

**DRAFT**

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

**MEMORANDUM**

**February 24, 2021**

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

**THROUGH:** Rick Groshong, Environmental Manager, Compliance and Enforcement

**THROUGH:** Phil Martin, P.E., Manager, Existing Source Permits Section

**THROUGH:** Joseph K. Wills, P.E., Engineering Section

**FROM:** David Schutz, P.E., New Source Permits Section

**SUBJECT:** Evaluation of Permit Application No. **2019-0973-TVR3**  
Oxbow Calcining LLC  
Kremlin Calcining Plant (FAC ID 801)  
Section 33, T24N, R6W, Garfield County  
Directions: travel eight miles north of Enid on SH 81, at Great Lakes Road travel  
east two miles to 30<sup>th</sup> Street, on 30<sup>th</sup> Street travel south to plant entrance  
Latitude 36.51870°N, Longitude 97.83672°W

**SECTION I. INTRODUCTION**

Oxbow Calcining LLC (Oxbow) has requested renewal of the Title V operating permit for their petroleum coke calcining plant (SIC Code 2999 / NAICS 324199). The facility is currently operating under Permit No. 2014-1698-TVR2 (M-3), issued December 10, 2020.

The plant was built during the 1963 to 1971 time frame. Since the facility was built prior to March 31, 1972, the facility is considered grandfathered/exempted from most rules and regulations. The facility occupies an area of 320 acres, of which approximately 80 acres have been developed for the calcining operation. The facility is a major source for Prevention of Significant Deterioration (PSD), and stack testing has shown the facility to be a major source of Hazardous Air Pollutants (HAPs), specifically HCl. However, there is no MACT which currently affects petroleum coke calcining.

The applicant has requested no modifications to the operating permit:

Since the facility emits more than 100 TPY of a regulated pollutant (SO<sub>2</sub>, NO<sub>x</sub>, and PM), it is subject to Title V permitting requirements.

## SECTION II. FACILITY DESCRIPTION

### Process Description - Base Scenario Operation

The current operating scenario or the “base” operating scenario for the facility consists of:

- Receiving raw petroleum coke by truck and rail from various refinery sources, unloading and storing the raw coke;
- Processing raw coke through kilns, with natural gas and propane as a supplemental fuel, as needed, which burn the volatile matter and some of the raw coke to produce the heat necessary to calcine the coke; and
- Processing, handling, storing, and loading of the calcined coke into bags, trucks or railcars for final shipment to customers. The facility has the capacity to produce briquettes and other products that are loaded into bags, trucks, and railcars.

The facility utilizes the following four (4) basic operating areas:

- Raw Coke Handling, Unloading, and Storage,
- Coke Calcining,
- Calcined Coke Processing, Handling, Loading and Storage, and
- Coal Handling, Unloading, and Storage.

The facility consists of three rotary kilns which convert petroleum coke into the calcined product. Operating at 8,760 hours per year, the facility can produce approximately 805,920 tons per year (TPY) of calcined product. The facility also receives and ships calcined coke produced by other calcining facilities (calcine transfers), which may be blended prior to shipment.

### Raw Coke Handling, Unloading, and Storage

Petroleum coke is the raw material for the calcining operation. Petroleum coke is received by rail car and truck from petroleum refineries.

Petroleum coke that is received by rail is unloaded from the railcars by a “car tipper,” which is equipped with a water spray system to reduce particulate matter emissions. A front-end loader is used to push the cars in and out of the “car tipper” area. After the raw coke is emptied from the rail cars, front-end loaders transfer the coke to scrapers. The scrapers then transfer the coke to one of approximately 35 - 45 stockpiles located at the facility. The raw coke may also be received by truck. The majority of raw coke received by truck is processed through an automated truck dump system. The truck, located between two windscreens, dumps the material into a series of enclosed hoppers and covered conveyors that transfer material to the stockpiles. In some cases, trucks drive out to the stockpiles where they dump the raw coke. The stockpiles for all raw petroleum coke are in an area that encompasses approximately 40 acres of the property. Each pile is unique with regard to raw coke characteristics.

A Rainbird sprinkler system is used as needed to control fugitive dust emissions from the storage piles. Additionally, water trucks may be used to control fugitive dust emissions within the facility.

The raw coke is reclaimed from the storage piles and transferred to the unloading station using the same loader/scrapper combination that is used to transfer the raw coke to the storage piles. By covered conveyor, raw coke is transported to a crusher and then to enclosed feed silos associated with each kiln.

**Coke Calcining**

Three kilns, designated as Kiln 1, Kiln 2, and Kiln 3, follow the raw coke handling, unloading, and storage operations. From the feed silos, the raw coke is transferred by separate conveyors to one of three rotary kilns.

Volatiles emitted from the coke are burned in the kilns and serve as part of the fuel necessary to drive the calcining process. Combustion of natural gas and/or propane and some of the raw coke also provides heat to the kilns. The natural gas-fired burners in Kilns 1, 2 and 3 are custom fabricated and are each estimated to have a heat input rating of approximately 60 MMBTUH. The operator may adjust the feed rates of coke and natural gas/propane to obtain adequate heat and product quality. Each of the three kilns utilizes a settling/combustion chamber to control particulate emissions.

**Calcined Coke Processing, Handling, Loading, and Storage**

Calcined coke is transferred, via a covered conveyor system, into large above-ground storage silos for temporary storage prior to shipping. Coke is also conveyed to the storage building (“dragshed”), railcars, C&S warehouse, or blend silos, where it is packaged to be delivered by truck or railcar. The calcined coke is loaded from the silos into rail cars and trucks at the Track 5, 6, 7, and 8 loadouts for delivery to customers. Material from dust collectors and spillage coke (i.e. spillage) is currently reprocessed and sold as product. It is also possible for the plant to use other coke products as the raw material source for the briquetter or dryer.

**Coal Handling, Unloading, and Storage**

A coal storage area has been established at the facility at approximately 8.33 acres. These operations are identical to “Raw Coke Handling, Unloading, and Storage.” The coal will be off-loaded from railcars and loaded onto piles, then re-loaded to railcars using existing equipment. No processing (crushing/sizing) will occur. Approximately 150,000 tons of coal will be stored at the facility. The coal piles will be watered to minimize fugitive dust as required by OAC 252:100-29.

**SECTION III. EQUIPMENT**

Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) in the following outline. There are no specific emission units covered under EUG 1; it was developed to cover requirements which are applicable to the whole facility.

**EUG 1 Facility Wide**

EU	Point
None	None

**EUG 2 Charging, Calcining, Cooling, and Conveying**

Point ID	EU ID	Source Operation	Construction Date
SV-001	CC-KILN1	Raw coke charging to kiln	1963
		Direct-fired kiln	1963
		Cooling process	1963
		Conveying – cooler to conveyor belt	1963
SV-002	CC-KILN2	Raw coke charging to kiln	1966
		Direct-fired kiln	1966
		Cooling process	1966
		Conveying – cooler to conveyor belt	1966
	DRYER- XFER2	Coke transfer from Auger #1 into Auger #2	2003
	DRYER- XFER3	Material Handling inside Auger #2	2003
	DRYER- XFER4	Coke Transfer from Auger #2 to Auger #3	2003
BRIQ- DRY3	Material Handling in Briquetter Dryer	1994	
SV-003	CC-KILN3	Raw coke charging to kiln	1970
		Direct-fired kiln	1970
		Cooling process	1970
		Conveying – cooler to conveyor belt	1970

**EUG 3 Calcined Coke Material Handling**

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
SV-004	CCH- TRNSHD1	Calcined coke transfer from 1C1 head pulley to 2C3 tail pulley or C2 tail pulley or ground (through waste auger)	32	1964
SV-004	CCH- TRNSHD2	Calcined coke transfer from reclaim auger to 1C1	20	1998
SV-004	CCH- TRNSHD3	Calcined coke transfer from 2C3 head pulley to 2C4 tail pulley	32	1966
SV-004	CCH- TRNSHD4	Calcined coke transfer from 2C1 head pulley to 2C4 tail pulley or 2C2 tail pulley or ground (through waste auger)	32	1966
SV-004	CCH- TRNSHD5	Calcined coke transfer from 2C2 head pulley to C2 tail pulley	60	1966
SV-004	CCH- TRNSHD6	Calcined coke transfer from 3C3 head pulley to 2C4 tail pulley or 2C2 tail pulley or to ground (through waste auger)	28	1970

## EUG 3 Calcined Coke Material Handling (Continued)

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
SV-004	BRIQ-7SPURUL	Briquetter: Material transfer from 7 Spur Auger head pulley to Vertical Conveyor Elevator tail pulley	30	1994
SV-004	CCH-XFER32	Drop from Refeed Auger head pulley to conveyor 2C4	50	1998
SV-005	CCH-C&SSILO1	Calcined coke transfer from C5 (Auger) head pulley to C6 (Bucket Elevator) tail pulley	75	1999
SV-005	CCH-C&SSILO2	Calcined coke transfer from C6 (Bucket Elevator) head pulley to C7 (Auger) tail pulley	75	1999
SV-005	CCH-C&SSILO3	Calcined coke transfer from C7 (Auger) tail pulley to Blend Silo 1, 2 or 3	75	#1&#2 1999 #3 2000
SV-006	CCH-XFER12	Calcined coke transfer from SC1 to Screen Feed Elevator or SC5 Loadout Belt or SC4 Bagging Belt	75	1967
SV-006	CCH-CRUSH	C&S Crushing Operation	75	1967
SV-006	CCH-XFER13	Calcined coke transfer from Crusher to Screen Feed Elevator	75	1967
SV-006	CCH-XFER14	Calcined coke transfer from Screen Feed Elevator to SC-1 Screen Feed Auger	125	1967
SV-006	CCH-XFER15A	Calcined coke transfer from SC-1 Screen Feed Auger to Best Vibrator	125	1967
SV-006	CCH-XFER15B	Calcined coke transfer from Best Vibrator to Sizer (Screener)	125	1967
SV-006	CCH-XFER16	Calcined coke transfer from Sizer (Screener) to Crusher	50	1967
SV-006	CCH-C&SPR1A	Calcined coke transfer from Sizer (Screener) to SC-3 Fines Auger tail pulley	75	1967
SV-006	CCH-C&SPR1B	Calcined coke transfer from SC-3 Fines Auger head pulley to -60 Silo	75	1967
SV-006	CCH-C&SPR2A	Calcined coke transfer from Sizer (Screener) to SC6 Product Belt tail pulley	75	1967
SV-006	CCH-C&SPR2B	Calcined coke transfer from SC6 Product Belt head pulley to Middle Tank or SC7 tail pulley	75	1967
SV-006	CCH-C&SPR3	Calcined coke transfer from SC7 head pulley to South Tank	75	1967

