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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **June 21, 2022**

TO: Phillip Fielder, P.E., Chief Engineer

THROUGH: Rick Groshong, Sr. Env. Programs Manager, Compliance & Enforcement

THROUGH: Eric L. Milligan, P.E., Engineering Manager, Engineering Section

THROUGH: David Schutz, P.E., New Source Permits Section

FROM: Jian Yue, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application No. **92-074-C (M-5)**
Eurecat US, Inc.
Catalyst Regeneration Plant (SIC 2819, NAICS 325180)
Facility ID: 2951
Section 10, T5N, R13E
Lat. 34.92420°N, Long. -95.82248°W
100 Stephen Taylor Blvd.
McAlester, Pittsburg County, Oklahoma
Directions: Proceed south on the Indian Nation Turnpike (Highway 75) from Henryetta, exit on SH 270 and proceed east. Take the first right turn and proceed south approximately two miles to intersection of SH 31. Continue south into Steven W. Taylor Industrial Park and plant is the second facility on the left side.

SECTION I. INTRODUCTION

Eurecat has requested a new construction permit to authorize the replacement of the vortex mill in the milling and blending process with a similar unit having greater capacity. The milling and blending process was originally authorized by a synthetic minor construction permit, Permit No. 92-074-C (M-3), issued on June 27, 2016. Eurecat later applied for a construction permit (92-074-C (M-4) under Part 5 of OAC 252:100-8 for this process because the facility is required by NESHAP Subpart VVVVVV to obtain a Title V operating permit. That permit was issued on June 10, 2022. This facility is currently operating as authorized by Permit No. 92-074-O (M-1) issued February 23, 2011.

Permit No. 92-074-C (M-4) was the result of Enforcement Case No. 9878. In an alternative enforcement letter issued on June 15, 2020, DEQ required Eurecat to submit a construction permit application under Part 5 of OAC 252:100-8 for the milling and blending process, because this process is considered a new chemical manufacturing process unit (CMPU) under NESHAP 40 CFR Part 63 Subpart VVVVVV. According to 40 CFR §63.11494(e), any area source that installed a federally-enforceable control device on an affected CMPU is required to obtain a

permit under 40 CFR Part 70 or 40 CFR Part 71 if the control device on the affected CMPU is necessary to maintain the source's emissions at area source levels. The control devices installed on emission points from the milling and blending process are necessary to maintain emissions of nickel compounds below major source thresholds. Therefore, the facility is required to obtain a Part 70 operating permit. The details of this case are discussed in SECTION IX (Compliance) of the Memorandum.

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) as outlined in SECTION V. The facility will be a minor source for Prevention of Significant Deterioration (PSD) and an area source of Hazardous Air Pollutants (HAPs).

SECTION II. REQUESTED CHANGES

This modification includes the following changes:

1. Replace the current 100-hp Vortex mill that has a maximum operating capacity of 2,500 lbs/hr with a 150-hp Hosokawa mill that has a maximum operating capacity of 3,380 lbs/hr.
2. Install a new baghouse filter to control particulate emissions from the new replacement mill.
3. Install a third storage silo for blended catalyst material, similar in capacity and utilizing the same filter receiver for control of emissions from displaced air as the two existing silos.
4. Limit the maximum annual average nickel oxide content of catalysts fed to the milling and blending process, both regeneration units, and the Guardian Process to 10%. Eurecat will conduct analytical testing of catalysts prior to processing (at a minimum, a composite sample from each catalyst feed lot will be analyzed for nickel oxide) to demonstrate compliance with this limit. Records of this feed catalyst monitoring will be maintained at the McAlester facility.
5. Add cobalt emissions to the milling and blending process, both regeneration units, and the Guardian Process. Applicant has always reported cobalt emissions in their emission inventories. They were just never listed in previous permits.

SECTION III. PROCESS DESCRIPTION

The facility includes two catalyst regeneration process lines, identified as Regen1 and Regen2; the Guardian process line, where off-spec regenerated catalyst is recycled through a mechanical crushing and mixing process; a currently inactive ReAct process, used to rejuvenate catalyst; and the nickel-molybdenum catalyst milling and blending process line, which mills and then blends regenerated or fresh catalyst to achieve a uniformly sized product.

Regeneration Lines

The facility uses a proprietary process to regenerate spent refinery and petrochemical catalyst. Each lot of spent catalyst is regenerated by a thermal oxidation process to remove the carbon and sulfur coating that fouls the catalyst during its use cycle. The regenerated catalyst is then returned to its owner for reuse.

The facility operates two process lines for the regeneration of spent catalyst. The maximum process rate of regeneration line #1 (Regen 1) is 1,513 lb/hr. The maximum process rate of regeneration line #2 (Regen 2) varies from approximately 1,750 lb/hr at 6-10% carbon saturation level to approximately 225 lb/hr at 24% carbon saturation.

For each regeneration line, spent catalyst feedstock is sent to a feed bin, a vibrating feeder, an elevator, a second bin, then two vibrating feeders that feed two reactors. The feeding process are controlled by baghouses. In each regeneration reactor, sulfur is driven off and reacts with the heated air to form sulfur dioxide. Under the maximum catalyst process rate, the sulfur content could yield a process loading rate of 100 lbs/hr of sulfur (200 lbs/hr SO_x) for Regen 1 and 240 lbs/hr of SOx for Regen 2. Any residual carbonaceous material on the catalyst surface will oxidize and be emitted as carbon dioxide. Reclaimed catalyst flows out of the reactor to the cooler. An elevated inclined conveyor transfers the catalyst to a screen. Fines are removed and the finished product enters the load-out hopper and is sent to packaging and storage. The processes after the reactors are controlled by a baghouse.

Regen 1 has two emission points. The exhausts from the reactors and the two air heaters (4.0 MMBTUH each) go through a quench tower, through a particulate filter, and then to the caustic scrubber (Stack No. A-1), where sulfur dioxide is removed by countercurrent flow with caustic solution. The exhausts from the other baghouses controlling the feeding processes before the reactors and the storage processes after the reactors are routed to a smaller caustic scrubber (Stack No. A-2).

Regen 2 has one emission point. All emissions from baghouses (BH-1 controlling the feeding processes before the reactors and BH-2 controlling the storage processes after the reactors), the two air heaters (4.0 MMBTUH each), and the reactors are routed through a quench tower, a baghouse (BH-3), and finally a caustic scrubber designated Stack No. B-1.

Each of the scrubbers consists of an absorption tower filled with packing material designed to provide a large surface area for gas/liquid contact. Upon exiting the scrubbers, the liquid is transferred to the on-site wastewater pretreatment system where a chemical pretreatment and filtration system removes heavy metals and other contaminants with final pH adjustment prior to discharge to the City of McAlester sanitary sewer. (Most of the metals on the catalyst are put on it by the catalyst manufacturers to make the catalyst active for its designed application in a refinery; some heavy metals are contaminants left on the catalyst by the hydrotreating process. While treating these catalysts at the facility, some of the heavy metals may get into the wastewater stream. The bags in the baghouses have an efficiency of 99.5% and small quantities of some metals make it through to the caustic scrubbers and make it into the wastewater.) The wastewater pretreatment process generates a filter press solid (sludge) that is managed as hazardous waste.

The facility continuously monitors the process temperature in each reactor. The maximum temperature allowed for the reactor is 1,150 °F. Temperature control is very specific to the catalyst being processed as is the residence time. These variables are closely controlled in order that the original lattice structure of the catalyst is not disturbed and none of the original materials are displaced in the process. Because the main reason for catalyst deactivation is the buildup of

carbon and sulfur on the catalyst, the regeneration process has been carefully designed to remove only the carbon and sulfur constituents, while not affecting the various heavy metals. The operating temperature range for the regeneration reactors exceeds the level required to ensure destruction of benzene and other organic materials, but is less than the minimum temperature required to vaporize heavy metals. Any heavy metals on the catalyst will remain in the pore structure of the catalyst during processing by Eurecat.

Guardian Process Line

The Guardian Process Line is designed to reconstitute off-spec catalysts (undersized and oversized pieces) from the regeneration process into a reusable size and shape. Regenerated catalyst is fed to a crusher equipped with baghouse BH-4 (Stack No. C-1) with a process rate of 700 lb/hr. The crushed material is conveyed to two 38,000-pound storage silos equipped with 99.9% efficient bin vent dust collectors. The bin vents discharge back into the silos.

A maximum of 800 lb/hr of crushed catalyst from the silos is conveyed to the mixer. A maximum of 300 pounds of water per hour is added to the crushed catalyst during the mixing process. The mixer is enclosed and equipped with a water spray at the inlet side. Water is sprayed on the inlet side of the sprayer during loading. The mixer vents through baghouse BH-5 which vents internally into the process building.

