, respectively. The VOC destruction efficiency shall be determined during the Method 25A testing. Subsequent testing shall be performed every five (5) years to coincide with the renewal of the permit. Testing at 5N09-01 shall conform with the requirements of Plantwide Conditions 3 and 4. [§19.702 of Regulation 19 and 40 CFR Part 52 Subpart E]

4. The permittee shall not exceed 20% opacity as measured by Method 9 at 5N09-01 (RTOs) during normal operations. [§19.503 of Regulation 19, and 40 CFR Part 52 Subpart E]

5. If visible emissions in excess of 20% are detected from 5N09-01 (RTO), then the permittee will conduct corrective action. The results of these observations and corrective action shall be kept on site and made available for inspection upon request. Opacity reading will be conducted in accordance with the Facility Operating Plan dated May 28, 2003. Opacity observations at the RTOs shall not be required during times when the RTOs are being "baked out." [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]

6. The permittee shall continuously monitor and record the temperature in the combustion chamber of the RTOs during normal operations. [§19.703 of Regulation 19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

7. The permittee shall maintain the temperature in the combustion chamber of the RTOs during normal operations as outlined in the Facility Operating Plan dated May 28, 2003. [§19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

40 CFR 63 Subpart GGG - National Emission Standards for Pharmaceutical Production

APPLICABILITY

8. A portion of this facility is subject to 40 CFR Part 63, Subpart GGG, National Standards for Pharmaceuticals Production. Applicable requirements include the following conditions [§19.304 of Regulation 19 and 40 CFR §63.1250]:

Affected Source

a. The permittee is an affected source subject to 40 CFR Part 63, Subpart GGG as defined in 40 CFR §63.1250(a). The source is an existing source with a compliance date of October 21, 2002. [40 CFR §63.1250(a)]

General Provisions Requirements

b. The provisions of Subpart A, specified in Table I of Subpart GGG are the only general provisions that apply to an affected source subject to this subpart. [40 CFR §63.1250(c)]

Storage Tank Ownership

c. The requirements of §63.1250(e), storage tank ownership determination, do not apply until such a time the permittee either installs or activates a tank for use in an applicable Pharmaceutical Manufacturing Process (PMPU). The permittee does not currently have storage tanks subject to this requirement. [40 CFR §63.1250(e)]

Compliance Date

d. The compliance date for the existing affected source is October 21, 2002. [40 CFR §63.1250(f)(1)]

Applicability except during periods of startup, shutdown, and malfunction

e. The permittee shall comply with all applicable requirement of 40 CFR 63, Subpart GGG except that emission limitations shall not apply during periods of startup, shutdown, and malfunction. [40 CFR §63.1250(g)]

Consistency with other Regulations

f. The permittee shall identify in the Notice of Compliance Status report [the report was submitted on March 20, 2003] required by §63.1260(f) the compliance options cited in §63.1250(h)(1) through (6) for those regulations identified that may overlap Subpart GGG. [40 CFR §63.1250(h)]

i. The permittee will be subject to MACT standards with upcoming compliance dates including the Pesticide Active Ingredient (PAI) MACT, and upon promulgation, the Miscellaneous Organic NESHAP (MON rule). These regulations are not specifically mentioned in the overlap section of the MACT (Subpart GGG). [40 CFR §63.1250(h)(1)]

ii. The permittee may elect to comply with the monitoring recordkeeping and reporting requirements of either 40 CFR Part 63, Subpart GGG or RCRA Subparts AA, BB, CC for process vents, equipment leaks, and containers/storage tanks covered under both regulations. [40 CFR §63.1250(h)(2)]

iii. A storage tank with a fixed roof, closed-vent system and control device in accordance with NSPS Kb, must comply with Subpart GGG monitoring, recordkeeping, and reporting requirements for that vessel. Currently the permittee has no tanks in Subpart GGG applicable service. [40 CFR §63.1250(h)(3)]

iv. Equipment subject to Subpart I of this part may elect to comply with either the provisions of §63.1255 or the provisions of Subpart H of this part for all such equipment. The permittee does not have equipment in Subpart I or Subpart H applicable service. [40 CFR §63.1250(h)(4)]

v. The permittee does not operate any process subject to the Polyether Polyols MACT. [40 CFR §63.1250(h)(6)]

STANDARDS: GENERAL

9. The permittee shall control HAP emissions to levels specified in this section on and after the compliance dates specified in §63.1250(f) [the compliance date for an existing source is specified as October 21, 2002]. Initial compliance with the emission limits is demonstrated in accordance with the provisions of §63.1257 [*Test Methods and Compliance Procedures*], and compliance is demonstrated in accordance with the provisions of §63.1258 [*Monitoring Requirements*]. [40 CFR §63.1252]

Opening of a safety device

a. The opening of a safety device, as defined in §63.1251, definitions, is allowed at any time conditions require it to do so to avoid unsafe conditions. [40 CFR §63.1252(a)]

Closed-vent systems

b. If the permittee installs a by-pass line that could divert a vent stream away from a control device used to comply with the requirements of §63.1253 [*storage tanks*], §63.1254 [*process vents*], and §63.1256 [*wastewater provisions*], the permittee shall comply with the requirements of §63.1252(b)(1) and (2).

The permittee operates regenerative thermal oxidizers (RTOs), which have emergency dampers meeting the definition of a safety device of §63.1251. By-pass lines do not exist on this closed-vent system and control device. [40 CFR §63.1252(b)(1) and (2)]

Heat exchange systems

c. The permittee shall comply with the requirements in §63.1252(c)(1) of this section for heat exchange system that cool process equipment or materials used in pharmaceutical manufacturing operations except as provided by §63.1252(c)(2). [40 CFR §63.1252(c)(1)]

Heat exchangers (HON) requirements

d. Applicable heat exchange systems shall be treated according to the provisions of §63.104 [*HON Heat Exchangers*] except that monitoring shall be no less than quarterly. [40 CFR §63.1252(c)(1)]

Heat exchangers (cGMP) option

e. For identifying leaking heat exchange systems of equipment, which meet current good manufacturing practice (cGMP) requirements of 21 CFR Part 211. The permittee may elect to use the physical integrity of the reactor as a surrogate of the heat exchange system leaks around the reactor.

Unit D1-01 meets the criteria of this subpart, cGMP, so the physical integrity of the equipment (pressure vessel) is used as the surrogate indicator of heat exchange system leaks. [40 CFR §63.1252(c) and (c)(2)]

Emissions averaging

f. The permittee may choose to comply with the provisions of §63.1253 [*storage tanks*] and §63.1254 [*process vents*] by using emissions averaging requirements specified in §63.1257(g) and (h) except as provided in §63.1252(d)(1). [40 CFR §63.1252(d)]

At this time, the permittee does not choose to opt for an emissions averaging compliance method.

Pollution prevention alternative

g. The permittee may choose, except as provided in §63.1252(e)(1) of this section, to meet the pollution prevention alternative requirement specified in either §63.1252(e)(2) or (3) of this section, in lieu of the requirements specified in §63.1253 [*tanks*], §63.1254 [*process vents*], §63.1255 [*LDAR*], and §63.1256 [*wastewaters*]. Compliance shall be demonstrated through the procedures in §63.1257(f). Any Pharmaceutical Manufacturing Process Unit (PMPU) for which the permittee seeks to comply by using the pollution prevention alternative shall begin with the same starting material(s) and end with the same product(s). The permittee

shall not comply with the pollution prevention alternative by eliminating any steps of a process by transferring the step offsite and to another manufacturing location.

The permittee presently does not choose to opt for the P2 alternative.

Control requirements for certain liquid streams in open systems within a PMPU

h. The permittee does not operate any liquid streams in open systems as described in §63.1252(f). Therefore, this requirement is not applicable. [40 CFR §63.1252(f)]

Control requirements for halogenated vent streams that are controlled by combustion devices

i. If a combustion device is used to comply with the provisions of §63.1253 [*storage tanks*], §63.1254 [*process vents*], or §63.1256(h) [*wastewater vent streams*] for a halogenated vent stream, then the vent stream shall be ducted to a halogen reduction device such as, but not limited to, a scrubber, before it is discharged to the atmosphere. The halogen reduction device must reduce emissions by amounts specified in either §63.1252(g)(1) or (2) of Subpart GGG.

The permittee does not manage any halogenated vent streams in its PMPU. Therefore, this requirement is not applicable. If halogenated compounds are to b e vented from the PMPU, the permittee shall comply with the requirements of this subpart. [40 CFR §63.1252(g)]

Planned routine maintenance for centralized combustion control devices

j. The permittee does not operate any non-dedicated PMPU's during periods of planned routine maintenance for centralized combustion control devices (CCCD) and is not subject to this citation. [40 CFR §63.1252(h)]

STANDARDS: Storage Tanks

10. The requirements of §63.1253 do not apply until such a time the permittee either installs or activates a storage tank for use in an applicable Pharmaceuticals Manufacturing Process Unit. [40 CFR §63.1253]

STANDARDS: Process Vents – Existing Sources

11. The permittee shall comply with the requirements in either §63.1254(a)(1) [*process-based emission reduction*] and (3) [*individual vent emission reduction*], or §63.1254(a)(2) [*process-based annual mass limit*] and (3) [*individual vent emission reduction*]. Initial compliance with the required emission limits or reductions in §63.1254(a)(1) through (3) are demonstrated in accordance with the initial compliance procedures described in §63.1257(d) [*Initial Compliance with Process Vents*], and continuous compliance is demonstrated in accordance with the monitoring requirements in [*Monitoring*]. [40 CFR §63.1254(a)]

Process-based emission reduction requirement

a. If the permittee chooses the compliance option in §63.1254(a)(1), uncontrolled HAP emissions from the sum of all process vents with a process that are not subject to the requirements of §63.1254(a)(3)[*individual vent emission reduction requirement*] shall be reduced by 93% or greater by weight, as specified in §63.1254(a)(1)(ii) [*process-based emission reduction requirement*]. Notification of changes in the compliance method shall be reported according to the procedures in §63.1260(h) [*notification of process change]*.

   The permittee has chosen not to comply with this compliance option. Notification of changes in the compliance method shall be reported according to the procedures in §63.1260(h) [*notification of process change]*.

Process-based annual mass limit

b. If the permittee chooses the compliance option in §63.1254(a)(2), the permittee shall not allow actual HAP emissions from the sum of all process vents within a process (individual PMPU) not to exceed 900 kg (1894 lbs) in any 365-day period. Actual HAP emissions from the sum of all process vents within processes (all PMPUs) complying with §63.1254(a)(2)(i) are limited to a maximum of 1,800 kg (3,968 lbs) in any 365-day period.

   Initial compliance is demonstrated by determining controlled HAP emissions by:

   (1) Computing the uncontrolled emissions from the PMPU and,

   (2) By applying a demonstrated control efficiency to obtain "controlled HAP emissions"

   The process is described in the Test Methods and Compliance Procedures section Subpart GGG §63.1257(d)(1)(ii)(A). The permittee has chosen the process-based annual mass limit option for initial compliance. [40 CFR §63.1254(a)(2)]

c. Emissions from vents that are subject to the requirements of §63.1254(a)(3) [*individual vent emission reduction*] and emissions from vents that are controlled in accordance with the procedures in §63.1254(c)[*alternative standards*] may be excluded from the sums calculated in §63.1254(a)(2)(i) and (ii).

   Emissions from vents subject to 98% HAP control or to less than 20 ppmv and that are meeting the alternative standard requirements do not have to be included in the 900 kg or 1,800 kg actual HAP emissions sums in §63.1254(a)(2)(i) and (ii). [40 CFR §63.1254(a)(2)(iii)]

d. The permittee may switch from compliance with §63.1254(a)(2) [*process-based annual mass limit*] to compliance with §63.1254(a)(1) [*process-based reduction*] after at least one year of operation in compliance with the §63.1254(a)(2) [*process-based annual mass limit*]. Notification of such a change in the compliance method shall be reported according to the procedures in §63.1260(h) [*notification of process change]*. [40 CFR §63.1254(a)(2)(iv)]

Individual vent emission reduction requirements

e. If uncontrolled HAP emissions from a process vent exceeds 25 tons per year and the flow weighted average flowrate (FRA) is less than or equal to the flowrate index (FRI), the uncontrolled HAP emissions from the vent must be controlled to 98%, unless the vent is "grandfathered", installed on or before April 2, 1997.

The permittee's RTOs were installed in 1992 and are "grandfathered" under the language of §63.1254(a)(3)(ii) and (A)(1), which requires a HAP emissions reduction greater than or equal to 93% by weight but less than 98% by weight. [40 CFR §63.1254(a)(3)]

STANDARDS: EQUIPMENT LEAKS

12. Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector and instrumentation system in OHAP service. In OHAP service means that the equipment either contains or contacts a fluid, liquid or gas, that is at least 5% by weight total OHAP. [40 CFR §63.1255]

General equipment leak requirements

a. The provisions of §63.1255(a) apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, control devices, and closed-vent systems that are intended to operate in OHAP service 300 hours or more during a calendar year within a source subject to this subpart. [40 CFR §63.1255(a)]

LDAR (Leak Detection and Repair) Provision summary

b. An attached table provides a summary of the equipment leak requirements of Subpart GGG. Because of the complexities of the LDAR requirements, this table should be considered a reference tool only and the regulations should be referenced when developing a detailed plan of compliance. The permittee shall develop a comprehensive LDAR program to fully meet the Subpart GGG equipment leak requirements including developing a list of equipment and identification numbers subject to the requirements and a monitoring schedule. Connectors, except those determined to be unsafe-to-monitor, difficult to monitor, or inaccessible, do not have to be individually identified, but the lines must be identified. Physical tagging of components is not required by 40 CFR Part §63.1255(a)(7) and §63.1255(g)(2)(i)(C). [40 CFR §63.1255(a)(1)]

Table 6 – Summary of Equipment Leak Requirements of Subpart GGG

Table 6, Summary of Equipment Leak Requirements for Subpart GGG[1]						
Equipment Pharma MACT/HON	Design Requirements/ Excemptions	Monitoring Frequency	Method	Leak Limit	Calculations	Recordkeeping Requirements (40 CFR §63.1255(g))
Pumps in Light Liquid Service (63.1255(c))		Quarterly with Instrument (If 10% of pumps or three of the pumps in the group of the process, leak, then monitor monthly) Weekly visual inspection	Method 21 (40 CFR Part 60 Appendix A) Method 21 (40 CFR Part 60 Appendix A) Visual	2,000 ppm 2,000 ppm	Calculate Leakers per 40 CFR Part 63.1255(c)(4) Calculate Leakers	Keep records/statistics on leakers. Develop a list of identification numbers of equipment subject to the requirements of this section. List is to be updated within 15 calendar days of the completion of each monitoring survey. (Connectors need not be identified if all connectors or length of a pipe is designated as a group). Develop and keep a schedule for monitoring connectors and valves subject to the standards for connectors in gas/vapor and light liquid service Develop a list of compressors designated as operating at less than 500 ppm above the background. Develop a list of identification numbers of pressure relief devices in HAP service and/or equipped with rupture discs.
Pressure Relief Devices in Gas/Vapor Service (§63.165)	OHAP Service Exempt if routed to vent header	Monitor after every pressure relief episode		Operated with instrument reading less than 500 ppm above background		
Sampling Connection Systems (63.166)	Must be equipped with closed purge, closed loop, or closed vent system Shall return fluid to process line	Initially				

[1] Does not summarize the requirements of 40 CFR Part 63.169, standards for pumps, valves, connectors, and agitators in heavy liquid service, instrumentation systems; and pressure relieve devices in liquid service because these requirement do not apply to Arkansas Eastman.