## EUG 3 Calcined Coke Material Handling (Continued)

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
SV-006	CCH-SIZER1	Calcined coke transfer from Sizer (Screener) to Bagging Belt SC-4 tail pulley	75	1967
SV-006	CCH-SIZER2	Calcined coke transfer from Sizer (Screener) to Loadout Belt SC-5 tail pulley	75	1967
SV-006	CCH-XFER17	Calcined coke transfer from -60 Silo, Middle Tank or South Tank to SC5 Loadout Belt or to Bagging Belt SC-4 tail pulley	125	1967
SV-006	CCH-XFER18	Calcined coke transfer from SC-5 Loadout Belt head pulley to Loadout Elevator SC-3 tail pulley	125	1967
SV-006	CCH-XFER21	Calcined coke transfer from bagging belt SC-4 head pulley to Bagging Elevator tail pulley	125	1967
SV-006	CCH-XFER22	Calcined coke transfer from Bagging Elevator head pulley to Bagging Hopper	125	1967
SV-006	CCH-XFER23A	Calcined coke transfer from Bagging Hopper to Weigh Hopper	40	1967
SV-006	CCH-XFER23B	Calcined coke transfer from Weigh Hopper to Scale Belt	40	1967
SV-006	CCH-XFER24	Calcined coke transfer from Scale Belt to Bagger	40	1967
SV-006	CCH-BAGS	Calcined coke transfer from Bagger to Bags	40	1967
SV-006	CCH-SS1	Calcined coke transfer from Bagging Hopper to supersacks	60	1967
SV-007	CCH-TR5RLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to railcar	125	1967
SV-007	CCH-TR5TLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to truck	125	1967
SV-008	CCH-910TANK	Dust transfer from SV-006 and SV-007 material bins to supersack or truck	2	1989
	CCH-SS2	Dust transfer from Track 6 DC material bin to supersack	0.085	1998
	CCH-SS3	Dust transfer from transfer shed DC material bin to supersack	0.085	1998
	CCH-SS4	Dust transfer from 7&8 track silo DC material bin (west) to supersack	0.085	1998
	CCH-SS5	Dust transfer from 7&8 track load out DC material bin (east) to supersack	0.25	1970
	CCH-SS6	Dust transfer from Kiln 2 multicone (cyclone) to supersack	0.085	1970

## EUG 3 Calcined Coke Material Handling (Continued)

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
	CCH-SS7	Dust transfer from Kiln 1 multicone (cyclone) to supersack	0.085	1970
SV-009	CCH-SILO1	Calcined coke transfer from 2C5 head pulley to Calcine Silo #1 or 2C6 tail pulley or Rotex Screener	92	1966
SV-009	CCH-SILO2	Calcined coke transfer from 2C6 head pulley to Calcine Silo #2 or 2C7 tail pulley	92	1966
SV-009	CCH-SILO3	Calcined coke transfer from 2C7 head pulley to Calcine Silo #3 or 2C7A tail pulley	92	1966
SV-009	CCH-SILO4	Calcined coke transfer from Rotex Screener to Calcine Silo #1, Calcine Silo #2, and Calcine Silo #4; or Calcine Silo #1 and Calcine Silo #2; or Calcine Silo #1 and Calcine Silo #4; or Calcine Silo #2 and Calcine Silo #4	92	1979
SV-009	CCH-SILO5	Calcined coke transfer from 2C7A head pulley to Calcine Silo 5	92	1997
SV-010	CCH-XFER26A	Calcine coke transfer from Calcine Silo 1, 2 or 3 to 2C10 tail pulley	500	1966 (Silo 2 & 3), 1978 (Silo 4)
SV-010	CCH-XFER26B	Calcined coke transfer from Silo 2, 3 or 4 to 2C8 tail pulley	500	1966
SV-010	CCH-XFER26C	Calcined coke transfer from Silo 5 to 2C10A tail pulley	500	1997
SV-010	CCH-XFER26D	Calcined coke transfer from 2C10A head pulley to 2C10 tail pulley	500	1997
SV-010	CCH-XFER26E	Calcined coke transfer from 2C8 head pulley to 2C9 tail pulley	500	1966
SV-010	CCH-XFER26F	Calcined coke transfer from 2C9 head pulley to 2C10 tail pulley	500	1966
SV-010	CCH-TR78LOA	Calcined coke transfer from 2C10 head pulley to 2C11 tail pulley	500	1966
SV-010	CCH-TR78LOB	Calcined coke transfer from 2C11 head pulley into railcar or truck	500	1966
SV-011	CCH-SSULB	Briquetter: Supersack unloading hopper to cyclone air to Bin 1, 2, 3 or 4	30	1994
SV-011	CCH-RRULB	Briquetter: Railcar unloading pan to cyclone air to Bin 1, 2, 3 or 4	30	1994

## EUG 3 Calcined Coke Material Handling (Continued)

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
SV-011	BRIQ-VCE	Material transfer from Vertical Conveyor Elevator head pulley to Horizontal Screw Conveyor tail pulley	30	1994
SV-011	BRIQ-HSC	Material transfer from Horizontal Screw Conveyor head pulley to Bin 1, 2, 3 or 4	30	1994
SV-013	BRIQ-LO1	Drop from Briquetter Silo to Briquetter Silo unloading belt tail pulley	30	1994
SV-013	BRIQ-LO2	Drop from Briquetter Silo unloading belt head pulley to railcar or truck	50	1994
SV-012	DRYER – XFER5	Coke Transfer from Auger #3 to Elevator Tail Pulley	10	2003
SV-012	BRIQ-SILO1	Drop from elevator head pulley into Briquetter Silo	30	1994
SV-014	CCH-XFER3	Calcined coke transfer from C2 head pulley to Track 6 loadout or C3 tail pulley	92	1964
SV-014	CCh-TRK6LO	Calcined coke transfer from Track 6 loadout into railcars or trucks	92	1964
SV-014	CCH-XFER4	Calcined coke transfer from C3 head pulley to C4 tail pulley or Syntron	92	1964
SV-014	CCH-XFER10	Calcined coke transfer from SC1B head pulley to SC1A tail pulley	75	1998
SV-014	CCH-XFER8	Calcined coke transfer from SC1A pit to SC1A auger	75	1964
SV-014	CCH-XFER11A	Calcined coke transfer from SC1A auger to SC1	75	1964
SV-014	CCH-XFER11B	Calcined coke transfer from Syntron to SC1	75	1964
	CCH-DISCHG3B	Calcined coke transfer from 3C1 head pulley to 3C2 tail pulley or waste chute (to ground)	32	1970
	CCH-DISCHG3C	Calcined coke transfer from 3C1 DC auger to 3C2 head pulley	20	
	CCH-DISCHG3D	Dust transfer from Multi-clone DC material bin to 3C1 belt conveyor	0.083	1998
	CCH-DISCHG3E	Calcined coke transfer from 3C2 head pulley to 3C3 tail pulley	32	1970
	CCH-XFER25	Calcined coke transfer from 2C4 head pulley to 2C5 tail pulley	92	1966
	CCH-XFER5A	Calcined coke transfer from C4 head pulley to C5 Auger	75	1998



**EUG 3 Calcined Coke Material Handling (Continued)**

EU	EU ID	Description of Source Operation	Process Rate (TPH)	Construction Date
	CCH-XFER9	Calcined coke transfer from Blend Silo 1, 2 or 3 Feeder Auger to SC1B tail pulley	75	#1 & #2 1998 #3 2000
	BRIQ-1	Briquetter: Material transfer from railcar to 7 Spur Auger tail pulley	20	1994
	BRIQ-2	Briquetter: Bins 1, 2, 3 and/or 4 into briquetter	20	1994
	BRIQ-3	Drop from Briquetter onto Bertha Belt tail pulley	20	1994
	BRIQ-4	Drop from Bertha Belt head pulley to Skinning Belt tail pulley	20	1994
	BRIQ-DRY1	Drop from Skinning Belt head pulley to Scalping Screen Spreader	20	1994
	BRIQ-DRY2	Drop from Scalping Screen Spreader to Briquetter Dryer	20	1994
	BRIQ-DRY4	Drop from Dryer onto North/South belt tail pulley	20	1994
	BRIQ-DRY7	Drop from North/South Belt head pulley to East/West Belt tail pulley	20	1997
	BRIQ-DRY6	Drop from East/West Belt tail pulley to Briquetter Silo Elevator tail pulley	20	1997
	BRQDRY5	Drop to elevator silo head pulley to railcar	20	1994
	BRIQ-LO3	Drop from Briquetter Silo to truck or railcar	50	1997
	CCH-XFER31	Drop from railcar at 7 Spur to Refeed Auger tail pulley	50	1998

**EUG 4 Calcined Coke Storage Piles and Traffic**

EU	Description	Construction Date
CCH-LOADER	Spilled scrap coke pickup by front end loader - front end loader operations, also mobile equipment operations	1963
CCH-DMPTRK	Scrap coke hauled to storage	1963
CCH-WINDER	Scrap coke storage wind erosion	1963
CCH-XFER7A	Calcined coke transfer from C4 tail pulley to tripper	1964
CCH-XFER7B	Calcined coke transfer from tripper to drag shed pile or return to C4	1964
CCH-XFER5B	Calcined coke transfer from C5 Auger to drag shed pile	1998
CCH-XFER29	Scrap coke transfer by Front End Loader and onto screener	1963
CCH-XFER30	Scrap coke transfer from screener onto ground	1963