The resulting paste then moves through the extruder to be formed into usable shapes. Resulting product is then sent to the belt fed indirect gas fired dryer, where most of the water is driven off. The dryer is equipped with three 2.0 MMBTUH natural gas-fired burners. Combustion products exhaust through Stack C-2.

The dried product moves to a surge hopper and then proceeds to an enclosed screen where fines are recovered (Eurecat estimates that a maximum of 5% fines or 40 lb/hr are recovered) and routed back to the crusher for reprocessing. Finished products proceed to the packaging station. Emissions from the surge hopper, temporary packaging station, enclosed screen, and packaging station are routed to Baghouse BH-6 which vents internally into the process building.

ReAct Process Line

The ReAct Process Line is intended to rejuvenate regenerated catalyst. Regenerated catalyst typically has a reactivity level of 60%. In order to produce low-sulfur diesel fuel, petroleum refineries require catalysts with reactivity levels of 95-100%. Eurecat installed the ReAct Line to meet this demand.

Regenerated catalyst is fed to a conditioning drum where it is mixed with chelating agents. The blended material is routed to a low temperature in-direct gas fired dryer equipped with a 750 MBTUH gas-fired burner. The low temperature dryer emits through Stack No. D-1. The finished product then proceeds to the screening and packaging operations that are controlled by baghouse BH-7, which discharges internally to the process building.

Milling and Blending Process

The milling and blending process was installed to process regenerated or "fresh" (i.e., not waste material) Nickel-Molybdenum catalysts received from an off-site location. The received catalysts are not expected to contain volatile organic compounds or have a sulfur content that could lead to emissions of regulated air pollutants. Significant priority or hazardous air pollutant emissions from the process consist only of particulate matter and nickel or nickel compounds as a hazardous air pollutant.

In the milling and blending process, raw material (fresh or regenerated nickel-molybdenum catalysts) will be fed from the customer bin to a 150-hp Hosokawa mill which has a maximum operating capacity of 3,380 pounds per hour. The material is ground to a specification of no more than 10% smaller than 2 micron, 50% in the range of 7-16 microns and 100% less than 250 microns.

Milled catalyst is delivered by vacuum air conveyor to a screw feeder and screener before transfer to the 200,000-lb capacity blending silo. The blending silo homogenizes the ground material which is then either stored in one of three 105,000-lb capacity storage silos, or directly loaded into truck, railcars, or supersacks.

The milling and blending process contains five exhaust points (process vents):

(a) At delivery of milled catalyst to the screw feeder
(b) Above the blending silo
(c) Above each of the three storage silos
(d) At the truck and railcar load-out station
(e) Above the supersack filling station

Emissions at each process vent are controlled using a baghouse or filter receiver with a minimum 16-ounce "Duo-Density" or felted polyester filter media. Supplier information warrants that these filter bags meet or exceed 99.9% control efficiency for particulates when properly installed and used.

The baghouse/filter receivers are equipped with Goyen EMP7 particulate emissions monitors for bag leak detection. According to the manufacture, these units have particle sensitivity to 0.001 milligrams per cubic meter. The particulate emission monitors have data logging and audible alarm capabilities.

SECTION IV. EQUIPMENT

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) as follows. Emissions Unit Group No. 1 was designated as the facility as a whole.

EUG 2. Regeneration Lines

EU ID#	Point ID#	Description	Construction Date
15284	15322 (A-1)	Regeneration Line1, Scrubber Vent (Stack A-1)[a]	July 1993
61714	61470 (A-2)	Regeneration Line1, Baghouse Scrubber (Stack A-2)[b]	July 1993
43633	43654 (B-1)	Regeneration Line2, Scrubber Vent (Stack B-1)[c]	March 2008

[a] Includes exhausts from the reactors and the two 4-MMBTUH air heaters, which go through a baghouse first, and then to this scrubber.

[b] Includes emissions from the feeding process baghouse and storage process baghouse.

[c] Includes all emissions from baghouses (BH-1 controlling the feeding processes before the reactors and BH-2 controlling the storage processes after the reactors), the two air heaters (4.0 MMBTUH each), and the reactors, which are routed through a quench tower, a baghouse (BH-3), and finally this caustic scrubber designated Stack No. B-1.

EUG 3. Guardian Process Line

EU ID#	Point ID#	Description	Construction Date
61717	61473 (C-1)	Guardian Process Crusher (Stack C-1)	March 2008
61734	61487 (C-2)	Guardian Process Belt Dryer (Stack C-2)[a]	March 2008
61737	61490	Guardian Silo Bin Vents	March 2008

[a] Includes emissions from the three natural gas fired dryer burners (2-MMBTUH each).

EUG 4. ReAct Process

EU ID#	Point ID#	Description	Construction Date
61735	61488 (D-1)	ReAct Process Dryer (Stack D-1)[a]	March 2008

[a] Includes emissions from the 0.75 MMBTUH natural gas fired dryer burners.

EUG 5. Milling and Blending Process

EU ID#	Point ID#	Description	Construction Date
158633	158210 (E-1)	Dash-Q-Mill Feeder (Stack E-1)	January 2017/2022
158667	158233 (E-2)	Dash-Q-Blend Silo (Stack E-2)	January 2017
158750	158310(E-3)	Dash-Q-Storage Silos (Stack E-3)	January 2017/August 2022
158751	158311 (E-4)	Dash-Q-Bag Fill (Stack E-4)	January 2017
158753	158313 (E-5)	Dash-Q-Bulk (Rail/Truck) Fill (Stack E-5)	January 2017

EUG 6. Emergency Generator

EU ID#	Point ID#	Description	Construction Date
NA	NA	80-KW Kohler Natural Gas Fired Emergency Generator	2003

SECTION V. AIR EMISSIONS

Unless otherwise stated emissions are based on 8,760 hours per year of operation with combustion sources firing pipeline natural gas.

Heaters/Burners

Emissions from natural gas fired heaters/burners are based on AP-42 (7/98), Tables 1.4-1 and 1.4-2, a gas heating value of 1,020 BTU/SCF, and the heat capacity of each unit.

Heater/Burner Emission Factors

NO_X	CO	VOC	PM_{10}	SO_2
lb/MMSCF	lb/MMSCF	lb/MMSCF	lb/MMSCF	lb/MMSCF
100	84	5.5	7.6	0.6

Heater/Burner Emissions

Sources	MMBTUH (Each Unit)	NO_x		CO		VOC		PM_{10}		SO_2	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Regen 1 Heaters (2)[a]	4	0.78	3.44	0.66	2.89	0.04	0.19	0.06	0.26	-	0.02
Regen 2 Heaters (2)[b]	4	0.78	3.44	0.66	2.89	0.04	0.19	0.06	0.26	-	0.02
Dryer Burners (3)[c]	2	0.59	2.58	0.49	2.26	0.03	0.14	0.04	0.20	-	0.02
ReAct Dryer Burners[d]	0.75	0.07	0.32	0.06	0.27	-	0.02	0.01	0.02	-	-

[a] Emitted at Stack A-1 of Regen 1.
[b] Emitted at Stack B-1 of Regen 2.
[c] Emitted at Stack C-1 of Guardian Process.
[d] Emitted at Stack D-1 of ReAct Process.

Regeneration Line #1

During the period from March 27 through April 2, 2007, Environmental Support Services conducted stack testing on the large scrubber on regeneration line #1 and on the small scrubber downstream from the facility baghouses. The following table lists the testing results.

Pollutants	Tested Emissions		Derived Emission Factor	
	Regen Scrubber Stack	Baghouse Scrubber Stack	Regen Scrubber Stack	Baghouse Scrubber Stack
	lb/hr	lb/hr	lb/ton catalyst	lb/ton catalyst
Catalyst Feed Rate at Test	797.5	935.83	-	-
PM_{10}	1.23	0.6	3.085	1.282
SO_2	0.012	0.0019	0.03	0.0041
NOx	0.86	0.41	2.157	0.876
CO	0.27	0.12	0.677	0.256
VOC	1.18	0.31	2.959	0.663

Potential emissions from the regeneration line #1 at the maximum catalyst process rate of 1,513 lb/hr are listed in the following table.

Pollutants	Potential Emissions			
	Regen Scrubber Stack Stack No. A-1*		Baghouse Scrubber Stack Stack No. A-2	
	lb/hr	TPY	lb/hr	TPY
Potential Catalyst Feed Rate	1,513 lb/hr			
PM_{10}	2.39	10.47	0.97	4.25
SO_2	0.02	0.11	0.003	0.01
NOx	2.41	10.58	0.66	2.89
CO	1.17	5.12	0.19	0.83
VOC	2.28	10.00	0.50	2.19

* Includes emissions from the two heaters.

