DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **June 19, 2025**

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

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

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

THROUGH: Alex Johnson, P.E., New Source Permits Section

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

SUBJECT: Evaluation of Permit Application No. **2017-0914-C (M-3) PSD**
Continental Carbon Corporation
Carbon Black Production Facility
Facility ID: 333
Section 10, T25N, R2E
Ponca City, Kay County, Oklahoma
Located 1 mile south of the Intersection of SH60 and SH177

SECTION I. INTRODUCTION

Continental Carbon (Continental) has requested to modify the current construction permit (Permit No. 2004-302-C (M-4)) for the Ponca City Carbon Black Production facility (SIC code 2895) issued on April 25, 2016. Permit No. 2004-302-C (M-2) incorporated the requirements of Consent Decree 5:15-cv-00290-F ("CD") that was entered into with the EPA on May 7, 2015. The authorized project removed the three (3) thermal oxidizers which controlled the four (4) carbon black production units and replaced them with two (2) clean gas and energy cogeneration units (CGEU) each consisting of one (1) cogeneration electric unit combusting the tail gas from the reactors, followed by one (1) selective catalytic reduction system (SCR) for control of nitrogen oxide (NOx) emissions, and one (1) dry scrubber for control of sulfur dioxide (SO_2) and secondary bag filters for particulate matter (PM) emissions.

This facility is a major source for PSD and a major source of HAPs and is currently operating under Permit No. 2017-0914-TVR2 issued on August 21, 2018.

SECTION II. REQUESTED CHANGES

Permit No. 2004-302-C (M-2) incorporated the requirements of Consent Decree 5:15-cv-00290-F ("CD") that was entered into with the EPA on May 7, 2015. The authorized project removed the three (3) thermal oxidizers which controlled the four (4) carbon black production units and

replaced them with two (2) clean gas and energy cogeneration units (CGEU) each consisting of one (1) cogeneration electric unit combusting the tail gas from the reactors, followed by one (1) selective catalytic reduction system (SCR) for control of nitrogen oxide (NOx) emissions, and one (1) dry scrubber for control of sulfur dioxide (SO_2) and secondary bag filters for particulate matter (PM) emissions.

PSD applicability analysis in Permit No. 2004-302-C (M-2) indicated project emission increases were below PSD significance levels, because projected actual emissions of NOx, SO_2, CO, and VOC from the CGEUs were originally estimated based on stack testing from the thermal oxidizers, assuming equivalent destruction efficiency and the projected actual throughput during the interim period prior to installation of the SCR and scrubber.

Continental has begun operation of the CGEUs and has discovered that, based on emissions from CEMS data, the limits are inadequate due to an increase in air flow and CO emission factors. Therefore, Continental is now requesting to increase NOx, SO_2, and CO limits based on the actual operation of the two (2) cogeneration units. The physical change authorized by Permit No. 2004-302-C (M-2) will be re-evaluated for PSD applicability.

In addition, the CD required Continental to update transition event hourly emissions to reflect that transition can only occur for 10 minutes of the hour (per the consent decree) and cannot occur more than once per hour per unit. In the existing permits, transition event hourly emissions assume that the transition event hourly emissions occur for 60 minutes in the hour. So, updated hourly emissions for transition events equals existing hourly emissions divided by 6, as illustrated in the following table.

EU No.	Emissions Unit Name	NO_x lb/hr		CO lb/hr		VOC lb/hr	
		Before	Updated	Before	Updated	Before	Updated
MBF 1	Production Unit 1 – Transition Events	44.99	7.50	12,734	2,122.3	568.26	94.71
MBF 2	Production Unit 2 – Transition Events	14.54	2.42	6,237	1,039.5	97.49	16.25
MBF 3	Production Unit 3 – Transition Events	45.78	7.63	12,958	2,159.7	578.28	96.38
MBF 4	Production Unit 4 – Transition Events	47.62	7.94	13,476	2,246.0	601.38	100.23

SECTION III. PSD APPLICABILITY ANALYSIS

This facility is an existing PSD source. As such, this project needs to be evaluated to determine if it is a major modification under PSD based on the "actual-to-projected-actual" or "actual-to-potential" test. For the project to be subject to PSD, both a significant emission increase and a significant net emission increase should occur on a pollutant by pollutant basis.

The first step is to determine if the project results in a significant emission increase. Project emission increases include emission increases from new and modified sources and associated emission increases from existing and unmodified sources.

Continental Carbon elected to calculate emission increases based on projected actual emissions to baseline emissions. Baseline actual emissions are based on the average of 2014 and 2015 emissions for SO_2, CO, and VOC and the average of 2018 and 2019 emissions for PM/PM_{10}/$PM_{2.5}$ and NOx. Projected actual emissions are calculated based on the PTE calculation and reduces the raw material oil throughput to a level projected to represent the future raw material oil throughput of 357,984,000 lb oil/yr.

The following table lists projected actual emissions for affected sources.

EUG No.	Point No.	Emissions Unit Name	PM PM_{10} $PM_{2.5}$	SO_2	NO_x	CO	VOC
			TPY	TPY	TPY	TPY	TPY
EUG 5	EPN 40	Clean Gas and Energy Unit 1	23.48	585.29	122.84	743.51	12.70
EUG 5	EPN 41	Clean Gas and Energy Unit 2	23.48	585.29	122.84	743.51	12.70
EUG 6	EPN 5	Dryer 11 Firebox Stack	0.16	0	1.05	0.00076	0.00372
EUG 6	EPN 8	Dryer 12 Firebox Stack	0.16	0	1.05	0.00076	0.00372
EUG 6	EPN 9	Dryer 21 Firebox Stack	0.33	0	2.18	0.00158	0.00771
EUG 6	EPN 12	Dryer 31 Firebox Stack	0.21	0	1.23	0.00057	0.00038
EUG 6	EPN 13	Dryer 32 Firebox Stack	0.21	0	1.23	0.00057	0.00038
EUG 6	EPN 21	Dryer 41 Firebox Stack	0.47	0	2.12	0.000148	0.03
EUG 2	EPN 3	Production Unit 1 – Transition Events	0.12	0.12	0.71	201.62	9.00
EUG 2	EPN 7	Production Unit 2 – Transition Events	0.14	0.83	0.23	98.75	1.54
EUG 2	EPN 11	Production Unit 3 – Transition Events	0.12	0.13	0.72	205.17	9.16
EUG 2	EPN 20	Production Unit 4 – Transition Events	0.13	0.13	0.75	213.37	9.52
EUG 4	EPN 10	Clean-up Bagfilter 1	0.87				
EUG 4	EPN 6	Clean-up Bagfilter 2	0.24				
EUG 4	EPN 14	Clean-up Bagfilter 3	0.12				
EUG 4	EPN 24	Clean-up Bagfilter 4	0.45				
EUG 4	EPN 23	Shipping Dept. Clean-up Bagfilter 1	0.39				
EUG 4	EPN 34	Shipping Dept. Clean-up Bagfilter 2	0.39				
EUG 4	EPN 32	Sealed Bin Clean-up Bagfilter 1	0.04				
EUG 4	EPN 35	Sealed Bin Clean-up Bagfilter 2	0.04				
EUG 4	EPN 33	Transloading Clean-up Bagfilter	0.04				
EUG 5	EPN 40	Clean Gas and Energy Unit 1 - Heat Load	0.07	0.01	4.28	0.74	0.05

EUG No.	Point No.	Emissions Unit Name	PM PM_{10} $PM_{2.5}$	SO_2	NO_x	CO	VOC
			TPY	TPY	TPY	TPY	TPY
EUG 5	EPN 41	Clean Gas and Energy Unit 2 - Heat Load	0.07	0.01	4.28	0.74	0.05
EUG 8	EPN 3	Reactor 11 - Heat Load	0.05	0.0042	3.43	0.59	0.04
EUG 8	EPN 3	Reactor 12 - Heat Load	0.05	0.0042	3.43	0.59	0.04
EUG 8	EPN 7	Reactor 21 - Heat Load	0.06	0.0045	3.67	0.63	0.04
EUG 8	EPN 11	Reactor 31 - Heat Load	0.06	0.0045	3.67	0.63	0.04
EUG 8	EPN 11	Reactor 32 - Heat Load	0.06	0.0045	3.67	0.63	0.04
EUG 8	EPN 20	Reactor 41 - Heat Load	0.11	0.01	7.34	1.26	0.08
EUG 9	EPN 40 / 41	Waste Gas Combustor 11 - Heat Load	0.003	0.0002	0.18	0.03	0.002
EUG 9	EPN 40 / 41	Waste Gas Combustor 12 - Heat Load	0.003	0.0002	0.18	0.03	0.002
EUG 9	EPN 40 / 41	Waste Gas Combustor 21 - Heat Load	0.003	0.0002	0.18	0.03	0.002
EUG 9	EPN 40 / 41	Waste Gas Combustor 31 - Heat Load	0.01	0.0005	0.37	0.06	0.004
EUG 9	EPN 40 / 41	Waste Gas Combustor 32 - Heat Load	0.01	0.0005	0.37	0.06	0.004
EUG 9	EPN 40 / 41	Waste Gas Combustor 41 - Heat Load	0.01	0.0005	0.37	0.06	0.004
EUG 10		CB Storage Tanks	0.83				
FACILITY-WIDE PROJECTED EMISSIONS			**52.97**	**1,171.84**	**292.37**	**2,212.01**	**55.06**

The following table lists the total baseline emissions for affected sources.

Baseline Years	PM PM_{10} $PM_{2.5}$	SO_2	NO_x	CO	VOC
	TPY	TPY	TPY	TPY	TPY
Average of 2014 and 2015		3,489.88		399.62	23.07
Average of 2018 and 2019	178.20		1,015.41		

The following table lists project emission increases.

Pollutants	Facility Wide Projected Emissions	Facility Wide Baseline Emissions	Project Emission Increases	PSD Significance Levels	PSD Review Required?
	TPY	TPY	TPY	TPY	
NOx	292.37	1,015.41	-723.04	40	No
CO	2,212.01	399.62	1,812.39	100	Yes
SO_2	1,171.84	3,489.88	-2,318.04	40	No

PM	52.97	178.20	-125.22	25	No
PM_{10}	52.97	178.20	-125.22	15	No
$PM_{2.5}$	52.97	178.20	-125.22	10	No
VOC	55.06	48.56	6.50	40	No

Project emission increase for CO from the CGEUs is above the PSD significance level. PSD review, including BACT and Modeling, is required for CO from the CGEUs. Since there are no physical changes or changes in method of operation to the reactors (i.e., MBF), transitional CO emissions emitted from the main bag filters do not require BACT review.

SECTION IV. PERMIT HISTORY

Listed below is the permit history of this facility since the issuance of the initial Title V permit.

Permit Number	Date Issued	Permit Details
98-176-TV PSD	4/21/2000	Initial TV operating permit
98-176-TV M-1 PSD	11/30/2000	Minor modification
98-176-TV M-2 PSD	2/28/2001	Administrative Amendment
98-176-AD M-5	3/30/2010	Applicability Determination NESHAP Subpart YY applicable
2004-302-TVR	12/13/2012	Title V renewal
2004-302-TVR M-1	9/17/2015	Minor modification for like-kind replacement of South Boiler
2004-302-C M-2	4/25/2016	Tier I construction permit to incorporate Consent Decree requirements: to remove 3 thermal oxidizers and replace with 2 CGEU
2004-302-TVR M-2	3/29/2016	Minor modification for the like kind replacement of Boiler #1
2004-302-AD M-3	12/29/2017	AD determined that the replacement of Unit #3 air pre-heaters and replacement of Unit #4 dryer drum and firebox projects qualified for RRMR.
2017-0914-TVR2	8/21/2018	Title V renewal
2017-0914-AD M-1	11/5/2018	AD determined that the replacement of Unit #1 air pre-heaters qualified for RRMR.
2004-302-C M-4	11/30/2018	Tier I construction permit modification to incorporate an alternative operation scenario
2017-0914-AD M-2	8/13/2020	AD to clarify stack test requirements

SECTION V. PROCESS DESCRIPTION

Furnace carbon black is a large volume commodity chemical used primarily in the tire and rubber industry. Carbon black is produced from a high molecular weight, low vapor pressure, highly aromatic liquid hydrocarbon feedstock and other high carbon, low sulfur hydrocarbon products of commerce. This material is a by-product of the catalytic cracking of gas oil in a crude oil petroleum

refinery and other suitable sources of feedstock. Feedstock for the production of carbon black is commonly referred to as carbon black oil (CBO). A large portion of the CBO for the Facility is supplied by a nearby refinery. This material is shipped to the site via pipeline. The remainder of the CBO is purchased from other refineries/sources and delivered to Ponca City by tank truck or rail.

CBO from crude oil refineries is received into a 65,000-barrel insulated cone roof tank. CBO received by pipeline from the nearby refinery or other suppliers is blended with the CBO in inventory upon receipt. Material from this tank is continuously circulated through a heater on each production unit in service and returned to the tank through an internal mixing nozzle which provides for uniform feed quality. The CBO from this tank is transferred to individual unit charge tanks or directly to the operating units, as required.

During cold reactor start/heat-up operations, the reactor is initially heated by combustion of natural gas using a low temperature warm-up lance and the normal natural gas ring burner. The air and gas flows are carefully controlled to specific rates and ratios to slowly increase to the desired temperature specified in the heating schedule. This is accomplished utilizing the plants DCS system and a supplier specified heating schedule to avoid spalling or steam bursting from entrapped moisture in the brick and refractory. During cold start/heat-up, the emissions generated due to combustion of natural gas are released via the Main Bag Filter (MBF) Vent Stack. Once the reactor is sufficiently warm, the warm-up lance is used to lite the reactors main ring burner for approximately four to twenty-four hours as the reactor temperature is slowly increased to operating temperatures. During this time, no CBO is injected into the reactor; therefore, only products of natural gas combustion are emitted. Also, during this time the dryer combustors are slowly heated with natural gas to slowly bring them up to temperatures at which waste gas from carbon black production can be safely introduced as a fuel to replace the natural gas. The flow of gasses from the dryer combustor, are directed to the outlet of the cogeneration boiler just prior to the SCR and scrubber.

During the warm-up period for the reactor, the cogeneration boiler is undergoing a similar warm-up operation utilizing natural gas as fuel. Once a safe operating temperature is reached, the natural gas flow is replaced with waste gas. The flow of gasses from the cogeneration boiler, are directed to the SCR and scrubber. When ready to begin carbon black production, CBO flow is initiated. There is a short transition period (10 minutes or less) which allows time for the automated valves controlling the flow of waste gas going to the boiler to open and going to the MBF vent stack to close. This short period is critical for process safety.

During this short transition period, the byproduct gases have to reach sufficient British Thermal Units (BTU) value for the induction and sustained combustion of the byproduct gases in the CGEUs. There is also a short period of transition when a reactor is taken off-line or carbon black production is stopped. Other emissions generally may occur under Force Majeure conditions such as listed in the Start-up, Shutdown and Maintenance Plan (SSMP) (i.e., power failures or loss of control equipment due to the safety shutdown systems on the associated CGEU unit, SCR and scrubber).

No carbon black production occurs during warm-up or emergencies when there is no CBO in the reactor, hence the combustion gases are not carbon black-laden, nor do the gases have significant concentrations of VOC, CO, H_2S, CS_2, HCN, SO_2 and COS at these times.

During the production of carbon black, potassium carbonate (K_2CO_3) is injected at the reactor face plate in parts per million quantities as a product structure control additive. Also, during this process, carbon black and other products of incomplete combustion, including reduced sulfur compounds, are formed.