**EUG 5 Raw Coke Material Handling**

<b>EU</b>	<b>Description of Source Operation</b>	<b>Process Rate (TPH)</b>	<b>Construction Date</b>
RCH-XFER5A	Raw coke transfer from pit at unloading station (belts RF1, RF2, RF3, or RF4) onto belt RF5.	500	1963
RCH-XFER5B	Raw coke transfer from belt RF5 to belt R2 tail pulley or belt R1 tail pulley	500	1963
RCH-XFER5C	Raw coke transfer from R2 head pulley into Crusher	500	1963
RCH-XFER6	Raw coke transfer from Crusher to R3 tail pulley	500	1963
RCH-XFER7A	Material transfer from belt R1 head pulley to ground	300	1963
RCH-XFER8A	Raw coke transfer from R3 head pulley to R23 tail pulley or Raw Silo 1 or Raw Silo 2	500	1963
RCH-XFER8B	Raw coke transfer from Raw Silo 1 to Conveyor Belt 1RF1 tail pulley and/or Raw Silo 2 to Conveyor Belt 1RF2 tail pulley	40	1963
RCH-XFER8C	Raw coke transfer from Conveyor Belt 1RF1 head pulley and/or Conveyor Belt 1RF2 head pulley to 1R5 tail pulley	40	1963
RCH-XFER9	Raw coke transfer from 1R5 head pulley to 1R6 tail pulley	40	1963
RCH-XFER10	Raw coke transfer from 1R6 head pulley to Kiln #1 Feed Chute	40	1963
RCH-XFER11	Raw coke transfer from 1R7 re-feed elevator to Kiln #1 Feed Chute	20	1963
RCH-XFER12	Raw coke transfer from R23 head pulley to 3R1 tail pulley or Raw Silo 21 or Raw Silo 22	500	1966
RCH-XFER13	Raw coke transfer from Raw Silo 21 to Conveyor Belt 2RF1 tail pulley and/or Raw Silo 22 to Conveyor Belt 2RF2 tail pulley	40	1966
RCH-XFER14	Raw coke transfer from 2R7 re-feed elevator to Kiln #2 Feed Chute	20	1966
RCH-XFER15	Raw coke transfer from Conveyor Belt 2RF1 head pulley and/or Conveyor Belt 2RF2 head pulley to 2R5 tail pulley	40	1966
RCH-XFER16	Raw coke transfer from 2R5 head pulley to 2R6 tail pulley	40	1966
RCH-XFER17	Raw coke transfer from 2R6 head pulley to Kiln #2 Feed Chute	40	1966
RCH-XFER18	Raw coke transfer from 3R1 head pulley to Raw Silo 31 or Raw Silo 32	500	1970

**EUG 5 Raw Coke Material Handling - Continued**

EU	Description of Source Operation	Process Rate (TPH)	Construction Date
RCH-XFER19	Raw coke transfer from Raw Silo 31 to Conveyor Belt 3RF1 tail pulley and/or Raw Silo 32 to Conveyor Belt 3RF2 tail pulley	35	1970
RCH-XFER20	Raw coke transfer from Conveyor Belt 3RF1 head pulley and/or Conveyor Belt 3RF2 head pulley to 3R3 tail pulley	35	1970
RCH-XFER21	Raw coke transfer from 3R3 head pulley to 3R4 tail pulley	35	1970
RCH-XFER22	Raw coke transfer from 3R4 head pulley into Kiln #3 Feed Chute	35	1970
RCH-XFER23	Raw coke transfer from 3R5 re-feed elevator to 3R4 tail pulley	20	1970
RCH-XFER24	Raw coke transfer from Reclaim Auger to re-feed elevator 3R5	20	1970
RCH-CRUSH	Raw coke crushing	180	1967
RCH-XFERTr2	Unloading hoppers to feeders tail pulley	400	1998
RCH-XFERTr3	Feeders head pulley to collection conveyor tail pulley	400	1998
RCH-XFERTr4	Collection conveyor head pulley to field conveyor tail pulley	400	1998
RCH-XFERTr5	Field conveyor head pulley to radial stacker tail pulley	400	1998
RCH-Sizer	Raw coke portable screener	60	1999

**EUG 6 Raw Coke Storage Piles and Traffic**

Source Operation	Source Operation	Construction Date
RCH-LOADER	Front end loader traffic at unloading pit, loading scrapers, and storage area	1978
RCH-SCRAP	Scraper traffic to and on open coke storage piles and to raw coke unloading station, including to and from dryer operation	1978
RCH-WTRTK	Water truck traffic in coke storage area	1961
RCH-WINDER	Raw coke storage wind erosion	1961
RCH-OTHTRK	Raw coke receipts by Truck – Truck unloads in raw coke yard	1961
RCH-CONOCOTRK	Raw coke receipts by Truck through Truck Dump	1998
RCH-XFER1	Raw coke railcar tipper unloading (drop) into pit	1978
RCH-XFER2	Raw coke transfer by front end loaders (drop) into scrapers	1978

**EUG 6 Raw Coke Storage Piles and Traffic - Continued**

Source Operation	Source Operation	Construction Date
RCH-XFER3	Raw coke transfer from storage pile by front end loaders into scrapers	1964
RCH-XFER4	Raw coke transfer from scrapers into pit at unloading station	1964
RCH-XFER7B	Material transfer from emergency surge hopper into truck or scraper	1963
RCH-XFERTr1	Raw coke transfer from truck into unloading hoppers (truck dump)	1998
RCH-XFERTr6	Radial stacker head pulley to storage pile	1998

**EUG 7 Coal Storage Piles and Traffic**

Source Operation	Source Operation	Construction Date
COAL-VEHICLE	Vehicle traffic	2009
COAL-WINDER	Handling emissions (material transfers)	2009
COAL-HANDLE	Coal storage piles wind erosion	2009

**EUG 8 Insignificant Activities**

EU	Source Operation	Unit Capacity
INSIGN1	Railcar Heaters	5 MMBTUH
INSIGN2	Raw Coke Silo Heaters, "Gas Torches"	5 MMBTUH
INSIGN7	Gasoline Tank	1,000 gal
INSIGN8	Diesel Tank	9,000 gal
INSIGN11	Oil Storage Tank	3,000 gal
INSIGN12	Oil Spraying	--
INSIG10	Diesel motor for raw coke portable screener	110 HP
INSIG13	Oil Storage Tank	3,000 gal
INSIG14	"Dedust" Oil Storage Tank	3,000 gal
INSIG15	"Dedust" Oil Spray at Product Loading	38,500 gal/yr

**EUG 9 Stationary Diesel Engine**

EU	Source Operation	Unit Capacity
SV-019	Emergency diesel generator	2,160 HP

The engine above was installed in 2000.

**EUG 9A Stationary Gas-Fired Engines (NSPS Subpart JJJJ)**

EU	Source Operation	Unit Capacity
SV-016	Kiln 1 rotator engine, natural gas fired "pony motor"	24 HP
SV-017	Kiln 2 rotator engine, natural gas fired "pony motor"	24 HP
SV-018	Kiln 3 rotator engine, natural gas fired "pony motor"	24 HP

**EUG 10 Screening Operation**

<b>Point ID</b>	<b>EU ID</b>	<b>Description of Source Operation</b>	<b>Process Rate (TPH)</b>	<b>Construction Date</b>
SV-015	CCH-PDTSILO	Screw Conveyor SC-BH-1 to Screener or 400T Silo SIBHP1, SIBHP2, SIBHP3, SIBHP4, or SIBHP5	53	2015 (est)
SV-015	CCH-XFER33	Screener SCR-BH to Crusher CRS-BH	40	2015 (est)
SV-015	CCH-XFER34	Screener SCR-BH to Bucket Elevator BE-BH1	35	2015 (est)
SV-015	CCH-XFER35	Screener SCR-BH to Bucket Elevator BE-BH2	53	2015 (est)
SV-015	CCH-XFER36	Screener SCR-BH to Bucket Elevator BE-BH3	7	2015 (est)
SV-015	CCH-XFER37	Crusher CRS-BH to Existing Bucket Elevator BE-SE5	40	2015 (est)
SV-015	CCH-XFER38	Bucket Elevator BE-BH1 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1	28	2015 (est)
SV-015	CCH-XFER39	Bucket Elevator BE-BH2 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1	53	2015 (est)
SV-015	CCH-XFER40	Bucket Elevator BE-BH3 to Screw Conveyor SC-BH-US1	5	2015 (est)
SV-015	CCH-XFER41	Screw Conveyor SC-BH-US1 to 150T Silo SIBHUS	5	2015 (est)
SV-015	CCH-SILO-P1	400T Silo SIBHP1 to Screw Conveyor SC-BH-P1	200	2015 (est)
SV-015	CCH-SILO-P2	400T Silo SIBHP2 to Screw Conveyor SC-BH-P2	200	2015 (est)
SV-015	CCH-PDTSILO3	150T Silo SIBHUS to Screw Conveyor SC-BH-US2	200	2015 (est)
SV-015	CCH-SILO-P3	400T Silo SIBHP3 to Screw Conveyor SC-BH-P3	200	2015 (est)
SV-015	CCH-SILO-P4	400T Silo SIBHP4 to Screw Conveyor SC-BH-P4	200	2015 (est)
SV-015	CCH-SILO-P5	400T Silo SIBHP5 to Screw Conveyor SC-BH-P5	200	2015 (est)
SV-015	CCH-XFER42	Screw Conveyor SC-BH-P1 to Conveyor CB-BH1	200	2015 (est)
SV-015	CCH-XFER43	Screw Conveyor SC-BH-P2 to Conveyor CB-BH1	200	2015 (est)

**EUG 10 Screening Operation - Continued**

<b>Point ID</b>	<b>EU ID</b>	<b>Description of Source Operation</b>	<b>Process Rate (TPH)</b>	<b>Construction Date</b>
SV-015	CCH-XFER44	Screw Conveyor SC-BH-P3 to Conveyor CB-BH1	200	2015 (est)
SV-015	CCH-XFER45	Screw Conveyor SC-BH-P4 to Conveyor CB-BH1	200	2015 (est)
SV-015	CCH-XFER46	Screw Conveyor SC-BH-P5 to Conveyor CB-BH1	200	2015 (est)
SV-015	CCH-XFER47	Screw Conveyor SC-BH-US2 to Conveyor CB-BH-1 or Conveyor CB-SC1B	200	2015 (est)
SV-015	CCH-TR56LOEA	Conveyor CB-BH1 to Conveyor CB-SC1B or Loadout Bucket Elevator BE-BH4	200	2015 (est)
SV-015	CCH-TR56LOEB	Loadout Bucket Elevator BE-BH4 to Transfer Conveyor CB-BH2	200	2015 (est)
SV-016	CCH-TR56LOEC	Transfer Conveyor CB-BH2 to Transfer Conveyor CB-BH3	200	2015 (est)
SV-017	CCH-TR56LOED	Transfer Conveyor CB-BH3 to Loadout Shuttle Conveyor CB-BH4	200	2015 (est)
SV-017	CCH-TR56LOEE	Loadout Shuttle Conveyor CB-BH4 to Railcar or Truck	200	2015 (est)
SV-015	CCH-XFER48	Dust Collector DCL-BH1 to Existing Plant Bucket Elevator	1	2015 (est)
SV-017	CCH-XFER49	Dust Collector DCL-BH2 to Transfer Conveyor CB-BH3	1	2015 (est)
SV-016	CCH-XFER50	Dust Collector DCL-BH3 to Loadout Shuttle Conveyor CB-BH4	1	2015 (est)
SV-017	CCH-SS8	Super Sack Loading from DCL-BH3	1	2015 (est)
SV-015	CCH-CRUSH2	Crusher CRS-BH Crusher Operation	40	2015 (est)
SV-015	CCH-SCR-BH	Screener SCR-BH	70	2015 (est)

<b>Stack Parameters</b>				
<b>EU</b>	<b>Height (feet)</b>	<b>Diameter (feet)</b>	<b>Flow (ACFM)</b>	<b>Temperature (°F)</b>
CC-Kiln 1 (SV001)	150	13.6	403,000	1,602
CC-Kiln 2 (SV002)	150	13.6	403,000	1,602
CC-Kiln 3 (SV003)	150	13.6	378,000	1,600

#### SECTION IV. EMISSIONS

Air emissions from Oxbow's facility are characterized according to the following operations:

- Criteria pollutant emissions from the kilns are from combustion of natural gas, propane, carbon from the raw coke, and volatile matter from the raw coke in the coke calcining units; and the charging, crushing, sizing, mixing, cooling and conveying associated with the kilns.
- Emissions of hazardous air pollutant (HCl, HF, and formaldehyde) from the kilns.
- Criteria pollutant emissions from the combustion of natural gas in the railcar heaters and the raw coke silo gas torches.
- Criteria pollutant emissions from the combustion of diesel and natural gas in stationary engines.
- PM emissions from raw coke and calcined coke transportation, transfer, bagging and storage operations and the production of briquettes and other products.
- PM emissions from coal handling, unloading, and storage.