Table 6, Summary of Equipment Leak Requirements for Subpart GGG[1]						
Equipment Pharma MACT/HON	Design Requirements/ Exemptions	Monitoring Frequency	Method	Leak Limit	Calculations	Recordkeeping Requirements (40 CFR §63.1255(g))
Open-Ended Valves or Lines (§63.1255(d))	Must be equipped with flanges, plugs,or another valve If poses a safety hazard, is designed to open automatically, or if equipped with double block and bleed exempt by 40 CFR Part 63.1255(d)(4)-(6)	Initially				Develop a list of instrumentation systems used to comply with PAI regulations. For dual mechanical seal systems, record design criteria and changes. Keep a list of equipment designated as unsafe, difficult, or inaccessible to monitor, and a copy of plan to monitor these devices.
Valves in Gas/Vapor and Light Liquid Service (§63.1255(e))		Initial survey within 1 year of compliance date >2% of leakers -monthly <2% of leakers -quarterly <1%-once/2 quarters <0.5%-once/4 quarters <0.25%-every 2 years	Method 21 of 40 CFR Part 60 Appendix A	500 ppm 500 ppm 500 ppm 500 ppm 500 ppm 500 ppm	Calculate Leakers per 40 CFR Part 63.1255(e) (5) Calculate Leakers Calculate Leakers Calculate Leakers Calculate Leakers Calculate Leakers	Keep a list of any connectors removed or added to the process and documentation of the integrity of the weld for any removed connectors. Keep dates of visual inspections Keep records of initial pressure tests of compressors and pressure relief valves. Keep a record background and initial reading. Keep design data for closed vent systems

Table 6, Summary of Equipment Leak Requirements for Subpart GGG[1]						
Equipment Pharma MACT/HON	Design Requirements/ Exemptions	Monitoring Frequency	Method	Leak Limit	Calculations	Recordkeeping Requirements (40 CFR §63.1255(g))
Connectors in Gas/Vapor and in Light Liquid Service (§63.174)		Once within a year of compliance date <0.5%-once/4 quarters <0.25% - every 2 years	Method 21 of 40 CFR Part 60 Appendix A	500 ppm	Calculate Leakers Per 40 CFR Part 63.174(h)(3)(i) Calculate Leakers Calculate Leakers	Keep records of components in heavy liquid service, including analysis used to determine heavy liquid status. Maintain records of exempt components
Agitators in Gas/Vapor and Light Liquid Service (§63.1255(c)		Quarterly with instrument Weekly visual inspection	Method 21 of 40 CFR Part 60 Appendix A	10,000 ppm		

The following are key exemptions provided for the Subpart GGG standards for equipment leaks:

i. Equipment that is intended to operate in OHAP service for less than 300 hours for a calendar year [40 CFR §63.1255(d)(4)(viii)]

ii. Equipment that is in vacuum service, which is operated at an internal pressure at least 5 kPa (0.725 psia) below ambient pressure, is excluded from the equipment leaks provisions of Subpart GGG. [40 CFR §63.1255(a)(8)]

iii. Lines and equipment not containing process fluids are not subject to the LDAR requirements. Utilities and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered part of a process and are not subject. [40 CFR §63.1255(a)(5)]

Consistency with other regulations

c. After the compliance date for a process, equipment subject to both 63.1255(a)(2) and either 40 CFR Part 60 and Part 61 will be required to only comply with the provisions of Subpart GGG. [40 CFR §63.1255(a)(2)]

d. The provisions of §63.1(a)(3) of Subpart A do not alter the provisions in §63.1255(a)(2). [40 CFR §63.1255(a)(4)]

e. The permittee shall comply with all applicable portions of §63.1255(b) though (h), including all recordkeeping, reporting, and monitoring requirements necessary for submitting information required in the Notification of Compliance Status report under §63.1260(f). [40 CFR §63.1255(b)]

STANDARDS: WASTEWATER

13. The permittee shall comply with the general wastewater requirements §63.1256(a)(1) through (3), and the maintenance wastewater provisions of §63.1256(a)(4). The permittee may transfer wastewater to a treatment operation not owned by the permittee in accordance with §63.1256(a)(5). [40 CFR §63.1256]

Identification of wastewater that requires control

a. The permittee shall comply with the requirements in §63.1256(a)(1) (i) [*determine characteristics of a wastewater stream*] or (ii) [*designate wastewater as affect wastewater*] to determine whether a wastewater stream is an affected wastewater stream that requires control for soluble and/or partially soluble HAP compounds or to designate the wastewater stream as an affected wastewater stream, respectively. The permittee may use a combination of approaches in §63.1256(a)(1)(i) and (ii) for different affected wastewater generated at the source. [40 CFR §63.1256(a)(1)]

Requirements for affected wastewater

b. The permittee shall comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drains, systems, and oil/water separators as specified in §63.1256(b) through (f), except as provided in §63.1256(g)(3) [*biological treatment process*]. [40 CFR §63.1256(a)(2)(i)]

c. The permittee shall comply with the applicable requirements for control of soluble and partially soluble compounds as specified in §63.1256(g) [*performance standard for processes managing wastewater and/or residuals removed from wastewater*]. Alternatively, the permittee may elect to comply with the treatment provisions specified in §63.1256(a)(5) [*offsite treatment or onsite treatment not owned/operated by the source*]. [40 CFR §63.1256(a)(2)(ii)]

d. The permittee shall comply with the applicable monitoring and inspection requirements in §63.1258 [*monitoring requirements*]. [40 CFR §63.1256(a)(2)(iii)]

e. The permittee shall comply with the applicable recordkeeping and reporting requirements in §63.1259 [recordkeeping] and §63.1260 [*reporting*]. [40 CFR §63.1256(a)(2)(iv)]

Requirements for multi-phase discharge

f. The permittee shall not discharge a separate phase that can be isolate through gravity separation from the aqueous phase to a waste management or treatment unit, unless the stream is discharged to a treatment unit in compliance with §63.1256(g)(13) [*treatment in RCRA unit option*]. [40 CFR §63.1256(a)(3)]

Maintenance wastewater requirements

g. The permittee shall comply with the requirements of §63.1256(a)(4)(i) through (iv) for maintenance wastewater containing partially soluble or soluble HAP listed in Tables 2 and 3 of Subpart GGG. Maintenance wastewater is exempt from all other provisions of Subpart GGG. [40 CFR §63.1256(a)(4)]

Offsite treatment or onsite treatment not owned or operated by the source

h. The permittee may elect to transfer affected wastewater streams or a residual removed from such affected wastewater to an onsite treatment operation not owned or operated by the owner or operator of the source generating the wastewater or residual, or to an offsite treatment operation. [40 CFR §63.1256(a)(5)]

Wastewater tanks

i. The permittee shall comply with the requirements of either §63.1256(b)(1) or (2) of Subpart GGG as specified in Table 6 of this subpart for each wastewater tank that receives, manages, or treats affected wastewater or a residual removed from affected wastewater.

The permittee does not have wastewater tanks associated with the present pharmaceutical processes. This condition does not apply until the permittee places tanks into service as wastewater tanks. [40 CFR §63.1250(b)]

Surface impoundments

j. The permittee shall comply with §63.1256(c)(1),(2), and (3) of Subpart GGG for each surface impoundment that receives, manages, or treats affected wastewater or a residual removed from affected wastewater.

The permittee does not treat affected wastewaters or residuals in surface impoundments. This provision does not apply until such a time as the permittee chooses this treatment option. [40 CFR §63.1256(c)]

Containers

k. The permittee shall comply with the requirements of §63.1256(d)(1) through (5) of Subpart GGG for each container that receives, manages, or treats affected wastewater or a residual removed from affected wastewater. [40 CFR §63.1256(d)]

Individual drain systems

l. The permittee shall comply with the requirements of §63.1256(e)(1), (2), and (3), or with §63.1256(e)(4), (5), and (6) of Subpart GGG for each individual drain system that receives or manages affected wastewater or a residual from affected wastewater.

The permittee does not have individual drain systems associated with the present pharmaceutical process. This condition does not apply unless the permittee installs individual drain systems meeting the applicability criteria. [40 CFR §63.1256(e)]

Oil/water separators

m. The permittee shall comply with the requirements for oil/water separators that receives, manages, or treats affected wastewater or a residual removed from affected wastewater.

The permittee does not have oil/water separators associated with the pharmaceutical processes. This condition does not apply until such a time as the permittee implements this equipment. [40 CFR §63.1256(f)]

Performance standards for treatment processes managing wastewater and/or residuals removed from wastewater

n. The permittee shall comply with the requirements in §63.1256(g)(1) through (6) of Subpart GGG. Where multiple compliance options are provided, the options may be used in combination for different wastewater and/or for different compounds (e.g. soluble versus partially soluble compounds) in the same wastewater, except where otherwise provided in Subpart GGG. Once affected wastewater or a residual removed from affected wastewater has been treated in accordance with Subpart GGG, it is no longer subject to the requirements of Subpart GGG. [40 CFR §63.1256(g)]

Existing source

i. For a wastewater stream at an existing source that exceeds or is designated to exceed the concentration and load criteria in §63.1256(a)(1)(i)(A), the permittee shall comply with a control option in §63.1256(g)(8) [*wastewater containing partially soluble HAP compounds*]. For a wastewater stream at an existing source that exceeds the concentration and load criteria in either §63.1256(a)(1)(i)(B) or (C), the permittee shall comply with the control option in §63.1256(g)(8) and a control option in §63.1256(g)(9) [*wastewater containing soluble HAP*].

As an alternative to the control options in §63.1256(g)(8) and (9), the permittee may comply with a control option in either §63.1256(g)(10) [*enhanced bio-treatment*], (11) [*95% mass reduction for biological treatment processes*], or (13) [*treatment in a RCRA unit*], as applicable.

The permittee has initially chosen §63.1256(g)(13) [RCRA unit option] as the control option. [40 CFR §63.1256(g)(1)]

Biological treatment process

ii. Biological treatment processes in compliance may be either open or closed biological treatment processes as defined in §63.1251. [40 CFR §63.1256(g)(3)]

Performance tests and Design evaluation

iii. If the RCRA option specified in §63.1256(g)(13) or the enhanced biological treatment process for soluble HAP compounds option in §63.1256(g)(10) is selected, neither a design evaluation nor a performance test is required. For any other nonbiological treatment process, and for closed biological treatment processes as defined in §63.1251, the permittee shall conduct either a design evaluation as specified in §63.1257(e)(2)(ii) or performance test as specified in §63.1257(e)(2)(iii). For each open biological treatment process as defined in §63.1251, the permittee shall conduct a performance test as specified in §63.1257(e)(2)(iii)(E) or (F). [40 CFR §63.1256(g)(4)]

Control device requirements

iv. When gases are vented from the treatment process, the permittee shall comply with the applicable control device requirements in §63.1256(h) *[control device requirements]* and §63.1257(e)(3) *[test methods and compliance procedures – control device requirements]*, and the applicable leak inspection provisions specified in 63.1258(h) *[leak inspection provisions for vapor suppression equipment]*. This requirement is additional to the requirements for treatment systems specified in §63.1256(g)(8) *[wastewater containing partially soluble HAP]* and (14) *[residuals]*. This requirement does not apply to any open biological treatment process that meets the mass removal requirement. [40 CFR §63.1256(g)(5)]

Residuals: general

v. When residuals result from treating affected wastewater, the permittee shall comply with the requirements for residuals specified in §63.1256(g)(14).

The permittee's current selected wastewater treatment process does not generate residuals. This condition does not apply until such time that the permittee selects an applicable treatment option that produces a residual. [40 CFR §63.1256(g)(6)]

Treatment using a series of treatment processes

vi. In all cases where the wastewater provisions of Subpart GGG allow or require the use of a treatment process or control device to comply with emissions limitations, the permittee may use multiple treatment processes or control devices, respectively. For combinations of treatment processes where the wastewater stream is conveyed by hard-piping, the permittee shall comply with either §63.1256(g)(7)(i) [*compliance across the combination of all treatment units or control devices in series*], or (ii) [*compliance across individual units*]. For combinations of treatment processes where the wastewater stream is not conveyed by hard-piping, the permittee shall comply with the requirements in §63.1256(g)(7)(ii). For combinations of control devices, the permittee shall comply with the requirements of §63.1256)(g)(7)(i) of Subpart GGG.

The permittee shall identify, and keep a record of, the combination of treatment processes, including identification of the first and last treatment process. The permittee shall include this information as part of the treatment process description reported in the Notification of Compliance status report. [40 CFR §63.1256(g)(7)]

Treatment in RCRA unit option

vii. The permittee shall treat the affected wastewater or residual in a unit identified in, and complying with, §63.1256(g)(13)(i), (ii), or (iii) of Subpart GGG. These units are exempt from the design evaluation or performance tests requirements specified in §63.1256(g)(4) *[performance tests and design evaluations]* and §63.1257(e)(2) *[compliance with treatment unit control provisions]*, and from the monitoring requirements specified in §63.1256(a)(2)(iii) *[requirements for affected wastewater]*, as well as the recordkeeping and reporting requirements associated with monitoring and performance tests.

This is the initial compliance option performance standard the permittee has chosen for the management of affected wastewaters. [40 CFR §63.1256(g)(13)]

Residuals

viii. When residuals are generated, the permittee shall control for air emissions by complying with §63.1256(b) through (f) of Subpart GGG, and by complying with one of the provisions in §63.1256(g)(14)(i) through (iv).

The permittee's current selected wastewater treatment option process does not generate residuals. This condition does not apply until the permittee selects a wastewater treatment option that produces a residual. [§63.1256(g)(14)]

Wastewater control devices

o. For each control device or combination of control devices used to comply with the provisions of §63.1256(b) through (f) and §63.1256(g)(5) [*control device requirements*], the permittee shall operate and maintain the control device or combination of control devices in accordance with the requirements of §63.1256(h)(1) through (5) of Subpart GGG. [40 CFR §63.1256(h)]

TEST METHODS AND COMPLIANCE PROCEDURES: GENERAL

14. The permittee is subject to the following requirements of 40 CFR §63.1257:

a. Except as provided in §63.1257(a)(5), the procedures specified in §63.1257(c) [*storage tanks*], (d) [*process vents*], (e) [*wastewater*], and (f) [*pollution prevention*] of Subpart GGG, are required to demonstrate initial compliance with §63.1253 [*tanks*], §63.1254 [*process vents*], §63.1256 [*wastewater*] and §63.1252(3) [*heat exchangers*], respectively. The provision in §63.1257(a)(2) through (3) apply to performance tests that are specified in §63.1257(c) [*tanks*], (d) [*process vents*], and (e) [*wastewater*]. The provisions in §63.1257(a)(5) of this section are used to demonstrate initial compliance with the alternative standards specified in §63.1253(d) [*tanks*] and §63.1254(c) [*new source alternative standards*]. The provisions in §63.1257(a)(6) [*initial compliance with the 20 ppmv limit*] are used to comply with the outlet concentration requirements specified in §§63.1253(c) [*tanks*], §63.1254(a)(2)(i) [*process vent process-based annual mass limit*] and §63.1254(a)(3)(ii)(B) [*individual vent emission reduction*], §63.1254(b)(i) [*new sources*], and §63.1256(h)(2) [*control devices*]. [40 CFR §63.1257(a)]

Test methods

b. When testing is conducted to measure emissions from an affected source, the test methods specified in §63.1257(b)(1) through (10) shall be used. [40 CFR §63.1257(b)]

Initial compliance with storage tanks

c. Initial compliance with the outlet concentration requirement of §63.1253(d) is demonstrated by fulfilling the requirements of §63.1257(a)(5).

The permittee does not currently operate any storage tank meeting the definition of PMPU storage tank. Therefore, the permittee is not currently subject to the storage tank standards of this subpart. The requirements of §63.1253 [*storage tanks*] do not apply until such time the permittee either installs or activates a tank for use in an applicable Pharmaceuticals Manufacturing Process Unit. Upon installing or activating a storage tank, which would be subject to this subpart, the permittee must at that time comply with the provisions of §63.1253, as well as the initial compliance provisions in §63.1257(c). [40 CFR §63.1257(c)]

Initial compliance with process vent provisions

d. The permittee shall demonstrate compliance using the procedures described in §63.1257(d)(1) through (4) for the process vent standards in §63.1254 [*process vents*]. [40 CFR §63.1257(d)]

Compliance with wastewater provisions

e. The wastewaters being treated in a RCRA unit are exempt from the design evaluation or performance tests requirements specified in §63.1256(g)(4) [*performance testing and design evaluations*] and §63.1257(e)(2), and from the monitoring requirements in §63.1256(a)(2)(iii) [*requirements for affected wastewater*], as well as the recordkeeping and reporting requirements associated with performance tests. [40 CFR §63.1256(g)(13) and §63.1257(e)(2)]

The permittee has chosen the RCRA treatment option specified in §63.1256(g)(13). If the permittee opts for wastewater treatment controls other than allowed by §63.1256(g)(13), the permittee will be subject to the applicable requirements of §63.1257(e) *[compliance with wastewater provisions*].