When the production units are in normal operation, the carbon-laden gases from the reactors are cooled by water quenching in the "quench" section of the reactors. These quenched flue gases then pass through the "residence section" and then into the air- and CBO-pre-heaters. The partially cooled flue gases (500ºF) then go through the main bag filters (MBFs) for carbon black recovery. The MBFs collect 99.9 percent of the carbon black from the gases. Then approximately 20 percent of the filtered gases from the MBFs go to the waste gas combustors (WGC) and are combusted as fuel to heat the rotary dryers for drying the pelletized carbon black. The filtered waste gas has a BTU content of approximately 60-80 BTU/SCF. Although low in BTU content, the gas is easily combusted without supplemental fuel. The combustion efficiency in the WGCs is 98%. The combustion/dryer system on each unit uses the waste gases from the MBFs as the primary source of fuel. The combusted gases go around the outside then through the inside of the rotating drum, countercurrent to the carbon black flow. The gases, water vapor and any airborne particulate matter due to carbon black movement, are directed to the EBF where the particulate is separated from the gasses. The particulate is recycled and the gasses are directed to the outlet of the cogeneration boiler just prior to the SCR and Scrubber. The surplus waste gas (about 80 percent of the total reactor waste gas) not used in the waste gas combustors goes to the respective CGEU unit. The CGEUs are controlled by a selective catalytic reduction unit for NO_X and a scrubber for SO_2 and PM. The two (2) CGEUs will generate approximately 20 megawatts (MW) total. The facility utilizes 5 to 8 MW and the balance is sold to the electric grid.

The carbon black is collected in the MBFs on all units and is pneumatically conveyed to pulverizers and then accumulator cyclones or Process Bag Filters (PBF) which separate the conveying gases from the carbon black. The conveying gases exit the cyclone and return to the inlet of the MBFs. The pneumatic conveying system is closed-loop. The system is hot due to the temperature of the waste gasses and is low in oxygen for safe operation. The carbon black collected from the cyclones (or PBF), flow by gravity into the unit’s accumulator tank.

The carbon black then enters a stage called the "Wet Process," where the loose, fine carbon black is consolidated into pellets. Particulate matter collected from process conveying equipment, that is part of the dust management system, is collected in the clean-up bag filter (CUBF) that cold air exhausts through the CUBF stack while collected product empties into the pneumatic line and is recycled. Carbon black flows into the accumulator tank and then into the pelletizer, where the carbon black is mixed with an equal weight of water and wetting agents and formed into small pellets. These wet pellets drop through a chute into one end of a rotary drying drum.

The dried carbon black pellets leaving the dryer drum are lifted by a bucket elevator system and mechanical conveying system to the top of closed storage tanks. Pellets are discharged from the bucket elevator across screen separators. These separators discharge the product carbon black pellets into closed screw systems and more bucket elevators, leading into the storage tanks. Potential emissions from conveying equipment are controlled by the unit's CUBF and are recycled.

The carbon black storage tanks are vented through a single stack fabric particulate filter. As specified in the consent decree, Appendix A, Paragraph D, these will be replaced and: *"PM emissions shall be directed to a cartridge device that achieves a PM collection efficiency of 99%."* Carbon black is gravity-loaded from the storage tanks into hopper cars, specialty bulk containers for bulk or semi-bulk shipments, or is bagged by existing valve bag packers for shipment in trailers. Existing shipping dock cleanup bag filters service all bulk loading sites. With the addition of the new clean-up bag filter (applied in application Permit No. 98-176-TV(M-3)(PSD)), the existing system serves units 1 & 2, and the newer system serves units 3 & 4. The new system is a duplicate of the existing system.

Scheduled maintenance of all bag filters is performed periodically. Procedures are in place at the facility to minimize fugitive carbon black released during the change out in each bag compartment (following Best Management Practices, BMP); however, it is assumed that an insignificant amount of carbon black is released to the atmosphere during these operations.

SECTION VI. EQUIPMENT

EUG 1 Gas-Fired Boilers

EU	Point	Manufacturer	MMBTUH	Serial #	Const. Date
Boiler #1	EPN #1	Superior	6.1	8631	1980
Boiler #2	EPN #2	Superior	6.28	17817	2015

EUG 2 Main Bag Filters (MBF)

EU	Point	Name
MBF #1	EPN #3 (N/C)	Production Unit No. 1-Transition Events
MBF #2	EPN #7 (N/C)	Production Unit No. 2-Transition Events
MBF #3	EPN #11 (N/C)	Production Unit No. 3-Transition Events
MBF #4	EPN #20 (N/C)	Production Unit No. 4-Transition Events

N/C – Normally Closed, only open for transition events and reactor heat load

EUG 3 Exhaust Bag Filter

Vent stacks will be routed to the outlet of the proposed boilers prior to the SCR and scrubber system.

EUG 4 Cleanup Bag Filters (CUBF)

EU	Point	Name
CUBF #1	EPN #10	Clean Up Bag Filter 1
CUBF #2	EPN #6	Clean Up Bag Filter 2
CUBF #3	EPN #14	Clean Up Bag Filter 3
CUBF #4	EPN #24	Clean Up Bag Filter 4
CUBF #5	EPN #23	Shipping Dept. Clean Up Bag Filter 1
CUBF #6	EPN #34	Shipping Dept. Clean Up Bag Filter 2
CUBF #7	EPN#32	Sealed Bin Clean Up Bag Filter 1
CUBF #8	EPN#35	Sealed Bin Clean Up Bag Filter 2
CUBF #9	EPN#33	Transloading Clean Up Bag Filter

EUG 5 Clean Gas and Energy Units

EU	Point	Name	Const. Date
CGEU 1	EPN #40	Clean Gas and Energy Unit 1	2017
CGEU 2	EPN #41	Clean Gas and Energy Unit 2	2017
CGEUH 1	EPN #40	Clean Gas and Energy Unit 1-Heat Load	2017
CGEUH 2	EPN #41	Clean Gas and Energy Unit 2-Heat Load	2017

EUG 6 Firebox Stacks

EU	Point	Name	Const. Date
FS 11	EPN 5	Dryer 11 Firebox Stack	1954
FS 12	EPN 8	Dryer 12 Firebox Stack	1954
FS 21	EPN 9	Dryer 21 Firebox Stack	1954
FS 31	EPN 12	Dryer 31 Firebox Stack	1959
FS 32	EPN 13	Dryer 32 Firebox Stack	1959
FS 41	EPN 21	Dryer 41 Firebox Stack	1991

EUG 7 Feedstock Oil Tanks

EU	Point	Contents	Barrels	Gallons	Const. Date
FS Tanks	EPN #18a	Carbon Black Oil	5,000	210,000	1954
	EPN #18b	Carbon Black Oil	5,000	210,000	1954
	EPN #18c	Carbon Black Oil	5,000	210,000	1954
	EPN #18d	Carbon Black Oil	65,000	2,730,000	1968
	EPN #18e	Carbon Black Oil	500	21,000	1954
	EPN #18f	Carbon Black Oil	500	21,000	1954

EUG 8 Reactors

EU	Point	Unit No.	Const. Date
RX #11	EPN #3	Reactor 11- Heat Load	1955
RX #12	EPN #3	Reactor 12- Heat Load	1955
RX #21	EPN # 7	Reactor 21- Heat Load	1955
RX #31	EPN #11	Reactor 31- Heat Load	1959
RX #32	EPN #11	Reactor 32- Heat Load	1959
RX #41	EPN #20	Reactor 41- Heat Load	1991

EUG 9 Waste Gas Combustors (WGC)

EU	Points	Unit No.	MMBTUH	Const. Date
WGC #11	EPN 40/41	WGC 11- Heat Load	19.3	1954
WGC #12	EPN 40/41	WGC 12- Heat Load	19.3	1954
WGC #21	EPN 40/41	WGC 21- Heat Load	19.3	1954
WGC #31	EPN 40/41	WGC 31- Heat Load	19.3	1959
WGC #32	EPN 40/41	WGC 32- Heat Load	19.3	1959
WGC #41	EPN 40/41	WGC 41- Heat Load	24.75	1991

EUG 10 Carbon Black Tanks

EU	Point	Contents	Size (lbs)
CB Tanks	TK 11	Carbon Black	750,000
	TK 12	Carbon Black	125,000
	TK 13	Carbon Black	750,000
	TK 14-17	Carbon Black	375,000
	TK 21-22	Carbon Black	375,000
	TK 23	Carbon Black	750,000
	TK 31	Carbon Black	750,000
	TK 32	Carbon Black	125,000
	TK 33	Carbon Black	750,000
	TK 34-36	Carbon Black	375,000
	TK 41-47	Carbon Black	525,000
	TK 48	Carbon Black	125,000
	TK 49	Carbon Black	40,000
	TK OQ1	Carbon Black	125,000
	TK OQ2	Carbon Black	125,000
	TK OQ3	Carbon Black	125,000
	TK OQ4	Carbon Black	125,000
	SB 1 & SB2	Carbon Black	30,000

EUG 10 Carbon Black Tanks

EU	Point	Contents	Size (lbs)
	DT 11	Day Tank	40,000
	DT 12	Day Tank	40,000
	DT 21	Day Tank	40,000
	DT 31	Day Tank	40,000
	DT 32	Day Tank	40,000
	DT 41	Day Tank	40,000

EUG 11 Natural Gas Fired Emergency Generators

Generators	Model	Serial #	HP	Manufactured Date
Unit 1&2	4569080100/4.3 L Chevy	2079790	63	10/26/2004
Unit 3	Generac 4129890100/4.3 L Chevy	2077604	63	6/10/2004
Unit 4	5373280100/7.1 L Ford	2083539	110	7/1/2005
Pond 1	QT05554KW SNA/Ford Windsor LVL 351	1886956	86	9/1/2007

Stack Parameters

EPN	Height (feet)	Diameter (inches)	Flow (ACFM)	Velocity (FPS)	Temperature (°F)
1	18	12	4,610	97.8	800
2	18	12	4,610	97.8	800
3 (N/C)	63	40	45,325	867	450
5	30	36			
6	38	12	5,000	106.1	70
7 (N/C)	60	40	45,325	867	450
8	75	36			
10	38	12	5,000	106.1	70
11 (N/C)	58	40	45,325	867	450
14	21	12	5,000	106.1	70
20 (N/C)	69	40	45,325	867	450
21	10	36	0	0	900
24	35	12	5,000	106.1	70
23	30	12	5,000	106.1	70
34	30	12	5,000	106.1	70

(N/C) – Normally Closed, only open for transition events and reactor heat load.

SECTION VII. EMISSIONS

The primary pollutants from the facility are NOx, CO, VOC, SO_2, PM, PM_{10}, and $PM_{2.5}$. All PM emissions are considered as PM_{10} and $PM_{2.5}$.

Potential emissions from boilers 1 and 2 are based on the burner rating of 6.1 and 6.28 MMBTUH respectively, AP-42 (7/98), Chapter 1.4, and Superior boiler manufacturer's data.

The annual emissions from the reactors and associated equipment are based upon the carbon black production design capacity of all four units and seven reactors:

Unit	**Carbon Black Production Design Capacity**
No.	**(million lb/yr)**
1	80
2	100
3	80
4	100
Total	**360**

Potential emissions of SO_2, NOx, and PM from the process system are listed below. The process system is defined as all tail gas generating and tail gas combustion equipment, including all feedstock heaters, preheaters, reactors, dryers, and CGEUs with controls, necessary for the manufacture of carbon black. Process system operation means the operation of any process system or any of its constituent parts when there is oil feed to any reactor burners within such process system, and the reactor is manufacturing carbon black. Process system operation ends when oil feed to the reactor burners within such process system ceases. The process system exhausts from two emission points: EPN 40 and EPN 41 after the dry scrubbers. Emission limits listed in the following table are applicable to each of these two emission points.

Pollutants	**7-Day Rolling Average Emission Limits**	**365-Day Rolling Average Emission Limits**	**3-hr Average Emission Limits**
SO_2	No less than 120 ppmvd and no greater than 158 ppmvd (at 0% oxygen)	No less than 80 ppmvd and no greater than 130 ppmvd (at 0% oxygen)	
NOx	No greater than 54 ppmvd (at 0% oxygen)	No greater than 38 ppmvd (at 0% oxygen)	
PM			No greater than 0.0069 gr/dscf

The CGEU CO and VOC emissions are based on the historical stack testing of the waste gases.

The dryer firebox stacks are only used for heat release in emergency situations. To be conservative, emissions are based on 0.5% of the main furnace exhausting through these stacks.

Potential $PM/PM_{10}/PM_{2.5}$ emissions from the carbon black storage tanks are based on the maximum production rate and a 99.9% capture and control filter efficiency.

Potential emissions from the clean-up bag filters are based on the maximum production rate and a 99.9% capture and control filter efficiency or stack specific testing.

Potential emissions from the transition events are based on the maximum duration of 10 minutes, a maximum 760 events per year for all reactors, maximum hourly production rates (worst case) and stack test data.

Potential emissions from the heat load events are based on the combustion of natural gas and a maximum natural gas throughput. As per the consent decree, NOx emissions applicable to heat load operation, startup, and shutdown are limited to no greater than 50 tons (in total for all reactors and boilers) for the prior 365 days.

Estimated emissions for the FS tanks are based on AP-42 (1/95), Chapter 7.1.

Potential emissions from the gas-fired emergency generators are estimated using emission factors in AP-42 (7/00), Table 3.2-3 and 500 hours per year operation.
Fugitive VOC emissions are assumed to be insignificant because the only organic compound handled besides carbon black is the feedstock oil which has a very low vapor pressure and there are not many components at the facility.

