

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0635-AR-22 AFIN: 60-00004

1. PERMITTING AUTHORITY:

Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Evonik Corporation
10300 Arch Street Pike
Little Rock, Arkansas 72206

3. PERMIT WRITER:

Jesse Smith

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Miscellaneous Nonmetallic Mineral Product
Manufacturing
NAICS Code: 327999

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
1/19/2024	Deminimis Mod	Additional production option in the D-36 Calciner line, resulting in HCl emissions from SN A-59

6. REVIEWER'S NOTES:

Evonik Corporation (Evonik) owns and operates a facility at 10300 Arch Street Pike, Little Rock, Pulaski County, Arkansas. The facility processes various nonmetallic minerals and product materials. Evonik submitted an application to:

- Transfer ownership of the permit from Porocel Industries, LLC to Evonik Corporation.

- Revise the insignificant activity list to include a 6,000 gallon acetic acid storage tank, a 5,800 gallon caustic tank, a 6,000 gallon nitric acid tank, and a 2,500 gallon slug tank.
- Incorporate production of a pH adjusted alumina product using the D-36 Calciner line, resulting in emissions of HCl from the A-59 Calciner.

Permitted annual emissions increased by 0.44 tpy HCl.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The facility was last inspected on January 9, 2024. There were no areas of concern noted at this time.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-53, A-54, A-59, A-62, A-66, A-67, and A-68	PM Opacity	NSPS Part 60 Subpart UUU
B-23 and A-47	There are no specific emission limits or pollutants identified, but the rules generally regulate HAPs.	NESHAP Part 63 Subpart ZZZZ

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality has deemed the PAER to be the product, in lb/hr, of 0.11 and the

Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Arsenic	0.01	0.0011	0.001207	No
Nickel	1.5	0.168	0.012074	Yes
Cobalt	0.02	0.0022	0.037079	No
Manganese	0.02	0.0022	0.00066	Yes
Ammonia	17.4	1.9	0.08	Yes
Hydrogen Chloride	0.45	0.0495	0.10	No

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Division of Environmental Quality to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Arsenic	0.1	0.00165	Y
Cobalt	0.2	0.16514	Y
Hydrogen Chloride	4.5	1.11804	Y

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards Y

If exempt, explain: The facility does not emit H₂S

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
B-18	AP-42 11.19.2	PM/PM ₁₀ : 1.6E-05 lb/ton	None	N/A	Inlet Hopper & Rail Unloading for Powder
<u>PW-05 (NO_x)</u> (B-15, B-23, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-39, A-44, A-47, A-49, A-54, A-59, A-62)	All Equipment combusting Natural Gas AP-42 1.4-1/2	<u>lbs/MMSCF:</u> 0.6 SO ₂ 100 lb NO _x 84 lb CO 5.5 lb VOC 7.6 lb PM ₁₀ Annual usage limit: 680 MMSCF	None	N/A	Natural gas bubble based on monthly/total natural gas usage. PW-05 -Nte 34.0 tpy NO _x
A-02, A-03, A-24		PM/PM ₁₀ : 1.2 lb/ton	Baghouse	99%	ACM 1, 2, 3 PM = PM ₁₀
A-18		PM: 2.4 lb/ton PM ₁₀ : 0.31 lb/ton	Baghouse	99%	n/a
B-01, B-06, B-07, B-08, B-10, B-12, B-17, B-20, A-14, A-34, A-38, A-54	MSDS and Mass Balance Specialty Toll Products	<u>Metallic HAP by wt</u> As 1% Co 7% Mn 2% Ni 10% Rate: B-15, B19, & A-34: 1.0 tph	Bin Vents/ Baghouses	99.9%	HAPs B-01, 06, 07, 08, 10, 11, 12, 17, & 20 are Tanks
B-14	AP-42 11.24-2 (8/82) High-moisture Ore ^A Primary, MSDS, and Mass Balance (at 1.0 tph, at 8,760 hrs/yr)	Filterable PM: 0.02 lb/ton ^A Filterable PM ₁₀ : 0.009 lb/ton ^A <u>Metallic HAP by wt</u> As 1% Co 7% Mn 2% Ni 10%	None (0%)	N/A	PM: 0.01 lb/hr PM ₁₀ : 0.004 lb/hr Ni: 1.00E-03 lb/hr Ni: 4.38E-03 tpy As: 1.00E-04 lb/hr As: 4.38E-04 tpy Co: 7.00E-04 lb/hr Co: 3.07E-03 tpy
B-15	AP-42 11.24-2 (8/82) Drying High-moisture Ore ^B , MSDS, and Mass Balance (at 1.0 tph, at	Filterable PM: 19.7 lb/ton ^B Filterable PM ₁₀ : 12 lb/ton ^B <u>Metallic HAP by wt</u> As 1%	Bin Vents/ Baghouses	99.9%	Ni: 1.97E-03 lb/hr Ni: 8.63E-03 tpy As: 1.97E-04 lb/hr As: 8.63E-04 tpy Co: 1.38E-03 lb/hr Co: 6.04E-03 tpy