Criteria pollutant emission factors for natural gas combustion in the rail car heaters and raw coke silo "gas torches" were based on AP-42 (7/98), Section 1.4, maximum anticipated operation, and maximum burner ratings.

Criteria pollutant emission factors for the kiln "pony motors" were based on the limits of 40 CFR §1054.105 for NO<sub>x</sub>, CO, and VOC, and AP-42 (7/2000), Section 3.2, for PM and SO<sub>2</sub>, 500 hours per year maximum anticipated operation, and engine ratings.

Emissions from the diesel engine were based on AP-42 (11/2006), Section 3.3 and maximum anticipated operation.

The emission factor for all drop sources was calculated for each source using AP-42 (1/95), Section 13.2.4, Equation 1. The mean wind speed for open areas was based on 12.6 mph. The mean wind speed for all enclosed areas was assumed to be 0.1 mph. The mean wind speed for enclosed containers was assumed to be 1.0 mph to account for turbulence within the container. Estimated wind speeds of 20 mph at the coolers and 47 mph at the kiln inlets were used to account for the PM emissions created by the air movement to the settling chamber around these operations. The moisture content of the different materials was estimated by the company and typical values are listed following:

<b>OPERATION</b>	<b>Moisture %</b>	<b>Wind Speed mph</b>	<b>PM<sub>10</sub> Emission Factor, lb/ton</b>
Calcined coke - open operations	0.10	12.6	0.521969
Calcined coke - cooler discharge	0.10	20.0	0.951704
Calcined coke - enclosed operations	0.10	0.1	0.000971
Calcined coke - inside silos	0.10	1.0	0.019371
Briquette coke - at briquetter	9.00	12.6	0.000959
Briquette coke - open operations	0.10	12.6	0.521969
Briquette coke - enclosed operations	0.25	0.1	0.000269
Scrap coke - open operations	5.00	12.6	0.002183
Raw coke - open operations	9.90	12.6	0.000839
Raw coke - enclosed operations	9.90	0.1	0.000002
Raw coke - charging in kiln	9.90	47.0	0.004645
Raw coke - at silos	9.90	1.0	0.000031
Coal handling - railcar dump	8.16	1.0	0.000193
Coal handling - loading scraper	8.16	12.7	0.019068

The PM emission factor for crushing of calcined and raw petroleum coke was based on U.S. EPA FIRE database emission factors for SCC 3-05-010-10 (0.02 lb/ton), which represents factors for coal mining, cleaning, material handling, and crushing. Approximately 15-25% of the product (calcined petroleum coke) and 40 percent of the feed (raw petroleum coke) is crushed.

Estimated PM emissions from unpaved roads are based on AP-42 (11/2006), Section 13.2.2, Equation 2, 90 days a year with precipitation greater than 0.1 inch, and the following site-specific factors:

<b>EU</b>	<b>% Silt</b>	<b>Vehicle Weight (tons)</b>	<b>Vehicle Speed (mph)</b>	<b>VMT (miles)</b>	<b>% Control</b>
RCH-LOADER (unloaded)	5.30	38	3	6,000	25
		30	4	6,000	
RCH-SCRAP (unloaded)	5.30	78	4	5,400	25
		48	8	5,400	
RCH-WTRTK (unloaded)	5.30	37	5	4,095	75
		16	5	4,095	
CCH-LOADER (unloaded)	5.30	4	2	1,500	0
		4	3	1,500	
CCH-DMPTRK (unloaded)	5.30	8	4	800	0
		7	6	800	
Coal Scrapers (unloaded)	5.30	48	3	2,500	25
		30	4	2,500	
Coal Loaders (unloaded)	5.30	30	4	281	25
		8	8	281	



For the petroleum coke, the wind erosion emission calculation for large storage piles is based on a stepwise process using site specific factors, methodology provided in the A&WMA Air Pollution Engineering Manual, page 136 and a control factor of 25% based on watering. For the new coal piles, emissions were calculated using Equation 3 of AP-42 (11/06) Section 13.2.5:

$$P = 58 * (u^* - u_t^*)^2 / (25 * (u^* - u_t^*))$$

Where P = erosion potential, g/m<sup>2</sup>

u\* = friction velocity = 0.053 \* u

u<sub>t</sub>\* = threshold friction velocity, 0.55 m/s for coal

The surface area equals 8.33 acres or 33,724 m<sup>2</sup>. A total emission factor of 58 g/m<sup>2</sup> was derived from 2005 Blackwell surface data for the number of hours when the wind speed exceeded the threshold velocity and the erosion potential calculation.

Emissions of NO<sub>x</sub>, CO, and VOC from the kilns are based on combustion of natural gas or propane, combustion of a percentage of the petroleum coke in the process (from plant mass balance data), and combustion of VOCs derived from the petroleum coke in the kilns. The raw coke includes a finite amount of volatile oil which is removed in calcining; emissions calculations treated that oil as residual oil. The lost coke was treated as coal for emissions calculations. Emissions from combustion of natural gas in the kilns are based on AP-42 (7/08), Section 1.4, for boilers between 10 and 100 MMBTUH. Emissions from the use of propane as an alternate or backup fuel source in the kilns are based on AP-42 (10/96), Section 1.5 emission factors for combustion of propane in industrial boilers. Emissions from combustion of petroleum coke in the kilns are based on the AP-42 (10/96), Section 1.2 emission factors for combustion of anthracite coal, in stoker-fired boilers, which has a heating value similar to the petroleum coke. Emissions from combustion of the VOCs derived from the petroleum coke are based on AP-42 (9/98), Section 1.3 emission factors for combustion of distillate fuel in industrial boilers. The total amount of VOCs oxidized in the kilns is based on a projected VOC content of the feed material of 12% and 99% combustion efficiency.

SO<sub>2</sub> emissions from the kilns were based on mass balances, based on the difference in sulfur of raw coke and calcined coke. AP-42 factors for combustion do not accurately predict SO<sub>2</sub> emissions since some sulfur compounds are liberated from the coke during calcining and some sulfur remains in the coke.

Estimated PM emissions from the kilns were previously calculated based on anticipated ash content of the coke and the amount of coke burned in calcining, added to the maximum anticipated sulfuric acid mist emission rates. Based upon stack testing conducted in 2009, it was determined that the above-referenced method of calculating PM emissions may not accurately reflect total PM emissions. Accordingly, estimated PM emissions shown are based on the following PM emission factor (lb PM/ton raw coke feed) derived from the above stack testing, which incorporates the maximum anticipated sulfuric acid mist emission rate:

Stack Test – July 2009:

PM emissions = 128.8 pounds per hour (lb/hr)

Raw Petroleum Coke (RPC) Feed Rate, ave. (wet basis) = 38.0 tons per hour  
(TPH)

Sulfur (wt. %) = 4.07%  
 Emission Factor (EF) – 3.39 lb PM/ton RPC (128.8 lb/hr ÷ 38.0 TPH)

SV001/SV002: 3.39 lb PM/ton x 40 TPH RPC = 135.6 lb/hr  
 SV003: 3.39 lb PM/ton x 35 TPH RPC = 118.65 lb/hr

Oil spraying emissions (spraying oil on stock piles to reduce wind erosion) were estimated based on splash loading of No. 2 distillate oil, while storage emissions were calculated using TANKS4.0.9.d.

Formaldehyde emissions from the kilns were estimated based on natural gas combustion factors in AP-42 (7/98), Section 1.4 (0.075 lb/MMSCF), and liquid fuel combustion factors in AP-42 (9/98), Section 1.3 (0.048 lb/Mgal). A control efficiency of 99% was used, the same control as stated for other VOC from the settling/combustion chamber. AP-42 (10/96), Section 1.2 for anthracite coal combustion did not list any factors for formaldehyde emissions.

The facility identified HCl emissions pursuant to stack testing voluntarily conducted on July 1, 2009. Based on the results, the facility is a major source of HAPs. Testing indicated an HCl emission rate of 0.153 lb HCl per ton of dry coke feed to the kiln.

The following tables provide estimated emissions of criteria and hazardous air pollutants based on the calculations described above.

- VOC emissions from the 3,000 gallon tank were calculated using TANKS4.09, a maximum vapor pressure of 0.02 psia, and an annual throughput of 38,500 gallons.
- Oil spray emissions were estimated using AP-42 (6/08) factors from Section 5.2-5 for splash-loading distillate oil.