TOTAL POTENTIAL CRITERIA POLLUTANT EMISSIONS

EU No.	Emissions Unit Name	NO_x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Boiler 1	Boiler 1, 6.1 MMBTU/H	0.60	2.63	0.50	2.20	0.03	0.14
Boiler 2	Boiler 2, 6.28 MMBTU/H	0.62	2.72	0.52	2.27	0.03	0.15
CGEU 1	Clean Gas and Energy Unit 1	39.85	122.84	169.75	743.51	2.90	12.70
CGEU 2	Clean Gas and Energy Unit 2	39.85	122.84	169.75	743.51	2.90	12.70
FS 11	Dryer 11 Firebox Stack	0.24	1.05	0.0002	0.0008	0.0008	0.0037
FS 12	Dryer 12 Firebox Stack	0.24	1.05	0.0002	0.0008	0.0008	0.0037
FS 21	Dryer 21 Firebox Stack	0.50	2.18	0.0004	0.0016	0.0018	0.0077
FS 31	Dryer 31 Firebox Stack	0.28	1.23	0.0001	0.0008	0.0009	0.0038
FS 32	Dryer 32 Firebox Stack	0.28	1.23	0.0001	0.0008	0.0009	0.0038
FS 41	Dryer 41 Firebox Stack	0.48	2.12	0.0003	0.0016	0.01	0.03
MBF 1	Production Unit 1 – Transition Events	7.50	0.71	2,122.3	201.62	94.71	9.00
MBF 2	Production Unit 2 – Transition Events	2.42	0.23	1,039.5	98.75	16.25	1.54
MBF 3	Production Unit 3 – Transition Events	7.63	0.72	2,159.7	205.17	96.38	9.16
MBF 4	Production Unit 4 – Transition Events	7.94	0.75	2,246.0	213.37	100.23	9.52
CUBF 1	Clean-up Bagfilter 1	0	0	0	0	0	0
CUBF 2	Clean-up Bagfilter 2	0	0	0	0	0	0
CUBF 3	Clean-up Bagfilter 3	0	0	0	0	0	0
CUBF 4	Clean-up Bagfilter 4	0	0	0	0	0	0
CUBF 5	Shipping Dept. Clean-up Bagfilter 1	0	0	0	0	0	0
CUBF 6	Shipping Dept. Clean-up Bagfilter 2	0	0	0	0	0	0
CUBF 7	Sealed Bin Clean-up Bagfilter 1	0	0	0	0	0	0
CUBF 8	Sealed Bin Clean-up Bagfilter 2	0	0	0	0	0	0
CUBF 9	Transloading Clean-up Bagfilter	0	0	0	0	0	0
FS Tanks	Oil Tanks (Breathing Losses)	0	0	0	0	0.09	0.38
FS Tanks	Oil Tanks (Working Losses)	0	0	0	0	0.44	1.93
CGEUH 1	Clean Gas and Energy Unit 1 - Heat Load	15.58	4.28	2.67	0.74	0.18	0.05
CGEUH 2	Clean Gas and Energy Unit 2 - Heat Load	15.58	4.28	2.67	0.74	0.18	0.05
Rx 11	Reactor 11 - Heat Load	12.46	3.43	2.14	0.59	0.14	0.04
Rx 12	Reactor 12 - Heat Load	12.46	3.43	2.14	0.59	0.14	0.04
Rx 21	Reactor 21 - Heat Load	13.35	3.67	2.29	0.63	0.15	0.04
Rx 31	Reactor 31 - Heat Load	12.24	3.67	2.10	0.63	0.14	0.04
Rx 32	Reactor 32 - Heat Load	12.24	3.67	2.10	0.63	0.14	0.04
Rx 41	Reactor 41 - Heat Load	29.38	7.34	5.04	1.26	0.33	0.08
WGC 11	Waste Gas Combustor 11 - Heat Load	0.67	0.18	0.11	0.03	0.01	0.002
WGC 12	Waste Gas Combustor 12 - Heat Load	0.67	0.18	0.11	0.03	0.01	0.002
WGC 21	Waste Gas Combustor 21 - Heat Load	0.67	0.18	0.11	0.03	0.01	0.002

EU No.	Emissions Unit Name	NO_x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
WGC 31	Waste Gas Combustor 31 - Heat Load	1.22	0.37	0.21	0.06	0.01	0.004
WGC 32	Waste Gas Combustor 32 - Heat Load	1.22	0.37	0.21	0.06	0.01	0.004
WGC 41	Waste Gas Combustor 41 - Heat Load	1.47	0.37	0.25	0.06	0.02	0.004
CB Tanks	CB Storage Tanks	0	0	0	0	0	0
Unit 1 & 2	Emergency Generator Unit 1 & 2	0.11	0.03	0.17	0.04	0.001	0.0004
Unit 3	Emergency Generator Unit 3	0.11	0.03	0.17	0.04	0.001	0.0004
Unit 4	Emergency Generator Unit 4	0.27	0.07	0.42	0.11	0.003	0.0009
FACILITY-WIDE EMISSIONS		**238.13**	**297.85**	**7,930.9**	**2,216.7**	**315.44**	**57.6724**

TOTAL POTENTIAL CRITERIA POLLUTANT EMISSIONS

EU No.	Emissions Unit Name	$PM/PM_{10}/PM_{2.5}$		SO_2	
		lb/hr	TPY	lb/hr	TPY
Boiler 1	Boiler 1, 6.1 MMBTU/H	0.05	0.20	0.004	0.02
Boiler 2	Boiler 2, 6.28 MMBTU/H	0.05	0.20	0.004	0.02
CGEU 1	Clean Gas and Energy Unit 1	5.36	23.48	162.41	585.29
CGEU 2	Clean Gas and Energy Unit 2	5.36	23.48	162.41	585.29
FS 11	Dryer 11 Firebox Stack	0.04	0.16	--	--
FS 12	Dryer 12 Firebox Stack	0.04	0.16	--	--
FS 21	Dryer 21 Firebox Stack	0.08	0.33	--	--
FS 31	Dryer 31 Firebox Stack	0.05	0.21	--	--
FS 32	Dryer 32 Firebox Stack	0.05	0.21	--	--
FS 41	Dryer 41 Firebox Stack	0.11	0.47	--	--
MBF 1	Production Unit 1 – Transition Events	1.25	0.12	1.31	0.12
MBF 2	Production Unit 2 – Transition Events	1.45	0.14	8.70	0.83
MBF 3	Production Unit 3 – Transition Events	1.27	0.12	1.33	0.13
MBF 4	Production Unit 4 – Transition Events	1.32	0.13	1.38	0.13
CUBF 1	Clean-up Bagfilter 1	0.20	0.87	--	--
CUBF 2	Clean-up Bagfilter 2	0.05	0.24	--	--
CUBF 3	Clean-up Bagfilter 3	0.03	0.12	--	--
CUBF 4	Clean-up Bagfilter 4	0.10	0.45	--	--
CUBF 5	Shipping Dept. Clean-up Bagfilter 1	0.09	0.39	--	--
CUBF 6	Shipping Dept. Clean-up Bagfilter 2	0.09	0.39	--	--
CUBF 7	Sealed Bin Clean-up Bagfilter 1	0.01	0.04	--	--
CUBF 8	Sealed Bin Clean-up Bagfilter 2	0.01	0.04	--	--
CUBF 9	Transloading Clean-up Bagfilter	0.01	0.04	--	--
FS Tanks	Oil Tanks (Breathing Losses)	--	--	--	--
FS Tanks	Oil Tanks (Working Losses)	--	--	--	--

CGEUH 1	Clean Gas and Energy Unit 1 - Heat Load	0.24	0.07	0.02	0.01
CGEUH 2	Clean Gas and Energy Unit 2 - Heat Load	0.24	0.07	0.02	0.01
Rx 11	Reactor 11 - Heat Load	0.19	0.05	0.02	0.01
Rx 12	Reactor 12 - Heat Load	0.19	0.05	0.02	0.01
Rx 21	Reactor 21 - Heat Load	0.21	0.06	0.02	0.01
Rx 31	Reactor 31 - Heat Load	0.19	0.06	0.02	0.01
Rx 32	Reactor 32 - Heat Load	0.19	0.06	0.02	0.01
Rx 41	Reactor 41 - Heat Load	0.46	0.11	0.04	0.01
WGC 11	Waste Gas Combustor 11 - Heat Load	0.01	0.003	0.0008	0.0002
WGC 12	Waste Gas Combustor 12 - Heat Load	0.01	0.003	0.0008	0.0002
WGC 21	Waste Gas Combustor 21 - Heat Load	0.01	0.003	0.0008	0.0002
WGC 31	Waste Gas Combustor 31 - Heat Load	0.02	0.01	0.0015	0.0005
WGC 32	Waste Gas Combustor 32 - Heat Load	0.02	0.01	0.0015	0.0005
WGC 41	Waste Gas Combustor 41 - Heat Load	0.02	0.01	0.0018	0.0005
CB Tanks	CB Storage Tanks	--	0.83	--	--
Unit 1 & 2	Emergency Generator Unit 1 & 2	0.001	0.0002	0.00003	0.00001
Unit 3	Emergency Generator Unit 3	0.001	0.0002	0.00003	0.00001
Unit 4	Emergency Generator Unit 4	0.002	0.001	0.0001	0.00002
	FACILITY-WIDE EMISSIONS	**19.07**	**53.39**	**337.74**	**1,171.91**

POTENTIAL NON-CRITERIA AIR POLLUTANTS

	NH3		**H_2S**		**CS_2**		**COS**	
EU	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
CGEU 1	2.73	11.97						
CGEU 2	2.73	11.97						
MBF 1			43.03	4.09	24.22	2.30	0.51	0.05
MBF 2			51.38	4.88	11.85	1.13	2.76	0.26
MBF 3			43.80	4.16	24.65	2.34	0.52	0.05
MBF 4			45.55	4.33	25.64	2.44	0.54	0.05
TOTALS	**5.46**	**23.94**	**183.76**	**17.46**	**86.36**	**8.21**	**4.33**	**0.41**

Continental Carbon has provided CO_2e emission estimates for this facility. Based on a review of these estimates, it has been determined that this facility is a major stationary source for greenhouse gas emissions.

SECTION VIII. BACT FOR CO FROM CARBON BLACK UNITS WITH CGEUS

BACT is required for the CO emissions from the CGEUs. The requirement to conduct a BACT analysis is set forth in OAC 252:100-8-34(b). BACT is defined in OAC 252:100-8-31 as:

"…best available control technology means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the Director, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant."

The following methodology for performing a top-down BACT analysis has been developed from the US EPA's 1990 Draft New Source Review Workshop Manual - BACT Guidance. The analysis utilizes five key steps to identify the most suited BACT option for the project. The first step in this approach is to determine, for the emission units in question, the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically, environmentally, or economically infeasible for the unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Step 1: Identify Available Control Technologies

Available control technologies are identified for each emission unit in question. The following methods are used to identify potential control technologies: 1) researching the Reasonably Available Control Technology (RACT)/BACT/Lowest Achievable Emission Rate (LAER) Clearinghouse (RBLC) database; 2) surveying regulatory agencies; 3) drawing from previous engineering experience; 4) surveying air pollution control equipment vendors; and 5) surveying available literature.

Step 2: Eliminate Technically Infeasible Options

After the identification of control options, an analysis is conducted to eliminate technically infeasible options. A control option is eliminated from consideration if there are process-specific conditions that prohibit the implementation of the control technology.

Step 3: Rank Remaining Control Options by Control Effectiveness

Once technically infeasible options are removed from consideration, the remaining options are ranked based on their control effectiveness. If there is only one remaining option, or all of the remaining technologies could achieve equivalent control efficiencies, ranking based on control efficiency is not required.

Step 4: Evaluate and Eliminate Control Technologies Based on Energy, Environmental, and Economic Impacts

Beginning with the most efficient control option in the ranking, detailed economic, energy, and environmental impact evaluations are performed. If a control option is determined to be

economically feasible without adverse energy or environmental impacts, it is not necessary to evaluate the remaining options with lower control efficiencies.

The economic evaluation centers on the cost effectiveness of the control option. Costs of installing and operating control technologies are estimated following the methodologies outlined in the EPA's OAQPS Control Cost Manual (CCM) and other industry resources. Cost effectiveness is expressed as dollars per ton of pollutant controlled. Objective analyses of energy and environmental impacts associated with each option are also conducted. Both beneficial and adverse impacts are discussed and quantified.

Step 5: Select BACT and Document the Selection as BACT

In the final step, one pollutant specific control option is proposed as BACT for each emission unit under review based on evaluations from the previous step. The resulting BACT standard is an emission limit unless technological or economic limitations of the measurement methodology would make the imposition of an emissions standard infeasible, in which case a work practice standard can be imposed.

Lastly, if a source is subject to an NSPS, the minimum control efficiency to be considered in a BACT analysis must result in an emission rate less than or equal to the NSPS emission rate. In other words, the applicable NSPS limit represents the maximum allowable emission limit (or ceiling) for an emission source.

A. Step 1: Identify Available Control Technologies

The emissions come from the carbon black processing units. A review of the RBLC database lists no controls for CO from carbon back processing. Since the carbon black processing units are controlled by the CGEUs, the possible controls for natural gas boilers were also reviewed.

Potentially Available Control Technologies

Pollutant	Listed Control Technologies
CO	Oxidation Catalysts
	Good Combustion Practices

B. Step 2: Eliminate Technically Infeasible Options

A control option is eliminated from consideration if it is shown that the technology has not been demonstrated on similar emission sources and that it also is not commercially available, or it cannot be applied to the emissions source under consideration.

The application of an oxidation catalyst to a waste gas fired boiler presents many substantial challenges that render this control technology not technically feasible for further consideration as a control alternative for CO. A review of the USEPA RACT/BACT/LAER Clearinghouse (RBLC) reveals that the database contains no record of add-on control equipment for the control of CO on

a gas fired boiler. Technical challenges that render an oxidation catalyst control technically infeasible for CGEUs include the following:

- The oxidation catalyst will not only oxidize CO but will also oxidize a predominant portion of SO_2 to SO_3, forming corrosive and undesirable sulfuric acid vapor emissions in the presence of water. Additionally, with the additional SNCR/SCR installed on CGEUs, even more SO_2 would be oxidized to SO_3 and would likely result in the quick fouling of the air heater and equipment corrosion downstream.
- Acid gases and trace metals in the flue gas from the combustion of heavy oil (The reactors have feedstock oil charged and go through a set of reactions including partial combustion of the feedstock, thermal decomposition, particle nucleation and particle growth/aggregation at high temperatures) will quickly poison the catalyst, making the control technology ineffective in its intended role.

While the CO oxidation catalyst is eliminated from further consideration for the reasons stated above, good combustion practices are well demonstrated and available, and thus considered technically feasible for the control of CO in this BACT analysis.

C. Step 3 -Rank Remaining Control Technologies by Effectiveness

Good combustion practice is the only remaining option.

D. Step 4 – Evaluate and Eliminate Control Technologies Based on Energy, Environmental, and Economic Impacts

No elimination is done in this step as good combustion practice is the only remaining option.

E. Step 5 – Select BACT

Continental proposes to select good combustion practice and CO emission limit of 169.75 lb/hr and 743.51 TPY as BACT.

SECTION IX. AIR QUALITY ANALYSES

In accordance with OAC 252:100-8-35, an air quality impacts evaluation in the form of an atmospheric modeling study has been performed for CO for one (1)-hour and eight (8)-hour averaging periods.

General Model Input Information

1. Dispersion Model Selection and Default Processing Options

The Bee-line BEEST software was used for the air dispersion modeling. The BEEST software includes AERMOD Version 23132 with Plume Rise Model Enhancements (PRIME), and Version 04274 of the Building Profile Input Program (BPIP-Prime).

The US EPA's BPIP-Prime was used to calculate direct-specific building dimensions and Good Engineering Practice (GEP) stack height information for use with AERMOD. Building downwash was evaluated using procedures outlined in the US EPA's Guideline for Determination of GEP Stack Height.

2. Meteorological Data

The modeling analyses were performed using five years (2011-2015) of surface meteorological data from Ponca City Regional Airport in Kay County, Oklahoma (KPNC, Site ID 13969) and the upper air station at University of Oklahoma Westheimer Airport (Max Westheimer Airport) in Cleveland County, Oklahoma (KOUN, Site ID 3948) was used in this evaluation. A profile base elevation of 304.2 m (998 feet) was used in this analysis, which is the base elevation of the KPNC surface weather station. The use of the meteorological data preprocessor (AERMET) was not necessary in this atmospheric modeling study because the meteorological data provided by the DEQ have been preprocessed. This meteorological dataset includes hourly wind speed, direction, temperature, and numerous other parameters required by AERMOD.

3. Receptors and Terrain Elevations

Since this modeling study requires receptors to extend 50 km from Continental Carbon's fence line, Continental Carbon has used the following receptor spacing for the Class II PSD NAAQS evaluation.

- Receptors 25 m apart, extending from the fence line to 100 m,
- Receptors 100 m apart, extending from the 100 m to one (1) km,
- Receptors spaced 250 m apart, extending from one (1) km to two and half (2.5) km,
- Receptors spaced 500 m apart, extending from two and a half (2.5) km to five (5) km,
- Receptors spaced one (1) km apart, extending from five (5) km to 20 km, and
- Receptors spaced five (5) km apart extending from 20 km to 50 km.