MONITORING REQUIREMENTS

15. The permittee is subject to the following requirements of 40 CFR §63.1258:

a. The permittee shall provide evidence of continued compliance with the standard as specified. During the initial compliance demonstration, maximum or minimum operating parameter levels, as appropriate, shall be established for emission sources that will indicate the source is in compliance. Test data, calculations, or information from the evaluation of the control device design shall be used to establish the operating parameter level. [40 CFR §63.1258(a)]

Monitoring of control devices

b. Except as provided by §63.1258(b)(1)(i), for each control device, the permittee shall install and operate monitoring devices and operate within the established parameter levels to ensure continued compliance with the standard. Monitoring parameters are specified for control

scenarios in Table 4, and in §63.1258(b)(1)(ii) through (ix), of Subpart GGG. [40 CFR §63.1258(b)]

Averaging periods

i. Averaging periods for parametric monitoring levels shall be established according to §63.1258(b)(2)(i) through (iii). [40 CFR §63.1258(b)(2)]

Procedures for setting parameter levels for control devices used to control emissions – Large control devices

ii. For devices controlling greater than 10 tpy of HAP for which a performance test is required the parameter level must be established according to §63.1258(b)(3)(ii)(A) through (C). [40 CFR §63.1258(b)(3)(ii)]

Request approval to monitor alternative parameters

iii. The permittee may request approval to monitor parameters other than those required by §63.1258(b)(1)(ii) through (ix). The request shall be submitted according to the procedures in §63.8(f) [*use of an alternative monitoring method*] or included in the Precompliance report. [40 CFR §63.1258(b)(4)]

Exceedances of operating parameters

iv. Exceedance of an operating parameter is defined as one of the following: [40 CFR §63.1258(b)(6)]

1. If the parameter, averaged over the operating day or block, is below the minimum value established during the initial compliance determination;

2. If the parameter, average over the operating day or block, is above the maximum value established during the initial compliance test; or

3. Each loss of pilot flame for flares.

Excursions

v. Excursions are defined as either of the two cases listed in §63.1258(b)(7)(i) or (ii) as follows: [40 CFR §63.1258(b)(7)]

1. When the period of control devices operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data as defined in §63.1258(b)(7)(iii), for at least 75 percent of the operating day.

2. When the period of control device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data, or

3. Monitoring data are insufficient to constitute a valid hour of data, as used in §63.1268(b)(7)(i) and (ii). If measured values are unavailable for any of the required 15-minute periods within the hour.

Violations

vi. Exceedances of parameters monitored according to §63.1258(b)(1)(ii), (iv) through (ix), and §63.1258(b)(5)(ii)(A) and (B), or excursions as defined by §63.1258(b)(7)(i) through (iii) constitute violations of the operating limit according to §63.1258(b)(8)(i), (ii), and (iv). Exceedances of the temperature limit monitored according to §63.1258(b)(1)(iii) or exceedances of the outlet concentrations monitored according to the provisions of §63.1258(b)(1)(x) constitute violations of the emission limit according to §63.1258(b)(8)(i), (ii), and (iv). Exceedances of the outlet concentration monitored according to §63.1258(b)(5) constitute violations of the emission limit according to the provisions of §63.1258(b)(8)(iii) and (iv) of Subpart GGG. [40 CFR §63.1258(b)(8)]

Monitoring for emission limits

c. Compliance with §63.1254(a)(2) [process-based annual mass limit] shall demonstrate continuous compliance with the 900 and 1,800 kg/yr emission limits by calculating daily 365-day rolling summations of emissions. During periods of planned routine maintenance when emissions are controlled as specified in §63.1252(h), the permittee must calculate controlled emissions assuming the HAP emissions are reduced by 93 percent. If the permittee opts to switch compliance strategy from the 93 percent control requirement to the annual mass emission limit method, as described in §63.1254(a)(1)(i), the rolling summations beginning with the first day after the switch must include emissions from the past 365 days. [40 CFR §63.1258(c)]

Monitoring for equipment leaks

d. If the permittee is complying with the requirements of §63.1255 [*LDAR*], the monitoring requirements of §63.1255 shall be met. [40 CFR §63.1258(d)]

Inspection and monitoring of waste management units and treatment processes

e. The permittee shall comply with the inspection requirements specified in Table 7 of Subpart GGG for each wastewater tank, surface impoundment, container, individual drain system, and oil-water separator that receives, manages, or treats wastewater, a residual removed from wastewater, a recycled wastewater, or a recycled residual removed from wastewater. [40 CFR §63.1258(g)(1)]

Leak inspection provisions for vapor suppression equipment

f. The permittee shall comply with the requirements of §63.1258(h)(2) through (8), except as provided in §63.1258(h)(9) and (10), for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with this section. [40 CFR 63.1258(h)]

g. The permittee shall comply with the requirements of 63.1258(h)(10) in lieu of complying with the requirements of 63.1258(h)(2) through (8). The permittee shall maintain the closed-vent system below atmospheric pressure during normal RTO operation. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control devices are operating. [40 CFR 63.1258(h)(10)]

RECORDKEEPING REQUIREMENTS

16. The permittee is subject to the following requirements of 40 CFR §63.1259:

a. The permittee shall comply with the recordkeeping requirements in Subpart A of Part 63, as specified in Table 1 of Subpart GGG and in §63.1259(a)(1) through (5). [40 CFR §63.1259(a)]

Records of equipment operation

b. The permittee shall keep up-to-date and readily accessible records of equipment operation as specified in §63.1259(b)(1) through (13), which conform to the sources applicability determination and operations. [40 CFR §63.1259(b)]

Records of operating scenarios

c. The permittee shall keep records of each operating scenario, which demonstrates compliance with Subpart GGG. [40 CFR §63.1259(c)]

Records of LDAR programs

d. A requirement to implement a leak detection and repair (LDAR) program under 63.1255, shall require the permittee to implement the recordkeeping requirements of 63.1255 of Subpart GGG. [40 CFR §63.1259(d)]

Records of emission averaging

e. If the permittee elects to comply with the requirements of 63.1252(d), the permittee shall maintain up-to-date records of the information specified in 63.1259(e)(1) through (4). [40 CFR §63.1259(e)]

Records of delay of repair

f. Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in 63.1256(i) [*delay of repair – wastewater*], shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept onsite and when delivery from the manufacturer is scheduled), and the date when the repair was completed. [40 CFR §63.1259(f)]

Record of wastewater stream and residual transfer

g. If the permittee transfers an affected wastewater stream or residual removed from an affected wastewater stream in accordance with §63.1256(a)(5) [*offsite treatment or onsite treatment not owned/operated by the source*] shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic HAP, which are required to be managed and treated in accordance with the provisions of Subpart GGG. [40 CFR §63.1259(g)]

Records of extension

h. The permittee shall keep documentation of a decision to use an extension, as specified in §63.1256(b)(6)(ii) [*wastewater tanks-floating roof*] or (b)(9) [*wastewater tanks – delay of repair*], in a readily accessible location. The documentation shall include a description of the failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired and the tank will be emptied as soon as possible. [40 CFR §63.1259(h)]

Currently, the permittee does not have wastewater tanks associated with the present pharmaceutical processes. This condition does not apply until the permittee places tanks into service as wastewater tank, upon which action this condition becomes effective.

Records of inspection

i. The permittee shall keep records of all applicable inspection requirements as specified in §63.1259(i)(1) through (9). [40 CFR §63.1259(i)]

REPORTING REQUIREMENTS

17. The permittee is subject to the following requirements of 40 CFR §63.1260:

a. The permittee shall comply with the reporting requirements in §63.1260(b) through (l) of Subpart GGG. Applicable reporting requirements of §63.9 [*notification requirements*] and 63.10 [*recordkeeping requirements*] are also summarized in Table 1 of Subpart GGG. [40 CFR §63.1260(a)]

The Initial Notification report specified in §63.1260(b) was submitted to ADEQ on January 8, 1999. The Precompliance Report specified in §63.1260(e) was submitted to ADEQ on April 19, 2002.

Application for approval of construction or reconstruction

b. Any application for approval of construction of a new major affected source, the reconstruction of a major affected source, or the reconstruction of a major source such that the source becomes major affected source subject to the standards shall be prepared in accordance with §63.5(d) [*application for approval of construction or reconstruction*]. [40 CFR §63.1260(c)]

Notification of CMS performance evaluation

c. Any owner/operator who is required by the Administrator to conduct a performance evaluation for a continuous monitoring system shall notify the Administrator of the date of the performance evaluation as specified in §63.8(e)(2). [40 CFR §63.1260(d)]

Notification of Compliance Status Report

d. The Notification of Compliance Status report required under §63.9 shall be submitted no later than 150 days after the compliance date of October 21, 2002 and shall include information specified in §63.1260(f)(1) through (7). [40 CFR §63.1260(f)]

Periodic reports

e. The permittee shall prepare Periodic Reports in accordance with §63.1260(g)(1) and (2) of Subpart GGG. [40 CFR §63.1260(g)]

Notification of process change

f. Except as specified in §63.1260(h)(2), whenever a process change is made, or a change in any of the information in the Notification of Compliance Status Report, the permittee shall submit the information specified in §63.1260(h)(1)(i) through (iv) with the next Periodic Report required under §63.1260(g). [40 CFR 63.1260(h)(1):]

Reports of startup, shutdown, and malfunction

g. The permittee shall prepare startup, shutdown, and malfunction (SSM) reports as specified in §63.1260(i)(1) and (2). [40 CFR §63.1260(i)]

Reports of LDAR programs

h. The permittee implementing the LDAR program specified in §63.1255 shall implement the reporting requirements in §63.1255 of Subpart GGG. Copies of all reports shall be retained as records for a period of 5 years, in accordance with the requirements of §63.10(b)(1) [*recordkeeping and reporting*]. [40 CFR §63.1260(j)]

Reports of emission averaging

i. If the permittee chooses to comply with the requirements of §63.1252(d) [*emission averaging provisions*], the implementation plan required by §63.1259(e) [*records of emission averaging*] must be submitted 6-months prior to the compliance date of the standard and the following information in §63.1260(k)(1) through (6) [*reporting of emission averaging*]. [40 CFR §63.1260(k):]

Notification of performance test and test plan

j. The permittee shall notify the Administrator of the planned date of a performance test at least 60-days before the test in accordance with §63.7(b) [*notification of performance tests*]. The permittee shall also submit the test plan required by §63.7(c) [*quality assurance program*] and the emission profile required by §63.1257(b)(8)(ii) with the notification of the performance test. [40 CFR §63.1260(l),]

Utilities Section: 6M01, 6M01-01, 6M01-01A, 6M06-01, 6M07-01

Process Description

There are three coal fired (6M01-01) and two natural gas fired boilers (6M06-01 and 6M07-01) at the facility.

The coal fired boilers are balanced draft, coal-fired steam generation boilers that have been fitted with atomizing nozzles to facilitate burning of liquid chemical wastes. Each coal fired boiler system is designed as a 70 million Btu/hr unit and is equipped with its own electrostatic precipitator (ESP) to control particulate emissions. The three coal fired boilers share a common primary fuel conveying system, a common ash handling system, and a common 200 foot tall stack. The boilers are independently controlled by a Distributed Control System (DCS). All interactions from the operator to the burners are made through this computer system.

The three coal fired boilers were installed in 1975, and are rated for 70 million Btu/hr per unit. Due to size and installation date, these boilers are not subject to any of the NSPS requirements.

There are two natural gas fired boilers at the facility. The #4 boiler (6M06-01) burns natural gas at 78 million BTU/hr. The #5 boiler (6M07-01) burns natural gas at 221 million BTU/hr. Each boiler system consists of a water tube boiler, economizer, superheater and a stack.

The #4 boiler was installed in 1986 and is rated for 78 million Btu/hr. The #5 boiler was installed in 1993 and is rated for 221 million Btu/hr. Due to size and installation date, the #4 boiler is not subject to NSPS requirements. However, the #5 boiler is subject to NSPS Subpart Db, with requirements pertaining to NO_x are applicable. Both the #4 (6M06-01) and #5 (6M07-01) natural gas fired boilers are subject to PSD emissions limitations. Initial testing to confirm PSD emission limits for NOx were performed on August 2, 1988 for the #4 Boiler and August 6-7, 1992 for the #5 Boiler.

NSPS Kb requirements are identified and addressed in the Plantwide Conditions of this permit for all facility storage vessels, including those used in waste chemical service in the Utilities section. Emissions from utilities waste chemical storage tanks are routed through a closed-vent system to three coal-fired boilers as control devices.

BACT Analysis for Boilers #4 and #5

Boiler #4. This boiler is subject to a PSD emission rate limitation for NO_x which is simply 13.3 lb/hr. BACT for NO_x at the time of permit issuance was considered to be a standard register burner. BACT analysis for this source was performed in Permit No. 829-A.

Boiler #5. This boiler is subject to both PSD and NSPS Subpart Db requirements. The PSD BACT limit for NOx is 22 lb/hr (0.1 lb/million Btu), which is more stringent than the NSPS emissions standard for NOx (0.2 lb/million Btu). The BACT analysis was performed in Permit No. 1085-AR-1.

Specific Conditions

18. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 7 – Maximum Criteria Emission Rates for Utilities Section

PES #	Description	Pollutant	lb/hr	tpy
6M01-01	3 Coal Fired Boilers (70 MMBtu/hr each)	PM_{10} SO_2 VOC CO NO_x	46.9 1,418.7 0.5 384.4 111.5	205.3 6,213.8 2.3 1,683.7 488.2
6M01	Coal Pile	PM_{10}	0.10	0.1
6M01-01A	Coal Bunker Fabric Filter	PM_{10}	0.2	0.7
6M06-01	#4 Boiler (78 MMBtu/hr) Natural Gas	PM_{10} SO_2 VOC CO NO_x	1.1 1.2 0.5 2.8 13.3*	4.8 5.3 2.0 12.3 58.3
6M07-01	#5 Boiler (221 MMBtu/hr) Natural Gas	PM_{10} SO_2 VOC CO NO_x	1.1 0.1 2.9 18.0 22.0*	4.9 0.6 12.7 78.8 96.4

19. The permittee shall not exceed the emission rates presented in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 8 – Maximum Non-Criteria Emission Rates for Utilities Section

PES #	Description	Pollutant	lb/hr	tpy
6M01-01	Three Coal Fired Boilers (70 MMBtu/hr each)	PM Inorganics* Organic HAPs**	46.9 277.4 ***	205.3 877.9 2.3
6M01	Coal Pile	PM	0.10	0.1
6M01-01A	Coal Bunker Fabric Filter	PM	0.2	0.7

PES #	Description	Pollutant	lb/hr	tpy
6M06-01	#4 Boiler (78 MMBtu/hr) Natural Gas	PM Organic HAPs**	1.1 ***	4.8 2.3
6M07-01	#5 Boiler (221 MMBtu/hr) Natural Gas	PM Organic HAPs**	1.1 ***	4.9 4.9

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

20. Boiler #4 and Boiler #5 shall be limited to NO_X emission rates of 13.3 and 22.0 lb/hr, respectively. [§19.901 of Regulation 19 and 40 CFR 52.21]

21. The permittee shall not exceed 20% opacity at 6M01-01(Coal Fired Boilers), except during periods of startup, shutdown, and malfunction. Compliance with this condition shall be demonstrated through operating the ESP as specified by the manufacturer, and as outlined in the Facility Operating Plan dated May 28, 2003. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

22. The permittee shall maintain the power input to the ESP (6M01-01 - Coal Fired Boilers) as outlined in the Facility Operating Plan dated May 28, 2003. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

23. The permittee shall maintain daily records of the power input at the ESP (6M01-01 - Coal Fired Boilers). [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