For SO_2 emissions, applicant conservatively chose to use 1 lb/hr and 4.38 TPY as emission limits for regeneration line #1 based on 99.5% control of 200 lb/hr loading.

Emissions testing was performed in April 2007 on the two emission points associated with Regen 1 (Stack A-1 and Stack A-2). The Method 6 test yielded a sulfur dioxide emissions rate of 0.0139 pounds per hour (lb/hr), with a sulfur content at the catalyst loading rate for the reactor of 100 lb/hr (200 lb/hr sulfur dioxide). Based on these results, the control efficiency for sulfur dioxide was determined to be greater than 99.9%, corresponding to a sulfur dioxide emissions factor for the regen unit of 0.0341 lb/ton of catalyst at the unit's maximum process rate of 1,513 lb/hr of catalyst. The 99.5% efficiency was considered a reasonable estimate used to determine permitted emission limits for both Regen 1 and Regen 2, which employs a treatment train for emissions similar to Regen 1 but with only one emissions point.

Regeneration Line #2

Potential emissions from the regeneration line #2 at the maximum catalyst process rate of 1,750 lb/hr based on emission factors derived from regeneration line #1 are listed in the following table.

Pollutants	Potential Emissions, Stack No. B-1*	
	lb/hr	TPY
Potential Catalyst Feed Rate	1,750 lb/hr	
PM_{10}	2.76	12.09
SO_2**	1.20	5.28
NOx	2.67	11.72
CO	1.25	6.02
VOC	2.63	11.53

* Includes emissions from the two heaters. ** Based on 99.5% control on 240 lb/hr loading.

Guardian Process

Emission points in this process include one baghouse on the crusher (Stack No. C-1), two storage silo bin vent dust collectors, and one belt fed indirect gas fired dryer with three 2 MMBTUH burners (Stack No. C-2). Combustion emissions are based on AP-42 (7/98), Section 1.4. Bin vent emissions and the baghouse on the crusher are conservatively based on 700 lb/hr process rate and 99.9% control efficiency.

Sources	NO_x		CO		VOC		PM_{10}		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack C-1	-	-	-	-	-	-	0.70	3.07	-	-
Stack C-2	0.59	2.58	0.49	2.26	0.03	0.14	0.04	0.20	-	0.02
Bin Vent Dust Collectors	-	-	-	-	-	-	0.70	3.07	-	-
Totals	**0.59**	**2.58**	**0.49**	**2.26**	**0.03**	**0.14**	**1.44**	**6.34**	**-**	**0.02**

ReAct Process

The 0.75 MMBTUH low temperature indirect gas-fired dryer (Stack No. D-1) is the only emission source in this process. Emissions are based on AP-42 (7/98), Table 1.4-1.

Sources	NO_x		CO		VOC		PM_{10}		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack D-1	0.07	0.31	0.06	0.27	0.005	0.02	0.01	0.02	-	-

Milling and Blending Process

Emissions from this process are particulate matters that contain hazardous pollutants such as nickel and nickel compounds. The feedstock to this process, regenerated or fresh catalyst, does not contain benzene, or sulfur, or other volatile organic compounds. The feedstock does not include catalysts containing cobalt.

Emissions are based on the maximum operating rate of 3,380 lb/hr of the system, the manufacturer's reported control efficiency of 99.9% for particulates, and 8760 hours/year operation.

Sources	Description	$PM_{10}/PM_{2.5}$		Nickel Compound	
		lb/hr	TPY	lb/hr	TPY
E-1 Feeder	Bag Filter at Screw Feeder	3.38	14.80	0.338	1.48
E-2 Blend Silo	Filter Receiver at Blend Silo	3.38	14.80	0.338	1.48
E-3 Storage Silos	(3) Storage Silo Filter Receivers	3.38	14.80	0.338	1.48
E-4 Load-Out*	Filter Receiver at Rail Load-Out	3.38	14.80	0.338	1.48
E-5 Bag Fill*	Filter Receiver at IBC Fill Station				
Totals		**13.52**	**59.20**	**1.352**	**5.92**

*The product is either sent to E-4 or E-5; so they do not operate at the same time.

Emergency Generator

In addition to emergency operation, as needed the 80-kw (107-hp, 0.273-MMBTUH) Kohler generator is operated in test or maintenance mode for brief periods weekly, totaling less than 50 hours of operation per year. Emissions from the generator are based on emission factors from AP-42 (7/00), Table 3.2-2 (Uncontrolled emission factors for 4-stroke rich-burn engines), the rated heat input, and total annual operation of 500 hours.

Sources	NO_x		CO		VOC		PM_{10}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Emergency Generator	0.60	0.15	1.02	0.26	0.008	0.002	0.003	0.0008

The following table summarizes facility wide potential emissions.

Sources	NO_x		CO		VOC		$PM_{10}/PM_{2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack A-1	2.41	10.58	1.17	5.12	2.28	10.00	2.39	10.47	1.00	4.38
Stack A-2	0.66	2.89	0.19	0.83	0.50	2.19	0.97	4.25		
Stack B-1	2.65	11.62	0.75	3.28	2.63	11.53	2.70	11.83	1.20	5.26
Stack C-1	-	-	-	-	-	-	0.70	3.07	-	-
Stack C-2	0.57	2.50	0.12	0.53	0.03	0.15	0.03	0.11	-	-
Bin Vents Collectors	-	-	-	-	-	-	0.70	3.07	-	-
Stack D-1	0.07	0.31	0.02	0.07	0.005	0.02	0.002	0.01	-	-
E-1 Feeder	-	-	-	-	-	-	3.38	14.80	-	-
E-2 Blend Silo	-	-	-	-	-	-	3.38	14.80	-	-
E-3 Storage Silos	-	-	-	-	-	-	3.38	14.80	-	-
E-4 Load-Out	-	-	-	-	-	-	3.38	14.80	-	-
E-5 Bag Fill										
Emergency Generator	0.60	0.15	1.02	0.26	0.008	0.002	0.003	0.0008	-	-
Totals	**6.96**	**28.05**	**3.27**	**10.09**	**5.45**	**23.89**	**21.02**	**92.01**	**2.20**	**9.64**
Existing Totals	**6.96**	**28.05**	**3.27**	**10.09**	**5.45**	**23.89**	**17.50**	**76.61**	**2.20**	**9.64**
Emission Changes	**0**	**0**	**0**	**0**	**0**	**0**	**3.52**	**15.40**	**0**	**0**

Benzene emissions are expected from regenerating spent catalyst. The auto ignition temperature of benzene is 498°C (928°F), the reactors are operated at a temperature of 950°F or higher, so benzene is expected to be mostly destroyed in the reactors.

The customer/refinery is required to provide lab analyses of the benzene content on their spent catalyst from third party labs. Various EPA approved test methods are used. The maximum benzene content on the feed was determined from these analyses to be 3,000 ppmw.

This facility is subject to Part 61, Subpart FF, which requires 99% removal or destruction of benzene. Potential benzene emissions from regeneration line #1 and emissions from regeneration line #2 are based on their maximum process rate, maximum benzene content of 3,000 ppmw, and 99% destruction.

A stack test for benzene was performed on regeneration line #1 on January 29, 1994, by Environmental Support Services at a process rate of 858 lb/hr, which equates to 2.574 lb/hr of benzene being fed to the reactor. Testing resulted in 0.04 lb/hr of benzene emission, which indicates 98.4% benzene destruction. Another stack test for benzene was performed on regeneration Line #2 on November 3, 2010, by Cetcon, using Method 18, at catalyst feed rate of 624 lb/hr. Testing resulted in 0.01 lb/hr of benzene emission, which indicates 99.5% benzene destruction.

Nickel and cobalt emissions are expected from the processes. Eurecat uses an ICP analyzer to analyze for metals, based on industry standards. For every job, Eurecat makes a feed composite and then analyzes it for metals. After processing, Eurecat makes a product composite and analyzes it for metals. Electronic copies of all analyses are kept on-site.

Nickel emissions are based on the maximum target content of 10% nickel oxide for nickel-molybdenum catalysts received for processing at the facility (The average nickel oxide content of nickel-molybdenum catalysts processed at the facility is 5.35%). A stack test was performed by Air Hygiene on February 28, 2018, for nickel from the exhaust of the Nickel-Moly Catalyst Milling and Blending Process, using Method 29. Testing resulted in negligible emissions (less than 0.01 lb/hr). The following table lists potential facility wide benzene and nickel compound emissions.