This proposed receptor grid covers a large enough area to demonstrate where the maximum predicted offsite ground-level concentration (GLCmax) is located. Receptors will not be included on Continental Carbon's property as the property is not accessible to the general public.

The change in elevation around Continental Carbon will be processed by the AERMAP terrain preprocessing program (EPA, 1998c) before input to the AERMOD model. United States Geological Survey (USGS) NED data was used to automate the task of assigning terrain elevations to sources, receptors, and buildings located on and surrounding Continental Carbon. NED data covering the receptor grid domains was used in the impacts analysis to calculate terrain elevations. Vertical data are in reference to the 1980 Geodetic Reference System (GRS80). Horizontal data are cast on the Universal Transverse Mercator (UTM) projection system and are referenced to the North American Datum of 1983 (NAD83). The horizontal resolution of the terrain data is one (1) arc second (approximately 30 meters [m]). There are no proposed discrete receptors used for higher

terrain at Continental Carbon. Elevations of hill heights for all sources, buildings, and receptors will be calculated through linear interpolations using AERMAP.

4. Source Types

The AERMOD dispersion model allows for emission units to be represented as point, area, or volume sources.

Multiple emission sources at Continental Carbon exhaust to vertical stacks; therefore, they were represented as point sources in the model. The release heights for all point sources are the actual heights of the stack. The stack diameters and exit flow rates for all point sources are the actual stack diameters and exit flow rates of the stack.

The area source characterization was not used for any onsite or offsite sources in this modeling demonstration.

The volume source characterization was not used for any onsite or offsite sources in this modeling demonstration.

5. Building Downwash and GEP Stack Height Analysis

The US EPA's BPIP-Prime was used to calculate direction-specific building dimensions and GEP stack height information for use with AERMOD. Building downwash was evaluated using procedures outlined in the US EPA's *Guideline for Determination of GEP Stack Height* (EPA-450/4-80-023R). Only structures that have sources within their region of influence were used in the modeling wake effects analysis. Elevated structures and structures without vertical walls were not included in the model since they do not contribute to downwash.

Modeled Emissions

EUG No.	Point No.	Emissions Unit Name	CO PTE	Modeled Emission (1-hr averag)	Modeled Emissions (8-hr Average)
			lb/hr	lb/hr	lb/hr
EUG 1	EPN 1	Boiler 1, 6.1 MMBTU/H	0.50	0.50	0.50
EUG 1	EPN 2	Boiler 2, 6.28 MMBTU/H	0.52	0.52	0.52
EUG 5	EPN 40	Clean Gas and Energy Unit 1	169.75	169.75	169.75
EUG 5	EPN 41	Clean Gas and Energy Unit 2	169.75	169.75	169.75
EUG 6	EPN 5	Dryer 11 Firebox Stack	1.74E-04	1.74E-04	1.74E-04
EUG 6	EPN 8	Dryer 12 Firebox Stack	1.74E-04	1.74E-04	1.74E-04
EUG 6	EPN 9	Dryer 21 Firebox Stack	3.61E-04	3.61E-04	3.61E-04
EUG 6	EPN 12	Dryer 31 Firebox Stack	1.77E-04	1.77E-04	1.77E-04
EUG 6	EPN 13	Dryer 32 Firebox Stack	1.77E-04	1.77E-04	1.77E-04
EUG 6	EPN 21	Dryer 41 Firebox Stack	3.68E-04	3.68E-04	3.68E-04
EUG 2	EPN 3	Production Unit 1 – Transition Events	2,122.29	854.22	108.07

EUG No.	Point No.	Emissions Unit Name	CO PTE	Modeled Emission (1-hr averag)	Modeled Emissions (8-hr Average)
			lb/hr	lb/hr	lb/hr
EUG 2	EPN 7	Production Unit 2 – Transition Events	1,039.51	476.87	65.71
EUG 2	EPN 11	Production Unit 3 – Transition Events	2,159.69	1,039.99	136.37
EUG 2	EPN 20	Production Unit 4 – Transition Events	2,246.00	501.98	55.17
EUG 5	EPN 40	Clean Gas and Energy Unit 1 - Heat Load	2.67	2.67	2.67
EUG 5	EPN 41	Clean Gas and Energy Unit 2 - Heat Load	2.67	2.67	2.67
EUG 8	EPN 3	Reactor 11 - Heat Load	2.14	2.14	2.14
EUG 8	EPN 3	Reactor 12 - Heat Load	2.14	2.14	2.14
EUG 8	EPN 7	Reactor 21 - Heat Load	2.29	2.29	2.29
EUG 8	EPN 11	Reactor 31 - Heat Load	2.10	2.10	2.10
EUG 8	EPN 11	Reactor 32 - Heat Load	2.10	2.10	2.10
EUG 8	EPN 20	Reactor 41 - Heat Load	5.04	5.04	5.04
EUG 9	EPN 40 / 41	Waste Gas Combustor 11 - Heat Load	0.11	0.11	0.11
EUG 9	EPN 40 / 41	Waste Gas Combustor 12 - Heat Load	0.11	0.11	0.11
EUG 9	EPN 40 / 41	Waste Gas Combustor 21 - Heat Load	0.11	0.11	0.11
EUG 9	EPN 40 / 41	Waste Gas Combustor 31 - Heat Load	0.21	0.21	0.21
EUG 9	EPN 40 / 41	Waste Gas Combustor 32 - Heat Load	0.21	0.21	0.21
EUG 9	EPN 40 / 41	Waste Gas Combustor 41 - Heat Load	0.25	0.25	0.25
EUG 11		Emergency Generator Unit 1 & 2	0.17	0.17	0.17
EUG 11		Emergency Generator Unit 3	0.17	0.17	0.17
EUG 11		Emergency Generator Unit 4	0.42	0.42	0.42

Significant Impacts Analysis

Preliminary modeling for CO was completed for comparison to its respective Class II area SILs. If impacts are greater than the SIL, then a full impact modeling analysis is required, including a NAAQS modeling analysis. The following table lists the results.

Pollutant	Averaging Period	Form of Standard	Max Project Impact (µg/m3)	Class II SIL (µg/m3)	Full Impact Analysis Required?
CO	1-hr	H1H	15,069	2,000	Yes
	8-hr	H1H	1,495	500	Yes

This analysis indicates that a full impact analysis is required.

Full Impact Analysis

The full impact involves modeling all onsite sources and nearby offsite sources, adding a background concentration to the maximum modeled impacts, and then comparing the modeled impacts plus the background concentration to the NAAQS for the respective pollutant and averaging period. The total of these concentrations must be less than the NAAQS.

Nearby offsite point sources with their model input parameters and emission rates, as well as background concentrations were provided by DEQ.

Modeling results for the Class II NAAQS analysis are presented in the following table:

Pollutant	Averaging Period (Form of Standard)	GLCmax (µg/m³)	Background Conc. (µg/m³)	GLCmax + Background Conc. (µg/m³)	NAAQS (µg/m³)	Impacts < NAAQS?
CO	1-hour (H2H – 5 yr ave)	31,904	1,374	33,278	40,000	**YES**
	8-hour (H2H – 5 yr ave)	3,328	916	4,244	10,000	**YES**

As shown in the above table, the one (1)-hour and eight (8)-hour CO NAAQS are not exceeded; therefore, no further evaluation is required.

Since CO does not have a PSD increment, a PSD increment evaluation is not required.

Class I Area Analysis

PSD regulations require a Class I area analysis be conducted for all proposed sources with potential for air quality impacts on a Class I area. Class I areas are federally protected areas for which more stringent air quality standards apply to protect unique natural, cultural, recreational, and/or historic values.

Continental Carbon is located 247 kilometers (km) to the southwest of the Wichita Mountains National Wildlife Refuge, which is the nearest Class I area to the site and the only Class I area within 300 km to the site.

Section 3.2, Initial Screening Criteria, in the *Federal Land Managers'* (FLM) *Air Quality Related Values Work Group* (FLAG) *Phase I Report* (Revised 2010) provides the approved methodology to determine if emissions from a new or modified source located more than 50 km from a Class I Area have the potential to have a significant impact on Air Quality Related Values (AQRVs) in the Class I Area. The FLAG report concludes that sources located greater than 50 km from a Class I Area will have negligible impacts to AQRVs in the Class I Area, if total annual SO2, NOX, PM10, and sulfuric acid (H2SO4) emissions (Q) divided by the distance to the Class I Area (D)

result in a ratio value of ten (10) or less. If the Q/D ratio value is ten (10) or less, then no further Class I impact AQRV analyses are required. As described in the document FLM FLAG *Response to Public Comments on the Revised Phase I Report* (2010), modified sources are only required to include emission increases associated with the modification, not total facility emissions, when calculating the Q/D ratio. The project under evaluation only involves CO increases and does not include any of the pollutants associated with the described Class I Area Impact Assessment by the FLM guidance; therefore, this project will have no impacts on Class I areas.

Additional Impacts Analysis

1. Growth Analysis

The purpose of the growth analysis is to quantify project associated growth and estimate the air quality impacts from this growth.

This project was estimated to create little, if any, additional full-time jobs. Any additional employees to be hired by Continental Carbon would be nearby residents. Since the area is predominately rural and little to no full-time jobs were expected from this project, it is estimated that air quality impacts associated with growth are minimal (if detectable at all).

2. Soils and Vegetation Analysis

The effect of the proposed project emissions on local soils and vegetation are usually addressed through comparison of modeled impacts to the secondary NAAQS. The only pollutant with increases associated with this project is CO, and CO does not have a secondary NAAQS. As shown in above analysis, CO meets the primary NAAQS; therefore, no anticipated impacts on the local soils and vegetation are expected from this project.

SECTION X. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Appropriate recordkeeping of activities indicated below with "*" is specified 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.

1. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. The facility has one diesel tank and one gasoline tank that are used to store and dispense fuel to equipment operated solely for facility owned vehicles. Average monthly throughput does not exceed 2,175 gallons/day. The facility has three other diesel tanks used for trace additions to the mixing box/pelletizers used in wet process, one 1,000-gallon tank, and two 500-gallon tanks which are not used for vehicle fueling.

2. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. The

facility currently has two 21,000-gallon tanks used to store fuel oil used to make carbon black and others may be used in the future based. These tanks were last used in 1984.

3. Cold degreasing operations utilizing solvents that are denser than air. There are two parts washers located at the facility which use a solvent (Safety Kleen) that is denser than air. The solvent is removed and recycled by the vendor.

4. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Reactor refractory curing, reactor product sampling, and bag filter replacement emissions are less than 5 TPY of respective pollutants. Other activities may be identified in the future.

SECTION XI. 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]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emission 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 which result in emissions not authorized in the permit and which exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units either that are on the list in Appendix I (OAC 252:100) 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

Emissions limitations have been incorporated from the previously issued permits and updated to reflect current operations.

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).

This is a modification of a construction permit for a physical changes which is considered significant.

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]
252:100-19-4, Allowable particulate matter emission rates from fuel-burning units. This section specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU from existing fuel-burning equipment with a rated heat input of 10 MMBTUH or less. AP-42 (7/98), Table 1.4-2, lists the total PM emissions for natural gas to be 7.6 lb/MMft^3 or about 0.0076 lb/MMBTU. The permit requires the use of natural gas for the boilers and the sections of the reactors which combust natural gas to heat the feedstock to produce carbon black to ensure compliance with Subchapter 19.

252:100-19-12, Allowable particulate matter emission rates from directly fired fuel-burning units and industrial processes. For process rates up to 60,000 lb/hr (30 TPH), the emission rate in pounds per hour (E) is not to exceed the rate calculated using the process weight rate in tons per hour (P) and the formula in Appendix G ($E = 4.10*P^{(0.67)}$). For process rates greater than 60,000 lb/hr (30 TPH), the emission rate in pounds per hour (E) is not to exceed the rate calculated using the process weight rate in tons per hour (P) and the formula in Appendix G ($E = 55.0*P^{(0.11)}-40$).

The emission points from the clean gas and energy units combine emissions from reactor sections used to convert the feedstock into carbon black, main bag filters, boilers, and waste gas combustors. Therefore, total allowable PM is the sum of the allowable for each directly fired fuel-burning unit and industrial process. The following table indicates that permitted emissions are in compliance with allowable emissions.

Point	Controlled Processes	Weight Rate	Allowable PM Emissions	Permitted PM Emissions
		TPH	lb/hr	lb/hr
EPN #40	Reactors 1&2	11.3	20.76	5.63
	MBF #1 & #2	11.3	20.76	
	WGC #11, #12, & #21	11.3	20.76	
	CGEU 1	11.3	20.76	
	Total		83.04	
EPN #41	Reactor 3	5.0	12.0	5.66
	MBF #3	5.0	12.0	
	WGC #31 & #32	5.0	12.0	
	Reactor 4	6.3	14.0	
	MBF #4	6.3	14.0	
	WGC #41	6.3	14.0	
	CGEU 2	6.3	14.0	
	Total		92.00	

OAC 252:100-25 (Visible Emissions and Particulate Matter) [Applicable]
No discharge of greater than 20% opacity is allowed except for 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.

The boilers burn natural gas. When burning natural gas, there is very little possibility of the opacity standards being exceeded.

Paragraph 33 of CD requires daily Method 22's for all PM emission equipment identified in Appendix B to the CD. If visible emissions are detected, Continental Carbon shall identify, address, and resolve the source of visible emissions as expeditiously as practicable. If the visible emissions event is not resolved within 24 hours, a six minute observation in accordance with Method 9 is required at least once every eight hours (during daylight hours), until visible emissions are less than 5% over the six minute average.

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 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.

Continental Carbon is currently required to do (using BMP) the following so as to minimize fugitive emissions of carbon black: 1) maintain and repair Unit No. 4 bagfilter system to prevent excessive temperatures (this is no longer a concern due to plant operation changes on controls), 2) conduct product loading operations in such a manner to minimize any fugitive emissions of carbon black, 3) promptly clean any and all areas within the facility where carbon black has been spilled, blown, deposited, or accumulated, 4) place bagfilters into sealed containers, when possible, prior to removal or replacement of bagfilters from their compartments, and 5) conduct a routine inspection program wherein all high speed processing equipment within the facility is inspected and lubricated. Further, Continental Carbon has installed a pulse jet bagfilter system within the shipping department loading area at the facility to further control the release of fugitive carbon black emissions.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 2 (31-7(b)) specifies that emissions of hydrogen sulfide from any new or existing source shall not result in a 24-hour average ambient air concentration of H_2S at any given point of 0.2 ppm (278.6 $\mu g/m^3$) or greater. Continental Carbon performed AERSCREEN modeling which resulted in a concentration of 128.78$\mu g/m^3$ or 0.09 ppm H_2S.

ID	Height (ft)	Diameter (ft)	Flowrate (acfm)	Temp (°F)	H_2S (lb/hr)	Adjusted H_2S (lb/hr)*	1-hr Impacts ($\mu g/m^3$)
Stack 3	63	3.33	45,325	450	258.23	21.52	32.62
Stack 7	60	3.33	45,325	450	308.27	17.36	28.63
Stack 11	58	3.33	45,325	450	262.78	21.90	38.27
Stack 20	69	3.33	45,325	450	273.29	22.77	29.26
Total							**128.78**

*Adjusted H_2S (lb/hr) = H_2S (lb/hr) x (2 events/ 24 hours)

Part 5 limits sulfur dioxide emissions from new equipment (constructed after July 1, 1972). For gaseous fuels, the limit is 0.2 lb/MMBTU heat input. The section of the reactor in Unit 4 which combusts natural gas to heat the feedstock to produce carbon black is subject to this standard. The AP-42 (7/98), Chapter 1.4, Table 1.4-2 emission factor of 0.6 pound of SO_2 per million cubic feet equates to approximately 0.0006 lb/MMBTU which is in compliance with this subchapter. The permit requires the fuel-burning section of the reactor of Unit 4 to be fired with commercial grade natural gas.