**Emissions of Criteria Pollutants**

EU/EUG	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>10</sub> / PM <sub>2.5</sub>	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
<b>EUG 2 – CCCC**</b>										
SV-001	70.5	308.7	0.1	0.5	0.1	0.1	1,676.8	7,344.4	135.6	593.93
SV-002	70.5	308.7	0.1	0.5	0.1	0.1	1,676.8	7,344.4	135.6	593.93
SV-003	62.4	273.5	0.1	0.5	0.1	0.1	1,437.3	6,295.2	118.65	519.69
<b>EUG 3</b> Calc. Coke - Material Handling	----	----	----	----	----	----	----	----	92.04	149.38
<b>EUG 4</b> Calc. Coke – Storage Piles and Traffic	----	----	----	----	----	----	----	----	---	9.41
<b>EUG 5</b> Raw Coke – Material Handling	----	----	----	----	----	----	----	----	2.13	2.27
<b>EUG 6</b> Raw Coke – Storage Piles and Traffic	----	----	----	----	----	----	----	----	---	120.87

EUG/EUG	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>10</sub> / PM <sub>2.5</sub>	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
EUG 7 Coal Material Handling, Storage Piles, and Traffic	----	----	----	----	----	----	----	----	5.19	14.88
EUG 8, EUG 9, and EUG-9A Insignificant Activities and Stationary Engines	37.40	5.56	14.51	5.56	2.42	1.36	0.67	2.95	2.16	0.29
EUG 10 Screening	----	----	----	----	----	----	----	----	0.070	0.25
<b>TOTAL EMISSIONS</b>	<b>240.80</b>	<b>896.46</b>	<b>14.81</b>	<b>7.06</b>	<b>2.72</b>	<b>1.66</b>	<b>4,791.57</b>	<b>20,986.95</b>	<b>491.44</b>	<b>2,004.90</b>

\* Based on maximum feed rates of 40 TPH for Kilns 1 and 2 and 35 TPH for Kiln 3.

\*\* Charging, Calcining, Cooling, and Conveying for kilns.

**Emissions of HAPS**

EUG	Formaldehyde		HCl	
	lb/hr	TPY	lb/hr	TPY
<b>EUG 2 – CCCC</b>				
SV-001	0.1	0.1	5.40	23.65
SV-002	0.1	0.1	5.40	23.65
SV-003	0.1	0.1	4.73	20.70
EUG 3 Calc. Coke -Material Handling	----	----	----	----
EUG 4 Calc. Coke – Storage Piles and Traffic	----	----	----	----
EUG 5 Raw Coke - Material Handling	----	----	----	----
EUG 6 Raw Coke – Storage Piles and Traffic	----	----	----	----
<b>TOTALS</b>	<b>0.3</b>	<b>0.3</b>	<b>15.53</b>	<b>68.00</b>

**SECTION V. INSIGNIFICANT ACTIVITIES**

The insignificant activities identified and justified in the application are duplicated below. Appropriate record keeping 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 on this list.

1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). The facility has space heaters, rail car heaters, and raw coke silo “gas torches” which are rated less than 5 MMBTUH and others may be used in the future.
2. \* 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 stores and dispenses fuel to facility owned vehicles. The 1,000-gallon gasoline tank will be required to maintain fuel purchase records to demonstrate this tank is insignificant.

3. \* 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 9,000-gallon diesel fuel tank and 3,000-gallon heavy oil tanks will be required to maintain records of tank capacity and contents. Other tanks may be used in the future.
4. Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. The facility has chemical, paint, and/or solvent storage rooms or cabinets.
5. Hand wiping and spraying of solvents from containers with less than 1 liter capacity use for spot cleaning and/or degreasing in ozone attainment areas.
6. \* Activities (non-trivial) that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. The oil spray operation is in this category.

## SECTION VI. 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, Emissions Inventory and Annual Operating Fees) [Applicable]  
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories were submitted and fees paid for previous years as required.

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 that either 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

Emission limitations for all the sources are taken from the permit application and previous permit. Except for those requirements that are applicable to existing sources, the facility will not have any emission limits because most of the emission units were constructed prior to any applicable rules and regulations and are grandfathered. PM emission limitations for the kilns were established based upon the allowable limit under Subchapter 19. Opacity limits for all emission units are covered in the standard conditions. The permit establishes emission limits for processes which have the possibility of exceeding a standard under Subchapter 19. The permit also establishes a maximum SO<sub>2</sub> emission rate and recordkeeping requirements to ensure compliance with the ambient air quality standards of Subchapter 31.

The exhausts from the kilns will have the possibility of exceeding the opacity standards. The permit will require weekly observation of the associated stacks, and opacity readings to be conducted if visible emissions are detected. The frequency of observations may be decreased to monthly after a period of low opacity observations.

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

OAC 252:100-19 (Particulate Matter) [Applicable]  
This subchapter specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBTU for all indirectly fired fuel-burning units 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<sup>3</sup> or about 0.0076 lb/MMBTU for the gas torches, while AP-42 (7/00) lists PM emissions from stationary gas-fired engines at 0.00991 lb/MMBTU.

This subchapter also limits emissions of PM from directly fired fuel-burning units and industrial processes based on their process weight rates. 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 ( $E = 55.0 * P^{(0.11)-40}$ ). Listed in the following table are the process weight rates, the estimated emissions, and the allowable emission limits.

Allowable PM emissions are based on process weight at each emission point in a directly fired fuel-burning unit, or “industrial process,” which is defined as “any source, activity or equipment, excluding fuel burning units, which can reasonably be expected to emit particulate matter.” The term includes, but is not limited to, crushing, milling, screening, mixing and conveying. Four operations feed into each settling/combustion chamber at each kiln. Since the settling/combustion chamber is an air pollution abatement operation, the process weight preceding it is the process weight of each industrial process feeding into the settling/combustion chambers. Total allowable PM is the sum of the allowable for each directly fired fuel-burning unit and industrial process.

**Allowable PM Emissions – Kilns**

EU/EUG	Point	Process Rate (TPH)	SC 19 Limit (lb/hr)	Estimated Emissions (lb/hr)
<b>EUG 2</b>				
<b>KILN1</b>	SV-001			135.6
Raw coke charging to kiln		40.0	42.5	
Direct-fired kiln		40.0	42.5	
Cooling process		44.24	43.45	
Conveying – cooler to conveyor belt		28.7	38.9	
<b>KILN1 Subtotal</b>			167.35	
<b>KILN2</b>	SV-002			135.6
Raw coke charging to kiln		40	42.5	
Direct-fired kiln		40.0	42.5	
Cooling process		44.24	43.45	
Conveying – cooler to conveyor belt		28.7	38.9	
Coke transfer from Auger #1 into Auger #2		10	19.18	
Material Handling inside Auger #2		10	19.18	
Coke Transfer from Auger #2 to Auger #3		10	19.18	
Material Handling in Briquetter Dryer	10	19.18		
<b>KILN2 Subtotal</b>			244.07	
<b>KILN3</b>	SV-003			118.65
Raw coke charging to kiln		35	41.3	
Direct-fired kiln		35.0	41.3	
Cooling process		37.99	42.06	
Conveying – cooler to conveyor belt		24.4	34.9	
<b>KILN3 Subtotal</b>			159.56	

## Allowable PM Emissions – Process Equipment

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>					
SV-004	CCH-TRNSHD1	Calcined coke transfer from 1C1 head pulley to 2C3 tail pulley or C2 tail pulley or ground (through waste auger)	32	40.52	0.03
SV-004	CCH-TRNSHD2	Calcined coke transfer from reclaim auger to 1C1	20	30.5	0.02
SV-004	CCH-TRNSHD3	Calcined coke transfer from 2C3 head pulley to 2C4 tail pulley	32	40.52	0.03
SV-004	CCH-TRNSHD4	Calcined coke transfer from 2C1 head pulley to 2C4 tail pulley or 2C2 tail pulley or ground (through waste auger)	32	40.52	0.03
SV-004	CCH-TRNSHD5	Calcined coke transfer from 2C2 head pulley to C2 tail pulley	60	46.29	0.03
SV-004	CCH-TRNSHD6	Calcined coke transfer from 3C3 head pulley to 2C4 tail pulley or 2C2 tail pulley or to ground (through waste auger)	28	38.23	0.03
SV-004	BRIQ-7SPURUL	Briquetter: Material transfer from 7 Spur Auger head pulley to Vertical Conveyor Elevator tail pulley	30	39.96	0.09
SV-004	CCH-XFER32	Drop from Refeed Auger head pulley to conveyor 2C4	50	44.58	0.52
SV-005	CCH-C&SSILO1	Calcined coke transfer from C5 (Auger) head pulley to C6 (Bucket Elevator) tail pulley	75	48.43	1.45
SV-005	CCH-C&SSILO2	Calcined coke transfer from C6 (Bucket Elevator) head pulley to C7 (Auger) tail pulley	75	48.43	1.45
SV-005	CCH-C&SSILO3	Calcined coke transfer from C7 (Auger) tail pulley to Blend Silo 1, 2 or 3	75	48.43	1.45

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>	<b>Continued</b>				
SV-006	CCH-XFER12	Calcined coke transfer from SC1 to Screen Feed Elevator or SC5 Loadout Belt or SC4 Bagging Belt	75	48.43	0.001
SV-006	CCH-CRUSH	C&S Crushing Operation	75	44.58	0.025
SV-006	CCH-XFER13	Calcined coke transfer from Crusher to Screen Feed Elevator	75	44.58	0.025
SV-006	CCH-XFER14	Calcined coke transfer from Screen Feed Elevator to SC-1 Screen Feed Auger	125	53.55	0.002
SV-006	CCH-XFER15A	Calcined coke transfer from SC-1 Screen Feed Auger to Best Vibrator	125	53.55	0.002
SV-006	CCH-XFER15B	Calcined coke transfer from Best Vibrator to Sizer (Screener)	125	53.55	0.002
SV-006	CCH-XFER16	Calcined coke transfer from Sizer (Screener) to Crusher	50	44.58	0.001
SV-006	CCH-C&SPR1A	Calcined coke transfer from Sizer (Screener) to SC-3 Fines Auger tail pulley	75	48.43	0.03
SV-006	CCH-C&SPR1B	Calcined coke transfer from SC-3 Fines Auger head pulley to -60 Silo	75	48.43	0.03
SV-006	CCH-C&SPR2A	Calcined coke transfer from Sizer (Screener) to SC6 Product Belt tail pulley	75	48.43	0.03
SV-006	CCH-C&SPR2B	Calcined coke transfer from SC6 Product Belt head pulley to Middle Tank or SC7 tail pulley	75	48.43	0.03
SV-006	CCH-C&SPR3	Calcined coke transfer from SC7 head pulley to South Tank.	75	48.43	0.03
SV-006	CCH-SIZER1	Calcined coke transfer from Sizer (Screener) to Bagging Belt SC-4 tail pulley	75	48.43	0.03
SV-006	CCH-SIZER2	Calcined coke transfer from Sizer (Screener) to Loadout Belt SC-5 tail pulley	75	48.43	0.03
SV-006	CCH-XFER17	Calcined coke transfer from -60 Silo, Middle Tank or South Tank to SC5 Loadout Belt or to Bagging Belt SC-4 tail pulley	125	53.55	0.002



EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>	<b>Continued</b>				
SV-006	CCH-XFER18	Calcined coke transfer from SC5 Loadout Belt head pulley to Loadout Elevator SC-3 tail pulley	125	53.55	0.002
SV-006	CCH-XFER21	Calcined coke transfer from Bagging Belt SC-4 head pulley to Bagging Elevator tail pulley	125	53.55	0.002
SV-006	CCH-XFER22	Calcined coke transfer from Bagging Elevator head pulley to Bagging Hopper	125	53.55	0.002
SV-006	CCH-XFER23A	Calcined coke transfer from Bagging Hopper to Weigh Hopper	40	42.53	0.001
SV-006	CCH-XFER23B	Calcined coke transfer from Weigh Hopper to Scale Belt	40	42.53	0.001
SV-006	CCH-XFER24	Calcined coke transfer from Scale Belt to Bagger	40	42.53	0.001
SV-006	CCH-BAGS	Calcined coke transfer from Bagger to Bags	40	42.53	0.001
SV-006	CCH-SS1	Calcined coke transfer from Bagging Hopper to Supersacks	60	46.29	0.001
SV-007	CCH-TR5RLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to railcar	125	53.55	1.31
SV-007	CCH-TR5TLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to truck	125	53.55	16.31
SV-008	CCH-910TANK	Dust from SV-006 and SV-007 transfer drop into storage tank	2	6.52	0.00004
	CCH-SS2	Dust transfer from Track 6 DC material bin to supersack	0.085	0.79	0.0000017
	CCH-SS3	Dust transfer from transfer shed DC material bin to supersack	0.085	0.79	0.0000017
	CCH-SS4	Dust transfer from 7&8 track silo DC material bin (west) to supersack	0.085	0.79	0.0000017
	CCH-SS5	Dust transfer from 7&8 track load out DC material bin (east) to supersack	0.085	0.79	0.0000017
	CCH-SS6	Dust transfer from Kiln 2 multiclone (cyclone) to supersack	0.085	0.79	0.0000017

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>	<b>Continued</b>				
	CCH-SS7	Dust transfer from Kiln 1 multiclone (cyclone) to supersack	0.085	0.79	0.0000017
SV-009	CCH-SILO1	Calcined coke transfer from 2C5 head pulley to Calcine Silo #1 or 2C6 tail pulley or Rotex Screener	92	50.44	0.04
SV-009	CCH-SILO2	Calcined coke transfer from 2C6 head pulley to Calcine Silo #2 or 2C7 tail pulley	92	50.44	0.04
SV-009	CCH-SILO3	Calcined coke transfer from 2C7 head pulley to Calcine Silo #3 or 2C7A tail pulley	92	50.44	0.04
SV-009	CCH-SILO4	Calcined coke transfer from Rotex Screener to Calcine Silo #1, Calcine Silo #2, and Calcine Silo #4; or Calcine Silo #1 and Calcine Silo #2; or Calcine Silo #1 and Calcine Silo #4; or Calcine Silo #2 and Calcine Silo #4	92	50.44	0.04
SV-009	CCH-SILO5	Calcined coke transfer from 2C7A head pulley to Calcine Silo 5	92	50.44	0.04
SV-010	CCH-XFER26A	Calcine coke transfer from Calcine Silo 1, 2 or 3 to 2C10 tail pulley	500	68.96	0.01
SV-010	CCH-XFER26B	Calcined coke transfer from Silo 2, 3 or 4 to 2C8 tail pulley	500	68.96	0.01
SV-010	CCH-XFER26C	Calcined coke transfer from Silo 5 to 2C10A tail pulley	500	68.96	0.01
SV-010	CCH-XFER26D	Calcined coke transfer from 2C10A head pulley to 2C10 tail pulley	500	68.96	0.01
SV-010	CCH-XFER26E	Calcined coke transfer from 2C8 head pulley to 2C9 tail pulley	500	68.96	0.01
SV-010	CCH-XFER26F	Calcined coke transfer from 2C9 head pulley to 2C10 tail pulley	500	68.96	0.01
SV-010	CCH-TR78LOA	Calcined coke transfer from 2C10 head pulley to 2C11 tail pulley	500	68.96	0.01
SV-010	CCH-TR78LOB	Calcined coke transfer from 2C11 head pulley into railcar or truck	500	68.96	0.01
SV-011	CCH-SSULB	Briquetter: Supersack unloading hopper to cyclone air to Bin 1, 2, 3 or 4	30	39.96	0.01

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>	<b>Continued</b>				
SV-011	CCH-RRULB	Briquetter: Railcar unloading pan to cyclone air to Bin 1, 2, 3 or 4	30	39.96	0.01
SV-011	BRIQ-VCE	Material transfer from Vertical Conveyor Elevator head pulley to Horizontal Screw Conveyor tail pulley	30	39.96	0.03
SV-011	BRIQ-HSC	Material transfer from Horizontal Screw Conveyor head pulley to Bin 1, 2, 3 or 4	30	39.96	0.03
SV-012	BRIQ-SILO1	Drop from elevator head pulley into Briquetter Silo	30	39.96	0.01
SV-012	DRYER – XFER5	Coke Transfer from Auger #3 to Elevator Tail Pulley	10	19.18	<0.001
SV-013	BRIQ-LO1	Drop from Briquetter Silo to Briquetter Silo unloading belt tail pulley	30	39.96	6.53
SV-013	BRIQ-LO2	Drop from Briquetter Silo unloading belt head pulley to railcar or truck	30	39.96	6.53
SV-014	CCH-XFER3	Calcined coke transfer from C2 head pulley to Track 6 loadout or C3 tail pulley	92	50.44	0.01
SV-014	CCh-TRK6LO	Calcined coke transfer from Track 6 loadout into railcars or trucks	92	50.44	0.01
SV-014	CCH-XFER4	Calcined coke transfer from C3 head pulley to C4 tail pulley or chute to Syntron	92	50.44	0.09
SV-014	CCH-XFER10	Calcined coke transfer from SC1B head pulley to SC1A tail pulley	75	48.43	0.01
SV-014	CCH-XFER8	Calcined coke transfer from SC1A pit to SC1A auger	75	48.43	0.01
SV-014	CCH-XFER11A	Calcined coke transfer from SC1A auger to SC1	75	48.43	0.01
SV-014	CCH-XFER11B	Calcined coke transfer from Syntron to SC1	75	48.43	0.01
	CCH-DISCHG3B	Calcined coke transfer from 3C1 head pulley to 3C2 tail pulley or waste chute (to ground)	32	40.52	0.03
	CCH-DISCHG3C	Calcined coke transfer from 3C1 DC auger to 3C2 head pulley	20	30.5	0.015

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 3</b>	Continued				
	CCH-DISCHG3D	Dust transfer from Multiclone DC material bin to 3C1 belt conveyor	0.083	0.77	0.0000016
	CCH-DISCHG3E	Calcined coke transfer from 3C2 head pulley to 3C3 tail pulley	32	40.52	0.03
	CCH-XFER25	Calcined coke transfer from 2C4 head pulley to 2C5 tail pulley	92	50.44	0.09
	CCH-XFER5A	Calcined coke transfer from C4 head pulley to C5 Auger	75	48.43	0.07
	CCH-XFER9	Calcined coke transfer from Blend Silo 1, 2 or 3 Feeder Auger to SC1B tail pulley	75	48.43	0.07
	BRIQ-1	Briquetter: Material transfer from railcar to 7 Spur Auger tail pulley	20	30.51	0.0000
	BRIQ-2	Briquetter: Bins 1, 2, 3 and/or 4 into briquetter	20	30.51	0.0000
	BRIQ-3	Drop from Briquetter onto Bertha Belt tail pulley	20	30.51	0.0000
	BRIQ-4	Drop from Bertha Belt head pulley to Skinning Belt tail pulley	20	30.51	0.001
	BRIQ-DRY1	Drop from Skinning Belt head pulley to Scalping Screen Spreader	20	30.51	0.02
	BRIQ-DRY2	Drop from Scalping Screen Spreader to Briquette Dryer	20	30.51	0.02
	BRIQ-DRY4	Drop from Dryer onto North/South belt tail pulley	20	30.51	0.02
	BRIQ-DRY7	Drop from North/South Belt head pulley to East/West Belt tail pulley	20	30.51	0.02
	BRIQ-DRY6	Drop from East/West Belt tail pulley to briquetter silo elevator tail pulley	20	30.51	0.02
	BRIQ-DRY5	Drop to elevator silo head pulley to railcar	20	30.51	0.39
	BRRTLO3	Drop from Briquetter Silo to truck or supersack	50	44.58	26.10
	CCH-XFER31	Drop from railcar at 7 Spur to Refeed Auger tail pulley	50	44.58	26.10

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 5</b>					
	RCH- XFER5A	Raw coke transfer from pit at unloading station (belts RF1, RF2, RF3, or RF4) onto belt RF5.	500	68.96	0.0005
	RCH- XFER5B	Raw coke transfer from belt RF5 to belt R2 tail pulley or belt R1 tail pulley	500	68.96	0.0005
	RCH- XFER5C	Raw coke transfer from R2 head pulley into Crusher	500	68.96	0.0005
	RCH-XFER6	Raw coke transfer from Crusher to R3 tail pulley	500	68.96	0.0005
	RCH- XFER7A	Material transfer from belt R1 head pulley to ground	300	63.00	0.25
	RCH- XFER8A	Raw coke transfer from R3 head pulley to R23 tail pulley or Raw Silo 1 or Raw Silo 2	500	68.96	0.01
	RCH- XFER8B	Raw coke transfer from Raw Silo 1 to Conveyor Belt 1RF1 tail pulley and/or Raw Silo 2 to Conveyor Belt 1RF2 tail pulley	40	42.53	0.0001
	RCH- XFER8C	Raw coke transfer from Conveyor Belt 1RF1 head pulley and/or Conveyor Belt 1RF2 head pulley to 1R5 tail pulley	40	42.53	0.0001
	RCH-XFER9	Raw coke transfer from 1R5 head pulley to 1R6 tail pulley	40	42.53	0.0001
	RCH- XFER10	Raw coke transfer from 1R6 head pulley to Kiln #1 Feed Chute	40	42.53	0.002
	RCH- XFER11	Raw coke transfer from 1R7 re-feed elevator to Kiln #1 Feed Chute	20	30.5	0.015
	RCH- XFER12	Raw coke transfer from R23 head pulley to 3R1 tail pulley or Raw Silo 21 or Raw Silo 22	500	68.96	0.01
	RCH- XFER13	Raw coke transfer from Raw Silo 21 to Conveyor Belt 2RF1 tail pulley and/or Raw Silo 22 to Conveyor Belt 2RF2 tail pulley	40	42.53	0.0001