Sources	**Benzene Emissions**		**Controlled $PM_{10}/PM_{2.5}$ Emissions[3]**		**Nickel Compound Emissions[4]**	
	lb/hr	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
Regeneration Line #1	0.045[1]	0.197	3.30	14.45	0.33	1.45
Regeneration Line #2	0.053[2]	0.232	2.70	11.83	0.27	1.18
Guardian Process	-	-	1.40	6.13	0.14	0.61
Milling and Blending Process	-	-	13.52	59.20	1.35	5.92
Totals	**0.098**	**0.429**	**20.92**	**91.61**	**2.09**	**9.16**
Existing Totals	**0.098**	**0.429**	**17.4**	**76.21**	**2.09**	**9.15**
Emission Changes	**0**	**0**	**3.52**	**15.40**	**0**	**0.01**

[1] lb/hr= maximum process rate of 1,513 lb/hr x 3,000 ppmw x (1-99%)
[2] lb/hr= maximum process rate of 1,750 lb/hr x 3,000 ppmw x (1-99%)
[3] Do not include heater emissions
[4] Nickel Compound Emissions = Controlled $PM_{10}/PM_{2.5}$ emissions x 10%

The following table lists potential facility wide cobalt emissions.

Sources	Maximum Cobalt Content	Controlled $PM_{10}/PM_{2.5}$ Emissions		Cobalt Emissions	
	%	lb/hr	TPY	lb/hr	TPY
Regeneration Line #1	6	3.30	14.45	0.20	0.87
Regeneration Line #2	6	2.70	11.83	0.16	0.71
Guardian Process	4	1.40	6.13	0.06	0.40
Milling and Blending Process	0.25	13.52	59.20	0.03	0.15
Totals		**20.92**	**91.61**	**0.45**	**2.13**

This facility is a minor source of HAPs.

SECTION VI. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application and listed in OAC 252:100-8, Appendix I, are listed below. Recordkeeping requirements for activities indicated with an asterisk "*" are listed in the Specific Conditions. Any activity to which a state or federal applicable requirement applies is not insignificant even if it is included in this list.

- Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). Various space heaters are in this category.
- Additions or upgrades of instrumentation or control systems that result in emissions increases less than the pollutant quantities specified in OAC 252:100-8-3(e)(1).
- * Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. These are conducted as part of facility maintenance, which is a "trivial activity", therefore no recordkeeping will be required.
- Hazardous waste and hazardous materials drum staging areas.
- Sanitary sewage collection and treatment facilities other than incinerators and Publicly Owned Treatment Works (POTW). Stacks or vents for sanitary sewer plumbing traps are also included (i.e., lift station).
- Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite 9accumulation) areas.
- Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. These are conducted as part of facility maintenance, which is a "trivial activity", therefore no recordkeeping will be required.
- *Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant. These activities includes (but are not limited to):
    - One 500-gallon propane tank
    - One fume hood in the laboratory. Chemical consumption under the fume hood includes approximate 50 ml of nitric acid per week, 750 ml hydrochloric acid per week, and 500 ml of sulfuric acid per week.

SECTION VII. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This Subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. At this time, all of Oklahoma is in "attainment" of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories have been submitted and fees paid for the past years.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility that result in emissions not authorized in the permit and that exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities refer to those individual emission units either listed in Appendix I or whose actual calendar year emissions do not exceed the following limits.

- 5 TPY of any one criteria pollutant
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emission limitations and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the permit application or developed from the applicable requirement.

Section 8-4 requires a construction permit prior to the following:

- Construction of a new source that would require an operating permit under 40 CFR Part 70;
- Reconstruction of a major HAP source under 40 CFR Part 63;
- Any physical change or change in method of operation that would be a significant modification under OAC 252:100-8-7.2(b)(2); or
- Any physical change or change in method of operation that would increase the PTE of any one regulated air pollutant by more than 10 TPY, calculated using the approach in 40 CFR § 49.153(b).

The requested modifications are not considered construction of a new major source. The requested physical changes could be considered reconstruction of a new major source of HAP

and subject to the preconstruction review requirements of §63.5. The requested modifications include physical changes or changes in method of operation that would be considered significant modifications under OAC 252:100-8-7.2(b)(2) as indicated in Section X. Finally, the requested modifications include physical changes or changes in method of operation that would increase the PTE of any one regulated air pollutant by more than 10 TPY, as indicated in Section V. Based on these determinations, the requested modifications require a Tier II construction permit.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter) [Applicable]
This subchapter specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from fuel-burning equipment with a rated heat input of 10 MMBTUH or less. For external natural gas (1,020 btu/scf) combustion, AP-42 lists the total PM emissions to be 0.007 lbs/MMBTU. The permit requires the use of natural gas for all fuel-burning units to ensure compliance with Subchapter 19.

Section 19-12 limits emissions of particulate matter from industrial processes per AP-42 factors, the following table lists process emissions and allowables. All process emissions are in compliance with allowables.

Sources	PM_{10}		
	Emissions lb/hr	**Allowables lb/hr**	**Process Rate lb/hr**
Stack A-1	1.63	3.40	1,513
Stack A-2	0.66	3.40	1,513
Stack B-1	1.89	3.74	1,750
Stack C-2	0.25	2.22	800
Bin Vent Dust Collectors	0.5	2.03	700
E-1 Feeder	3.38	5.70	3,380
E-2 Blend Silo	3.38	5.70	3,380
E-3 Storage Silos	3.38	5.70	3,380
E-4 Load-Out	3.38	5.70	3,380

Sources	PM_{10}		
	Emissions lb/hr	**Allowables lb/hr**	**Process Rate lb/hr**
E-5 Bag Fill	3.38	5.70	3,380

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas in the dryers there is very little possibility of the dryers exceeding these standards. Use of the scrubbers and baghouses to control emissions from the process units will also ensure compliance with the opacity limits.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. Under normal operating conditions, this facility has negligible potential to violate this requirement; therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 2 limits the ambient air concentration of hydrogen sulfide (H_2S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 $\mu g/m^3$. Fuel-burning equipment fired with pipeline natural gas will not have the potential to exceed the H_2S ambient air concentration limit.
Part 3 sets standards for sulfuric acid plants, draft pulp mills, and fossil fuel-fired steam generators. This facility is not in these categories.
Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). There are SO_2 emissions from the reactors, but the reactors are not fuel-burning equipment, sulfur is driven off spent catalyst and reacts with the heated air to form sulfur dioxide, thus is not subject to this part. The natural gas fired air heaters and dryers are subject to this part. For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. Thus, the permit requires the use of pipeline natural gas or process off-gases from which sulfur has already been removed for all fuel-burning equipment to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NOx per MMBTU, three-hour average. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. There are no organic liquids storage tanks on-site.
Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. This facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.
Part 5 limits the VOC content of coating operations. Section 37-25 sets limits on the VOC content per gallon of paint and Section 37-26 specifies that clean up solvents and thinners must be included in the calculations. There is no coating operation at the facility.
Part 7 requires fuel-burning and refuse-burning equipment to be cleaned, operated, and maintained so as to minimize VOC emissions. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded and temperature and available air must be sufficient to provide essentially complete combustion. The equipment at this location is subject to this requirement.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Not Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no AOC has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Final total emissions will be less than the threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Not Applicable]
Subpart J, Petroleum Refineries. This subpart regulates fluid catalytic cracking unit catalyst regenerators in petroleum refineries. This facility is not a petroleum refinery.
Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI ICE). This subpart affects SI ICE ordered after June 12, 2006, and all SI ICE engines modified or reconstructed after June 12, 2006, regardless of size. The natural gas-fired generator engine (EUG 6) was constructed prior to that date and has not been modified or reconstructed.

NESHAP, 40 CFR Part 61 [Subpart FF Applicable]
Subpart FF, National Emission Standard for Benzene Waste Operations. This subpart applies to:
(a) Owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries.
(b) Owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in (a). The affected waste streams are the benzene-containing hazardous waste from any facility listed in (a).
This facility regenerates used catalyst containing benzene from refineries and is therefore subject to the applicable provisions of this subpart per § 61.340(b). Applicable standard for treatment processes is to remove or destroy benzene from the waste stream by 99 percent or greater. All applicable requirements have been incorporated into the permit.

NESHAP, 40 CFR Part 63 [Subparts ZZZZ & VVVVVV Applicable]
Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. This facility is an area source of HAP. A stationary RICE located at an area source of HAP emissions is existing if construction commenced before June 12, 2006. The emergency generator engine was constructed in 2003 and is considered an existing SI RICE. A summary of the requirements for emergency SI RICE located at an area source are shown in the following table.

RICE Category	**Emission Limit/Operating Limits**
Emergency stationary SI RICE	Change oil and filter every 500 hours of operation or annually, whichever comes first;
	Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

All applicable requirements have been incorporated into the permit.

Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers: Area Sources. affects industrial, commercial, and institutional boilers as defined in §63.11237 that are located at, or are part of, an area source of HAP. This facility does not have any boilers as defined in §63.11237 and is not subject to this subpart.
Subpart VVVVVV, Chemical Manufacturing Area Sources. This subpart applies to a chemical manufacturing process unit (CMPU) that is located at an area source of hazardous air pollutant (HAP) emissions and uses as feedstock, any material that contains any HAP listed in Table 1 to this subpart (Table 1 HAP) at an individual concentration greater than 0.1 percent by weight. Nickel compounds are one of the HAPs listed in Table 1 HAP. Therefore, the regen process in EUG 2 and the Guardian process in EUG 3 are subject to this subpart as existing sources while the catalyst milling and blending process is subject to this subpart as a new source.

Per §63.11494(e), any area source that installed a federally-enforceable control device on an affected CMPU that is used to maintain the source's emissions at area source levels is required to obtain an Title V operating permit. This facility utilizes control devices on the CMPUs to maintain emissions below the major source threshold. Therefore, the facility is required to obtain a Title V operating permit.

Per §63.11494(f), each CMPU with total uncontrolled metal HAP emissions ≥400 lb/year is required comply with the emission limits and other requirements in Table 4 to this subpart, which requires to reduce collective uncontrolled emissions of total metal HAP emissions by ≥ 95% by weight. Based on manufacturer's specification, baghouses used at this facility provide 99.9% control efficiency for PM and meet the requirement of Table 4.

Per §63.11494(f)(3)(ii), for an existing source, applicant must conduct a performance test or an engineering assessment, for each CMPU subject to a HAP metals emissions limit in Table 4 to this subpart, on the performance of the control device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart and report the results in the Notification of Compliance Status (NOCS). Eurecat submitted a NOCS on August 26, 2016. The NOCS included an engineering assessment conducted on May 21 and July 12, 2013, by Trinity Consultants for the performance of baghouses controlling the regen process in EUG 2 and the Guardian process in EUG 3. The assessment concluded that based on the facility's adherence to the operating, monitoring, and maintenance requirements of the control equipment, all control equipment was performing at or above 99% capture efficiency at all times during production activities at the facility.

Per §63.11494(f)(4), a new source using a baghouse as a control device must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the HAP metals emissions limit in Table 4 to this subpart. The operator must comply with the testing, monitoring, and recordkeeping requirements. A stack test was performed by Air Hygiene on February 28, 2018, for nickel from the exhaust of the nickel-moly catalyst milling and blending process, using Method 29. Testing resulted in negligible emissions (less than 0.01 lb/hr), which indicates higher than 99% control efficiency.

All applicable requirements have been incorporated into the permit.

CAM, 40 CFR Part 64 [Not Applicable]
Compliance Assurance Monitoring, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant;
- It uses a control device to achieve compliance with the applicable emission limit or standard; and
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant equal to or greater than the major source threshold.

This facility is not a major source and is not subject to CAM.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This facility will not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: *www.epa.gov/rmp.*

SECTION IX. COMPLIANCE

COMPLIANCE AND ENFORCEMENT ISSUES

On November 1, 2017, DEQ conducted a full compliance evaluation at the facility. Helen King, Environmental Programs Specialist with the Oklahoma Department of Environmental Quality – Air Quality Division in Tulsa conducted the evaluation. Ms. Marilyn Warren, HSE Manager, represented the facility. The evaluation concluded that the facility failed to apply for a Subchapter 8 construction permit and a Part 70 operating permit required by NESHAP 40 CFR Part 63 Subpart VVVVVV. Enforcement Case No. 9130 was opened as a result of this evaluation. Eurecat submitted a Part 70 operating permit application on February 23, 2018. DEQ performed another full compliance evaluation on February 14, 2019, which resulted in Enforcement Case No. 9878. DEQ issued an alternative enforcement letter on June 15, 2020, which required Eurecat to submit Subchapter 8 construction permit for the milling and blending process construction. Eurecat submitted a compliance plan on July 15, 2020, and the Subchapter 8 construction permit application on March 26, 2021. DEQ considered the enforcement cases closed and issued the closure letter on May 24, 2021.

SECTION X. TIER CLASSIFICATION, PUBLIC, AND EPA REVIEW

Tier Classification

This application has been classified as Tier II based on the request for a Subchapter 8 construction permit for modifications that are considered significant. Significant modifications are modifications that:

- Involve any significant changes in existing monitoring requirements in the permit;
- Relax any reporting or recordkeeping requirements;

- Change any permit condition that is required to be based on a case-by-case determination of an emission limitation or other standard, on a source-specific determination of ambient impacts, or on a visibility or increment analysis;
- Seek to establish or change in a permit term or condition for which there is no corresponding underlying applicable requirement or state-only requirement which the source has assumed to avoid some other applicable requirement or state-only requirement to which the source would otherwise be subject. Such terms and conditions include:
  - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I;
  - An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act; and
- Are modifications under any provision of Title I of the Act; and
- Do not qualify as minor permit modifications or administrative amendments.

The requested modifications seek to change a permit term or condition the source has assumed to avoid some other applicable requirement (i.e., that is taking a nickel content limit to avoid being a major HAP source).

The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant (or applicant business) owns the land used to accomplish the permitted purpose.

Public Review

The applicant published the "Notice of Filing a Tier II Application" in the *McAlester News-Capital*, a daily newspaper in McAlester on May 20, 2022, for a 30-day public review. The notice stated that the application can be reviewed at the McAlester Public Library located at 401 N 2nd Street, McAlester, OK 74501, or at the Air Quality Division's main office at 707 N. Robinson, Suite 4100, Oklahoma City, OK 73101.

The applicant will also publish the "Notice of Tier II Draft Permit" as a legal notice in the same newspaper for a 30-day public review period. The notice will state that the draft permit can be reviewed at a location in the county where the facility is located and also at the Air Quality Division's main office in Oklahoma City. The draft permit will also be available for public review on the Air Quality section of the DEQ web page at https://www.deq.ok.gov.

Bordering State Review

This facility is not located within 50 miles of the border of Oklahoma and any other states.

Tribal Review

This facility is located in Pittsburg County, which is within the Tribal jurisdiction of the Choctaw Nation of Oklahoma. Tribal Nations will be given notification of the draft permit.

Fees

The construction permit application fee of $5,000 has been received.

SECTION XI. SUMMARY

The applicant has demonstrated the ability to comply with the requirements of the applicable Air Quality rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance and enforcement issues concerning this facility. Issuance of the construction permit is recommended, contingent on public review.

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Eurecat US, Inc. **Permit No. 92-074-C (M-5)**
Catalyst Regeneration Plant

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on November 12, 2021. The Evaluation Memorandum dated June 21, 2022, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and emission limitations for each point: [OAC 252:100-8-6 (a)(1)]

EUG 2. Regeneration Lines

EU ID#	Point ID#	Description
15284	15322 (A-1)	Regeneration Reactor #1, Scrubber Vent (Stack A-1)
61714	61470 (A-2)	Regeneration Reactor #1, Baghouse Scrubber (A-2)
43633	43654 (B-1)	Regeneration Reactor #2, Scrubber Vent (Stack B-1) [1]

[1] - Emissions from the two (2) 4 MMBTUH air heaters are also routed to Stack B-1 and are included in the emission limits for B-1.

Sources	NO_x		CO		VOC		$PM_{10}/PM_{2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack A-1	1.63	7.14	0.51	2.23	2.24	9.81	2.33	10.21	1.00	4.38
Stack A-2	0.66	2.89	0.19	0.83	0.50	2.19	0.97	4.25		
Stack B-1	2.65	11.62	0.75	3.28	2.63	11.53	2.70	11.83	1.20	5.26

A. Each thermal reactor shall be operated at a minimum temperature of 950 °F and a maximum temperature of 1,150 °F.
B. Feed rate of spent catalyst to the thermal reactor shall not exceed 1,513 lbs/hr for regeneration line #1 and 1,750 lbs/hr for regeneration line #2.
C. Maximum annual average benzene content (calculated daily and 12-month rolling average) in the feed catalyst shall not exceed 3,000 ppmw.
D. The permittee shall monitor the sulfur content (through lab testing using LECO CS-200 which determines the total weight percent of sulfur as a result of an infrared cell detection system) on the catalyst before regeneration, which shall not exceed 100 lb/hr of sulfur for regeneration line #1 and 120 lb/hr of sulfur for regeneration line #2, at a minimum of once per shift (12-hour shift). The same lab testing shall be completed following the regeneration process.
E. The permittee shall use the control devices listed in the following table at the indicated emission points, or equivalent emission control equipment with equal or higher control efficiency.