24. The permittee shall maintain compliance with the VOC, SO_2, NO_x, CO and inorganic emission limits of 6M01-01 (Coal Fired Boilers) per the methodology outlined in the Facility Operating Plan dated May 28, 2003. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

25. The permittee shall not combust coal with a sulfur content greater than 3.5% by weight. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

26. The permittee shall record the amount and type of coal, biosludge, liquids, and rubber fed to the coal fired boilers (6M01-01 - Coal Fired Boilers) during a 30-day period. These records shall be kept on site and made available upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

27. The permittee shall perform testing of 6M01-01 (Coal Fired Boilers) within 180 days of permit issuance for NO_x, using EPA Reference Method 7E. This testing shall conform with the requirements of Plantwide Conditions 3 and 4. [§19.702 of Regulation 19 and 40 CFR Part 52 Subpart E]

28. The permittee may burn scrap rubber as long as the sulfur content of the rubber does not exceed 4% by weight. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

29. Rubber scrap shall not exceed 50% of the total heat input to the boilers while burning hazardous waste authorized by applicable Resource Conservation and Recovery Act (RCRA) regulations. [§18.1002 of Regulation 18 , A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

30. The permittee shall track natural gas usage in the #4 Boiler (6M06-01) as outlined in the Facility Operating Plan dated May 28, 2003. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

31. The permittee shall use a predictive emission monitoring system (PEMS) to monitor NO_X emissions from the #5 Boiler (6M07-01) as outlined in the Facility Operating Plan dated May 28, 2003. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part §60.48b(g)(2)]

32. The permittee shall not exceed 5% opacity over a three (3) hour period at 6M01-01A (Coal Bunker Fabric Filter) or 6M06-01 (#4 Boiler). Compliance with this opacity limit shall be demonstrated by complying with Specific Condition 33, 34, and 35. [§18.501 of the Arkansas Air Pollution Control Code (Regulation 18), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

33. The permittee shall combust only pipeline quality natural gas in 6M06-01 and 6M07-01. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

34. The permittee shall maintain the pressure drop across the fabric filter at 6M01-01A as outlined in the Facility Operating Plan May 28, 2003. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

35. The permittee shall keep records on site of the pressure drop across 6M01-01A. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

40 CFR Part 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

36. The permittee is to comply with the following nitrogen oxides emission limitation (expressed as NO_2) at SN-6M07-01: The NO_2 limitation is 0.20 lb/MMBtu based on a high heat release rate. [40 CFR §60.44b(a)(1)(ii), Subpart Db]

37. The nitrogen oxide standard at SN-6M07-01 applies at all times including periods of startup, shutdown, or malfunction. [40 CFR §60.44b(h), Subpart Db]

38. Compliance with the emission limitations at SN-6M07-01 is determined on a 30-day rolling average basis. [40 CFR §60.44b(i)-(j), Subpart Db]

39. The permittee is limited to opacity at SN-6M07-01 of 20%. This limit shall apply at all times except periods of startup, shutdown, or malfunction. [40 CFR §60.46b(a), Subpart Db]

40. The permittee shall use a continuous parametric monitoring system (PEMS) at SN-6M07-01 to determine compliance with monitoring nitrogen oxides under §60.48b. [40 CFR §60.46b(e)]

41. The permittee shall monitor steam generating unit operating conditions at SN-6M07-01 and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to §60.49(c). [40 CFR §60.48b(g)(2), Subpart Db]

42. The permittee shall comply with all provisions of this citation for monitoring steam generating unit operating conditions at SN-6M07-01 under §60.48b(g)(2). [40 CFR §60.49b(c), Subpart Db]

43. The permittee shall record and maintain records of amounts of natural gas combusted at SN-6M07-01 each day and calculate the annual capacity factor for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR §60.49b(d), Subpart Db]

44. The permittee shall maintain and record at SN-6M07-01, for each steam generating unit operating day, the information required by §60.49b(g). [40 CFR §60.49b(g), Subpart Db]

45. The permittee shall submit excess emission reports for any excess emission which occur at SN-6M07-01 during the reporting period. [40 CFR §60.49b(h), Subpart Db]

46. The reporting period for the reports required at SN-6M07-01 under this subpart is each 6-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR §60.49b(w), Subpart Db]

40 CFR Part 63 Subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

47. The permittee shall comply with any of the requirements specified in 40 CFR §63.683(b)(1) for Off-site Material Management Units within an affected source designation under 40 CFR §60.680(c).

    Specific units identified as applicable under this regulation include the following liquid waste storage tanks: WB-01, WB-02, WB-03, WB-04, WB-05, WB-06, WB-07, WB-08, WB-09, WDT-01, and WDT-02. These tanks are routed through the coal-fired boilers via a closed-vent vapor recovery system. [40 CFR §63.683(b)(1), Off-Site Waste and Recovery Operation MACT]

48. The permittee is exempt from those off-site material management units identified in 40 CFR §63.683(b)(2). [40 CFR §63.683(b)(2), Off-Site Waste and Recovery Operation MACT]

49. The permittee controls air emissions from off-site material management units in accordance with the applicable standards specified in 40 CFR §63.685 through §63.689. [40 CFR §63.683(b)(1)(i), Off-Site Waste and Recovery Operation MACT]

50. The permittee shall comply with the requirements of 40 CFR §63.684(a) and any of the treatment processes under 40 CFR §63.684 (b), as applicable, for the treatment of off-site material to remove or destroy HAP for which §63.683(b)(1)(i) references such treatment. [40 CFR §63.684(a) and (b), Off-Site Waste and Recovery Operation MACT]

51. The permittee shall maintain records of each treatment process in accordance with the requirements in 40 CFR §63.696. [40 CFR §63.684(f), Off-Site Waste and Recovery Operation MACT]

52. The permittee shall submit and prepare reports for each treatment process in accordance with 40 CFR §63.697(a). [40 CFR §63.684(g), Off-Site Waste and Recovery Operation MACT]

53. The permittee shall comply with the requirements of §63.685(a) and (b), and control air emissions from tanks for which §63.683(b)(1)(i) references such air emission control. [40 CFR §63.685(a) and (b), Off-Site Waste and Recovery Operation MACT]

54. The permittee shall comply with the requirements of §63.685(c) when controlling air emissions from tanks using Tank Level 1 controls, unless the permittee has implemented Tank Level 2 controls. [40 CFR §63.685(c), Off-Site Waste and Recovery Operation MACT]

55. The permittee shall comply with §63.685(d) for controlling air emissions from a tank, which requires the use of Tank Level 2 controls. [40 CFR §63.685(d), Off-Site Waste and Recovery Operation MACT]

56. The permittee shall comply with the requirements of §63.685(g)(1) through (3) for the control of tank air emissions if venting to a control device. [40 CFR §63.685(g), Off-Site Waste and Recovery Operation MACT]

57. The permittee shall comply with the requirements of either §63.689(b) or (c), as applicable, for the control of air emissions from transfer systems for which §63.683(b)(1)(i) references such air emission control. [40 CFR §63.689(a), Off-Site Waste and Recovery Operation MACT]

58. The permittee shall comply with the requirements of §63.691(a) and (b) for the control of equipment leaks for which §63.680(c)(3) references such air emission control. [40 CFR §63.691(a), Off-Site Waste and Recovery Operation MACT]

59. The permittee shall meet the requirements of 40 CFR §63.693(b)(1) for each closed-vent system. [40 CFR §63.693(b)(1), Off-Site Waste and Recovery Operation MACT]

60. The permittee shall meet the requirements of 40 CFR §63.693(b)(2) for each control device. [40 CFR §63.693(b)(2), Off-Site Waste and Recovery Operation MACT]

61. The permittee shall perform testing as specified in 40 CFR §63.694 for all applicable treatment processes and/or control devices used for compliance with applicable standards under this subpart. [40 CFR §63.694, Off-Site Waste and Recovery Operation MACT]

62. The permittee shall comply with the inspection and monitoring requirements of 40 CFR §63.695 for all affected tanks, closed-vent systems, transfer systems, and control devices as applicable. [40 CFR §63.695, Off-Site Waste and Recovery Operation MACT]

63. The permittee shall comply with all applicable recordkeeping requirements in 40 CFR §63.696, including requirements in 40 CFR §63.10, General Provisions that applies as specified in Table 2 of 40 CFR §63, Subpart DD. [40 CFR §63.696, Off-Site Waste and Recovery Operation MACT]

40 CFR Part 60 Subpart Y - Standards of Performance for Coal Preparation Plants

64. The coal processing and conveying equipment, coal storage, and coal transfer equipment shall be limited to 20% opacity. This condition applies to 6M01, storage pile and coal unloading area. [40 CFR §60.252(c), Subpart Y – Coal Preparation Plants]

65. In conducting the initial performance tests required in §60.8, the permittee shall use Method 9 to determine opacity. [40 CFR §60.254(b)(2), Subpart Y - Coal Preparation Plants]

Organic Sulfonation Process: 5M01-01, 5M01-02, 5M01-05, 5M01-06, 5M01-07, 5M01-08 5M01-09, 5M03-01, 5M03-02, 5M04-01, 5M04-02, 5M04-10, 5M05-01, 5M05-02, 5M11-01, 5M11-04, 5M11-05, 5M11-06, 5M11-07, 5M11-08, 5M11-09, 5M11-15, 5M13-01, 5M16-01, 5M18-01, 5M18-02, 5M18-03, 5MNOBS-TNK, NOBS-FUG, 5M01-TSP

Process Description

The organic sulfonate facility produces a solid material for use as a household consumer product. The two organic sulfonation facilities include reactors, centrifuges, scrubbers, distillation equipment, raw materials and process tanks. Scrubbers are the primary means for controlling emissions from the production facilities. The phenol and solvent storage tanks vent to a scrubber. The acid loading station is equipped with a scrubber to reduce emissions (PES 5M05-01). The low vapor pressures of the contents of the storage tanks minimize the potential for VOC emissions from these emission points.

NSPS subpart NNN (SOCMI Distillation Operations) applies to a scrubber associated with an acetic acid distillation column (5M01-02).

NSPS Subpart VV (SOCMI VOC Equipment Leaks) applies to certain equipment in this process such as pumps, compressors, pressure relief devices, sampling connection systems, and valves.

NSPS Subpart Kb (VOC Storage Vessels) applies to several tanks in the organic sulfonate production area.

Specific Conditions

66. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 9 – Maximum Criteria Emission Rates for Organic Sulfonation Process

PES #	ARK ID#	Equipment Type	Pollutant	lb/hr
5M01-01	SPS-S-01	Scrubber	VOC	0.1
5M01-02	SPS-VE-03	Scrubber	VOC	0.1
5M01-05	PROD-VE-04	Scrubber	VOC	0.1
5M01-06	SPS-S-02	Scrubber	VOC	0.5
5M01-07	PROD-VE-05	Scrubber	VOC	0.1
5M01-08	EX-VE-01	Scrubber	VOC	0.1
5M01-09	SPS-S-03	Scrubber	VOC	0.2
5M03-01	PROD-VE-02	Scrubber	VOC	0.1

PES #	ARK ID#	Equipment Type	Pollutant	lb/hr
5M03-02	SPS-VE-01	Scrubber	VOC	0.2
5M04-01	SPS-VE-02	Scrubber	VOC	0.6
5M04-02	PROD-VE-01	Scrubber	VOC	0.2
5M04-10	SPS-VE-04	Scrubber	SO_2	0.1
5M05-01	PROD-VE-03	Scrubber	VOC	0.1
5M05-02	EX-C-20	Fabric Filter	PM_{10}	0.1
5M11-01	SPS-S-201	Scrubber	VOC	0.1
5M11-04	PROD-VE-304	Scrubber	VOC	0.1
5M11-05	SPS-S-202	Scrubber	VOC	0.1
5M11-06	PROD-VE-305	Scrubber	VOC	0.1
5M11-07	EX-VE-401	Scrubber	VOC	0.1
5M11-08	SER-VE-501	Scrubber	PM_{10}	1.1
5M11-09	SER-VE-502	Scrubber	PM_{10}	1.1
5M11-15	SPS Dust Control	Dust Collector	PM_{10}	0.1
5M13-01	PROD-VE-302	Scrubber	VOC	0.1
5M16-01	Supersack Dust Control	Dust Collector	PM_{10}	0.1
5M18-01	SER-VE-01	Dust Collector	PM_{10}	0.9
5M18-02	SER-VE-02	Dust Collector	PM_{10}	3.4
5M18-03	SER-VE-03	Dust Collector	PM_{10}	0.3
5MNOBS-TNK	EX-TF-01 EX-TF-02 EX-TF-03 MLG-TF-01	Tanks	VOC	0.4
NOBS-FUG	Fugitive		VOC	6.2
5M01-TSP	Particulate Fugitive		PM_{10}	3.1

67. The permittee shall not exceed the emission rates presented in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 10 – Maximum Non-Criteria Emission Rates for Organic Sulfonation Process

PES #	ARK ID#	Equipment Type	Pollutant	lb/hr
5M01-01	SPS-S-01	Scrubber	Organic HAPs**	***
5M01-02	SPS-VE-03	Scrubber	Organic HAPs**	***
5M01-05	PROD-VE-04	Scrubber	Organic HAPs**	***
5M01-06	SPS-S-02	Scrubber	Organic HAPs**	***
5M01-07	PROD-VE-05	Scrubber	Organic HAPs**	***
5M01-08	EX-VE-01	Scrubber	Organic HAPs**	***
5M01-09	SPS-S-03	Scrubber	Organic HAPs**	***
5M03-01	PROD-VE-02	Scrubber	Organic HAPs**	***
5M03-02	SPS-VE-01	Scrubber	Organic HAPs**	***
5M04-01	SPS-VE-02	Scrubber	Organic HAPs**	***
5M04-02	PROD-VE-01	Scrubber	Organic HAPs**	***
5M05-01	PROD-VE-03	Scrubber	Organic HAPs**	***
5M05-02	EX-C-20	Fabric Filter	PM	0.1
5M11-01	SPS-S-201	Scrubber	Organic HAPs**	***
5M11-04	PROD-VE-304	Scrubber	Organic HAPs**	***
5M11-05	SPS-S-202	Scrubber	Organic HAPs**	***
5M11-06	PROD-VE-305	Scrubber	Organic HAPs**	***
5M11-07	EX-VE-401	Scrubber	Organic HAPs**	***
5M11-08	SER-VE-501	Scrubber	PM	1.1
5M11-09	SER-VE-502	Scrubber	PM	1.1
5M11-15	SPS Dust Control	Dust Collector	PM	0.1

PES #	ARK ID#	Equipment Type	Pollutant	lb/hr
5M13-01	PROD-VE-302	Scrubber	Organic HAPs**	***
5M16-01	Supersack Dust Control	Dust Collector	PM	0.1
5M18-01	SER-VE-01	Dust Collector	PM	0.9
5M18-02	SER-VE-02	Dust Collector	PM	3.4
5M18-03	SER-VE-03	Dust Collector	PM	0.3
5MNOBS-TNK	EX-TF-01 EX-TF-02 EX-TF-03 MLG-TF-01	Tanks	Organic HAPs**	***
NOBS-FUG	Fugitive		Organic HAPs**	***
5M01-TSP	Particulate Fugitive		PM	3.1

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

68. The permittee shall not exceed 5% opacity over a three (3) hour period at sources 5M05-02, 5M11-15, 5M16-01, 5M18-01, 5M18-02, 5M18-03, 5M11-08, and 5M11-09 except during periods of startup, shutdown and malfunction. Compliance with this limit shall be demonstrated as outlined in the Facility Operating Plan dated May 28, 2003. [§18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

69. The permittee shall comply with all applicable provisions of the Standards of Performance for Volatile Organic Liquid Storage Vessels. See Plantwide Conditions 14 through 22. [40 CFR Part 60, Subpart Kb]

40 CFR Part 60 Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations

70. The permittee shall maintain a TRE index value of greater than 1.0 without the use of VOC emission control device for 5M01-02. The permittee shall document and record all calculations performed to determine the TRE index value of the vent stream per §60.664(d), (e) and (f). [40 CFR §60.662(c), Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

71. The permittee shall keep up-to-date, readily accessible records of:

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

    b. Any recalculation of the TRE index value performed pursuant to §60.664(f), and,

    c. The results of any performance test performed pursuant to the methods and procedures required by §60.664(d).