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 5</b>	<b>Continued</b>				
	RCH- XFER14	Raw coke transfer from 2R7 re-feed elevator to Kiln #2 Feed Chute	20	30.5	0.015
	RCH- XFER15	Raw coke transfer from Conveyor Belt 2RF1 head pulley and/or Conveyor Belt 2RF2 head pulley to 2R5 tail pulley	40	42.53	0.0001
	RCH- XFER16	Raw coke transfer from 2R5 head pulley to 2R6 tail pulley	40	42.53	0.0001
	RCH- XFER17	Raw coke transfer from 2R6 head pulley to Kiln #2 Feed Chute	40	42.53	0.002
	RCH- XFER18	Raw coke transfer from 3R1 head pulley to Raw Silo 31 or Raw Silo 32	500	68.96	0.01
	RCH- XFER19	Raw coke transfer from Raw Silo 31 to Conveyor Belt 3RF1 tail pulley and/or Raw Silo 32 to Conveyor Belt 3RF2 tail pulley	35	41.32	0.001
	RCH- XFER20	Raw coke transfer from Conveyor Belt 3RF1 head pulley and/or Conveyor Belt 3RF2 head pulley to 3R3 tail pulley	35	41.32	0.0001
	RCH- XFER21	Raw coke transfer from 3R3 head pulley to 3R4 tail pulley	35	41.32	0.0001
	RCH- XFER22	Raw coke transfer from 3R4 head pulley to Kiln #3 Feed Chute	35	41.32	0.002
	RCH- XFER23	Raw coke transfer from 3R5 re-feed elevator to 3R4 tail pulley	20	30.5	0.015
	RCH- XFER24	Raw coke transfer from chamber reclaim auger to refeed elevator	20	30.5	0.015
	RCH- CRUSH	Raw coke crushing	180	57.37	1.80
	RCH- XFERTr2	Unloading hoppers to feeders tail pulley	400	66.31	0.0006
	RCH- XFERTr3	Feeders head pulley to collection conveyor tail pulley	400	66.31	0.0006
	RCH- XFERTr4	Collection conveyor head pulley to field conveyor tail pulley	400	66.31	0.0006
	RCH- XFERTr5	Field conveyor head pulley to radial stacker tail pulley	400	66.31	0.0006
	RCH-SIZER	Raw coke portable screener	60	46.29	0.029

<b>EU</b>	<b>Source Operation</b>	<b>Description of Source Operation</b>	<b>Process Rate (TPH)</b>	<b>SC. 19 Limit (lb/hr)</b>	<b>Estimated PM Emissions (lb/hr)</b>
<b>EUG 10</b>					
	CCH-PDTSILO	Screw Conveyor SC-BH-1 to Screener or 400T Silo SIBHP1, SIBHP2, SIBHP3, SIBHP4, or SIBHP5	53	45.12	0.01
	CCH-XFER33	Screener SCR-BH to Crusher CRS-BH	40	42.53	0.01
	CCH-XFER34	Screener SCR-BH to Bucket Elevator BE-BH1	35	41.32	0.01
	CCH-XFER35	Screener SCR-BH to Bucket Elevator BE-BH2	53	45.12	0.01
	CCH-XFER36	Screener SCR-BH to Bucket Elevator BE-BH3	7	15.10	0.01
	CCH-XFER37	Crusher CRS-BH to Existing Bucket Elevator BE-SE5	40	42.53	0.01
	CCH-XFER38	Bucket Elevator BE-BH1 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1	28	38.23	0.01
	CCH-XFER39	Bucket Elevator BE-BH2 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1	53	45.12	0.01
	CCH-XFER40	Bucket Elevator BE-BH3 to Screw Conveyor SC-BH-US1	5	12.05	0.01
	CCH-XFER41	Screw Conveyor SC-BH-US1 to 150T Silo SIBHUS	5	12.05	0.01
	CCH-SILO-P1	400T Silo SIBHP1 to Screw Conveyor SC-BH-P1	200	58.51	0.04
	CCH-SILO-P2	400T Silo SIBHP2 to Screw Conveyor SC-BH-P2	200	58.51	0.04
	CCH-PDTSILO3	150T Silo SIBHUS to Screw Conveyor SC-BH-US2	200	58.51	0.04
	CCH-SILO-P3	400T Silo SIBHP3 to Screw Conveyor SC-BH-P3	200	58.51	0.04
	CCH-SILO-P4	400T Silo SIBHP4 to Screw Conveyor SC-BH-P4	200	58.51	0.04
	CCH-SILO-P5	400T Silo SIBHP5 to Screw Conveyor SC-BH-P5	200	58.51	0.04

EU	Source Operation	Description of Source Operation	Process Rate (TPH)	SC. 19 Limit (lb/hr)	Estimated PM Emissions (lb/hr)
<b>EUG 10</b>	<b>Continued</b>				
	CCH- XFER42	Screw Conveyor SC-BH-P1 to Conveyor CB-BH1	200	58.51	0.01
	CCH- XFER43	Screw Conveyor SC-BH-P2 to Conveyor CB-BH1	200	58.51	0.01
	CCH- XFER44	Screw Conveyor SC-BH-P3 to Conveyor CB-BH1	200	58.51	0.01
	CCH- XFER45	Screw Conveyor SC-BH-P4 to Conveyor CB-BH1	200	58.51	0.01
	CCH- XFER46	Screw Conveyor SC-BH-P5 to Conveyor CB-BH1	200	58.51	0.01
	CCH- XFER47	Screw Conveyor SC-BH-US2 to Conveyor CB-BH-1 or Conveyor CB-SC1B	200	58.51	0.01
	CCH- TR56LOEA	Conveyor CB-BH1 to Conveyor CB-SC1B or Loadout Bucket Elevator BE-BH4	200	58.51	0.01
	CCH- TR56LOEB	Loadout Bucket Elevator BE-BH4 to Transfer Conveyor CB-BH2	200	58.51	0.01
	CCH- XFER48	Dust Collector DCL-BH1 to Existing Plant Bucket Elevator	1	4.10	0.01
	CCH- CRUSH2	Crusher CRS-BH Crusher Operation	40	42.53	0.01
	CCH-SCR- BH	Screener SCR-BH	70	47.77	0.01
	CCH- TR56LOEC	Transfer Conveyor CB-BH2 to Transfer Conveyor CB-BH3	200	58.51	0.01
	CCH- XFER50	Dust Collector DCL-BH3 to Loadout Shuttle Conveyor CB-BH4	1	4.10	0.01
	CCH- TR56LOED	Transfer Conveyor CB-BH3 to Loadout Shuttle Conveyor CB-BH4	200	58.51	0.01
	CCH- TR56LOEE	Loadout Shuttle Conveyor CB-BH4 to Railcar or Truck	200	58.51	0.01
	CCH- XFER49	Dust Collector DCL-BH2 to Transfer Conveyor CB-BH3	1	4.10	0.01
	CCH-SS8	Super Sack Loading from DCL-BH3	1	4.10	0.01

Emissions of PM from material handling and transport are very low in comparison to the allowable rate of emissions under this subchapter. No controls except for precautions taken to minimize fugitive dust will be required in the permit.



OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]  
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity.

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. The facility has numerous drop points and material processes. Reasonable precautions to control fugitive dust emissions from the operations will be stated in the permit.

OAC 252:100-31 (Sulfur Compounds) [Applicable]  
Part 2 limits the ambient air concentration of hydrogen sulfide (H<sub>2</sub>S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 µg/m<sup>3</sup>. Fuel-burning equipment combusting natural gas with an H<sub>2</sub>S content of less than 343 ppmv are unlikely to exceed the H<sub>2</sub>S ambient air concentration limit. Using pipeline-grade natural gas as defined in 40 CFR Part 72 will ensure compliance with the H<sub>2</sub>S ambient air concentration limit. Reduced sulfur compounds from calcining petroleum coke are also combusted in the kilns. Emissions of H<sub>2</sub>S from the kilns and resulting impacts should be insignificant.  
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; for liquid fuels, the limit is 0.8 lb/MMBTU. For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the use of gaseous fuel (propane or pipeline-grade natural gas) to ensure compliance with Subchapter 31. Liquid fuel is limited to 0.8% sulfur, which is equivalent to 0.8 lb/MMBTU and is in compliance with the limitation for liquid fuel of 0.8 lb/MMBTU. The kilns, silo heaters, and railcar heaters were installed prior to 1972 and are considered “grandfathered” from this requirement. The “pony motors” have a manufacturer date of 2019 and are subject to gas fuel standards, while the 2,160-hp emergency generator (installed in 2000) is subject to the liquid fuel standards.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]  
This subchapter limits emissions of NO<sub>x</sub> from fuel-burning equipment (constructed after February 14, 1972) with a rated heat input of 50 MMBTUH or greater. The kilns were all constructed prior to promulgation of this rule. All other fuel-burning equipment is smaller than 50-MMBTUH.

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

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]  
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The gasoline tank is subject to this requirement. The “dedust” oil tanks have a vapor pressure below 1.5 psia.  
Part 5 limits the VOC content of coatings used in coating lines or other operations. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment which is exempt and considered a Trivial Activity.  
Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize emissions of VOCs. Temperature and available air must be sufficient to provide essentially complete combustion. The kilns, heaters, and engines are operated to minimize emissions of VOCs.

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 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. Periodic (weekly / monthly) visible emissions testing of the coke conveyors is required to ensure compliance with Subchapter 25. Mass balance monitoring of PM and SO<sub>2</sub> emissions are required for the kilns, and periodic stack testing is required to confirm results of the mass balances.

The kilns are subject to a PM emission limit and the kilns use a settling/combustion chamber to control emissions of PM. The facility will be required to monitor the settling/combustion chamber operating temperatures. In addition, the kilns are required to be tested for PM and SO<sub>2</sub> at least every five years.

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

OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-15	Mobile Sources	not in source category
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 Oxides	predate rule promulgation
OAC 252:100-35	Carbon Monoxide	not affected units
OAC 252:100-39	Nonattainment Areas	not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	not in source category

**SECTION VII. FEDERAL REGULATIONS**

PSD, 40 CFR Part 52

[Not Applicable]

The facility is an existing PSD-major source. Any future increases of emissions must be evaluated for PSD if they exceed a significance level (40 TPY NO<sub>x</sub>, 100 TPY CO, 40 TPY SO<sub>2</sub>, 40 TPY VOC, 15 TPY PM<sub>10</sub>, 0.6 TPY lead, 10 TPY TRS, or 75,000 TPY GHG).