Sources	Control Devices	Control Efficiency
Stack A-1	Particulate Filter + Scrubber	99.5% of SO_2, 99.9% PM
Stack A-2	Baghouse + Scrubber	99.5% of SO_2, 99.9% PM
Stack B-1	Baghouse + Scrubber	99.5% of SO_2, 99.9% PM

F. Control equipment shall be operated, inspected, and monitored in accordance with respective manufacturer's recommendations. Related manufacturer's documents for control equipment shall be kept on-site and shall be made available to regulatory personnel upon request.

G. The scrubbers shall be operated as follows:

I. The pH of water leaving the scrubber shall be maintained within 6 to 9, standard unit (pH probes on each scrubber shall be continuously monitored and logged once per hour).

II. The discharge pressure of the pumps must be greater than 20 psi (The pump pressure gauge on the discharge line of each pump shall be logged hourly).

III. A residence time of about 1 to 4 seconds shall be maintained for SO_2 absorption.

H. The baghouses and dust collectors shall be equipped with pressure gauges. Pressure drop shall be between 5-15 inches of water (manually recorded hourly).

I. The regeneration lines are subject to NESHAP Part 61 Subparts FF and Part 63 Subpart VVVVVV and shall comply with all applicable requirements outlined in Specific Conditions 5 and 6.

J. Maximum nickel oxide content of feed catalysts shall not exceed 10% by weight.

K. Eurecat shall conduct in-house lab ICP (Inductively Coupled Plasma) analysis to test nickel oxide content from every lot of catalyst that is processed.

L. Maximum cobalt content of feed catalysts shall not exceed 6% by weight

M. Eurecat shall conduct in-house lab ICP analysis to test cobalt content from every lot of catalyst that is processed.

EUG 3. Guardian Process Line

EU ID#	Point ID#	Description
61717	61473 (C-1)	Guardian Process Crusher (Stack C-1)
61734	61487 (C-2)	Guardian Process Belt Dryer (Stack C-2) [1]
61737	61490	Guardian Silo Bin Vents

[1] - Emissions from the three (3) 2-MMBTUH burners are also routed to Stack C-2 and are included in the emission limits for C-2.

Sources	NO_x		CO		VOC		$PM_{10}/PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack C-1	-	-	-	-	-	-	0.70	3.07
Stack C-2	0.57	2.50	0.12	0.53	0.03	0.15	0.03	0.11
Bin Vents Collectors	-	-	-	-	-	-	0.70	3.07

A. Process rate of the crusher in the Guardian process shall not exceed 700 lb/hr.

B. Permittee shall use the control devices listed below at the indicated emission points, or equivalent emission control equipment with equal or higher control efficiency.

Sources	Control Devices	Control Efficiency
Stack C-1	Baghouse	99.9%
Bin Vents	Dust Collectors	99.9%

C. The baghouses and dust collectors shall be equipped with pressure gauges and shall be operated between pressure drop ranges of 3-12 inches of water (manually recorded hourly).
D. The Guardian Process Line is subject to NESHAP Subpart VVVVVV and shall comply with Specific Condition 5.
E. Maximum nickel oxide content of feed catalysts shall not exceed 10% by weight.
F. Eurecat shall conduct in-house lab ICP analysis to test nickel oxide content from every lot of catalyst that is processed.
G. Maximum cobalt content of feed catalysts shall not exceed 4% by weight.
H. Eurecat shall conduct in-house lab ICP analysis to test cobalt content from every lot of catalyst that is processed.

EUG 4. ReAct Process

EU ID#	Point ID#	Description
61735	61488 (D-1)	ReAct Process Dryer (Stack D-1) [1]

1 - 0.75 MMBTUH gas fired dryer.

Sources	NO_x		CO		VOC		$PM_{10}/PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stack D-1	0.07	0.31	0.02	0.07	0.005	0.02	0.002	0.01

EUG 5. Milling and Blending Process

EU ID#	Point ID#	Description
158633	158210 (E-1)	Dash-Q-Mill Feeder (Stack E-1)
158667	158233 (E-2)	Dash-Q-Blend Silo (Stack E-2)
158750	158310(E-3)	Dash-Q-Storage Silos (Stack E-3)
158751	158311 (E-4)	Dash-Q-Bag Fill (Stack E-4)
158753	158313 (E-5)	Dash-Q-Bulk (Rail/Truck) Fill (Stack E-5)

Sources	$PM_{10}/PM_{2.5}$	
	lb/hr	TPY
E-1 Feeder	3.38	14.80
E-2 Blend Silo	3.38	14.80
E-3 Storage Silos	3.38	14.80
E-4 Load-Out	3.38	14.80
E-5 Bag Fill		

A. Catalyst processing rate shall not exceed 3,380 lb/hr.

B. Maximum nickel oxide content of feed catalysts shall not exceed 10% by weight.
C. Eurecat shall conduct in-house lab ICP analysis to test nickel oxide content from every lot of catalyst that is processed.
D. Maximum cobalt content of feed catalysts shall not exceed 0.25% by weight.
E. Eurecat shall conduct in-house lab ICP analysis to test cobalt content from every lot of catalyst that is processed.
F. Permittee shall use the control devices listed below at the indicated emission points, or equivalent emission control equipment with equal or higher control efficiency.

Sources	**Control Devices**	**Control Efficiency**
E-1 Feeder	Bag Filter at Screw Feeder	99.9%
E-2 Blend Silo	Filter Receiver at Blend Silo	99.9%
E-3 Storage Silos	(2) Storage Silo Filter Receivers	99.9%
E-4 Load-Out	Filter Receiver at Rail Load-Out	99.9%
E-5 Bag Fill	Filter Receiver at IBC Fill Station	99.9%

G. Control equipment shall be operated, inspected, and monitored in accordance with respective manufacturer's recommendations. The baghouses/filter receivers on Points E-1 through E-5 shall be equipped with Goyen EMP7 particulate emissions monitors for bag leak detection.
H. The baghouses shall be equipped with pressure gauges and operated at proper pressure drop range of 5 to 15 inches of water (manually recorded hourly).
I. The Milling and Blending Process is subject to NESHAP Subpart VVVVVV and shall comply with Specific Condition 5.

EUG 6. Emergency Generator

EU ID#	**Point ID#**	**Description**
NA	NA	80-KW Kohler Natural Gas Fired Emergency Generator

A. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE), Subpart ZZZZ, for the emergency generator, including but not limited to:
   I. § 63.6580 What is the purpose of subpart ZZZZ?
   II. § 63.6585 Am I subject to this subpart?
   III. § 63.6590 What parts of my plant does this subpart cover?
   IV. § 63.6595 When do I have to comply with this subpart?
   V. § 63.6600 What emission limitations and operating limitations must I meet?
   VI. § 63.6605 What are my general requirements for complying with this subpart?
   VII. § 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations?
   VIII. § 63.6615 When must I conduct subsequent performance tests?
   IX. § 63.6620 What performance tests and other procedures must I use?

X. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
XI. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
XII. § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
XIII. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
XIV. § 63.6645 What notifications must I submit and when?
XV. § 63.6650 What reports must I submit and when?
XVI. § 63.6655 What records must I keep?
XVII. § 63.6660 In what form and how long must I keep my records?
XVIII. § 63.6665 What parts of the General Provisions apply to me?
XIX. § 63.6670 Who implements and enforces this subpart?
XX. § 63.6675 What definitions apply to this subpart?

2. The fuel-burning equipment shall be fired with pipeline natural gas. Compliance for pipeline natural gas can be shown by a current gas company bill. Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-31]

3. Upon issuance of an operating permit, the permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)(1)]

4. Hazardous wastes from the facility shall be disposed in accordance with the requirements of the Oklahoma Hazardous Waste Management Act, 27A Okla. Stat. ("O.S.") §§ 2-7-101 et seq., and the federal Resource Conservation and Recovery Act ("RCRA") 42 U.S.C. §§ 6901 et seq., and rules and regulations promulgated thereunder.

5. The facility is subject to NESHAP Subpart FF, National Emission Standard for Benzene Waste Operations and shall comply with all applicable requirements, including but not limited to: [§61.340-§61.359]

A. §61.340 Applicability.
B. §61.341 Definitions.
C. §61.342 Standards: General.
D. §61.343 Standards: Tanks.
E. §61.344 Standards: Surface impoundments.
F. §61.345 Standards: Containers.
G. §61.346 Standards: Individual drain systems.
H. §61.347 Standards: Oil-water separators.
I. §61.348 Standards: Treatment processes.
J. §61.349 Standards: Closed-vent systems and control devices.
K. §61.350 Standards: Delay of repair.
L. §61.351 Alternative standards for tanks.
M. §61.352 Alternative standards for oil-water separators.
N. §61.353 Alternative means of emission limitation.