    [40 CFR §60.665(h), Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

72. The provisions of this subpart apply to affected sources as defined in paragraph (b) of this section, and is part of process or production unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c). [40 CFR §60.660, Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

73. This source is operated under the exemption allowed by this citation; being, an affected facility with a TRE index value greater than 8.0. This source is exempt from all provisions of this subpart except for §60.662; §60.664(d), (e), and (f); and §60.665(h) and (l). [40 CFR §60.660(c)(4), Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

74. The permittee shall use any of the options listed in §60.662(a), (b), or (c) for an applicable treatment standard, providing proper notification is provided to the Department to document the change in treatment standard. The permittee shall then comply with the requirements of §60.663, §60.664, and §60.665 as applicable to the emission standard chosen. [40 CFR §60.662, Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

75. The permittee shall comply with all recordkeeping and reporting requirements in §60.665 as applicable to the treatment standard and control devices used to meet compliance with this subpart. [40 CFR §60.665, Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

76. The permittee is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions. [40 CFR Part §60.665(k), Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

77. The permittee shall submit semiannual reports of the following information: Any recalculation of the TRE index value, as recorded under §60.665(h). [40 CFR §60.665, Subpart NNN - Manufacturing Industry (SOCMI) Distillation Operations]

40 CFR Part 60, Subpart VV - Standards of Performance for Equipment Leaks of VOC in SOCMI

78. The permittee shall comply with the applicable requirements of this Subpart in the acetic acid recovery area of the Organic Sulfonation process. [40 CFR §60, Subpart VV - Standards of Performance for Equipment Leaks of VOC in SOCMI]

Chemical Waste Destructor : 6M03-05 and DEST-FUG

Process Description

The chemical waste destructor at Arkansas Eastman is designed to burn a mixture of waste streams resulting from various fine chemical manufacturing facilities at the plant. Some of the waste is mainly organic solvents, but the majority is comprised of aqueous solutions containing some organic and salt compounds. The equipment used to burn the waste includes a burner assembly, oxidizer chamber, weir tank, quench separator tank, high-energy scrubber, vane separator, and a stack. The chemical destructor is a vertically downfired unit.

The chemical waste destructor at Eastman Chemical is subject to 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*.

Emissions were calculated for the incinerator (6M03-05) and for fugitive equipment leaks (DEST-FUG).

Specific Conditions 79 through 81 shall apply until the compliance date for existing hazardous waste combustion units, as established by 40 CFR Part 63, Subpart EEE. This date is currently set as September 30, 2003.

Specific Conditions

79. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 11 – Maximum Criteria Emission Rates for Chemical Waste Destructor Pre-EEE Compliance Date

PES #	Description	Pollutant	lb/hr
6M03-05	Chemical Waste Destructor	PM_{10} SO_2 VOC CO NO_x	20.00 11.51 2.38 11.32 22.92
DEST-FUG	Destructor Fugitives	VOC	1.17

80. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 12 – Maximum Non-Criteria Emission Rates for Chemical Waste Destructor Pre-EEE Compliance Date

PES #	Description	Pollutant	lb/hr
6M03-05	Chemical Waste Destructor	PM Inorganics* Organic HAPs**	20.00 6.04 ***
DEST-FUG	Destructor Fugitives	Organic HAPs**	***

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

81. The permittee shall not exceed 20% opacity as measured by Method 9 at the chemical destructor in accordance with the Facility Operating Plan dated May 28, 2003, except during periods of startup, shutdown, and malfunction. Opacity readings will be conducted in accordance with the Facility Operating Plan dated May 28, 2003. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

The provisions of Specific Conditions 82 through 91 shall apply upon the compliance date for existing hazardous waste combustion units, as established by 40 CFR Part 63, Subpart EEE. This date is currently set as September 30, 2003.

82. The permittee shall not exceed the emission rates set forth in the following table.[Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 13 – Maximum Criteria Emission Rates for Chemical Waste Destructor, Post-EEE Compliance Date

PES #	Description	Pollutant	lb/hr
6M03-05	Chemical Waste Destructor	PM_{10} SO_2 VOC CO NO_x	3.20 20.16 0.86 6.03 25.20
DEST-FUG	Destructor Fugitives	VOC	1.2

83. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 14 – Maximum Non-Criteria Emission Rates for Chemical Waste Destructor, Post-EEE Compliance Date

PES #	Description	Pollutant	lb/hr
6M03-05	Chemical Waste Destructor	PM Inorganics* Organic HAPs**	3.20 6.04 ***
DEST-FUG	Destructor Fugitives	Organic HAPs**	***

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

84. The permittee shall not exceed 20% opacity as measured by Method 9 at the chemical destructor in accordance with the Facility Operating Plan dated May 28, 2003, except during periods of startup, shutdown, and malfunction. Opacity readings will be conducted in accordance with the Facility Operating Plan dated May 28, 2003. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]

85. The permittee shall maintain the operating limits as outlined in the Documentation of Compliance (DOC) for the chemical destructor. The DOC is required by 40 CFR Part 63, Subpart EEE, and is addressed in Specific Condition 80(n) of this section. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

86. The permittee shall maintain records of the chemical destructor operating limits as specified in the DOC. These records shall be maintained on site and available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

87. The permittee shall record the hourly feed rate to the chemical destructor. These records shall be maintained on site and made available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

88. The permittee shall measure the VOC emissions at the chemical destructor every five (5) years using Method 25A. The permittee shall also determine the destruction efficiency by measuring the inlet and outlet concentrations of VOC during this test. Based on maximum rates, the destruction efficiency during testing shall be 99.99% or higher. [§18.1002 of Regulation 18 and 40 CFR Part 52 Subpart E]

89. The permittee shall measure the particulate emissions from the chemical destructor annually using Method 5. The permittee shall measure the NO_x emissions annually using Method 7E. The permittee shall measure the SO_2 emissions annually using Method 6C.

    Upon completion of a compliant stack test event as required by this condition, the permittee may elect to perform a correlation study for NO_X, SO_2, and/or PM. Upon completion of such a correlation study, the permittee may petition the Department for less frequent stack testing for those pollutants that are the subject of the correlation study. [§19.702 of Regulation 19 and 40 CFR Part 52 Subpart E]

40 CFR Part 63 Subpart EEE - National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

90. This facility is subject to 40 CFR Part 63, Subpart EEE, National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors. Applicable requirements include, but are not limited to, the following conditions [§19.304 of Regulation 19 and 40 CFR §63.1200 of EEE]:

Emission Limits

a. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain dioxin and furans in excess of 0.2 ng TEQ/dscm, corrected to 7 percent oxygen. [40 CFR §63.1203(a)(1)]

b. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain mercury in excess of 130 µg/dscm, corrected to 7 percent oxygen. [40 CFR §63.1203(a)(2)]

c. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain lead and cadmium in excess of 240 µg/dscm, combined emissions, corrected to 7 percent oxygen. [40 CFR §63.1203(a)(3)]

d. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain arsenic, beryllium, and chromium in excess of 97µg/dscm, combined emissions, corrected to 7 percent oxygen. [40 CFR §63.1203(a)(4)]

e. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain carbon monoxide in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen and hydrocarbons in excess of 10 parts per million by volume over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, and corrected to 7 percent oxygen, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by '63.1206(b)(7). [40 CFR §63.1203(a)(5)(i)]

f. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain hydrochloric acid and chlorine gas in excess of 77 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis and corrected to 7 percent oxygen. [40 CFR §63.1203(a)(6)]

g. The permittee shall not discharge or cause combustion gases to be emitted to the atmosphere that contain particulate matter in excess of 34 mg/dscm corrected to 7 percent oxygen. [40 CFR §63.1203(a)(7)]

Destruction and Removal Efficiency (DRE) Standard

h. The permittee shall maintain a 99.99% destruction and removal efficiency (DRE) for each principal organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. The DRE shall be calculated using the following equation:

DRE = [1-(Win / Wout)] X 100%

Where:

Win = mass feedrate of one principal organic hazardous constituent (POHC) in a waste feed stream; and

Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere. [40 CFR §63.1203(c)]

i. The permittee must treat the POHCs in the waste feed that are specified under paragraph (c)(3)(ii) of this section to the extent required by paragraphs 63.1203(c)(1) and (c)(2) (i.e. 99.99% as stated in the previous Specific Condition). [40 CFR §63.1203(c)(3)(i)]

j. The permittee shall specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactum as provided by §63.60, for each waste to be burned. The permittee must base this specification on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information. [40 CFR §63.1203(c)(3)(ii)]

k. The emission limits provided by paragraphs §63.1203(a) and §63.1203(b) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the resultant emission levels may be rounded to two significant figures to document compliance. [40 CFR §63.1203(d)]

Compliance Provisions

l. The permittee shall comply with the standards of 40 CFR Part 63, Subpart EEE no later than September 30, 2003 unless the Administrator grants an extension under §63.6(i) or §63.1213. [40 CFR §63.1206(a)(1)]

m. The permittee shall comply with the emission standards and operating requirements set forth in 40 CFR Part 63, Subpart EEE at all times when hazardous wastes are in the combustion chamber, except as specified in §63.1206(b)(1)(i) and (ii). [40 CFR §63.1206(b)(1)]

n. The permittee shall demonstrate compliance based on performance testing under operating conditions representative of the extreme range of normal conditions. This performance test shall be conducted as required by 40 CFR §63.1206(b)(12). Prior to the completion of the performance test, the permittee shall document compliance with 40 CFR Part 63, Subpart EEE no later than September 30, 2003. This documentation of compliance (DOC) will ensure that operating parameters are established to ensure compliance with this subpart. [40 CFR §63.1206(b)(2)]

o. The permittee may petition the Administrator to grant an extension of compliance with the emission standards of this subpart as provided by §63.6(i) and §63.1213. [40 CFR §63.1206(b)(4)]

p. The permittee shall comply with the requirements of notification, performance testing, and waste-burning restrictions as outlined in §63.1206(b)(5)(i)(A) through (C) if the facility plans to make a change in design, operation, or maintenance that could adversely affect compliance. [40 CFR §63.1206(b)(5)(i)]

q. The permittee shall document any changes not affecting compliance in the facility operating record. Revisions reflecting such changes shall also be made, as necessary, to the performance test plan, Documentation of Compliance, Notification of Compliance, and the start-up, shutdown, and malfunction plan. [40 CFR §63.1206(b)(5)(ii)]

r. The permittee shall ensure and document compliance with the CO emission standard using a continuous emission monitoring system (CEMS). The permittee shall ensure and document compliance with the hydrocarbon emission standard by complying with the CO emission standard, and by demonstrating that the highest hourly rolling average hydrocarbon level emitted during the comprehensive performance test does not exceed the hydrocarbon emission limit. [40 CFR §63.1206(b)(6)]

s. The permittee shall demonstrate destruction removal efficiency (DRE) of at least 99.99% during the comprehensive performance test conducted in compliance with the conditions of §63.1207(b)(1) of this subpart. [40 CFR §63.1206(b)(7)]

t. Any particulate matter and opacity standards or any permit or other emissions operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter or opacity standard of parts 60, 61, 63, 264, 265, and 266 of this chapter (i.e., any title 40 particulate or opacity standards) do not apply while the permittee conducts particulate matter continuous emissions monitoring system (CEMS) correlation tests. However, compliance with this condition is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [40 CFR §63.1206(b)(8)(i) and (ii)]

u. For provisions of this section to apply, the permittee must develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §63.1207(e) and (f):

i. Number of test conditions and number of runs for each test condition;

ii. Target particulate matter emission level for each test condition;

iii. How you plan to modify operations to attain the desired particulate matter emission levels; and

iv. Anticipated normal emission levels.

The permittee shall submit the particulate CEMS correlation test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted. However, compliance with this condition is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [40 CFR §63.1206(b)(8)(iii)(A) and (B)]

v. If the Administrator fails to approve or disapprove the correlation test plan with the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information. [40 CFR §63.1206(b)(8)(iv)]

w. The particulate matter and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator. [40 CFR §63.1206(b)(8)(v)]

x. The permittee must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. [40 CFR §63.1206(b)(8)(vii)]

y. The permittee must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. The permittee must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §63.1207(j) and 63.1210(b). [40 CFR §63.1206(b)(11)]

z. The permittee must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart. [40 CFR §63.1206(b)(12)(i)]

aa. The permittee must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that the permittee must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [40 CFR §63.1206(b)(12)(ii)]

General Operating Requirements

bb. The permittee must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §63.1207(j) and 63.1210(b), except: [40 CFR §63.1206(c)(1)(i)]

i. During performance tests under approved test plans according to §63.1207(e), (f), and (g), [40 CFR §63.1206(c)(1)(i)(A)]

ii. Under the conditions of paragraph (b)(1)(i) or (ii) of this section [40 CFR §63.1206(c)(1)(i)(B)]

1. The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements of this section and §63.1209. [40 CFR §63.1206(c)(1)(ii)]

2. Failure to comply with the operating requirements is failure to ensure compliance with the emissions standards of this subpart [40 CFR §63.1206(c)(1)(iii)]

3. Operating requirements in the Notification of Compliance are applicable requirements for purposes of parts 70 and 71 of this chapter [40 CFR §63.1206(c)(1)(iv)]

4. The operating requirements specified in the Notification of Compliance will be incorporated in the Title V permit. [40 CFR §63.1206(c)(1)(v)]

cc. Except as provided in by paragraph (c)(2)(ii) of this section, the permittee is subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3). [40 CFR §63.1206(c)(2)(i)]

i. If the permittee elects to comply with §§270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of this chapter to address RCRA concerns, the permittee must comply with the provisions of §63.1206(c)(2)(ii)(A) and (B). [40 CFR §63.1206(c)(2)(ii)]

ii. The permittee must identify in the plan the projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [40 CFR §63.1206(c)(2)(iii)]

iii. The permittee must record the plan in the operating record. [40 CFR §63.1206(c)(2)(iv)]

iv. The permittee must comply with this requirement for operation under the startup, shutdown, and malfunction plan. [Pursuant to §63.1206(c)(2)(v)]

dd. Upon the compliance date, the permittee must operate the combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section, when the following conditions apply: [40 CFR §63.1206(c)(3)(i)]

i. When operating parameter limits specified under §63.1209; an emission standard monitored by CEMS; and the allowable combustion chamber pressure; [40 CFR §63.1206(c)(3)(i)(A)]

ii. When the span value of any CMS detector, except a CEMS, is met or exceeded; [40 CFR §63.1206(c)(3)(i)(B)]

iii. Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or [40 CFR §63.1206(c)(3)(i)(C)]

iv. When any component of the automatic waste feed cutoff system fails. [40 CFR §63.1206(c)(3)(i)(D)]

ee. During an automatic waste feed cutoff (AWFCO) the permittee must continue to duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber. [40 CFR §63.1206(c)(3)(ii)]

ff. The permittee must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and the permittee shall not restart the hazardous waste feed until the operating parameters and emission levels are within specified limits. [40 CFR §63.1206(c)(3)(iii)]

gg. If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under paragraph (c)(3)(i) of this section, the permittee has failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. [40 CFR §63.1206(c)(3)(iv)]

hh. If, after any AWFCO, there is an exceedance of any emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the permittee shall investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs and record the findings and corrective measures in the operating record. [40 CFR §63.1206(c)(3)(v)]

ii. For each set of 10 exceedances of an emissions standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period, the permittee must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and the results of the investigation and corrective measures taken. [40 CFR §63.1206(c)(3)(vi)(A)]

jj. On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period. [40 CFR §63.1206(c)(3)(vi)(B)]

kk. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee must conduct operability testing at least monthly. The permittee must document and record in the operating record AWFCO operability test procedures and results. [40 CFR §63.1206(c)(3)(vii)]

ll. The permittee may ramp down waste feed according to the requirements of §63.1206(c)(3)(viii), except as provided in §63.1206(c)(3)(B). The permittee must document ramp down procedures in the operating and maintenance plan. If the AWFCO is triggered by an exceedance of any of the following operating limits, the permittee may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may have been established. [40 CFR §63.1206(c)(3)(viii)]

mm. The permittee is subject to the emergency safety vent (ESV) operating and reporting requirements set forth in this section. [40 CFR §63.1206(c)(4)(i through iv)]

nn. The permittee is subject to the combustion system leak control system operating and reporting requirements set forth in these sections. [40 CFR §63.1206(c)(5)(i)(A) and (ii)]

oo. The permittee is subject to the operator training and certification standards set forth in this section. [40 CFR §63.1206(c)(6)(i through vii)]

pp. The permittee must prepare and at all times operate according to an operation and maintenance plan which complies with the requirements set forth in these sections. [40 CFR §63.1206(c)(7)(i)(A-D)]

Performance Testing Requirements

qq. The permittee must conduct performance testing in accordance with the applicable requirements contained in this section. [40 CFR §63.1207(a-m)]

rr. The permittee must commence the initial comprehensive performance test not later than six months after the compliance date. [40 CFR §63.1207(c)(1)]

ss. The permittee must conduct testing periodically as described in paragraphs (d)(1) through (3) of this section. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. The permittee may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. [40 CFR §63.1207(d)(1) through (3)]

i. The permittee must commence comprehensive testing no later than 61 months after the date of commencing the previous comprehensive performance test.

ii. The permittee must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. To ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Administrator will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test.

iii. The permittee must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on documentation in writing of factors beyond the permittee's control that prevent testing from being completed within 60 days.