OAC 252:100-37 (Volatile Organic Compounds) [Part 7 is 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. All of the tanks constructed after 1974 store liquids with vapor pressures less than 1.5 psia except for the gasoline/diesel tanks which have a capacity of 300 gallons or more.
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 coatings. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment which is exempt.
Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize emissions. Temperature and available air must be sufficient to provide essentially complete combustion.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [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.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility:

OAC 252:100-7	Permits for Minor Facilities	not in source category
OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Grain Elevators	not in source category
OAC 252:100-33	Nitrogen Dioxides	not in source category
OAC 252:100-35	Carbon Monoxide	not in source category
OAC 252:100-39	Nonattainment Areas	not in area category
OAC 252:100-47	Landfills	not in source category

SECTION XII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Total potential emissions for NO_X, CO, PM, and SO_2 are greater than the major source threshold level of 100 TPY for carbon black manufacturing. PSD applicability for this modification has been addressed in Section II of this Memorandum. Any future emission increases must be evaluated for PSD if they exceed a significance level (40 TPY NO_X, 100 TPY CO, 40 TPY VOC, 15 TPY PM_{10}, and 10 TPY $PM_{2.5}$).

NSPS, 40 CFR Part 60 [Not Applicable]
Subpart A, General Control Device Standards. The standards contained within Section 60.18 for control devices are not applicable to the CGEUs since they receive no emissions from any equipment subject to NSPS.
Subparts D, Da, Electric Utility Steam Generating Units. The boilers at this facility are not affected units because they are not electric utility steam generating units as defined by Subparts D and Da.
Subparts Db, Dc, Industrial-Commercial-Institutional Steam Generating Units. The boilers at this facility are not affected units because they have heat capacities less than 10 MMBTUH, which is the applicability thresholds of these subparts.
Subparts E, Ea, and O, Incinerators, Municipal Waste Combustors, and Sewage Treatment Plants. This facility does not combust solid waste, tires, fuel derived from tires, or sewage sludge.
Subparts K, Ka, Kb, VOL Storage Vessels. The carbon black oil tanks at this site are not subject because they were constructed prior to the effective date of Subpart K (June 11, 1973).
Subpart BBB, Rubber Tire Manufacturing Industry. This facility manufactures carbon black and is not a tire manufacturer.
Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. This subpart affects stationary compression ignition (CI) internal combustion engines (ICE) based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. No applicable equipment were identified at the site.
Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates emission standards for new SI engines ordered after June 12, 2006, that are manufactured after certain dates, and for SI engines modified or reconstructed after June 12, 2006. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and manufacture date. Engine manufacturers are required to certify certain engines to meet the emission standards and may voluntarily certify other engines. An initial notification is required only for owners and operators of engines greater than 500 HP that are non-certified. Emergency engines will be required to be equipped with a non-resettable hour meter and are limited to 100 hours per year of operation excluding use in an emergency (the length of operation and the reason the engine was in operation must be recorded).

There are four emergency generators at the facility and the following table lists their horse powers and manufactured dates.

Generators	Model	Serial #	HP	Manufactured Date
Unit 1&2	4569080100/4.3 L Chevy	2079790	63	10/26/2004

Unit 3	Generac 4129890100/4.3 L Chevy	2077604	63	6/10/2004
Unit 4	5373280100/7.1 L Ford	2083539	110	7/1/2005
Pond 1	QT05554KW SNA/Ford Windsor LVL 351	1886956	86	9/1/2007

Since each generator has a maximum engine power less than 500-hp and was manufactured before July 1, 2008, they are not subject to this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]
There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride.
Subparts J, BB, Equipment Leaks of Benzene and Benzene Transfer operations. No benzene has been detected in any stream at the facility.

NESHAP, 40 CFR Part 63 [Subparts YY, ZZZZ, and DDDDD Applicable]
Subpart YY, National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards. Pursuant to §63.1103(f), Part 63, Subpart YY is applicable to each new and existing carbon black production process unit located at a major source, as defined in section 112(a) of the ACT.

Carbon black production unit means the equipment assembled and connected by hard-piping or duct work to process raw materials to manufacture, store, and transport a carbon black product. For the purpose of this subpart, a carbon black production process unit includes reactors and associated operations; associated recovery devices; and any feed, intermediate and product storage vessels, product transfer racks, and connected ducts and piping. It also includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems.

Table 8 to §63.1103(f) specifies the carbon black production control standards applicability for existing and new sources. The control standards are only applicable to a carbon black production main unit filter process vent. Main unit filter is defined in §63.1103(f)(2) as the filter that separates the carbon black from the tail gas. Process vent is defined in §63.1101 as the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream from a unit operation within a source category subject to this subpart. The definition of process vent further excludes gas streams transferred for fuel value (i.e., net positive heating value), use, reuse, or sale for fuel value, use, or reuse.

The gas stream sent to the waste gas combustor qualifies for the exemption for gas streams transferred for fuel value and is not subject to the control requirements of Table 8 to §63.1103(f). The entry point to the thermal oxidizers meets the definition of a "process vent" and must meet the requirements in Table 8 of §63.1103(f)(3): reduce emissions of total HAP by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of §63.982(a)(2).

Performance testing of the facility's thermal oxidizers was conducted in 2004 as required by Permit No. 98-176-TV (PSD) (M-2). Such testing included the determination of H_2S, COS, and CS_2 pursuant to Method 15 of 40 CFR Part 60, Appendix A, as well as a determination of non-methane, non-ethane total gaseous organic concentrations using a flame ionization analyzer pursuant to Method 25A of 40 CFR Part 60, Appendix A. A copy of the stack test results (as well as the test methods employed) was previously submitted to DEQ by letter dated September 17, 2004. The results indicated emissions H_2S, COS, CS_2, and non-methane hydrocarbon from each thermal oxidizer were below 20 ppmv even if it is assumed that all NMHC are HAP. The CGEUs will operate in the same temperature ranges as the thermal oxidizers; therefore, the change to the CGEUs should provide the same level or greater control of HAP emissions.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Of the four emergency generators, Unit Pond 1 is a new unit (constructed after 6/12/2006), and the only requirement is to comply with NSPS Subpart JJJJ requirements. However, the unit was manufactured before July 1, 2008, and is not subject to NSPS Subpart JJJJ, thus there is no applicable requirements for this unit.

Units 1-4 fall under existing units (constructed before 6/12/2006) located at a major HAP source category and shall comply with applicable emission limitations and operating limitations. Initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart shall be conducted within 180 days after the compliance date. Specific requirements in §63.6602 are listed in the following table.

Engine Category	**Requirements From Table 2c to Subpart ZZZZ of Part 63**
Emergency stationary CI RICE and black start stationary CI RICE.	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
Emergency stationary SI RICE and black start stationary SI RICE	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters. The new waste gas boilers fall under the carbon black MACT only.

A boiler or process heater is new or reconstructed if construction or reconstruction of the boiler or process heater commenced on or after June 4, 2010.

Unit(s) designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels.

Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 MMBTUH and less than 10 MMBTUH must complete a tune-up every 2 years as specified in §63.7540. Units in the gas 1 subcategories will conduct these tune-ups as a work practice for all regulated emissions under Subpart DDDDD. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of Subpart DDDDD, or the operating limits in Table 4 of Subpart DDDDD.

Existing boilers and process heaters located at a major source facility, not including limited use units must have a one-time energy assessment performed by a qualified energy assessor.

Boilers #1 and #2 at this facility are subject to this subpart as the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 MMBTUH and less than 10 MMBTUH. These boilers will be subject to work practice standards including boiler tune-ups and a one-time energy assessment.

Subpart CCCCCC, Gasoline Dispensing Facilities. This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF) that is located at an area source. This facility is a major source for HAPs, thus is not subject to this subpart.

CAM, 40 CFR Part 64 [Applicable]

Compliance Assurance Monitoring (CAM) applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of 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
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than the major source thresholds.

NOx, CO, PM, VOCs, and SO_2 emissions from the carbon black production units are controlled by the two CGEUs each consisting of one (1) cogeneration electric unit combusting the tail gas from the reactors (destroys CO and VOC), followed by one (1) selective catalytic reduction system (SCR) for control of nitrogen oxide (NOx) emissions, and one (1) dry scrubber for control of sulfur dioxide (SO_2) and secondary bag filters for particulate matter (PM) emissions. Each of these pollutants has an emission limit and a PTE greater than 100 TPY. NOx and SO_2 are required by

Specific Condition No. 1.EUG5.d to be monitored using CEMS, which is considered presumptively acceptable monitoring per § 64.4 (b)(2). Therefore, no further justification for the appropriateness of that monitoring is necessary for these two pollutants. The cogeneration electric unit is a process unit, not a control device, therefore, CO and VOC do not require CAM. CAM plan for PM is outlined below.

The CAM Plan

I. Background

A. Emission Unit Description: Processes routed to Clean Gas and Energy Units (CGEU)
Emission Points: EPN 40 and EPN 41 of EUG 5
Facility: Carbon Black Production Facility
Continental Carbon Corporation

B. Applicable Requirement, Emission Limits, and Monitoring Requirements

i. Requirement:
AQD Permit No. 2017-0914-C (M-3) PSD

ii. Emission Limits

Emission Point	$PM/PM_{10}/PM_{2.5}$	
	lb/hr	TPY
EPN 40	5.36	23.48
EPN 41	5.36	23.48

iii. Monitoring requirements
$PM/PM_{10}/PM_{2.5}$:
- Daily visible emission observation
- Continuous particulate matter sensor
- Continuous PM early warning system

C. Control technology
i. CGEUs

II. Monitoring Approach

A. The key elements of the monitoring approach are presented in the CAM Plan table on the following page.

III. Response to Excursion

A. For $PM/PM_{10}/PM_{2.5}$: An excursion occurs when particulate level exceeds a defined level set per manufacturer's recommendation. When an excursion occurs, the excursion is required to be recorded electronically and included in the semi-annual monitoring

and deviation report. If an excursion occurs, corrective action shall be initiated beginning with inspection of the PM sensors and Early Warning Systems, units generating PM emissions, and PM control devices and followed by any needed repair or replacement of malfunctioning parts, equipment, and devices.

Monitoring Requirements for the CGEUs

	PM/PM_{10}/$PM_{2.5}$
I. Indicator	1. Daily Visual Emission Observation 2. Continuous monitoring of PM
Measurement Approach	1. Visible emissions are assessed daily by EPA Method 22. 2. PM is monitored continuously using PM sensor and PM Early Warning System.
II. Indicator Range	1. Observation of visible emissions. 2. An excursion occurs when particulate level exceeds a defined level set per manufacturer's recommendation.
A. QIP Threshold	Not applicable
III. Performance Criteria	
A. Data Representa-tiveness	The monitoring system consists of PM sensors and PM early warning system. These equipment are installed and operated in accordance with manufacturer's specifications.
B. QA/QC – Practices and Criteria	PM Sensors and PM Early Warning Systems are operated and maintained per manufacturer's recommendation, including the following: - Replacement parts are kept on hand for any equipment failures. - Visually inspect and clean sensor semiannually. - Annually inspect comprehensively and make any necessary repairs.
C. Monitoring Frequency	- Daily VEOs. - Continuous monitoring of PM.
D. Data Collection Procedures	PM monitored data are recorded continuously on Data Historian. Excursions trigger alarms up to and including shutdown of relevant operations. Corrective action, logging, and reporting in semiannual reports will be triggered if controlled shutdowns fail in the event of an excursion or during a Force Majeure event.
E. Averaging period	No averaging, provide continuous detection monitoring of excess PM emissions.

Monitoring Approach Justification

I. Background

This facility is a carbon black production facility. Emissions from the facility are routed to either CGEU #1 or CGEU #2. The PM emissions generated from the reactor units are collected and controlled using MBFs and routed through CGEU Units.

II. Rationale for Selection of Performance Indicators

A. Visible Emissions Observations
VEO using EPA's Method 22 helps to identify, address, and resolve the source of visible emissions as expeditiously as practicable. If visible emissions event is not resolved within a reasonable duration, EPA's Method 9 six-minute observation is conducted with suitable

visibility conditions, at least once every eight (8) hours during daylight until visible emissions are less than 5% of the six-minute average

B. PM Sensors and PM Early Warning System
Installation of PM Sensors and PM Early Warning Systems helps to detect PM emissions exceedances of a set PM level per manufacturer's recommendation. PM emissions exceedance detection enable Continental to take immediate action to determine the source of PM emissions that lead to exceedance and perform needed repairs and corrective actions. These monitoring devices are easy to install, reliable, with low maintenance and long life and designed to operate in very low and high temperature range. These devices will be calibrated, tested, and maintained as needed per manufacturer's recommendations.

III. Rationale for Selection of Indicator Ranges

A. Visible Emissions Observations
Visible emissions observation is a relatively direct and readily available method to identify visible emissions by trained personnel on site without requiring equipment. VEO allows for immediate identification of potential issues and initiate prompt corrective action.

B. PM Sensors and PM Early Warning System
PM sensors are relatively low cost, easy to operate, and capable of providing real-time data. The data can be easily accessed and analyzed through user-friendly interfaces. PM Early Warning Systems offer timely alerts about potential excursions allowing proactive corrective actions such as maintenance and repairs.

The waste gas combustors (driers) are also used to control emissions from the carbon black furnaces. However, emissions from the driers are exhausted after the boilers and prior to the SCR and scrubber. Therefore, no CAM requirements are applicable to these emission units.

Emissions from the main and exhaust baghouses are exhausted through the CGEUs, no CAM requirements are applicable to these control devices.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This source does not store more than the applicable threshold of any of the regulated substances. Therefore, this facility is not subject to this standard. More information on this federal program is available at the web site: *http://www.epa.gov/rmp/*.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds

under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030. This facility does not utilize any Class I & II substances.

Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The Standard Conditions of the permit address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and §82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION XIII. COMPLIANCE

The Specific Conditions of this permit contain various testing, monitoring, recordkeeping, and reporting requirements in order to document on-going compliance with emission limits. The specific method used to document compliance was based on the type of emission unit, the type of process equipment, the specific pollutants emitted, and the amount of permitted emissions taking into account other regulatory requirements that an emission unit may be subject to.

In addition to the permitting requirements, the following periodic inspections have been conducted since issuance of the last Part 70 operating permit (Permit No. 2017-0914-TVR2), issued on August 21, 2018).

Inspection Type	Date	Summary
Full Compliance Evaluation	6/25/2020	Off-site FCE conducted due to Covid-19. Ten noncompliance issues were identified as a result of this evaluation, which were addressed and resolved with Enforcement Case ID 10381.
Full Compliance Evaluation	8/26/2021	A couple of compliance issues identified related to records and reports, which were addressed and resolved with Enforcement Case ID 10432.
Full Compliance Evaluation	6/24/2024	Five noncompliance issues were identified as a result of this evaluation, which are being addressed with Enforcement Case ID 13265. The case is still active.

Fees Paid

The $5,000 fee for a construction permit modification was received on February 6, 2023.

SECTION XIV. TIER CLASSIFICATION, PUBLIC, AND EPA REVIEW

Tier Classification

This application has been classified as **Tier II** based on the request for a significant modification of a major source Construction Permit. The Applicant has chosen to follow the enhanced NSR review process.