O. §61.354 Monitoring of operations.
P. §61.355 Test methods, procedures, and compliance provisions.
Q. §61.356 Recordkeeping requirements.
R. §61.357 Reporting requirements.
S. §61.358 Delegation of authority.

6. The facility is subject to NESHAP Subpart VVVVVV, National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources and shall comply with all applicable requirements, including but not limited to: [§63.11494-§63.11503]

A. §63.11494 What are the applicability requirements and compliance dates?
B. §63.11495 What are the management practices and other requirements?
C. §63.11496 What are the standards and compliance requirements for process vents?
D. §63.11497 What are the standards and compliance requirements for storage tanks?
E. §63.11498 What are the standards and compliance requirements for wastewater systems?
F. §63.11499 What are the standards and compliance requirements for heat exchange systems?
G. §63.11500 What compliance options do I have if part of my plant is subject to both this subpart and another Federal standard?
H. §63.11501 What are the notification, recordkeeping, and reporting requirements, and how may I assert an affirmative defense for violation of emission standards during malfunction?
I. §63.11502 What definitions apply to this subpart?
J. §63.11503 Who implements and enforces this subpart

7. The following records shall be maintained on-site. These records shall be retained for a period of at least five years following dates of recording and shall be made available to regulatory personnel upon request. [OAC 252:100-43-7]

A. Thermal reactor temperatures (°F; hourly, daily average)
B. Thermal reactor feed rates for regeneration line 1 and regeneration line 2 (lb/hr; daily average)
C. Process rate of the crusher in the Guardian process line (lb/hr; daily average)
D. Benzene content in feed catalyst (ppmw; daily, and 12-month rolling average)
E. Nickel Oxide and Colbat contents in catalyst to be processed in each process (ppmw; daily and 12-month rolling average)
F. Documents containing manufacturer's recommendations for control equipment to be operated, inspected, and monitored
G. Records required by 40 CFR Part 61, Subpart FF
H. Records required by 40 CFR Part 63, Subparts ZZZZ and VVVVVV
I. Monitoring and recording of the following:
    I. pH at scrubber (hourly)
    II. Scrubber pump discharge pressure (psig; hourly)
    III. Baghouse pressure drops (hourly)
J. Monitoring and recording of the following once per 12-hour shift:
    I. Feed catalyst sulfur content prior to regeneration

II. Catalyst sulfur content following regeneration
III. Sulfur feed rate (lb/hr)

8. Upon the initial receipt of any catalyst characterized as hazardous due to one or more of the heavy metals for which Eurecat has submitted application to process and was not processed and/or tested in the past, Eurecat shall conduct stack tests. A written testing protocol shall be submitted to the AQD for review and approval at least 30 days prior to the start of such testing. The protocol shall describe how the testing will be performed. At the option of Air Quality, a modification of the operating permit may be required. [OAC 252:100-43-3]

   A. Performance testing by the permittee shall use the following test methods specified in 40 CFR Part 60.
      Method 1: Sample and Velocity Traverses for Stationary Sources.
      Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate.
      Method 3: Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight.
      Method 4: Determination of Moisture in Stack Gases.
      Method 5: Determination of PM Emissions from Stationary Sources.
      Method 29: Determination of Metals Emissions from Stationary Sources.
      Method 202: Determination of Condensable Particulate Matter.
   B. Performance testing shall be conducted while each process is operating within 10% of the rate at which operating permit authorization will be sought.
   C. A written report documenting results of emissions testing shall be submitted within 60 days of completion of on-site testing.

9. The following records shall be maintained on-site or at a local field office to verify insignificant activities. [OAC 252:100-43]

   A. Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes: Records of solder and electrodes used.
   B. Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant: Type of activity and the amount of emissions from that activity (cumulative annual).

10. The permittee shall apply for a modified operating permit within 180 days of commencement of operation of any new equipment authorized by this construction permit incorporating the various changes.

PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 92-074-C (M-5)

Eurecat US, Inc.

having complied with the requirements of the law, is hereby granted permission to construct the Catalyst Regeneration Plant located at Sec. 10-T5N-R13E, McAlester, Pittsburg County, Oklahoma, subject to standard conditions dated June 21, 2016 and specific conditions, both attached.

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

DRAFT

Kendal Stegmann, Division Director **Date**
Air Quality Division

MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(June 21, 2016)

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.
[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements.
[OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.
[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

(1) the date, place and time of sampling or measurement;
(2) the date or dates analyses were performed;
(3) the company or entity which performed the analyses;
(4) the analytical techniques or methods used;
(5) the results of such analyses; and
(6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report. [OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions. [OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act. [OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other

information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM_{10}). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting

period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.
[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.
[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification. [OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit. [OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege. [OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit. [OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted

pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.
[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.
[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.
[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

(1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
(2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
(3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
(4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a “grandfathered source,” as defined under AQD rules. Such changes may require a permit modification.
[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):

(1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that: [OAC 252:100-8-6 (e)(2)]

(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
(2) the permitted facility was at the time being properly operated;

(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.
[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

(1) 5 tons per year of any one criteria pollutant.
(2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.
[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.
[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

(1) result in no net emissions increases,
(2) are not modifications under any provision of Title I of the federal Clean Air Act, and
(3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

(1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]

(2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

(3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]

(a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
(b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
(c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
(d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.

(4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of

adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

(5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]

(6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]

(7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

(1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
(2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
(3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term "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 "MVAC" 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. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
(2) 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;
(3) Persons performing maintenance, service, repair, or disposal of appliances must be

certified by an approved technician certification program pursuant to § 82.161;
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
(5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
(6) 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.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

(1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
(2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
(3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
(4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R.§ 70.8(a) and (c).
(5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
(6) The DEQ complies with 40 C.F.R. § 70.8(d).
(7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
(8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
(9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
(10) The DEQ shall not issue the administrative permit amendment if performance tests fail

to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]

Scott A. Thompson
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Eurecat US, Inc.
Attn: Ms. Marilyn Warren
100 Steven Taylor Boulevard
McAlester, OK 74501

Re: **Construction Permit No. 92-074-C (M-5)**
Catalyst Regeneration Plant (Facility ID: 2951)
Section 10, T5N, R13E
Pittsburg County, OK

Dear Ms. Warren:

Air Quality has received the permit application for the referenced facility and completed initial review. This application has been determined to be a **Tier II** application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c), the enclosed draft permit is now ready for public review. The requirements for public review of the draft permit include the following steps, which **you** must accomplish:

1. Publish at least one legal notice (one day) in at least one newspaper of general circulation within the county where the facility is located (Instructions enclosed);
2. Submit sample notice and provide date of publication to **AQD 5 days prior to notice publishing;**
3. Provide for public review, for a period of 30 days following the date of the newspaper announcement, a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility;
4. Send AQD a signed affidavit of publication for the notice(s) from Item #1 above within 20 days of publication of the draft permit. Any additional comments or requested changes you have for the draft permit or the application should be submitted within 30 days of publication.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or the permit writer at (405) 702-4205.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

NOTICE OF DRAFT PERMIT
TIER II or TIER III AIR QUALITY PERMIT APPLICATION

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a Tier II or Tier III draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. Note that if either the applicant or the public requests a public meeting, this must be arranged by the DEQ.

1. Complete the public notice using the samples provided by AQD below. Please use the version applicable to the requested permit action;
   Version 1 – Traditional NSR process for a construction permit
   Version 2 – Enhanced NSR process for a construction permit
   Version 3 – initial Title V (Part 70 Source) operating permit, Title V operating permit renewal, Significant Modification to a Title V operating permit, and any Title V operating permit modification incorporating a construction permit that followed Traditional NSR process
2. Determine appropriate newspaper local to facility for publishing;
3. Submit sample notice and provide date of publication to AQD 5 days prior to notice publishing;
4. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD within 20 days of publication.

REQUIRED CONTENT (27A O.S. § 2-14-302 and OAC 252:4-7-13(c))

1. A statement that a Tier II or Tier III draft permit has been prepared by DEQ;
2. Name and address of the applicant;
3. Name, address, driving directions, legal description and county of the site or facility;
4. The type of permit or permit action being sought;
5. A description of activities to be regulated, including an estimate of emissions from the facility;
6. Location(s) where the application and draft permit may be reviewed (a location in the county where the site/facility is located must be included);
7. Name, address, and telephone number of the applicant and DEQ contacts;
8. Any additional information required by DEQ rules or deemed relevant by applicant;
9. A 30-day opportunity to request a formal public meeting on the draft permit.