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	8,760 hrs/yr)	Co 7% Mn 2% Ni 10% 8,760 tpy 1.0 tpy			
B-19	AP-42 11.24-2 (8/82) High-moisture Ore ^A Primary, MSDS, and Mass Balance (at 3.0 tph, at 8,760 hrs/yr)	Filterable PM: 0.02 lb/ton ^A Filterable PM ₁₀ : 0.009 lb/ton ^A HAP Emission Factors (wt. %) Arsenic: 1% Cobalt: 7% Nickel: 10% 26,280 tpy 3.0 tpy	None (0%)	N/A	Ni: 3.00E-03 lb/hr Ni: 1.31E-02 tpy As: 3.00E-04 lb/hr As: 1.31E-03 tpy Co: 2.10E-03 lb/hr Co: 9.20E-03 tpy
A-14 and A-54	MSDS for slip	Ammonia	None	None	Air Contaminant
A-10, A-17, A-44	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Baghouse	95%	Activators #1, #2, #4
A-13, A-22, A-36, A-39	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Baghouse	99%	n/a
A-07	July 2018 Stack Test	PM: 1.76 lb/hr PM ₁₀ : 0.30 lb/hr	Baghouse		
A-07, A-14			Baghouse	99.9%	n/a
A-14	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Afterburner	VOC	burn off after certain tolling runs
B-01, B-03, B-06, B-08, B-12, B-16, B-17, B-20, B-21, B-22, A-01, A-06, A-08, A-15, A-19, A-22, A-25, A-26, A-29, A-33, A-38, A-46	AP-42 11.24-1,2 (8/82)	Filterable PM/PM ₁₀ : 1.1 lb/ton A-34: 1.0 tph	Baghouse, Bin vent filter, or Cartridge collector	99% PM	PM=PM ₁₀
A-09 and A-31	AP-42 13.2.4	PM: 0.009 PM ₁₀ : 0.004 lb/ton	None	None	Fugitive
B-05	AP-42 11.24-1,2 (8/82)	Filterable PM/PM ₁₀ : 0.55 lb/ton	Enclosure	90%	Shipping & Loadout Bubble
B-07 & B-10	AP-42 11.24-1,2	Filterable	Baghouse	99%	Tanks