The applicant 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 owns the land.

Public Review

The applicant published the "Notice of Filing a Tier II Application" in *The Ponca City News*, a daily newspaper published in the City of Ponca City, Kay County, Oklahoma, on August 23, 2024, for a 30-day public review. The notices stated that the application can be reviewed at the Ponca City Library at 515 East Grand Avenue, Ponca City, OK 74601 or at the Air Quality Division's main office.

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 or 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.

State Review

This facility is located within 50 miles of the Oklahoma – Kansas border and the state of Kansas was notified of the draft permit.

Tribal Review

Tribal Nations will be notified of the draft permit.

EPA Review

The applicant requested and was granted concurrent public and EPA review periods. The draft/proposed permit will be sent to EPA for a 45-day review period. If no comments are received, then the draft/proposed permit will be deemed the proposed permit.

Public Petition

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of OAC 252:100-8-8(j) may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under OAC 252:100-8-8(j), the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection under OAC 252:100-8-8(j), the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web page: *http://www.deq.ok.gov/*

SECTION XIV. SUMMARY

The applicant has demonstrated the ability to achieve compliance with all applicable Air Quality Rules and Regulations. Ambient air quality standards are not threatened at this site. There is no other active Air Quality compliance or enforcement issues other than those noted above. Issuance of the construction permit is recommended, contingent on public, tribal, and EPA review.

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Continental Carbon Corporation **Permit Number 2017-0914-C (M-3) PSD**
Carbon Black Production Facility

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on February 6, 2024. The Evaluation Memorandum dated June 19, 2025, 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 limitations for each point: [OAC 252:100-8-6(a)(1)]

EUG 1: Emission units (EU) Boiler #1 and Boiler #2.

a. The boilers shall only be fueled with commercial grade natural gas.

EU	Point	Manufacturer	MMBTUH	Serial #	Const. Date
Boiler #1	EPN #1	Superior	6.1	8631	1980
Boiler #2	EPN #2	Superior	6.28	17817	2015

EU	NOx		CO		VOC		SO_2		$PM_{10}/PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Boiler #1	0.60	2.63	0.50	2.20	0.03	0.14	0.004	0.02	0.05	0.22
Boiler #2	0.62	2.72	0.52	2.27	0.03	0.15	0.004	0.02	0.05	0.22

EUG 2: Main Bag Filters (MBF)
Emissions from these emission points include transition emissions of the production units and reactor heat load emissions.

Summary of Emission Sources

EUG 2 Main Bag Filters (MBF)

EU	Point	Name
MBF #1	EPN #3 (N/C)	Unit No. 1
MBF #2	EPN #7 (N/C)	Unit No. 2
MBF #3	EPN #11 (N/C)	Unit No. 3
MBF #4	EPN #20 (N/C)	Unit No. 4

N/C – Normally Closed

EUG 8 Reactors

EU	Point	Unit No.	Const. Date
RX #11	EPN #3, 40, or 41	Unit No. 1 - Reactor #11	1955
RX #12	EPN #3, 40, or 41	Unit No. 1 - Reactor #12	1955
RX #21	EPN #4, 40, or 41	Unit No. 2 - Reactor #21	1955
RX #31	EPN #11, 13, 40, or 41	Unit No. 3 - Reactor #31	1959
RX #32	EPN #11, 13, 40, or 41	Unit No. 3 - Reactor #32	1959
RX #41	EPN #20, 40, or 41	Unit No. 4 - Reactor #4	1991

a. During periods other than heat load operation, reactor startup, shutdown, and malfunction, the main bag filter heat load vents shall be closed.
b. All carbon black product and PM emissions generated by the reactor shall be vented to a main bag filter. Direct venting to the atmosphere of any carbon black product or PM emissions generated by the reactor is prohibited at all times.

Emission Limitations

Point	EU No.	Emissions Unit Name	NO_x		CO		VOC	
			lb/hr[1]	TPY	lb/hr[1]	TPY	lb/hr[1]	TPY
EPN 3	MBF 1	Production Unit 1 – Transition Events	12.46	7.57	2,122.29	203.10	94.71	9.08
	Rx 11	Reactor 11 - Heat Load						
	Rx 12	Reactor 12 - Heat Load						
EPN 7	MBF 2	Production Unit 2 – Transition Events	2.42	3.90	1,039.51	98.90	16.25	1.58
	Rx 21	Reactor 21 - Heat Load						
EPN 11	MBF 3	Production Unit 3 – Transition Events	12.24	8.06	2,159.69	206.43	96.38	9.24
	Rx 31	Reactor 31 - Heat Load						
	Rx 32	Reactor 32 - Heat Load						
EPN 20	MBF 4	Production Unit 4 – Transition Events	29.38	8.09	2,246.00	214.63	100.23	9.60
	Rx 41	Reactor 41 - Heat Load						

[1]Hourly emissions assume the worst case hourly emission rate between reactor heat load and transition events for each unit as these activities do not take place within the same hour.

Point	EU No.	Emissions Unit Name	$PM/PM_{10}/PM_{2.5}$		SO_2	
			lb/hr[1]	TPY	lb/hr[1]	TPY
EPN 3	MBF 1	Production Unit 1 – Transition Events	1.25	0.22	1.31	0.13
	Rx 11	Reactor 11 - Heat Load				
	Rx 12	Reactor 12 - Heat Load				
EPN 7	MBF 2	Production Unit 2 – Transition Events	1.45	0.20	8.70	0.88
	Rx 21	Reactor 21 - Heat Load				

Point	EU No.	Emissions Unit Name	$PM/PM_{10}/PM_{2.5}$		SO_2	
			lb/hr[1]	TPY	lb/hr[1]	TPY
EPN 11	MBF 3	Production Unit 3 – Transition Events	1.27	0.24	1.33	0.14
	Rx 31	Reactor 31 - Heat Load				
	Rx 32	Reactor 32 - Heat Load				
EPN 20	MBF 4	Production Unit 4 – Transition Events	1.32	0.24	1.38	0.14
	Rx 41	Reactor 41 - Heat Load				

[1]Hourly emissions assume the worst case hourly emission rate between reactor heat load and transition events for each unit as these activities do not take place within the same hour.

a. Transition event duration shall not exceed 10 minutes per event when transitioning between (A) an operational mode in which oil, natural gas, and combustion air are all fed to the reactor burner and the reactor is manufacturing carbon black and generating Tail Gas, and (B) an operational mode, including, but not limited to, during periods of Startup and Shutdown, in which no oil but only natural gas and combustion air are supplied to the reactor.
b. Total number of transitional events shall not exceed 760 per year for all four (4) reactors
c. Records of duration of each transition event and the total number of transition events in any 12 months shall be maintained.

EUG 4: Cleanup Bag Filters (CUBF)

Point	Emission Unit	Emission Unit Name	$PM/PM_{10}/PM_{2.5}$	
			lb/hr	TPY
EPN #10	CBF #1	Unit No. 1	0.20	0.87
EPN #6	CBF #2	Unit No. 2	0.05	0.24
EPN #14	CBF #3	Unit No. 3	0.03	0.12
EPN #24	CBF #4	Unit No. 4	0.10	0.45
EPN #23	CBF #5	Shipping Dock	0.09	0.39
EPN #34	CBF #6	Shipping Dock	0.09	0.39
EPN #35	CBF #7	Sealed Bin #1	0.01	0.04
EPN #35	CBF #8	Sealed Bin #2	0.01	0.04
EPN #33	CBF #9	Transloading	0.01	0.04

EUG 5: Clean Gas and Energy Units
Emissions from these emission points include emissions from EUG 2: Main Bag Filters, EUG 3: Exhaust Bag Filters, EUG 5: CGEUs, EUG 6: Pellet Dryers, EUG 8: Reactors, and EUG 9: waste gas combustors.

Summary of Emission Sources

EUG 5 Clean Gas and Energy Units (CGEU)

EU	Point	Name	Const. Date
CGEU 1	EPN #40	Clean Gas and Energy Unit 1	2017
CGEU 2	EPN #41	Clean Gas and Energy Unit 2	2017
CGEUH 1	EPN #40	Clean Gas and Energy Unit 1-Heat Load	2017
CGEUH 2	EPN #41	Clean Gas and Energy Unit 2-Heat Load	2017

a. The clean gas and energy units shall each consist of a tail gas boiler, selective catalytic reduction system, and a dry scrubber with a baghouse.

EUG 6 Pellet Dryers

EU	Point	Unit No.	Const. Date
Dryer #11	EPN #40	Unit No. 1	1954
Dryer #12	EPN #40	Unit No. 1	1954
Dryer #21	EPN #40	Unit No. 2	1954
Dryer #31	EPN #41	Unit No. 3	1959
Dryer #32	EPN #41	Unit No. 3	1959
Dryer #41	EPN #41	Unit No. 4	1991

EUG 9 Waste Gas Combustors (WGC)

EU	Points	Name	MMBTUH	Const. Date
WGC #11	EPN #40	WGC 11- Heat Load	19.3	1954
WGC #12	EPN #40	WGC 12- Heat Load	19.3	1954
WGC #22	EPN #40	WGC 21- Heat Load	19.3	1954
WGC #31	EPN #41	WGC 31- Heat Load	19.3	1959
WGC #32	EPN #41	WGC 32- Heat Load	19.3	1959
WGC #41	EPN #41	WGC 41- Heat Load	24.75	1991

Emission Limitations

Emission limitations for the clean gas energy units are listed in the following table.

Pollutants	7-Day Rolling Average Emission Limits	365-Day Rolling Average Emission Limits	3-hr Average Emission Limits
SO_2	No less than 120 ppmvd and no greater than 158 ppmvd (at 0% oxygen)	No less than 80 ppmvd and no greater than 130 ppmvd (at 0% oxygen)	
NOx	No greater than 54 ppmvd (at 0% oxygen)	No greater than 38 ppmvd (at 0% oxygen)	

PM			No greater than 0.0069 gr/dscf
NOx Limits for Heat Load, Startup, and Shutdown: No greater than 50 TPY (in total for all reactors and boilers) for the prior 365 days)			
BACT Limit for CO: No greater than 169.75 lb/hr and 743.51 TPY			

The following table lists combined emissions from Emission Points 40 and 41.

Point	NO_x		CO		VOC		$PM/PM_{10}/PM_{2.5}$		SO_2	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
EPN 40	58.39	127.95	172.92	744.39	3.12	12.75	5.65	23.57	162.43	585.30
EPN 41	58.39	127.95	172.92	744.39	3.12	12.75	5.65	23.57	162.43	585.30

a. Each of the dry scrubbers shall be designed to achieve 95% removal of SO_2 emissions at all times.
b. Permittee shall demonstrate compliance with the control efficiency by monitoring operating parameters as specified in Appendix B of this permit.
c. Permittee shall follow the protocol specified in Appendix B of this permit for control design, optimization and demonstration, and compliance with final emission limits.
d. Permittee shall use a CEMS to monitor SO_2 and NOx emissions for each of the two emission points during process system operation. Permittee shall install, calibrate, certify, maintain, and operate all CEMS in accordance with the equipment manufacturer's specifications and reference methods specified in 40 CFR 60.13 that are applicable to CEMS, and Part 60, Appendixes A and F, and the applicable performance specification test of 40 CFR Part 60, Appendix B, to demonstrate compliance with the SO_2 and NOx emission limits. Per Appendix F to Part 60, Paragraph 5.1.1, Relative Accuracy Test Audit (RATA) must be conducted at least once every four calendar quarters.
e. Permittee shall conduct annual stack tests for PM. No two annual tests shall be conducted less than 11 months apart. The reference methods and procedures for performing PM stack tests and for determining compliance with the applicable PM 3-hour average emission limit shall be those specified in 40 CFR 60.8(f) and 40 CFR Part 60, Appendix A-3, Reference Method 5/5B. Each test shall consist of three separate runs performed under representative operating conditions, not including periods of startup, shutdown, or malfunction. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume of each run shall be 30 ft^3 (dry volume, standard temperature basis).
f. Compliance with the CO BACT limit shall be ensured by good combustion practice.

EUG 6: Dryer Firebox Stacks (N/C)

EU	Point	Name	Const. Date
FS 11	EPN 5	Dryer 11 Firebox Stack	1954
FS 12	EPN 8	Dryer 12 Firebox Stack	1954
FS 21	EPN 9	Dryer 21 Firebox Stack	1954

EU	Point	Name	Const. Date
FS 31	EPN 12	Dryer 31 Firebox Stack	1959
FS 32	EPN 13	Dryer 32 Firebox Stack	1959
FS 41	EPN 21	Dryer 41 Firebox Stack	1991

EU No.	Emissions Unit Name	NO_x		CO		VOC		$PM/PM_{10}/PM_{2.5}$	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
FS 11	Dryer 11 Firebox Stack	0.24	1.05	<0.01	<0.01	<0.01	<0.01	0.04	0.16
FS 12	Dryer 12 Firebox Stack	0.24	1.05	<0.01	<0.01	<0.01	<0.01	0.04	0.16
FS 21	Dryer 21 Firebox Stack	0.50	2.18	<0.01	<0.01	<0.01	<0.01	0.08	0.33
FS 31	Dryer 31 Firebox Stack	0.28	1.23	<0.01	<0.01	<0.01	<0.01	0.05	0.21
FS 32	Dryer 32 Firebox Stack	0.28	1.23	<0.01	<0.01	<0.01	<0.01	0.05	0.21
FS 41	Dryer 41 Firebox Stack	0.48	2.12	<0.01	<0.01	0.01	0.03	0.11	0.47

a. All PM emissions from each dryer other than from the firebox shall be directed to the Exhaust Bag Filters for recovery of product. The exhaust bag filters shall not vent to the atmosphere and shall be directed to the outlet of the CGEU boiler outlets prior to the SCR.

EUG 7: Feedstock Oil Tanks are grandfathered. There is no lb/hr or TPY emission limits applied to these units under Title V but they are limited to the existing equipment as they are.

EU	Point	Contents	Barrels	Gallons
FS Tanks	EPN #18a	Carbon Black Oil	5,000	210,000
	EPN #18b	Carbon Black Oil	5,000	210,000
	EPN #18c	Carbon Black Oil	5,000	210,000
	EPN #18d	Carbon Black Oil	65,000	2,730,000
	EPN #18e	Carbon Black Oil	500	21,000
	EPN #18e	Carbon Black Oil	500	21,000

EUG 10: Carbon Black Tanks

EU	Point	Contents
CB Tanks	TK 11	Carbon Black
	TK 12	Carbon Black
	TK 13	Carbon Black
	TK 14-15	Carbon Black
	TK 16-17	Carbon Black
	TK 21-22	Carbon Black
	TK 23	Carbon Black
	TK 31	Carbon Black
	TK 32	Carbon Black

EU	Point	Contents
	TK 33-36	Carbon Black
	TK 41-44, OQ4	Carbon Black
	TK 45-49	Carbon Black
	TK OQ1	Carbon Black
	TK OQ2	Carbon Black
	TK OQ3	Carbon Black
	SB Tanks	Carbon Black

a. The carbon black tanks shall be controlled by either a fabric filtration device that is equipped with cartridge filters specified by their supplier to achieve PM collection efficiency at least 99%. Per the CD, Appendix A and Appendix D, the facility shall spend at least $475,000 in project dollars for the purchase, installation, and use of continuous-duty, cartridge dust collector technology ("Dust Collectors") to minimize PM emissions from the carbon black product storage tanks. The Dust Collectors shall replace existing bag filters and shall include cartridge filters utilizing nanofiber technology to provide high removal efficiency of PM.
b. Permittee shall monitor the control device as specified in Specific Condition 13.