Applicable Testing Requirements under the Interim Standard

tt. *Waiver of periodic comprehensive performance tests*. Except as provided by §63.1207(c)(2), the permitee must conduct only an initial comprehensive performance test under the interim standards (i.e., the standards published in the Federal Register on February

13, 2002; all). All subsequent comprehensive performance testing requirements are waived under the interim standards. The provisions in the introductory test to paragraph (d) and in paragraph (d)(1) of this section do not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001. [40 CFR §63.1207(d)(4)(i)].

uu. *Waiver of periodic confirmatory performance tests.* The permittee is not required to conduct a confirmatory test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002). The confirmatory testing requirements in the introductory text to paragraph (d) and in (d)(2) of §63.1207 are waived until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001. [40 CFR §63.1207(d)(4)(ii)].

vv. The permittee must submit to the Administrator a notification of intent to conduct a comprehensive performance test and CMS performance evaluation and a site specific test plan and CMS performance evaluation plan at least one year before the performance test and performance evaluation are scheduled to begin. [40 CFR §63.1207(e)(1)(i)]

ww. The permittee must submit to the Administrator a notification of intent to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin. [40 CFR §63.1207(e)(1)(i)(B)]

xx. The permittee must submit to the Administrator a notification of intent to conduct a confirmatory performance test and CMS performance evaluation and a test plan and CMS performance evaluation plan at least 60 calendar days before the performance test is scheduled to begin. [40 CFR §63.1207(e)(1)(ii)]

Test Methods

yy. The permittee shall use the test methods contained in this section when determining compliance with the emissions standards of this subpart. [40 CFR §63.1208(a-b)]

Monitoring Requirements

zz. The permittee is subject to the applicable monitoring requirements contained in these sections. [40 CFR §63.1209 (a-q)]

aaa. The permittee must either use a carbon monoxide or hydrocarbon CEMS to demonstrate compliance with either the carbon monoxide and hydrocarbon standards under this subpart. The permittee must also use an oxygen CEMS to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen. [40 CFR §63.1209(a)(1)(i)]

bbb. The permittee must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this subpart. However, compliance with the requirements in this section to install, calibrate, maintain, and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [40 CFR §63.1209(a)(1)(iii)]

ccc. The permittee must install, calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, Part 60 of this chapter. [40 CFR §63.1209(a)(2)]

ddd. The permittee must comply with the span requirements of §63.1209(a)(3). [40 CFR §63.1209(a)(3)]

eee. The permittee may petition the Administrator to use CEMS for compliance monitoring for other standards in lieu of compliance with the corresponding operating parameter limits under this section. [40 CFR §63.1209(a)(5)]

fff. The permittee will begin recording one-minute and hourly rolling average values as necessary to ensure that 60 one-minute values will be available for calculating the initial hourly rolling average before the compliance date. The permittee will continue to use the CEMS to monitor parameters as required in §63.1209(a)(6). [40 CFR §63.1209(a)(6)]

ggg. The permittee will use the Comprehensive Performance Test to demonstrate that the THC standard is met to establish operating parameters for DRE. [40 CFR §63.1209(a)(7)]

hhh. The permittee will use Continuous Monitoring Systems where necessary to ensure compliance with operating parameters established in the Documentation of Compliance or the Notification of Compliance. [40 CFR §63.1209(b)]

iii. Prior to feeding the material, the permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided in this section. [40 CFR §63.1209(c)(1)]

jjj. The permittee must develop and implement a feedstream analysis plan and record it in the operating record. [40 CFR §63.1209(c)(2)]

kkk. The permittee must submit the feedstream analysis plan to the Administrator for review and approval, if requested. [40 CFR §63.1209(c)(3)]

lll. To comply with the applicable feedrate limits of this section, the permittee must monitor and record the feedrates as follows: [40 CFR §63.1209(c)(4)]

i. Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

ii. Determine and record the mass or volume flowrate of each stream by a CMS. If the permittee determines flowrate of a feedstream by volume, the permittee must determine and record the density of the feedstream by sampling and analysis (unless the permittee reports the constituent concentration in units of weight per volume); and

iii. Calculate and record the mass feedrate of the parameter per unit time.

mmm. The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that the permittee must conduct performance evaluations components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. [40 CFR §63.1209(d)(1)]

nnn. The permittee shall maintain and operate each CMS as specified in §63.8(c), except for §63.8(c)(3) and §63.8(c)(4)(ii). The permittee shall have the CMS installed, calibrated, and operational on the compliance date. The permittee must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [40 CFR 63.1209(f)]

ooo. The permittee shall follow the requirements for the reduction of monitoring data as specified in 40 CFR §63.8(g). [40 CFR 63.1209(h)]

ppp. When one operating parameter is used to ensure compliance with one or more standards, the permittee must use the most stringent limit, determined during the comprehensive performance test, as the limit for that operating parameter. [40 CFR 63.1209(i)]

qqq. To remain in compliance with the destruction and removal efficiency (DRE) standards, the permittee must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications and comply with those limits at all times that hazardous waste remains in the combustion chamber. [40 CFR §63.1209(j)]

rrr. The permittee must measure the temperature of each combustion chamber at locations that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan submitted under §63.1207(e), and establish a minimum rolling average limit as the average of the test run values. [40 CFR §63.1209(j)(1)(i) and (ii)]

sss. As an indicator of gas residence time in the control device, the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that is documented in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [40 CFR §63.1209(j)(2)(i)]

ttt. The permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. [40 CFR §63.1209(j)(3)(i)]

uuu. The permittee must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [40 CFR §63.1209(j)(4)]

vvv. The permittee must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [40 CFR §63.1209(k)]

www. The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan and establish a minimum hourly rolling average limit as the average of the test runs. [40 CFR §63.1209(k)(2)(i) and (ii)]

xxx. As an indicator of gas residence time in the control device, the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate , or another parameter which is an appropriate surrogate for residence time, as the hourly rolling averages for each run. Compliance with this limit is on an hourly rolling average basis. [40 CFR §63.1209(k)(3)(i) and (ii),]

yyy. The permittee must establish limits on the maximum pumpable and total (pumpable and nonpumpable) waste feedrate for each location where waste is fed and establish limits as the average of the maximum hourly rolling averages for each run. Compliance shall be based on an hourly rolling average basis. [40 CFR §63.1209(k)(4)(i – iii)]

zzz. The permittee shall ensure compliance with the mercury emission standard by establishing a minimum mercury feed rate limit. The limit is established as a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run values, unless mercury feedrate limits are extrapolated from performance test feedrate levels, and maintaining the scrubber operating parameters described under '63.1209(l). [40 CFR '63.1209(l)]The permittee must comply with the particulate matter emission standard by establishing and complying with the operating parameter limits found in §63.1209(m) of this subpart. [40 CFR §63.1209(m)]

aaaa. The permittee must comply with the particulate matter emission standard by establishing and complying with the operating parameter limits found in §63.1209(m) of this subpart. [40 CFR §63.1209(m)]

bbbb. The permittee must establish a maximum ash feedrate limit as the average of the test run averages. [40 CFR §63.1209(m)(3)]

cccc. The permittee must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits: [40 CFR §63.1209(n)]

i. The permittee must establish feed rate limits for semivolatile metals and low volatile metals, with compliance based on 12-hour rolling average limits as the average of the test run averages. [40 CFR §63.1209(n)(2)(i)(A) and (B)]

ii. The permittee must establish operating parameter limits on the particulate matter control device as specified by paragraph 63.1209(m)(1). [40 CFR §63.1209(n)(3)]

iii. The permittee must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. [40 CFR §63.1209(n)(4)]

dddd. The permittee must establish a 12-hour rolling average limit for the total feedrate of chlorine in all feedstreams as the average of the test run averages. [40 CFR §63.1209(o)(1)]

eeee. As an indicator of gas residence time in the control device, the permittee must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter documented in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. This limit must be maintained on an hourly rolling average basis. [40 CFR §63.1209(o)(2)(i)]

ffff. The permittee must establish the following parameter limits for the wet scrubber: [40 CFR §63.1209(o)(3)]

i. Minimum pressure drop. The permittee must establish a limit on minimum pressure drop on an hourly rolling average as the average of the test run averages.

ii. Minimum pH. The permittee must establish a limit on minimum pH on an hourly rolling average as the average of the test run averages.

iii. Minimum scrubber liquid flow rate. The permittee must establish a minimum scrubber liquid flow rate on an hourly rolling average as the average of the test run averages.

Notification Requirements

gggg. The permittee shall submit all of the applicable notifications prior to the deadlines established in this subpart. [40 CFR §63.1210(a)(1)]

hhhh. The permittee must submit the required notifications outlined in this section to the Administrator in order to request or elect to comply with the alternative requirements contained in this subpart. [40 CFR §63.1210(a)(2)]

iiii. Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Document of Compliance or a previous Notification of Compliance are no longer applicable. [40 CFR §63.1210(b)(2)]

Recordkeeping and Reporting Requirements

jjjj. The permittee shall submit the reports required by this subpart to the Administrator prior to the deadlines set forth in this subpart. [40 CFR §63.1211]

Procedure for Extending the Compliance Date

kkkk. The permittee may request an extension of the compliance date to install pollution prevention or waste minimization controls provided that the conditions outlined in this section are met. [40 CFR §63.1213]

91. The permittee shall submit an application for air permit modification, if necessary, based upon the results of the chemical destructor trial burn. The application shall include complete test results, calculations, and emission rates for all criteria and non-criteria pollutants emitted at the chemical destructor. [§19.401 of Regulation 19]

Solvent Recovery: 4PSR-00 and SR-FUG

Process Description

Arkansas Eastman operates dedicated Solvent Recovery equipment to recover solvents that become contaminated during the manufacturing processes. Individual streams from the chemical manufacturing processes are transferred to storage tanks in the solvent recovery area. These streams are pumped to a pH adjustment system and then to a series of distillation columns. After distillation, the solvents are reused in the manufacturing processes or are sold for other uses.

Specific Conditions

92. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 15 – Maximum Criteria Emission Rates for Solvent Recovery

PES #	Description	Pollutant	lb/hr
4PSR-00	Solvent Recovery Bubble	VOC	27.8
SR-FUG	Solvent recovery Fugitives	VOC	12.7

93. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 16 – Maximum Non-Criteria Emission Rates for Solvent Recovery

PES #	Description	Pollutant	lb/hr
4PSR-00	Solvent Recovery Bubble	Organic HAP**	***
SR-FUG	Solvent recovery Fugitives	Organic HAP**	***

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

94. The permittee shall not process more than 40 million pounds per year of VOC solvents at the solvent recovery facility. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

95. The permittee shall keep monthly records of the amount of solvent throughput at 4PSR-00. These records shall be kept on site and made available upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

96. The permittee shall maintain a scrubber liquor flow rate in scrubbers 4P02-01 and 4P94-02 in accordance with the Facility Operating Plan dated May 28, 2003 at the solvent recovery facility. [§19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced §8-4-304 and §8-4-311]

97. The permittee shall keep daily records of the liquor flow rate at scrubbers 4P02-01 and 4P94-02. These records shall be kept on site and made available upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

Wastewater Treatment Facility: 7K01-01 and 7M01-02

Process Description

The Wastewater Treatment Plant at Arkansas Eastman services continuous wastewater influent from various areas of the plant, as well as incidental and storm water wastewater streams. Its design consists of traditional earthen basins except for the two equalization tanks and a diversion tank.

Specific Conditions

98. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 *et seq.* effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 17 – Maximum Criteria Emission Rates for Wastewater Treatment Facility

PES #	Description	Pollutant	lb/hr
7K01-01	Wastewater Treatment	VOC	45.7
7M01-02	Wastewater Decant Tank	VOC	0.8

99. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 18 – Maximum Non-Criteria Emission Rates for Wastewater Treatment Facility

PES #	Description	Pollutant	lb/hr
7K01-01	Wastewater Treatment	Organic HAPs**	***
7M01-02	Wastewater Decant Tank	Organic HAPs**	***

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

100. The permittee shall calculate the emissions of VOC from the wastewater basins (7K01-01) using a Department or EPA approved model once per quarter. Annual emissions shall be based on the most recent twelve consecutive months of operation. [§19.703 of Regulation 19, and 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Polymer Production Facility: 5NPOLY-TNK, 5N07-04, and POLY-FUG

Process Description

This process produces a solid polymer from a variety of solid and liquid reactants that react in solution with solvent. Emissions from this process are mainly VOCs. These VOCs are routed to the RTOs or other control devices. Only a few storage tanks, loading/unloading stations, and waste dumpsters vent directly to the atmosphere.

Fugitive emissions are estimated based on components and published emission leak rate factors. These factors are based on Eastman's monitoring data and the resulting leak frequency determination.

Specific Conditions

101. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 et seq. effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 19 – Maximum Criteria Emission Rates for Polymer Production Facility

PES #	Description	Pollutant	lb/hr
5NPOLY-TNK	Polymer Tank Bubble	VOC	4.7
POLY-FUG	Polymer Fugitives	VOC	1.8

102. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 20 – Maximum Non-Criteria Emission Rates for Polymer Production Facility

PES #	Description	Pollutant	lb/hr
5NPOLY-TNK	Polymer Tank Bubble	Organic HAPs**	***
POLY-FUG	Polymer Fugitives	Organic HAPs**	***

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

Isopropyl Benzene Production (DIPB): 5NDIPB-TNK, 5N03-52, 5N03-54, 5Q94-01, and DIPB-FUG

Process Description

The isopropyl benzene process consists of alkylation of benzene with propylene. A catalyst is used to promote the reaction. The intermediate, cumene, reacts with propylene to produce three isopropyl benzene variations. Subsequent to the reaction, the catalyst is removed by washing and decanting. Any benzene or intermediate generated that is not fully converted to product is recycled back into the process. 5N03-48 and 5N03-55 are scrubbers associated with the DIPB process.

NSPS Subpart VV (SOCMI VOC Equipment Leaks) applies to certain equipment installed after 1/5/81. Cumene is produced in this area. Therefore, this regulation is applicable.

NESHAP Subpart J (Equipment Leaks of Benzene) applies to certain equipment in benzene service. Affected equipment does exist at the DIPB plant. Therefore, this regulation is applicable. This regulation requires affected facilities to comply with the requirements contained in NESHAP Subpart V (Equipment Leaks of VHAP).

NESHAP Subpart Y (Benzene Storage Vessels) applies to storage tank #T-210. A flare (5N03-54) controls emissions from this tank.

NESHAP Subpart FF (Benzene Waste Operations) applies to benzene waste streams at certain facilities, including chemical manufacturing plants. It is applicable to the DIPB plant. A flare (5N03-54) controls benzene emissions generated by the wastewater collection tank (T-9) and the wastewater steam stripper (D-9).