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	(8/82)	PM/PM ₁₀ : 2.3 lb/ton			
B-15 B-60 Calciner	AP-42 Sec. 12.24.1, Table 12.24-2 AP-42 Chapter 1.4, Tables 1.4-1 and 1.4-2 Engineering estimate/Process knowledge	PM: 19.7 lb/ton PM ₁₀ : 12.00 lb/ton ¹ <u>lb/MMscf:</u> 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x <u>lb/ton:</u> NO _x : 200 lb/ton (while processing high NO _x materials)	Tri-Mer Wet Scrubber & Baghouse	90% (NO _x) & 99.9% (PM)	1 TPH max capacity 8,760 tpy ¹ High moisture ores
A-14 and A-54 Calciners	AP-42 Chapter 12.24.1, Table 12.24-2 AP-42 Chapter 1.4, Tables 1.4-1 and 1.4-2 Engineering estimate/Process knowledge	lb/ton: 19.7 PM 12.00 PM ₁₀ lb/MMscf: 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x lb/ton: 200 NO _x (while processing high NO _x materials)	Tri-Mer SCR	95% (NO _x) & 99.9% (PM)	A-14: 1 TPH max capacity A-54: 0.25 TPH max capacity
A-51 Mixer	AP-42 Table 11.24-2 (8/82)	lb/ton: 0.01 PM 0.004 PM ₁₀	Baghouse	99%	2 TPH max capacity 17,520 tpy
A-52 Receiver	AP-42 Table 11.24-2 (8/82)	lb/ton: 1.1 PM Based on weight of material transferred	Baghouse	99%	Assumes PM ₁₀ = PM 1.5 TPH max 13,140 tpy
A-53 Harper Calciner	AP-42 Table 11.24-2 (8/82)	lb/ton: 19.7 PM 12.0 PM ₁₀	Baghouse	99%	0.02 TPH maximum capacity 131 tpy
A-55 Harper Feed Tank	AP-42 Chapter 12.24.1, Table 12.24-2	lb/ton: 19.7 PM 12.0 PM ₁₀	Bin vent	99.9%	0.25 TPH maximum capacity

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
B-14	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.04 tpy PM ₁₀ : 0.004 lb/ton: 0.02 tpy	Baghouse	0%	Max Throughput 8,760 tpy 1.0 tph
B-19	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.13 tpy PM ₁₀ : 0.01 lb/ton: 0.05 tpy	Baghouse	0%	Max Throughput 26,280 tpy 3.0 tph
A-12, A-31	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.04 tpy PM ₁₀ : 0.004 lb/ton: 0.02 tpy	Baghouse	0%	Max Throughput 8,760 tpy 1.0 tph
A-09, A-18	AP-42 11.24-2	PM: 2.4 PM ₁₀ : 0.31 lb/ton	Baghouse		
B-23, A-47	AP-42 3.2-2	lb/MMBtu: 5.88E-04 SO ₂ 4.08 NO _x 0.557 CO 0.118 VOC 9.99E-03 PM/PM ₁₀	None	None	Emergency Engines 4SLB SI RICE 100 hr/yr
A-56, A-57 Tanks	AP-42 11.24-1, 2 (8/82)	PM/PM ₁₀ : 1.1 lb/ton	Bin Vent	99%	Limit 4,380 tpy & ½ ton per hour
A-58 Hopper & Screw Feed		PM/PM ₁₀ : 1.1 lb/ton	None	N/A	
A-59 Calciner	AP-42 Section 11.24.1, Table 11.24-2	PM: 19.7 lb/ton PM ₁₀ : 12 lb/ton	Dust Collector	99%	
	Content of material	HCl: 0.01 wt. %	None	None	
A-60 Dust Collector		PM/PM ₁₀ : 1.1 lb/ton	Dust Collector	99%	
A-61 Harper Calciner Dust Collector	AP-42 11.24-1, 2 (8/82)	Rate: 30 lb/hr	Dust Collector	99%	Limit 4,380 tpy
A-62 Chrome Indirect Calciner	AP-42 11.24-2 (8/82)	lb/MMscf: 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x	Dust Collector (A-52)	99%	
A-63	AP-42 Table 11.24-2	1.1 lb/ton PM/PM ₁₀	Baghouse	99.0%	Annual Throughput

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
					2,190 tons
A-63	MSDS	<u>Metallic HAP by wt</u> As 1% Co 7% Ni 10%	Baghouse	99.0%	Annual Throughput 2,190 tons
A-64	AP-42 Table 11.24-2	1.1 lb/ton PM/PM ₁₀	Baghouse	99.0%	Annual Throughput 8,760 tons
	MSDS	<u>Metallic HAP by wt</u> As 1% Co 7% Ni 10%	Baghouse	99.0%	Annual Throughput 8,760 tons
A-65	AP-42 Table 11.24-2	0.01 lb/ton PM 0.004 lb/ton PM ₁₀	Bin Vent Fabric Filter High Moisture	99.0%	Annual Throughput 8,760 tons
	MSDS	<u>Metallic HAP by wt</u> As 1% Co 7% Ni 10%	Bin Vent Fabric Filter High Moisture	99.0%	Annual Throughput 8,760 tons
A-66	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.0%	Annual Throughput 2,414 tons
A-67	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.0%	Annual Throughput 2,414 tons
A-68	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.9%	Annual Throughput 2,190 tons