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

3. Each boiler in EUG 1 shall have a permanent identification plate attached which shows the make, model number, and serial number. [OAC 252:100-45]

4. The carbon black reactors associated with Units No. 1, 2, and 3 shall be fired with pipeline grade natural gas or feedstock oil. The section of the carbon black reactor, associated with Unit No. 4, which is used to provide heat to the reactor to convert the feedstock into carbon black, shall be fired with pipeline-grade natural gas. All supplemental fuel supplied to the waste gas combustors and thermal oxidizers shall also be pipeline-grade natural gas. [OAC 252:100-31]

5. The bypass stacks on the MBF's and the Dryer firebox stacks shall be utilized only during heat load operation, transition, start-up, shut-down, and malfunction of the facility.
[OAC 252:100-8-6(a)(1)]

6. All off-gases from the carbon black reactors at the facility shall be oxidized in either the CGEUs and/or the waste gas combustors. The waste gas combustors may be taken off-line during normal operation, however, waste gas shall be routed to the CGEUs during these times.
[OAC 252:100-8-6(a)(1)]

7. Total NOx emissions from heat load operation, startup, and shutdown from the reactors and boilers shall not exceed 50 tons for the prior 365 days. Permittee shall demonstrate compliance with this 365-day rolling sum emission limit by performing the following calculation for each day, summing as described, to derive cumulative NOx emissions in tons.

$$X=\sum_{i=1}^{365}\left[\frac{\varphi * consumption_i}{2000\ lbs}\right]$$

Where:
"X" = cumulative NOx emissions (tons) during preceding 365 days
"φ" = 0.48 lbs NO_x/MMBtu
"i" = each Day in the preceding 365 Days
$consumption_i$ = the amount of energy input from natural gas and feedstock (in MMBtu) to the Process System per Day for each Day *i* of Heat Load Operation, Startup, or Shutdown. For any Day in which no Heat Load Operation, Startup, or Shutdown occur, $consumption_i$ shall equal zero.

8. The CGEUs shall be operated in conjunction with the reactors while the reactors are producing carbon black. This requires oil to be injected into the reactors. The CGEUs shall only be fueled with pipeline quality natural gas or waste gas from carbon black production for warm-up.

9. The permittee shall maintain and operate the particulate monitoring/sensing devices installed on the exhaust stream associated with each of the facility's main bag filter:

a. The permittee shall operate the particulate monitoring/sensing devices continuously except during periods of device unit shutdown, maintenance, calibration, testing, malfunction and/or failure. Individual monitoring/sensing devices shall not be required to be operate during periods when production within the identified unit is ceased (i.e., oil is not injected into the unit reactor). The continuous particulate monitoring/sensing devices shall be operated in the normal operating range recommended by the manufacturer or as agreed in writing per the CD.
b. If a continuous particulate monitoring/sensing device signals that there has been an exceedance of a defined particulate level, immediate action shall be taken to determine and isolate the source until repairs can be made.
c. The permittee shall keep particulate monitoring/sensing device replacement parts on hand for any equipment failures.
d. The permittee shall keep and maintain the Baghouse Recordkeeping Plan for each of the MBFs.
    (1). Identity of the baghouse (by production unit and type),
    (2). Date(s) on which maintenance is performed, type of maintenance, and
    (3). Disposal used bagfilters to a licensed landfill.

10. All air discharges from the bagging operation, screening operation, and associated conveying equipment shall be processed by a baghouse or an equivalent PM emissions control device with a design efficiency of 99% or more. The permittee shall maintain accessible monitoring equipment to verify the pressure drop across the baghouse. [OAC 252:100-8-6(a)(3)(A&B)]

11. The permittee shall take all reasonable precautions to minimize emissions of fugitive dust and prevent visible fugitive dust emissions from crossing the boundary of the property on which those emissions originated. These actions shall include, but not be limited to: [OAC 252:100-29]

a. Implement the Particulate Emissions Best Management Practices Control Plan in accordance with Consent Decree 5:15-cv-00290-F, dated May 7, 2015.

(1). All operations and maintenance personnel shall be trained to both recognize leaks and spills of carbon black, and to report them to the proper plant personnel for response. Visual observation of the physical condition of plant process equipment that conveys, stores, loads, unloads, and packages carbon black, including at connection points between equipment and/or sections of piping, and of the physical condition of containers and bags used to package carbon black, shall be part of the daily responsibilities of the operations and maintenance personnel to help ensure that potential leaks are addressed before they occur.

(2). All carbon black product shall be stored in tanks, silos, or closed bags. No carbon black product shall be stored in open piles.

(3). All product and off-quality carbon black shall be shipped off-site in closed bags, sealed cardboard boxes (or landfill), or sealed rail cars, hoppers, or bulk transport trucks.

(4). All process equipment at the facility shall be designed, operated, and maintained in a manner intended to minimize leaks and spills of carbon black and fugitive particulate emissions. In addition, the facility shall develop and implement practices to collect carbon black dust otherwise emitted from product conveyance, packaging, and storage operations, and either recycle it back into the manufacturing process or convey it to a packaging system. Where practicable, the operation of such equipment, including carbon black product conveyors, elevators, and packing units, shall be conducted under negative pressure and served by vacuum systems that collect carbon black.

(5). All process equipment shall be located either indoors or in outdoor areas that have paved or rock/gravel ground surfaces.

(6). Events that trigger the PM Early Warning system shall be handled pursuant to the protocol in appendix D of the consent decree. Leaks and spills of all carbon black that are otherwise identified shall be investigated and addressed (cleaned up and repaired) either immediately upon discovery or as quickly as practicable. When immediate repair or isolation is not feasible, the actions taken to complete the repair shall be documented. Incident reports for sills or leaks of carbon black shall be created to document cause and corrective actions.

(7). Special precautions shall be taken during maintenance actions to minimize particulate emissions from the equipment on which maintenance is being performed. Prior to conducting maintenance or baghouse bag replacement on equipment that is prone to accumulation of carbon black on its interior surfaces, including, but not limited to, on the Main Bag Filters, elevators, and conveyors, and storage tanks and silos, the responsible maintenance personnel shall identify and take steps necessary to minimize the generation of particulate emissions at the equipment being maintained during the maintenance or bag replacement activity. The specific approaches taken to minimize particulate emissions during maintenance or bag replacement shall be developed on a case-specific basis based on the judgment of the maintenance personnel and shall include, as relevant, but need not be limited to, activities such as the following:

- Vacuuming carbon black from the equipment prior to beginning the maintenance,
- Vacuuming or washing down the equipment when an appropriate stage in the maintenance activity has been reached,
- If units are equipped with vents, closing vents during maintenance to prevent drafting of PM, except when conducting a safety or hazard analysis and concluding in writing that closing the vent would create an unsafe or unhealthy work atmosphere, and
- Sealing filter bags removed from Main Bag Filters inside plastic bags.

(8). Accessible floor and/or grounds surfaces in the carbon black production areas shall be swept or washed as needed in order to minimize particulate emissions attributable to leaks or spills of carbon black that are not otherwise identified and/or addressed during the daily visual assessments. All material collected through these actions shall either be incorporated into the production process, or used as product of commercial distribution, or properly disposed of in accordance with applicable regulatory standards.

b. Conduct product loading operations in such a manner so as to minimize, to the extent possible, any fugitive emissions of carbon black.
c. Maintain a routine inspection program whereby all high speed processing equipment, including all large blowers, within the facility are inspected and lubricated according to a schedule of inspection.

12. The permittee shall install and continuously operate a PM Early Warning System to monitor the PM emitted from each PM monitor point in accordance with Appendix A of this permit.

13. For each of the following PM emission units listed in the table below, the permittee shall conduct a Method 22 visual assessment once each operating day to determine if there are any detectable visible emissions.

Emission Unit Group	Name
EUG 2	Main Bag Filters
EUG 6	Carbon Black Pellet Dryers
EUG 8	Reactors
EUG 10	Carbon Black Product Storage Tanks, Silos, or Bins

a. In the event that any visible emissions are observed, permittee shall identify, address, and resolve the source of visible emissions as expeditiously as practicable.
b. If the visible emissions event occurs after the date of continuous operation of the PM early warning system, the event shall be considered resolved once the PM early warning system alarm is below the action level.
c. If the visible emissions event is not resolved within 24 hours, once visibility conditions are sufficient for a Method 9 observation, permittee shall conduct a six minute observation in accordance with Method 9 at least once every eight (8) hours (during daylight hours), until visible emissions from the PM emission unit that triggered the event are less than 5% over the six minute average.
d. Permittee shall maintain a record of each visual assessment conducted.

14. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) Subpart YY including but not limited to: [40 CFR §§63.1100 through 63.1114]

a. §63.1100 Applicability.
b. §63.1101 Definitions.
c. §63.1102 Compliance schedule.
d. §63.1103 Source category-specific applicability, definitions, and requirements.
e. §63.1104 Process vents from continuous unit operations: applicability assessment procedures and methods.
f. §63.1107 Equipment leaks: applicability assessment procedures and methods.
g. §63.1108 Compliance with standards and operation and maintenance requirements.
h. §63.1109 Recordkeeping requirements.
i. §63.1110 Reporting requirements.
j. §63.1111 Startup, shutdown, and malfunction.
k. §63.1112 Extension of compliance, and performance test, monitoring, recordkeeping and reporting waivers and alternatives.
l. §63.1113 Procedures for approval of alternative means of emission limitation.
m. §63.1114 Implementation and enforcement.

15. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) for Stationary Reciprocating Internal Combustion Engines (RICE), Subpart ZZZZ, for each affected engine, including but not limited to: [40 CFR §§63.6580 through 63.6675]

a. § 63.6580 What is the purpose of subpart ZZZZ?
b. § 63.6585 Am I subject to this subpart?
c. § 63.6590 What parts of my plant does this subpart cover?
d. § 63.6595 When do I have to comply with this subpart?
e. § 63.6600 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE with a site rating of more than 500 brake HP located at an area source of HAP emissions?
f. § 63.6601 What emission limitations and operating limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at an area source of HAP emissions?
g. § 63.6602 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at an area source of HAP emissions?
h. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
i. § 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?
j. § 63.6605 What are my general requirements for complying with this subpart?
k. § 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

l. § 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?
m. § 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
n. § 63.6615 When must I conduct subsequent performance tests?
o. § 63.6620 What performance tests and other procedures must I use?
p. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
q. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
r. § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
s. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
t. § 63.6645 What notifications must I submit and when?
u. § 63.6650 What reports must I submit and when?
v. § 63.6655 What records must I keep?
w. § 63.6660 In what form and how long must I keep my records?
x. § 63.6665 What parts of the General Provisions apply to me?
y. § 63.6670 Who implements and enforces this subpart?
z. § 63.6675 What definitions apply to this subpart?

16. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) for Industrial, Commercial and Institutional Boilers and Process Heaters, Subpart DDDDD, for each affected boiler, including but not limited to: [40 CFR 63.7480 through 63.7575]

a. §63.7480 What is the purpose of this subpart?
b. §63.7485 Am I subject to this subpart?
c. §63.7490 What is the affected source of this subpart?
d. §63.7491 Are any boilers or process heaters not subject to this subpart?
e. §63.7495 When do I have to comply with this subpart?
f. §63.7499 What are the subcategories of boilers and process heaters?
g. §63.7500 What emission limitations, work practice standards, and operating limits must I meet?
h. §63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.
i. §63.7505 What are my general requirements for complying with this subpart?
j. §63.7510 What are my initial compliance requirements and by what date must I conduct them?
k. §63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?
l. §63.7520 What stack tests and procedures must I use?
m. §63.7521 What fuel analyses, fuel specification, and procedures must I use?
n. §63.7522 Can I use emissions averaging to comply with this subpart?

o. §63.7525 What are my monitoring, installation, operation, and maintenance requirements?
p. §63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?
q. §63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?
r. §63.7535 Is there a minimum amount of monitoring data I must obtain?
s. §63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?
t. §63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?
u. §63.7545 What notifications must I submit and when?
v. §63.7550 What reports must I submit and when?
w. §63.7555 What records must I keep?
x. §63.7560 In what form and how long must I keep my records?
y. §63.7565 What parts of the General Provisions apply to me?
z. §63.7570 Who implements and enforces this subpart?
aa. §63.7575 What definitions apply to this subpart?

17. To demonstrate compliance with OAC 252:100-31-7(b), emissions of H_2S from the main bagfilters during transition periods shall not exceed 2,205.15 lb/24 hr rolling period. The Permittee shall demonstrate compliance by:

a. Either showing less than 8 transition events for all reactors in a 24-hour period at no greater than 4% sulfur content of the feedstock or by preparing daily calculations of H_2S emissions based on actual number and duration of transition events occurred, actual sulfur content, and amount of oil fed to the reactors, assuming 70% sulfur becomes H_2S (based on previous stack test data showing 25-40% sulfur retention and industry standard).
b. Analyzing sulfur content of feedstock oils being processed at least once during every operating week (exclusive of analysis on holidays and weekends) day in which oil is received (within 24-hours of receipt). If the pipeline is operating and plant receiving oil from Phillips, or if vendor oil trucks make delivery over the weekend, oil sampling shall be required within 24-hours of receipt.

18. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6 (a)(3)(B)]

a. Operation and maintenance of the CGEUs.
b. Records of oil feed to all units and fuel sulfur content of all feedstock required by Specific Condition No. 17.
c. Total natural gas usage for each boiler (natural gas consumed is metered and stored on Data Historian, hours are monitored and third-party services the boilers).
d. Total amount of Carbon Black Oil used (monthly and 12 month rolling total).
e. Records required by NESHAP Subparts YY, DDDDD, and ZZZZ.
f. Records required by Specific Conditions No. 9, 11, and 13.

g. Records of transition events for production units including duration of each transition event and the total number of transition events in any 12 months.
h. Records of NOx and SO_2 CEMS data.
i. Records of CEMS RATA tests data.
j. Records of annual stack test data.
k. Records as required by Appendix A of this permit.
l. Records of monitored operating parameters as specified in Appendix B of this permit.

19. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations which qualify as Trivial Activities.
[OAC 252:100-8-6 (a)(3)(B)]

a. Receipts for fuel storage/dispensing equipment operated solely for facility owned vehicles: Records of the type and amount of fuel dispensed (annual) via purchasing records as dispensing stations do not have flow meters.
b. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: Records of the capacity of the tanks and the contents.
c. For activities (except for trivial activities) that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: The type of activity and the amount of emissions or a surrogate measure of the activity (annual).

20. Notwithstanding the issuance date of the original Title V permit (April 21, 2000), there is hereby established an alternative date of July 31st for Annual Compliance Certification and Semi-annual Reporting submittal purposes. Pursuant to such alternative date, the permittee shall submit to the Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit no later than 30 days after July 31st of each year. [OAC 252:100-8-6 (c)(5)(A) & (D)]

21. No later than 30 days after each six (6) month period, after the alternative date of July 31st, 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. Permittee shall assure that no semi-annual report is filed longer than 6 months. [OAC 252:100-8-6 (a)(3)(C)(i) and (ii)]

22. No later than 180 days after initial startup of the proposed project (complete by April 1, 2021), the permittee shall conduct initial performance test(s) and submit a written report of the results to the AQD.

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 5/5B: Determination of PM Emissions from Stationary Sources.
   Method 6C: Determination of SO_2 Emissions from Stationary Sources.