Specific Conditions

103. The permittee shall not exceed the emission rates set forth in the following table. These rates are based on maximum physical capacity of the equipment, therefore no compliance demonstration is necessary. [Regulation No. 19 §19.501 et seq. effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 21 – Maximum Criteria Emission Rates for Isopropyl Benzene Production

PES #	Description	Pollutant	lb/hr
5NDIPB-TNK	DIPB Tank Bubble	VOC	0.5
5N03-52	Tank	VOC	0.4

PES #	Description	Pollutant	lb/hr
5N03-54	Flare	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.9 2.4 1.4
5Q94-01	Tank	VOC	0.4
DIPB-FUG	DIPB Fugitives	VOC	5.7

104. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 22 – Maximum Non-Criteria Emission Rates for Isopropyl Benzene Production

PES #	Description	Pollutant	lb/hr
5NDIPB-TNK	DIPB Tank Bubble	Organic HAPs**	***
5N03-52	Tank	Organic HAPs**	***
5N03-54	Flare	PM Organic HAPs**	0.1 ***
5Q94-01	Tank	Organic HAPs**	***
5N03-48	Scrubber	Inorganics*	0.1
DIPB-FUG	DIPB Fugitives	Organic HAPs**	***
5N03-55	Scrubber	Inorganics*	0.1

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

105. The permittee shall operate 5N03-55 in accordance with the Facility Operating Plan dated May 28, 2003. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

106. The permittee shall keep records of the weekly inspections on scrubber 5N03-55 on site and available for inspection upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

107. The permittee shall operate and maintain a control system on scrubber 5N03-48 in accordance with the Facility Operating Plan dated May 28, 2003. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

108. The permittee shall operate a control system which detects the presence of a flame on the flare (5N03-54) and gives an alarm if flame is not detected. The reactor process shall be shut down if the cause of the alarm is not corrected within 30 minutes. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

109. The permittee shall operate and monitor the DIPB off-gas flare (5N03-54) according to the requirements of §60.18(d), (e), and (f). Records shall be kept of all periods of operation during which the flare pilot flame is absent. [40 CFR §60.18, NSPS Subpart A – General Provisions]

40 CFR Part 61 Subpart FF - NESHAP for Benzene Waste Operations

110. The permittee shall comply with all applicable benzene waste stream reporting requirements at the flare (5N03-54) (which controls benzene emissions generated by the wastewater steam stripper) of all applicable waste stream records as outlined by §61.356(b), and as outlined by §61.357(c). [40 CFR Part 61, Subpart FF - NESHAP for Benzene Waste Operations]

111. Provisions of the Subpart FF - NESHAP for Benzene Waste Operations shall apply to chemical manufacturing plants. [40 CFR §61.340(a), Subpart FF - NESHAP for Benzene Waste Operations]

112. Subpart FF - NESHAP for Benzene Waste Operations, 61.340(c) identifies wastes exempt from the regulatory requirements. The permittee may claim exemptions under 61.342(c)(2) and 61.342(c)(3) providing documentation is kept to support the exemptions identified. [40 CFR §61.340(c), 61.342(a), 61.342(c)(2), 61.342(c)(3), Subpart FF - NESHAP for Benzene Waste Operations]

113. The permittee may claim exemptions as allowed in 61.342(a)(1) through (4), providing documentation of the benzene waste quantity is calculated as specified for the exemption. [40 CFR §61.342(a)(1) through (4), Subpart FF - NESHAP for Benzene Waste Operations]

114. The permittee has elected to remove or destroy benzene in the waste using a treatment process or wastewater treatment system which complies with 61.348 (Treatment Processes) [40 CFR §61.342(c)(1)(i), Subpart FF - NESHAP for Benzene Waste Operations]

115. The permittee shall comply with the standards specified in 61.343 through 61.347, as applicable, for each waste management unit. [40 CFR §61.342(c)(1)(ii), Subpart FF - NESHAP for Benzene Waste Operations]

116. The permittee may elect to meet one of these additional compliance options identified in the citations noted. Subpart FF does not require prior approval for changing between options. The permittee may choose between compliance options as long as documentation is readily available for inspection to provide evidence of compliance with the applicable treatment standard. [40 CFR §61.342(d), (e), and (f), Subpart FF - NESHAP for Benzene Waste Operations]

117. Compliance with this subpart will be determined by review of facility records and results from tests and inspections using methods and procedures specified in 61.355. [40 CFR §61.342(g), Subpart FF - NESHAP for Benzene Waste Operations]

40 CFR Part 61 Subpart VV - Standards of Performance for Equipment Leaks of VOC in SOCMI

40 CFR Part 61 Subpart J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene

118. The permittee shall comply with all applicable requirements in 40 CFR Part 61, Subpart J and Subpart V at all applicable sources in the DIPB process. The provisions of this subpart apply to each of the following sources that are intended to operate in benzene service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended lines, valves, flanges, and other connectors, product accumulator vessels, and control devices or systems required by these subparts. [40 CFR §61, Subpart J and Subpart V]

119. The permittee may comply with one of the alternative means of compliance identified in §60.483-1 and §60.483-2. [40 CFR §60.483-1 and §60.483-2, Subpart VV – Standards of Performance for Equipment Leaks of VOC in SOCMI]

120. The permittee shall follow the recordkeeping and reporting procedures for equipment leaks as outlined under §60.486 and §60.487. [40 CFR §60.486 and §60.487, Subpart VV – Standards of Performance for Equipment Leaks of VOC in SOCMI]

121. The permittee may comply with one of the alternative means of compliance identified in §60.483-1 and §60.483-2. [40 CFR §60.483-1 and §60.483-2, Subpart VV – Standards of Performance for Equipment Leaks of VOC in SOCMI]

122. NESHAP J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene), applies to equipment in benzene service including: pumps, valves, flanges, compressors, pressure relief devices, sampling connections, open-ended valves or lines, other connectors, product accumulation vessels, and control devices or systems required by the subpart. [40 CFR §61.110(a), NESHAP J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene)]

123. Each owner or operator subject to the provisions of this subpart shall comply with the provisions of NESHAP, Subpart V. [40 CFR §61.112(a), NESHAP J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene)]

124. The owner/operator may elect to comply with the provisions of 61.243-1 and 61.243-2. [40 CFR §61.112(b), NESHAP J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene)]

125. The permittee shall comply with all applicable parts of sections 61.240 through 61.247. [40 CFR §61.240 through 61.247, NESHAP V – National Emission Standard for Equipment Leaks, Pursuant to 40 CFR 61, Subpart V]

40 CFR Part 61 Subpart Y - National Emission Standard for Benzene Storage Vessels

126. NESHAP Y – National Emission Standard for Benzene Storage Vessels, defines applicability and designation of sources and defines exemptions. The condition applies to Tank T-210 which is vent to the DIPB flare (5N03-54). [40 CFR §61.270, NESHAP Y – National Emission Standard for Benzene Storage Vessels]

127. The storage vessel shall be equipped with a closed vent system and flare control device meeting the specifications of 61.271(d). [40 CFR §61.271(c), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

128. The closed vent system and flare shall meet the requirements as specified for general control devices in 40 CFR §60.18(e) and (f). [40 CFR §61.271(d), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

129. The specifications and requirements of 61.271(c)(1) and (2) do not apply during a control system malfunction. [40 CFR §61.271(c)(4), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

130. Excess emissions shall be reported as specified in §61.275(e). [40 CFR Part §61.275(e), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

131. The owner/operator shall keep copies of all reports and records required by §61.276(a). [40 CFR §61.276(a), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

132. The permittee shall keep readily assessable records showing the dimensions of the storage vessel and an analysis of the capacity. Each storage vessel with a design capacity of less than 10,000 gallons is subject to no provisions of this subpart other than this requirement. [40 CFR §61.276(b), NESHAP Y – National Emission Standard for Benzene Storage Vessels]

Storage Tanks and Miscellaneous Sources: 5N03TK-01, 6N01-02, 6N01-03, and 7N02-01

Process Description

Arkansas Eastman Division is a manufacturer of organic chemical intermediates. The primary business opportunities for this facility are producing chemicals that are put into the marketplace quickly. Therefore, many different chemicals can be manufactured in the multi-purpose batch equipment.

Because of the changing nature of process chemistry and the marketplace needs, Arkansas Eastman Division uses a variety of tanks for storage of raw materials, intermediates, and final products. There are no specific controls on the tanks besides conservation vents. Tanks TFV-1 and TFV-3 (5N01-22 and 5N01-25) are controlled by a thermal oxidizer and do not contribute to the tank bubbled emissions.

Eastman maintains and uses a cement plant on site for construction purposes. Emissions (PM/PM_{10}) are controlled by the use of a fabric filter (PES # 7N02-01).

Table 23 – Storage Tanks and Miscellaneous Sources

PES # (emission point)	Tank ID	Control Device	Applicable Federal Regulation
4P94-12	PR-56A	conservation vent	None
4P94-13	PR-56B	conservation vent	None
5N01-22	TFV-1	conservation vent	None
5N01-23	TFV-5	conservation vent	None
5N01-25	TFV-3	conservation vent	None
5N01-26	TFV-6	conservation vent	None
5N01-27	TFV-4	conservation vent	None
5N01-31	TFS-2	conservation vent	None
5N01-32	TFS-1	conservation vent	None
5N01-35	TFS-5	conservation vent	None
5N01-36	TFS-7	conservation vent	None
5N01-37	TFS-10	conservation vent	None

PES # (emission point)	Tank ID	Control Device	Applicable Federal Regulation
5N01-39	TF-3	conservation vent	None
5N01-41	TF-7	conservation vent	None
5N01-42	TF-6	conservation vent	None
5N01-44	TF-2	conservation vent	None
5N01-48	WG-1	conservation vent	None
5N01-49	CG-1	conservation vent	None
5N03-18	PBV-50	conservation vent	None
5N03-31	AA-52	seal pot	None
5N03-32	TL-52	conservation vent	None
5N03-33	BS-53	seal pot	None
5N03-39	TF-10	conservation vent	None
5N03-40	TF-11	conservation vent	None
5N03-43	TF-13	conservation vent	NSPS-Kb
5N03-45	TF-12	conservation vent	None
5N03-50	PA-50	conservation vent	NSPS-Kb
5N07-03	PDA-155	conservation vent	None
	SR-52	conservation vent	None
5N01-38	TFS-9	conservation vent	None
	TFS-79	conservation vent	None
	BS-55R	conservation vent	None
	SR-50	conservation vent	None

PES # (emission point)	Tank ID	Control Device	Applicable Federal Regulation
	SR-70	conservation vent	None

Specific Conditions

133. The permittee shall not exceed the emission rates set forth in the following table. These rates are based on maximum physical capacity. [Regulation No. 19 §19.501 et seq. effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 24 – Maximum Criteria Emission Rates Storage Tanks and Miscellaneous Sources

PES #	Description	Pollutant	lb/hr
5N03TK-01	Tank Bubble	VOC	8.0
6N01-02	Tank	VOC	0.1
6N01-03	Tank	VOC	1.4
7N02-01	Fabric Filter	PM_{10}	0.3

134. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 25 - Maximum Non-Criteria Emission Rates Storage Tanks and Miscellaneous Sources

PES #	Description	Pollutant	lb/hr
5N03TK-01	Tank Bubble	Organic HAPs**	***
6N01-02	Tank	Organic HAPs**	***
6N01-03	Tank	Organic HAPs**	***
7N02-01	Fabric Filter	PM	0.3

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

135. Hours of operation of source 7N02-01 fabric filter, during bulk cement deliveries, shall not exceed 300 hours during any consecutive 12 month period. The permittee shall keep records sufficient to verify compliance with this condition. These records shall be updated monthly within 30 days after each 12 month period. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Acrylic Resins Process: 5N07-06 and 5N07-FUG

Process Description

The Acrylic Resins Process is operated in three units using a monomer feed tank, polymerization unit, and flaker feed tank. Solvent is charged to the polymerization unit and heated to the process temperature. Monomers and initiators are charged to the monomer feed tank. Monomers are then continuously fed from the monomer feed tank over a period of time with the temperature maintained during the addition through cooling of the polymerization unit.

Following polymerization, steam is sparged to the polymerization unit to remove solvent. The resulting molten polymer is transferred to the flaker feed tank for final packaging via flaking and bagging.

All non-fugitive VOCs from the Acrylic Resins process are routed to the regenerative thermal oxidizers (RTOs, SN-5N09-01). Particulate emissions are controlled by a baghouse (5N07-06).

Specific Conditions

136. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. 19 §19.501 et seq. effective February 15, 1999 and 40 CFR Part 52, Subpart E]

Table 26 - Maximum Criteria Emission Rates for Acrylic Resins Process

SN	Description	Pollutant	lb/hr	ton/yr
5N07-06	Acrylic Resin Bagging System	PM_{10}	0.09	0.40
5N07-FUG	Acrylic Resin Fugitives	PM_{10} VOC	0.13 0.41	0.58 1.79

137. The permittee shall not exceed the emission rates set forth in the following table. [Regulation No. §18.801 effective February 15, 1999, and A. C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 27 - Maximum Non-Criteria Emission Rates for Acrylic Resins Process

SN	Description	Pollutant	lb/hr	ton/yr
5N07-06	Acrylic Resin Bagging System	PM	0.09	0.40
5N07-FUG	Acrylic Resin Fugitives	PM Organic HAPs**	0.13 ***	0.58 1.79

The ARK ID# is for Arkansas Eastman use only.
Ton/yr limits are listed for individual sources for informational purposes only. The facility shall show compliance with the facility total ton/yr limits presented at the top of this table using the procedures outlined in Plantwide Conditions 8 through 12.
*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.
***Hourly plantwide Hazardous Air Pollutant emissions are limited by Plantwide Condition 12. Additional HAP limitations are included in Plantwide Condition 9.

138. The permittee shall not exceed 5% opacity at SN-5N07-06. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

139. The permittee shall be limited to 13,000,000 pounds of acrylic product per rolling 12-month period at the Acrylic Resins Process. The baghouse (SN-5N07-06) is not limited exclusively to Acrylic Resins materials and shall be allowed to operate at 8760 hours per year. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

140. The permittee shall keep records to show compliance with the 12-month acrylic product limit established in the previous condition. These records shall be updated monthly, kept on site, and made available to Department personnel upon request. [§19.705 of Regulation 19 and 40 CFR Part 52 Subpart E]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Arkansas Eastman is in compliance with the applicable regulations cited in the permit application. Arkansas Eastman will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION V: PLANTWIDE CONDITIONS

1. The permittee will notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation No. 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [§19.410(B) of Regulation 19 and , 40 CFR Part 52, Subpart E]

3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) New Equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start-up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee will submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A.§8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

4. The permittee must provide: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
   a. Sampling ports adequate for applicable test methods
   b. Safe sampling platforms
   c. Safe access to sampling platforms
   d. Utilities for sampling and testing equipment.

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee will maintain the equipment in good condition at all times. [Regulation 19 §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

7. The permittee must prepare and implement a Startup, Shutdown, and Malfunction Plan (SSM). If the Department requests a review of the SSM, the permittee will make the SSM available for review. The permittee must keep a copy of the SSM at the source's location and retain all previous versions of the SSM plan for five years. [40 CFR §63.1260(i)]

8. The permittee shall not exceed the following emission rates at the facility during any consecutive 12 month period. [§19.501 et seq of the Arkansas State Regulation 19 and 40 CFR Part 52 Subpart E]

Table 28 – Maximum Annual Emission Rates Utilities Section

Utilities Area Only		
PES #	Pollutant	ton/yr
6M01-01 Coal Fired Boilers	PM/PM_{10} SO_2 VOC CO NO_x	205.3 6,213.8 2.3 1,683.7 488.2
6M01-01A	PM/PM_{10}	0.1
6M06-01 #4 Boiler	PM/PM_{10} SO_2 VOC CO NO_x	4.8 5.3 2.0 12.3 58.3
6M07-01 #5 Boiler	PM/PM_{10} SO_2 VOC CO NO_x	4.9 0.6 12.7 78.8 96.4

Table 29 – Maximum Criteria Plantwide Annual Emission Rates

Plantwide Limits	
Pollutant	ton/yr
PM/PM_{10}	340.3
SO_2	6,308.1
VOC	715.6
CO	1,858.3
NO_x	787.8

9. The permittee shall not exceed the following emission rates at the facility during any consecutive 12 month period. [§18.801 of Regulation 18 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 30 – Maximum Plantwide Annual HAP Emission Rates

Pollutant	ton/yr
Inorganics*	940.0
Organic HAPs**	715.6

*Inorganics are considered to be non-VOC Hazardous Air Pollutants.
**Organic Hazardous Air Pollutants are considered to qualify as both VOC and HAPs.