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Description	Start-up Date	Target Production Rate Attainment	Latest Test Completion Date
B-15	B-60 Calciner	1950s	1950s	7/19/1999 - 9/7/2000
A-07	Flash Calciner # 1	1997	1997	1999
A-10	Activator # 1	1997	1997	2009-2010

SN	Description	Start-up Date	Target Production Rate Attainment	Latest Test Completion Date
A-13	Activator #3	1998	1998	11/2009
A-14	A-60 Indirect Calciner	1998	1998	7/19/1999 - 9/7/2000
A-17	Activator #2	1997	1997	2009-2010
A-26	Belt Dryer	2003	2003	3/19-20/2013
A-36	Flash Calciner #2	2011	2011	6/2015
A-44	Activator #4	2012	2012	3/19-20/2013
A-53	Harper Calciner	9/2014	9/14	TBD
A-54	C-36 Indirect Calciner	11/2014	11/14	10/2015
A-59	D-36 Calciner	n/a	n/a	10/2015
A-62	Chrome Indirect Calciner	-	-	2/2016
A-66	F-48 Dryer	-	-	TBD
A-67	G-54 Calciner	-	-	TBD
A-68	Tray Dryer	-	-	TBD

SN	Pollutants	Test Method	Test Interval	Justification
B-15, A-14, A-53, A-54, A-62, A-66, A-67	NO _x	Method 7E per SC #19	Within 180 days after processing a new high-NO _x material and every 5 years thereafter while processing the highest-NO _x currently in use	§19.702
A-53	PM and opacity	Method 5 and the sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm, & Method 9 for opacity SC #29	One-time, within 180 days after initial startup (past due)	§ 60.732 (SC #25)
A-66, A-67, A-68			One-time, within 180 days of startup	
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-54, A-59, A-62	PM	Method 5	One-time test Complete for these sources	§ 60.732

17. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
B-15, A-14, A-53, A-54, A-66, A-67	Aqueous Ammonia Injection Rate	7-81 gallons per hour	Rolling 3-hour average	No, unless an upset occurs
	Inlet Temperature	500-700 °F	Rolling 3-hour average	No, unless an upset occurs
	Gas Pressure Drop	2-10 in. H ₂ O	Rolling 3-hour average	No, unless an upset occurs

18. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
All sources	Monthly and rolling 12 month total throughputs of products and MSDSs from all materials.	100,000 tpy of nonmetallic minerals	Monthly	No
Facility-wide (PW-05)	Monthly and rolling 12 month total natural gas usage	680 MMSCF/yr of natural gas	Monthly	No
All sources	NO _x emissions from combustion from natural gas	34.0 tpy	Monthly	No
Facility-wide	When actual emissions of NO _x exceed 95.0 tpy rolling 12 mos, permittee must demonstrate degree of accuracy of calculations to prove facility has	95.0 tpy NO _x	As occurs	No

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	not exceeded major source threshold for NO _x .			
A-14 & A-54	Ammonia	Nte 0.35 tpy	Monthly	No
PW-07 (B-15, A-14, A-54)	NO _x emission from process NO _x generating materials	64.8 tpy	Monthly	No
A-14	Solvents and additives containing HAPs or other air contaminants used in specified processes and MSDSs. Monthly HAP-free material (MEA) usage and 12 month cumulative total.	Lbs/hr < PAIL & Total HAPs Nte 9.5 tpy 300 tpy of HAP-free material (MEA)	Daily Monthly Monthly	No No No
B-15, A-14, A-53, A-54, A-62, A-66, and A-67	SCR by-passed <u>not</u> allowed while processing NO _x generating materials	Operate w/o bypassing in accordance with ADEQ CEMS	Rolling 3-hour average - continuous	Yes. Report upset conditions, GP #10.
B-15, A-14, A-53, A-54, A-62, A-66, and A-67	SCR Scrubber daily records of the ammonia injection rate, inlet temperature, and gas pressure drop	SC #17	Daily records, continuous reading	Yes. Report exceedances, GP #10.
A-54	Material Throughput and MSDS	2,190 tpy	Monthly	No
A-55	Material Throughput and MSDS	2,190 tpy	Monthly	No
A-39	Material Throughput and MSDS	8,760 tpy	Monthly	No
B-15, A-14, A-	Maintain copy of	Follow	On going	No