SAMPLE NOTICE:

DEQ NOTICE OF TIER *…II or III…* **DRAFT PERMIT**

A Tier *…II or III…* **application for an air quality** *…type of permit or permit action being sought (e.g., construction permit for a new major facility or construction permit for a modification at an existing major facility)…* **has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant,** *…name and address.*

The applicant requests approval to *…brief description of purpose of application…* **at the** *…site/facility name … …***[proposed to be] located at** *…physical address (if any), driving directions, and legal description including county…..*

In response to the application, DEQ has prepared a draft construction permit [modification] (Permit Number: *…xxxx-xxxx-x…***), which may be reviewed at** *…locations (one must be in the county where the site/facility is located)…* **or at the Air Quality Division's main office (see address below). The draft permit is also available for review under Permits for Public Review on the DEQ Web Page: http://www.deq.ok.gov/**

This draft permit would authorize the facility to emit the following regulated pollutants: *(list each pollutant and amounts in tons per year (TPY))***.** [For facility modifications only, either add the phrase**: , which represents** *(identify the emissions change involved in the modification)***.**, or add the sentence: **The modification will not result in a change in emissions.**] [For PSD permits only, add**: The project will consume the following increment levels:** *(list the amount of increment consumption for each pollutant in ug/m^3).*]

The public comment period ends 30 days after the date of publication of this notice. Any person may submit written comments concerning the draft permit to the Air Quality Division contact listed below or as directed through the corresponding online notice. [Modifications only, add: **Only those issues relevant to the proposed modification(s) are open for comment.**] **A public meeting on the draft permit [modification] may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ staff.**

Information on all permit actions including draft permits, proposed permits, final issued permits and applicable review timelines are available in the Air Quality section of the DEQ Web page: http://www.deq.ok.gov/.

For additional information, contact *…names, addresses and telephone numbers of contact persons for the applicant,* **or contact DEQ at: Chief Engineer, Air Quality Division, 707 N. Robinson, Suite 4100, P.O. Box 1677, Oklahoma City, OK, 73101-1677. Phone No. (405) 702-4100.**

Scott A. Thompson
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Choctaw Nation of Oklahoma
Attn: Gary Batton, Chief
PO Box 1210,
Durant, OK 74702-1210

Re: Permit Application No. 92-074-C (M-5)
Eurecat US, Inc, Catalyst Regeneration Plant (FAC ID 2951)
Pittsburg County
Date Received: March 26, 2021

Dear Mr. Batton:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II application referenced above. A Tier II application requires the facility provide a 30-day public comment period on the draft Tier II permit at a public location within the county of the facility. The process requires the facility to notify the public by newspaper notice in a newspaper in the county of the proposed project. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to the newspaper notice.

Copies of draft permits and comment opportunities are also provided to the public on the ODEQ website at the following location:

https://www.deq.ok.gov/air-quality-division/air-permits/public-participation-issued-permits/

If you prefer a copy of the draft and/or proposed permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify me by e-mail at phillip.fielder@deq.ok.gov, or by letter at:

Department of Environmental Quality, Air Quality Division
Attn: Phillip Fielder, Chief Engineer
707 N Robinson
Oklahoma City, OK, 73102

Thank you for your cooperation. If you have any questions, I can also be contacted at (405) 702-4185.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

Scott A. Thompson
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Eurecat US, Inc.
Attn: Ms. Marilyn Warren
100 Steven Taylor Boulevard
McAlester, OK 74501

Re: **Construction Permit No. 92-074-C (M-5)**
Catalyst Regeneration Plant (Facility ID: 2951)
Section 10, T5N, R13E
Pittsburg County, OK

Dear Ms. Warren:

Enclosed is the permit authorizing construction of the referenced facility. Please note that this permit is issued subject to certain standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed through DEQ's electronic reporting system by April 1st of every year. Any questions concerning the submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact the Jian Yue, the permit writer, at (405) 702-4205.

Sincerely,

DRAFT

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

Enclosure

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
9-10-21

ACFM	Actual Cubic Feet per Minute
AD	Applicability Determination
AFRC	Air-to-Fuel Ratio Controller
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
BBL	Barrel(s)
BHP	Brake Horsepower (bhp)
BTU	British thermal unit (Btu)
C&E	Compliance and Enforcement
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CAAA	Clean Air Act Amendments
CC	Catalytic Converter
CCR	Continuous Catalyst Regeneration
CD	Consent Decree
CEM	Continuous Emission Monitor
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CI	Compression Ignition
CNG	Compressed Natural Gas
CO	Carbon Monoxide or Consent Order
COA	Capable of Accommodating
COM	Continuous Opacity Monitor
D	Day
DEF	Diesel Exhaust Fluid
DG	Demand Growth
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)
EGU	Electric Generating Unit
EI	Emissions Inventory
EPA	Environmental Protection Agency
ESP	Electrostatic Precipitator
EUG	Emissions Unit Group
EUSGU	Electric Utility Steam Generating Unit
FCE	Full Compliance Evaluation
FCCU	Fluid Catalytic Cracking Unit
FIP	Federal Implementation Plan
FR	Federal Register
GACT	Generally Achievable Control Technology
GAL	Gallon (gal)
GDF	Gasoline Dispensing Facility
GEP	Good Engineering Practice
GHG	Greenhouse Gases
GR	Grain(s) (gr)
H_2CO	Formaldehyde
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutants
HC	Hydrocarbon
HCFC	Hydrochlorofluorocarbon
HFR	Horizontal Fixed Roof
HON	Hazardous Organic NESHAP
HP	Horsepower (hp)
HR	Hour (hr)
I&M	Inspection and Maintenance
IBR	Incorporation by Reference
ICE	Internal Combustion Engine
LAER	Lowest Achievable Emission Rate
LB	Pound(s) [Mass] (lb, lbs, lbm)
LB/HR	Pound(s) per Hour (lb/hr)
LDAR	Leak Detection and Repair
LNG	Liquefied Natural Gas
LT	Long Ton(s) (metric)
M	Thousand (Roman Numeral)
MAAC	Maximum Acceptable Ambient Concentration
MACT	Maximum Achievable Control Technology
MM	Prefix used for Million (Thousand-Thousand)
MMBTU	Million British Thermal Units (MMBtu)
MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
MMSCF	Million Standard Cubic Feet (MMscf)
MMSCFD	Million Standard Cubic Feet per Day
MSDS	Material Safety Data Sheet
MWC	Municipal Waste Combustor
MWe	Megawatt Electrical
NA	Nonattainment
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	Ammonia
NMHC	Non-methane Hydrocarbon
NGL	Natural Gas Liquids
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOI	Notice of Intent
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
NSR	New Source Review

O_3	Ozone
O&G	Oil and Gas
O&M	Operation and Maintenance
O&NG	Oil and Natural Gas
OAC	Oklahoma Administrative Code
OC	Oxidation Catalyst
PAH	Polycyclic Aromatic Hydrocarbons
PAE	Projected Actual Emissions
PAL	Plant-wide Applicability Limit
Pb	Lead
PBR	Permit by Rule
PCB	Polychlorinated Biphenyls
PCE	Partial Compliance Evaluation
PEA	Portable Emissions Analyzer
PFAS	Per- and Polyfluoroalkyl Substance
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers
PM_{10}	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers
POM	Particulate Organic Matter or Polycyclic Organic Matter
ppb	Parts per Billion
ppm	Parts per Million
ppmv	Parts per Million Volume
ppmvd	Parts per Million Dry Volume
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
psia	Pounds per Square Inch Absolute
psig	Pounds per Square Inch Gage
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RAP	Regulated Air Pollutant or Reclaimed Asphalt Pavement
RFG	Refinery Fuel Gas
RICE	Reciprocating Internal Combustion Engine
RO	Responsible Official
ROAT	Regional Office at Tulsa
RVP	Reid Vapor Pressure
SCC	Source Classification Code
SCF	Standard Cubic Foot
SCFD	Standard Cubic Feet per Day
SCFM	Standard Cubic Feet per Minute
SCR	Selective Catalytic Reduction
SER	Significant Emission Rate
SI	Spark Ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
SOx	Sulfur Oxides
SOP	Standard Operating Procedure
SRU	Sulfur Recovery Unit
T	Tons
TAC	Toxic Air Contaminant
TEG	Triethylene Glycol
THC	Total Hydrocarbons
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulates
TV	Title V of the Federal Clean Air Act
$\mu g/m^3$	Micrograms per Cubic Meter
US EPA	U. S. Environmental Protection Agency
VFR	Vertical Fixed Roof
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRT	Vapor Recovery Tower
VRU	Vapor Recovery Unit
YR	Year
2SLB	2-Stroke Lean Burn
4SLB	4-Stroke Lean Burn
4SRB	4-Stroke Rich Burn