10. The permittee shall maintain records to demonstrate compliance with the criteria emission limits in Plantwide Condition 8. The emission records shall be recalculated monthly, and shall be based upon a 12-month rolling total. The records shall be updated by the last day of the month following the recorded 12-month period, and shall be kept on site and made available for inspection upon request. [§19.705 of Regulation 19, 40 CFR Part 52 Subpart E, and §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

11. The permittee shall determine the monthly emissions of each non-criteria air pollutant by material balance. This determination shall include each inorganic contaminant and each Hazardous Air Pollutant (HAP), as designated by Section 112 of the Clean Air Act. The material balance shall be recalculated monthly, and shall be based upon a 12-month rolling total. The records shall be updated by the last day of the month following the recorded 12-month period, and shall be kept on site and made available for inspection upon request. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

12. The permittee shall use the emissions determined from Plantwide Condition 11 to show acceptable impacts in accordance with the Department's Non-Criteria Air Pollutant Control Strategy. The permittee shall calculate the site-specific 30-day Presumptively Acceptable Emission Rate (PAER) for each non-criteria pollutant emitted at the facility using the equation presented below. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

    This determination shall include each inorganic contaminant and each Hazardous Air Pollutant (HAP), as designated by Section 112 of the Clean Air Act. The permittee shall not emit more than the calculated 30-day PAER during any consecutive 30-day period. The permittee shall maintain on-site records of the emissions rates and the calculated 30-day site-specific PAER (lb/month) for each non-criteria pollutant emitted. These records shall be made available for inspection upon request.

    Allowable site-specific PAER (lb/month) = 0.88 x (TLV in mg/m^3 from ACGIH) x 720

    Any exceedance of the site-specific PAER shall be reported to the Department within 24 hours of such discovery. A full report of the exceedance and subsequent corrective action shall be submitted to the Department within 5 business days.

The permittee shall review and update the TLV values used for each compound at least once annually, according to the most recent edition of the ACGIH *Threshold Limit Values for Chemical Substances and Physical Agents*.

13. This facility is a major stationary source as defined by 40 CFR 52.21. Any physical change or change in the method of operation which results in a significant emission increase, as defined by 40 CFR 52.21, shall require prior approval of a PSD netting exercise or a PSD permit before the event taking place, regardless of the plantwide emission rate. [40 CFR 52.21]

14. The permittee shall maintain documentation necessary to determine compliance with the applicability of this subpart for all storage vessels having a capacity of greater than or equal to 40 cubic meters (10,567 gallons). Affected tanks include the following: [40 CFR §60.110b, Subpart Kb]

TF-13 (SN-5N03-43) WB-06 (SN-6M-03-08) WB-07 (SN-6M-03-09) WB-08 (SN-6M-03-10) WB-09 (SN-6M-03-11) TFS-60 PT-60 PT-68 PT-69A PT-69B PB-51	PB-52 PM-50A PM-50B TBA-100 4P94-11 T-280 (SN-5N03-51) T-265 (SN-5N03-53) T-251 T-220 T-211A T-211B	T-241 PA-50 T-270 RA-TF-01 EX-TF-01 EX-TF-02 EX-TF-03 AP-100 AA-100 TBA-75	FAA-TF-01 FAA-TF-02 FAA-TF-101 FAA-TF-102 PROD-TF-02 PROD-TF-15 PROD-TF-302 RA-TF-01 RA-TF-02 SPS-TF-04 SPS-TF-204

15. The permittee shall maintain documentation identifying storage vessels complying with the requirements of 40 CFR §60.112b, including emission controls used, and all documentation to support compliance with the emission control used. [40 CFR §60.112b, Subpart Kb]

16. The permittee shall meet the specifications of this citation for closed vent systems and control devices used for tank emission abatement. [40 CFR §60.112b(a)(3), Subpart Kb]

17. The permittee shall comply with all applicable testing and procedures as identified in §60.113b. The applicable requirement for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b. [40 CFR §60.113b, Subpart Kb]

18. Each closed vent system and control device (other than a flare) is exempt from §60.8 of the General Provisions and shall comply with the requirements specified in this citation. [40 CFR §60.113b(c), Subpart Kb]

19. Closed vent systems with flares shall comply with the requirements as specified in §60.18(e) and (f). Records shall be kept of all periods of operation during which the flare pilot flame is absent and shall be reported semiannually. [40 CFR §60.113b(d)(2) and (3), Subpart Kb]

20. The permittee shall keep records and furnish reports as required, depending upon the control equipment installed, to meet the requirements of §60.112b. Copies of operating plans shall be kept for the life of the control equipment. [40 CFR §60.115b, Subpart Kb]

21. The permittee shall keep copies of all records required by Subpart Kb. [40 CFR §60.116b, Subpart Kb]

22. Pursuant to 40 CFR §60.116b(g), Subpart Kb, each storage vessel equipped with a closed vent system and control device meeting the specifications of §60.112b is exempt from the requirements of paragraphs (c) and (d) of §60.116b.

23. The permittee shall be allowed a 120-day phase-in period to fully comply with certain monitoring, record keeping, and reporting provisions of this permit. The 120-day phase-in period shall commence upon the issuance date of Air Permit 1085-AOP-R0. The phase-in period shall only apply to the provisions of the following conditions:

    Specific Conditions 3, 5, 6, 7, 24, 31, 34, 35, 39, 68, 81, 94, 95, 96, 97, 101, 106, 107, and 108, and Plantwide Conditions 10, 11 and 12.

    This phase-in period shall not apply to any federal regulatory provisions, such as those required by any NSPS or NESHAP regulation. [§19.705 of Regulation 19, 40 CFR Part 52 Subpart E, §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

24. The permittee shall submit a compliance report with state-only enforceable terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance report shall be submitted annually to the Department. All compliance reports required by this permit shall include the following [§18.1004 of Regulation 18]:

    a. The identification of each term or condition of the permit that is the basis of the certification;
    b. The compliance status;
    c. Whether compliance was continuous or intermittent;
    d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
    e. Such other facts as the Department may require elsewhere in this permit.

    This compliance report may be in the same format as, and may be included with, the annual compliance certification required by General Provision 21.

25. Pursuant to 40 CFR 70.6(a)(3)(iii)(B), §§26.701(C)(3)(b) of Regulation #26, and §§19.601 and 19.602 of Regulation #19, for purposes of General Provision 8 of this permit and §§26.701(C)(3)(b) of Regulation #26, "prompt" or "prompt reporting" shall be construed to mean:

    (a) by the next business day, if deviations result in exceedances of applicable emission limitations lasting 30 or more minutes, in the aggregate during a 24-hour period, unless otherwise specified in an applicable permit or regulation

(including, but not limited to, NSPS regulations); and

(b) in the next semi-annual report for all other deviations.

Permit Shield

26. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included and specifically identified below:

The following have been specifically identified as applicable requirements based upon the information submitted by the permittee in an application dated October 18, 2002.

Table 31 – Applicable Regulations

Source (SN)	Regulation	Description
Organic Chemical Intermediates Section	40 CFR Part 63 Subpart GGG	National Emission Standards for Pharmaceuticals Production.
6M07-01	40 CFR Part 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
TF-13 (SN-5N03-43) WB-06 (SN-6M03-08) WB-07 (SN-6M03-09) WB-08 (SN-6M03-10) WB-09 (SN-6M03-11) TFS-60 PT-60 PT-68 PT-69A PT-69B PB-51 PB-52 PM-50A PM-50B TBA-100 RNS-100 (SN-4P94-11) T-280 (SN-5N03-51) T-265 (SN-5N03-53) T-251	40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

Source (SN)	Regulation	Description
T-220 T-211A T-211B T-241 PA-50 T-270 RA-TF-01 EX-TF-01 EX-TF-02 EX-TF-03 AP-100 AA-100 TBA-75 FAA-TF-01 FAA-TF-02 FAA-TF-101 FAA-TF-102 PROD-TF-02 PROD-TF-15 PROD-TF-302 RA-TF-01 RA-TF-02 SPS-TF-04 SPS-TF-204	40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
Utilities Section (coal processing activities).	40 CFR Part 60 Subpart Y	Standards of Performance for Coal Preparation Plants
Organic Sulfonation Section. DIPB Production. (Equipment Leaks)	40 CFR Part 60 Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
5M01-02	40 CFR Part 60 Subpart NNN	Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
DIPB Production (equipment Leaks, benzene)	40 CFR Part 61 Subpart J	National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene

Source (SN)	Regulation	Description
DIPB Production (equipment leaks, VHAP)	40 CFR Part 61 Subpart V	National Emission Standard for Equipment Leaks (Fugitive Emission Sources)
Tank T-210 (benzene vessel)	40 CFR Part 61 Subpart Y	National Emission Standard for Benzene Emissions from Benzene Storage Vessels
DIPB Production T9, D9 (benzene waste streams).	40 CFR Part 61 Subpart FF	National Emission Standard for Benzene Waste Operations
Facility (waste management/recovery operations).	40 CFR Part 63 Subpart DD	National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
6M03-05	40 CFR Part 63 Subpart EEE	National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

Acid Rain (Title IV)

27. The Director prohibits the permittee to cause any emissions exceeding any allowances the source lawfully holds under Title IV of the Act or the regulations promulgated under the Act. No permit revision is required for increases in emissions allowed by allowances acquired pursuant to the acid rain program, if such increases do not require a permit revision under any other applicable requirement. This permit establishes no limit on the number of allowances held by the permittee. However, the source may not use allowances as a defense for noncompliance with any other applicable requirement of this permit or the Act. The permittee will account for any such allowance according to the procedures established in regulations promulgated under Title IV of the Act. [Regulation No. 26 §26.701 of and 40 CFR 70.6(a)(4)]

Title VI Provisions

28. The permittee must comply with the standards for labeling of products using ozone depleting substances. [40 CFR Part 82, Subpart E]

a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

29. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §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 §82.158.

    c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

    d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152.)

    e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.

    f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

30. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

31. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

    The term a motor vehicle as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term AMVAC as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

32. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program."

SECTION VI: Insignificant Activities

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement is a significant activity even if this activity meets the criteria of §8-4-304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated March 1997.

Table 32 - Insignificant Activities

Source #	Description	Category
5N01-63	Storage Tank (Organic Chemical Intermediate Process)	A-3
5N01-64	Storage Tank (Organic Chemical Intermediate Process)	A-3
6N02-01	Storage Tank (Utilities Process)	A-4
6N02-02	Storage Tank (Utilities Process)	A-13
5M01-03	Vacuum System (Organic Sulfonation Process)	A-13
5M03-06	Vacuum System (Organic Sulfonation Process)	A-13
5M11-03	Vacuum System (Organic Sulfonation Process)	A-13
5M11-08	Vents (Organic Sulfonation Process)	A-13
5M11-09	Vents (Organic Sulfonation Process)	A-13
5M11-10	Vents (Organic Sulfonation Process)	A-13
5M11-13	Truck Loading (Organic Sulfonation Process)	A-13
5M11-14	Hold Bin (Organic Sulfonation Process)	A-13
5M04-04	Storage Tank (Organic Sulfonation Process)	A-4
5M04-07	Storage Tank (Organic Sulfonation Process)	A-4
5M04-03	Storage Tank (Organic Sulfonation Process)	A-13
5M04-09	Storage Tank (Organic Sulfonation Process)	A-13
6M03-15	Storage Tank (Chemical Destruction Process)	A-4
4P02-02	Quenching (Solvent Recovery Process)	A-13
4P94-04	Storage Tank (Solvent Recovery Process)	A-13

Source #	Description	Category
5N01-58	Extractor (Solvent Recovery Process)	A-13
4P94-03	Storage Tank (Solvent Recovery Process)	A-4
7M01-03	Storage Tank (Wastewater Treatment Process)	A-4
7M01-04	Dumpster (Wastewater Treatment Process)	A-4
5N03-46	Unloading Station (Isopropyl Benzene Process)	A-13
5N03-47	Unloading Station (Isopropyl Benzene Process)	A-13
6N01-01	Storage Tank (Storage Tank Process)	A-3
5N03-39	Storage Tank (Storage Tank Process)	A-4
5N03-40	Storage Tank (Storage Tank Process)	A-4
5N01-41	Storage Tank (Storage Tank Process)	A-13
5N01-42	Storage Tank (Storage Tank Process)	A-13
5N02-01	Storage Tank (Storage Tank Process)	A-13
5N02-02	Storage Tank (Storage Tank Process)	A-13
	Caustic Tank (CL-01R)	A-4
5N03-63	Storage Tank (Organic Chemical Intermediate Process)	A-3
4P03-05	Kilo Lab	A-5

Pursuant to §26.304 of Regulation 26, the Department determined the emission units, operations, or activities contained in Regulation 19, Appendix A, Group B, to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

SECTION VII: GENERAL CONDITIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.[Pursuant to 40 CFR 70.6(b)(2)]

2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective August 10, 2000]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation #26 §26.406]

4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation #26 §26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit. [40 CFR 70.6(a)(3)(ii)(A) and Regulation #26 §26.701(C)(2)]
   a. The date, place as defined in this permit, and time of sampling or measurements;
   b. The date(s) analyses performed;
   c. The company or entity performing the analyses;
   d. The analytical techniques or methods used;
   e. The results of such analyses; and
   f. The operating conditions existing at the time of sampling or measurement.

6. The permittee must retain the records of all required monitoring data and support information for at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation #26 §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every 6 months. If the permit establishes no other reporting period, the reporting period will end on the last day of the anniversary month of this permit. The report is due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of dat The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation #26 §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 CFR 70.6(a)(3)(ii)(B) and §26.701(C)(2)(b)]

   Arkansas Department of Environmental Quality
   Air Division
   ATTN: Compliance Inspector Supervisor
   Post Office Box 8913
   Little Rock, AR 72219

8. The permittee will report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit. The permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:

   a. The facility name and location
   b. The process unit or emission source deviating from the permit limit,
   c. The permit limit, including the identification of pollutants, from which deviation occurs,
   d. The date and time the deviation started,
   e. The duration of the deviation,
   f. The average emissions during the deviation,
   g. The probable cause of such deviations,
   h. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
   i. The name of the person submitting the report.

   The permittee will make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permitee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report. [40 CFR 70.6(a)(3)(iii)(B), Regulation #26 §26.701(C)(3)(b), Regulation #19 §19.601 and §19.602]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5) and §26.701(E) of Regulation #26, and A.C.A. §8-4-203, as referenced by §8-4-304 and §8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation No. §26.701(F)(1)]

11. 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 to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and §26.701(F)(2)]

12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation #26 §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation #26 §26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director 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 must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation #26 §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation #19. [40 CFR 70.6(a)(7) and Regulation #26 §26.701(G)]

16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation #26 §26.701(H)]

17. If the permit allows different operating scenarios, the permittee will, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation #26 §26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation #26 §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation #26 §26.2. [40 CFR 70.6(c)(1) and Regulation #26 §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation #26 §26.703(B)]

    a. Enter upon the permittee's premises where the permitted 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 required under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee will submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee will submit the compliance certification annually. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation #26 §26.703(E)(3)]

    a. The identification of each term or condition of the permit that is the basis of the certification;
    b. The compliance status;
    c. Whether compliance was continuous or intermittent;
    d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
    e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Regulation #26 §26.704(C)]

    a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
    b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
    c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act or,
    d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. This permit authorizes only those pollutant-emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]