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
39 and A-54	the manufacturer's specifications and operating manuals onsite for the life of the units	Manufacturer's operating manual		
A-47 and B-23	Hours of operation (each)	100 hours / calendar year	Monthly	No
A-47 and B-23	Engine Routine Maintenance	Change oil and filter every 500 op hrs; Inspect spark plugs every 1,000 op hrs; and Inspect all hoses and belts every 500 op hrs. Replace as necessary.	Due at stated operating hours or annually, whichever comes first.	No
A-47 and B-23	During Extended Emergency Use in excess of 100 hours	No limit	As occurs	Yes
B-15, A-07, A-10, A-13, A-14, A-17, A-26, and A-44	Initial PM Performance Test §60.732	Initial Report Only	One-time, Complete but not on schedule	Yes
A-36, A-53, and A-54	Initial PM Performance Test §60.732 -	Contains PM in excess of 0.092 g/dscm [0.040 gr/dscf] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers <u>and</u> exhibits greater than 10% opacity, unless emissions are discharged from an affected facility using a wet scrubbing control device	One-time - not later than 180 days after the initial startup - past due	Yes

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
A-59, A-62, A-66, A-67, A-68			One-time, not later than 180 days after the initial startup	Yes

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
B-23 and A-47 (natural gas, emergency engines)	5%	§18.501	Annual Observation by ADEQ Inspector
B-01, B-03, B-05, B-06, B-07, B-08, B-10, B-12, B-14, B-16 through B-22, A-01 through A-03, A-06, A-08, A-09, A-12, A-15, A-18, A-19, A-22, A-24, A-25, A-29, A-31, A-33, A-38, A-39, A-42, A-43, A-46, A-49, A-51, A-52, A-55 through A-58, A-60, A-61, A-63, A-64, and A-65	5%	§18.501	
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-53, A-54, A-59, A-62, A-66, A-67, and A-68	10%	§ 60 Subpart UUU – §60.732(b)	Inspection by Facility

20. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
INCINI-Cone Afterburner	A-1	No new IA were added to the A-1 category with this permit modification. Total emissions will be evaluated next time the A-1 IA List is updated.						
Acetic Acid Storage Tank	A-3			0.042			0.042	0.042
Slug Storage Tank	A-3			0.018			0.018	0.018
Caustic Storage Tank	A-4							
R&D burner & Activator	A-5			0.01				
Analysis Lab	A-5			0.10				
Feed Blender	A-13	Enclosed system. Zero emissions						
Slug Mix Tank Fume Scrubber	A-13			0.01			0.01	0.01
Lab Scale Hydrotreating	A-13	H ₂ S emissions equal 0.07 tpy						
Nitric Acid Storage Tank	A-13	0.2 tpy Nitric Acid						
Ammonia Storage Tank	A-13	0.1 tpy Ammonia						

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0635-AR-21

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Evonik Corporation
 Permit #: 0635-AR-22
 AFIN: 60-00004

			Old Permit	New Permit
\$/ton factor	28.14	Permit Predominant Air Contaminant	98.8	98.8
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	0	
Minimum Initial Fee \$	500	Permit Fee \$	400	
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	98.8	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	69.4	69.4	0
PM ₁₀	47.7	47.7	0
PM _{2.5}	0	0	0
SO ₂	1.8	1.8	0
VOC	16.4	16.4	0
CO	33.7	33.7	0
NO _x	98.8	98.8	0
Ammonia	0.35	0.35	0
HCl	0	0.44	0.44
Total HAP	9.7160788	9.7160788	0