Method 7E: Determination of NOx Emissions from Stationary Sources.
Method 10: Determination of CO Emissions from Stationary Sources.

b. A copy of the test plan shall be provided to AQD at least 30 days prior to each test date.
c. Performance testing shall be conducted while each reactor is operating within 10% of the rate at which operating permit authorization will be sought.

23. The permittee shall submit a request for modification of the current Title V operating permit application within 180 days of issuance of this permit.

24. Compliance Assurance Monitoring (CAM) Requirements and Specifications for the tunnel kiln EU-04 are as follows: [40 CFR Part 64]

a. § 64.1 Definitions.
b. § 64.2 Applicability.
c. § 64.3 Monitoring design criteria.
d. § 64.6 Approval of monitoring.
e. § 64.7 Operation of approved monitoring.
f. § 64.8 Quality improvement plan (QIP) requirements.
g. § 64.9 Reporting and recordkeeping requirements.

Monitoring Requirements for the CGEUs

	PM/PM_{10}/$PM_{2.5}$
I. Indicator	1. Daily Visual Emission Observation 2. Continuous monitoring of PM
Measurement Approach	1. Visible emissions are assessed daily by EPA Method 22. 2. PM is monitored continuously using PM sensor and PM Early Warning System.
II. Indicator Range	1. Observation of visible emissions. 2. An excursion occurs when particulate level exceeds a defined level set per manufacturer's recommendation.
A. QIP Threshold	Not applicable
III. Performance Criteria	
A. Data Representa-tiveness	The monitoring system consists of PM sensors and PM early warning system. These equipment are installed and operated in accordance with manufacturer's specifications.
B. QA/QC – Practices and Criteria	PM Sensors and PM Early Warning Systems are operated and maintained per manufacturer's recommendation, including the following: - Replacement parts are kept on hand for any equipment failures. - Visually inspect and clean sensor semiannually. - Annually inspect comprehensively and make any necessary repairs.
C. Monitoring Frequency	- Daily VEOs. - Continuous monitoring of PM.
D. Data Collection Procedures	PM monitored data are recorded continuously on Data Historian. Excursions trigger alarms up to and including shutdown of relevant operations. Corrective action, logging, and reporting in semiannual reports will be triggered if controlled shutdowns fail in the event of an excursion or during a Force Majeure event.
E. Averaging period	No averaging, provide continuous detection monitoring of excess PM emissions.

APPENDIX A: PM EARLY WARNING SYSTEM

1. Permittee shall install a PM Early Warning System at the Facility to monitor the PM emitted from each PM Monitor Point. Each PM Monitor Point shall be set to a specific alarm action level, such that an alarm is triggered when the PM at a PM Monitor Point exceeds the normal range of PM according to the manufacturer's recommendations during operation of the Process System.

2. Permittee shall operate each PM Early Warning System at all times of Heat Load Operation and Process System Operation, except for during system breakdowns, repairs, maintenance, calibration checks, and zero and span adjustments of the applicable PM Early Warning System. The minimum degree of data availability shall be at least 90 percent for the first three years following the Effective Date of the Consent Decree, and 95% thereafter, based on a quarterly average of the operating time of the emission unit or activity being monitored.

3. In the event that an alarm is triggered for any PM Early Warning System, Defendant shall investigate the cause of the alarm as expeditiously as practicable by performing each of the following tasks:

a. Reviewing the data output for the relevant PM Early Warning System to determine whether the alarm corresponds to an actual exceedance of the alarm action level;
b. If review of the data confirms an exceedance of the alarm action level, Permittee shall conduct a visual assessment (Method 22) of the equipment monitored by the pertinent PM Early Warning System to determine if there are any detectable visual emissions. Defendant shall also conduct an appropriate equipment inspection to seek to identify the source of the alarm.
c. If the visual assessment or other observations identify a process, equipment or other condition(s) causing an increase in PM emissions that may be responsible for triggering the relevant alarm, determining whether the relevant equipment can be isolated to reduce the excess PM emissions below alarm levels, without requiring a Process System Shutdown;
d. If the relevant equipment can be isolated without requiring Process System Shutdown, isolating and repairing such equipment prior to returning it to service;
e. If the relevant equipment cannot be isolated without requiring Process System Shutdown, such as if there is a leak from a dryer, a broken bag in a baghouse, or a Malfunction of any other component that cannot be isolated to the extent necessary to prevent continued excess PM emissions, shutting down the relevant equipment and only returning it to service after it has been repaired;
f. If the triggering event has not been identified and resolved within 24 hours, having a Method 9 Trained Observer (i) conduct a visual assessment of the equipment monitored by the pertinent PM Early Warning System to determine if there are any detectable visual emissions, and, (ii) in the event that any such visible emissions are observed, conduct a six minute observation in accordance with Method 9 to determine if opacity levels are greater than 20%, and (iii) if

g. opacity levels are greater than 20%, conduct a six minute observation in accordance with Method 9 once every 8 hours (during daylight hours) until visible emissions are less than 20% of opacity levels;
h. If, after investigation, the source of any elevated PM emissions cannot be identified, shutting down the subject equipment as soon as practicable to prevent further alarms and to minimize emissions and ensure the safety of employees and the community and only returning the equipment to service after the source of the excess emissions has been identified and repaired.

4. Notwithstanding the foregoing, to the extent that recorded information for the relevant PM Early Warning System indicates that operations have returned to normal operating ranges, below levels triggering an alarm condition, Defendant is not otherwise obligated to continue with implementation of the steps listed above, and may continue operation of the relevant equipment.

5. Permittee shall maintain a record of any event that triggers the alarm for any PM Early Warning System sufficient to meet the requirements in Section XIII (Recordkeeping and Reporting Requirements) of this Consent Decree.

6. Permitee shall perform routine maintenance of each PM Early Warning System installed in accordance with any manufacturer recommendations and the following requirements:

a. On at least a semiannual basis, Permittee shall visually inspect and clean each sensor within the PM Early Warning System, in accordance with manufacturer recommendations, to ensure continued effective operation of the PM Early Warning System.
b. On at least an annual basis, Permittee shall comprehensively inspect the PM Early Warning System and make any necessary repairs.

7. The PM Early Warning System shall not be required to quantitatively measure PM emissions.

APPENDIX B: PROTOCOL FOR SETTING FINAL SO_2 EMISSION LIMITS

1. If Permittee elects to comply with the applicable Final 7-day Rolling Average Emissions Limits and Final 365-day Rolling Average Emissions Limits for SO_2 set forth in Section VI (SO_2 Control Technology, Emissions Limits, and Monitoring Requirements) of the Consent Decree, pursuant to Option B, the Permittee shall follow the protocol specified in this Appendix.

2. Design Considerations. Permittee's proposed design for each DGS shall consider, at a minimum, the following parameters:

a. Absorber Vessel
   i. Volume
   ii. Dimensions
   iii. Pressure Drop
   iv. Internal Configuration
   v. Location in Process Train
b. Sorbent Injection (for DGS only)
   i. Type and chemical composition of sorbent
   ii. Sorbent injection rate
c. Flue Gas Characteristics
   i. Inlet/Outlet SO_2/SO_3 Concentrations
   ii. Flue Gas Volumetric Flow
   iii. Inlet/Outlet Temperature Range
   iv. Inlet/Outlet Particulate Loading and Characteristics
d. Designed to Removal Efficiency
e. Safety Considerations

If Permittee elects to pursue installation of an Alternative Equivalent Pollution Control Technology, Permittee shall propose a list of design considerations and operating parameters with supporting rationale for use in lieu of those listed in Paragraphs 2 and 3 of this Appendix for the Alternative Equivalent Pollution Control Technology that includes design considerations and operating parameters that have a significant effect on percent removal of SO_2. Permittee shall submit this information when Permittee submits the proposal for approval of the Alternative Equivalent Pollution Control Technology in accordance with Paragraph 19 of this Consent Decree.

3. Optimization and Demonstration Study. Permittee shall conduct an 18 Month Optimization and Demonstration Study, which shall begin no later than the applicable Date of Continuous Operation set forth in Paragraph 17 of this Consent Decree. Defendant shall submit a protocol consistent with the applicable design considerations for each Optimization and Demonstration Study to EPA no later than 3 Months prior to commencement of the Optimization and Demonstration Study, which shall identify, at a minimum, the operating parameters set forth in 3.a. and 3.b. below. During the first 3 Months of each Optimization and Demonstration Study, Defendant shall operate the applicable DGS or Alternative Equivalent Pollution Control Technology consistent with the protocol submitted by Permittee, with the objective of establishing optimum operating levels to minimize SO_2 emissions for, at a minimum, the following parameters:

a. Sorbent Injection (for DGS only)
   i. Type and chemical composition of sorbent
   ii. Sorbent injection rate
b. Pressure drop
c. Emission Rates
   i. Outlet SO_2 Concentration
   ii. Actual Removal Efficiency

Within 30 Days of completion of the first 3 Months of each Optimization and Demonstration Study, Permittee shall submit to EPA a written report that documents any conclusions that it reached in its analysis of the data from that period, and provides any relevant data supporting those conclusions.

During the last 15 Months of each Optimization and Demonstration Study, Permittee shall operate the applicable DGS or Alternative Equivalent Pollution Control Technology in a manner consistent with the conclusions reflected in the written report of the Optimization and Demonstration Study, with the objective of minimizing SO_2 emissions to the extent practicable based on the design criteria.

4. Optimization and Demonstration Study Report. Permittee shall submit the results of the complete Optimization and Demonstration Study to EPA in a written report no later than 60 Days after the completion of the Optimization and Demonstration Study. The report shall include the following information:

a. Each hourly average SO_2 and O_2 concentration at the point of emission to the atmosphere and at the inlet to the DGS or Alternative Equivalent Pollution Control Technology, as measured by a CEMS during the Optimization and Demonstration Study, and each hourly average value for each of the operating parameters listed in Paragraph 2 of this Appendix.
b. An evaluation of the effect, and identification of the optimum operating level, of each operating parameter listed in Paragraph 2 of this Appendix, on the minimization of SO_2 emissions from the relevant Process System.
c. A proposed final 7-day Rolling Average Emissions Limit (in ppmvd, at 0% oxygen), and a proposed final 365-day Rolling Average Emissions Limit for SO_2 (in ppmvd, at 0% oxygen), within the range set forth for Option B in the applicable cell in the table in Paragraph 17, to optimize operation of the DGS or Alternative Equivalent Pollution Control Technology and minimize SO_2 emissions to the extent practicable.

Permittee shall supplement the report with any other information that EPA identifies as relevant to its evaluation of the Optimization and Demonstration Study.

5. Compliance with Proposed Final Emissions Limits. Permittee shall immediately upon submission of the Optimization and Demonstration Study to EPA, and, continuing thereafter, until such time as Permittee is required to comply with the applicable Final 7- day Rolling Average Emissions Limit and Final 365-day Rolling Average Emissions Limit established pursuant to Paragraphs 6 and 7 of this Appendix, Continuously Operate, a DGS or Alternative Equivalent

Pollution Control Technology on the Process System, so as to achieve and maintain the applicable proposed final 7-day Rolling Average Emissions Limit and proposed final 365-day Rolling Average Emissions Limit.

6. EPA Establishment of Final Emission Limits. EPA shall establish Final 7-day Rolling Average Emissions Limits and Final 365- day Rolling Average Emissions Limits for SO_2 within the range set forth for Option B in the applicable cell in the table in Paragraph 17. EPA shall base its determination on: (i) the level of performance of the applicable DGS or WGS or Alternative Equivalent Pollution Control Technology during the Optimization and Demonstration Study; (ii) a reasonable certainty of compliance; and (iii) any other available and relevant information.

7. Compliance with Final Emission Limits. Permittee shall immediately, or, if the EPA established Final 7-day Rolling Average Emissions Limit or Final 365-day Rolling Average Emissions Limit for SO_2 for the applicable Process System is different from Permittee's proposed final Emissions Limits, no later than 30 Days after receipt of written notice from EPA, and, continuing thereafter, Continuously Operate, a DGS or Alternative Equivalent Pollution Control Technology on each Process System, so as to achieve and maintain the applicable Final 7-day Rolling Average Emissions Limit and Final 365-day Rolling Average Emissions Limit.

8. Emissions Limits Option. At any time, Permittee may notify the EPA and Plaintiff- Intervenors in writing in accordance with the notice provisions of Section XXI (Notices) of the Consent Decree that it will accept and agree to immediately, and continuing thereafter Continuously Operate, a DGS or Alternative Equivalent Pollution Control Technology on the Process System, so as to achieve and maintain the Final 7-day Rolling Average Emissions Limits and Final 365-day Rolling Average Emissions Limits for SO_2 set forth for Option A in the applicable cell in the table in Paragraph 17 of the consent decree.

NSR 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. 2017-0914-C (M-3) PSD

Continental Carbon Company,

having complied with the requirements of the law, is hereby granted permission to modify the Carbon Black Production Facility at Ponca City, Section 10, T25N, R2E, Kay 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/PROPOSED

Division Director, Air Quality Division Date

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]

Robert Singletary
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Mr. Phillip Burton, Vice President Operations
Continental Carbon Company
1006 E. Oakland Ave.
Ponca City, OK 74601

SUBJECT: Permit No: **2017-0914-C (M-3) PSD**
Carbon Black Production Facility, Ponca City, Kay County
Facility ID: 333

Dear Mr. Burton:

Enclosed is the permit authorizing construction/operation of the referenced facility. Please note that this permit is issued subject to the certain standards 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 on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

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

Sincerely,

DRAFT/PROPOSED

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

Robert Singletary
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Mr. Phillip Burton, Vice President Operations
Continental Carbon Company
1006 E. Oakland Ave.
Ponca City, OK 74601

SUBJECT: Permit No: **2017-0914-C (M-3) PSD**
Carbon Black Production Facility, Ponca City, Kay County
Facility ID: 333

Dear Mr. Burton:

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
Enclosure

Robert Singletary
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

KDHE, BAR
Forbes Field, Building 283
Topeka, KS 66620

SUBJECT: Permit No: **2017-0914-C (M-3) PSD**
Carbon Black Production Facility, Ponca City, Kay County
Facility ID: 333

Dear Sir / Madame:

The subject facility has requested a construction permit. Air Quality Division has completed the initial review of the application and prepared a draft permit for public review. Since this facility is within 50 miles of the Oklahoma - Kansas border, a copy of the proposed permit will be provided to you upon request. Information on all permit and a copy of this draft permit are available for review by the public in the Air Quality Section of DEQ Web Page: *http://www.deq.state.ok.us.*

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) 702-4100.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E.,
Permits and Engineering Group Manager
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.

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 NOTICES:

Version 1 on page 2.
Version 2 on page 3.
Version 3 on page 4.

Version 2 – For those using the Enhanced NSR Process for a construction permit application review

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

A Tier *…II or III…* **application for an air quality 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 (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))***, which represents** (*identify the emissions change (increase or decrease) involved in the modification)***. [**Or add: **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. Only those issues relevant to the proposed modification(s) are open for comment. A public meeting on the draft permit may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ staff.

In addition to the public comment opportunity offered under this notice, this draft permit is subject to U.S. Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8. The requirements of the construction permit will be incorporated into the Title V operating permit through the administrative amendment process. Therefore, no additional opportunity to provide comments or EPA review, EPA objection, and petitions to EPA will be available to the public when requirements from the construction permit are incorporated into the Title V operating permit.

If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45-day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j).

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.**

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
FEL	Federally Enforceable Limit(s)
FESOP	Federally Enforceable State Operating Permit
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