NSPS, 40 CFR Part 60

[Subpart JJJJ Applicable]

Subpart Y, Coal Processing Plants. This subpart affects coal processing plants with a capacity of 200 TPD or more which commenced construction, reconstruction, or modification after October 24, 1974. This facility processes petroleum coke; it only stores coal.

Subpart Kb, VOL Storage Vessels. Subpart Kb affects storage vessels for volatile organic liquids (VOLs) which have a storage capacity greater than or equal to 19,813 gallons and which commenced construction, reconstruction, or modification after July 23, 1984. Tanks with a capacity of less than 39,890 gallons and which store a VOL with a maximum true vapor pressure of less than 2.175 psia and tanks with a capacity equal to or greater than 39,890 gallons which store a VOL with a maximum true vapor pressure of less than 0.5 psia are no longer subject to Subpart Kb as of October 15, 2003. The dedust oil tank is smaller than 19,813 gallons and stores a liquid with a vapor pressure below 0.5 psia.

Subpart OOO, Non-Metallic Mineral Processing Plants. This subpart affects non-metallic mineral processing plants which commenced construction, reconstruction, or modification after August 3, 1983. This facility handles petroleum coke which is not classified as a non-metallic mineral.

Subpart IIII (Stationary Compression Ignition Internal Combustion Engines) 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. The emergency diesel engine at this facility was manufactured prior to April 1, 2006 and has not been modified or reconstructed after April 1, 2006 and is therefore not subject to Subpart IIII.

Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines (SI-ICE)) promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. 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 numerous manufacture dates. The three "pony motors" in EUG-9A are subject to Subpart JJJJ. Non-handheld engines smaller than

25 HP are subject to the limitations of 40 CFR §1054.105: NO<sub>x</sub> + VOC of 8 g/kW-hr and CO of 610 g/kW-hr.

NESHAP, 40 CFR Part 61 [Not Applicable]

This facility may have emissions of some of the regulated pollutants: arsenic, beryllium, benzene, and mercury, but only in trace amounts. However, none of the processes located at the facility are affected processes.

Subpart L, Benzene Emissions From Coke By-Product Recovery Plants. This facility is not a coke by-product plant and is not subject to this subpart.

NESHAP, 40 CFR Part 63 [Subpart ZZZZ Applicable]

Subpart FFFF, Miscellaneous Organic Chemical Production and Processes. This subpart affects facilities which produce the listed compounds. Petroleum coke is not among the regulated processes.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). On March 3, 2010, EPA published additional requirements for stationary CI RICE located at area and major sources, and on August 20, 2010, EPA published additional requirements for stationary SI RICE located at area and major sources. There is one engine that is an existing CI RICE and subject to work practice standards. The three engines in EUG-9A are subject to NSPS Subpart JJJJ, and comply Subpart ZZZZ by complying with Subpart JJJJ. A summary of these requirements (from Table 2c of this subpart) for the emergency diesel engine located at this facility is shown following.

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
1. Emergency CI and black start CI. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>

<sup>1</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

<sup>2</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

<sup>3</sup>Sources can petition the Administrator pursuant to the requirements of §63.6(g) for alternative work practices.

Subpart DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters) This subpart affects industrial, commercial and institutional boilers and process heaters at major sources of HAPs. Existing gas-burning heaters and boilers smaller than 5 MMBTUH are not subject to any standards, while “existing large” gas-fueled heaters and boilers are subject only to requirements of an initial energy audit and periodic tune-ups. The kilns, as direct-fired process equipment, are not subject to Subpart DDDDD.

CAM, 40 CFR Part 64 [Applicable]  
Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, 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 in excess of major source levels.

The kilns are subject to a PM emission limit, and the kilns use a settling/combustion chamber to control emissions of PM. CAM was approved for those units in Permit No. 2008-336-TVR, issued February 24, 2010. The facility is required to monitor the kiln settling/combustion chamber operating temperatures.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]  
This facility does not store any of the listed substances above the applicable threshold limits. Therefore, the Accidental Release Prevention provisions are not applicable to this facility. More information on this federal program is available on the web page: [www.epa.gov/rmp](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.

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 VIII. 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.

**Inspection**

On May 29, 2018, Mr. Rodney Pesch of Air Quality performed a Full Compliance Evaluation. Whitney Hall, Technical Manager, represented Oxbow. The report of the inspection has not yet been finalized. There are three Enforcement actions currently active.

**Stack Testing**

Stack tests were conducted on Kiln 1 and 2 on June 18-22, 2019, and on Kiln 3 on July 25, 2019. Results of the testing are shown following. The kilns were shown to be in compliance with PM and SO<sub>2</sub> emissions limits.

Kiln	PM		SO <sub>2</sub>	
	Emission Limits lb/hr	Test Results lb/hr	Emission Limits lb/hr	Test Results lb/hr
Kiln 1	167.35	73.89	4,790.90	859.55
Kiln 2	244.07	85.11		832.46
Kiln 3	159.56	86.00		809.36

**SECTION IX. TIER CLASSIFICATION, PUBLIC AND EPA REVIEW**

This application has been determined to be Tier II based on the being the request for a renewed Title V operating permit.

The applicant published the “Notice of Filing a Tier II Application” in *The Enid News and Eagle*, a daily newspaper in Garfield County, on September 5, 2019. The notice stated that the application was available for public review in the Enid Public Library or the DEQ office in Oklahoma City. The applicant will also publish a “Notice of Tier II Draft Permit” in *The Enid News and Eagle*.

The “proposed” permit will be submitted to EPA for a 45-day review period.

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of this subsection 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 this subsection, 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 this subsection, 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.

This facility is located within 50 miles of the Oklahoma - Kansas border. That state will be notified of the draft permit.

Information on all permit actions is available for review by the public on the Air Quality section of the DEQ web page at: [www.deq.ok.gov](http://www.deq.ok.gov)

**Fee Paid**

A Part 70 renewal operating permit application fee of \$7,500 has been received.

**SECTION X. SUMMARY**

The facility was constructed as described in the permit application. Ambient air quality standards are not threatened at this site. There are three Priority 2 enforcement cases concerning this facility currently active. Issuance of the permit is recommended, contingent on public and EPA review.





**DRAFT**

**PERMIT TO OPERATE  
AIR POLLUTION CONTROL FACILITY  
SPECIFIC CONDITIONS**

**Oxbow Calcining LLC  
Kremlin Calcining Plant**

**Permit No. 2019-0973-TVR3**

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on September 3, 2019. The Evaluation Memorandum, dated February 24, 2021, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. 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 Facility Wide:** There are no specific emission units covered under EUG 1; it was developed to cover requirements which are applicable to the whole facility.

**EUG 2 Charging, Calcining, Cooling, and Conveying:** Emission limitations for emission unit (EU) SV-001, SV-002, SV-003.

Point ID	EU Description	PM*	SO <sub>2</sub> **
		lb/hr	lb/hr
SV-001	Kiln 1	167.35	
	Raw coke charging to kiln		
	Direct-fired kiln		
	Cooling process		
	Conveying – cooler to conveyor belt		
SV-002	Kiln 2	244.07	4,790.90
	Raw coke charging to kiln		
	Direct-fired kiln		
	Cooling process		
	Conveying – cooler to conveyor belt		
	Coke transfer from Auger #1 into Auger #2		
	Material Handling inside Auger #2		
	Coke Transfer from Auger #2 to Auger #3		
Material Handling in Briquetter Dryer			
SV-003	Kiln 3	159.56	
	Raw coke charging to kiln		
	Direct-fired kiln		
	Cooling process		
	Conveying – cooler to conveyor belt		

\*PM includes both filterable and condensable PM.

\*\* SO<sub>2</sub> limits are on plant-wide basis.

- a. The kilns shall be fired with pipeline quality natural gas or propane.
- b. Compliance with SO<sub>2</sub> emission limitations shall be demonstrated by monthly mass balance calculations using the following required records:
  - (1) 24-hour daily average raw petroleum coke feed rates into each kiln (tons/day).
  - (2) 24-hour daily average sulfur content of raw petroleum coke feed (%S) into kilns.
  - (3) 24-hour daily average sulfur content of calcined coke produced by kilns.
  - (4) 24-hour daily production rate of coke in kilns.
- c. Compliance with PM emission limitations shall be demonstrated by mass balance calculations based on the following required records:
  - (1) 24-hour daily average raw petroleum coke feed rates into each kiln (tons/day).
  - (2) 24-hour daily average ash content of raw petroleum coke feed and coke product.
  - (3) 24-hour daily average sulfur content of raw coke and calcined coke product.
  - (4) 24-hour daily emissions of H<sub>2</sub>SO<sub>4</sub> by each kiln.
- d. The kilns shall be operated as follows:
  - (1) While each kiln is processing petroleum coke, the operating temperature of each associated settling/combustion chamber shall not be less than 1,500°F (3-hour average) as measured at least every 15-minutes by an optical pyrometer, thermocouple, kiln camera, or equivalent method approved by Air Quality, except for periods of up to 3 hours for repair and maintenance of temperature monitoring device.
  - (2) The permittee shall calibrate the temperature monitoring device used to monitor the temperature in item d(1) above at least annually and document the calibration.
  - (3) The permittee shall inspect the burners at least annually.
- e. Feed to the kilns may contain oil from spills smaller than 55 gallons per spill.
- f. The following analytical methods shall be used unless an equivalent method is approved by AQD:
  - (1) ASTM D4422 for ash.
  - (2) ASTM D6376 for sulfur.
- g. The permittee may use the same integrated sampling techniques as are used to provide produce analyses to customers.

**EUG 3 Calcined Coke Material Handling**

EU	Source Operation	Description of Source Operation	Opacity Limit
SV-004	CCH-TRNSHD1	Calcined coke transfer from 1C1 head pulley to 2C3 tail pulley or C2 tail pulley or ground (through waste auger)	20%
SV-004	CCH-TRNSHD2	Calcined coke transfer from reclaim auger to 1C1	20%
SV-004	CCH-TRNSHD3	Calcined coke transfer from 2C3 head pulley to 2C4 tail pulley	20%
SV-004	CCH-TRNSHD4	Calcined coke transfer from 2C1 head pulley to 2C4 tail pulley or 2C2 tail pulley or ground (through waste auger)	20%

EU	Source Operation	Description of Source Operation	Opacity Limit
SV-004	CCH-TRNSHD5	Calcined coke transfer from 2C2 head pulley to C2 tail pulley	20%
SV-004	CCH-TRNSHD6	Calcined coke transfer from 3C3 head pulley to 2C4 tail pulley or 2C2 tail pulley or to ground (through waste auger)	20%
SV-004	BRIQ-7SPURUL	Briquetter: Material transfer from 7 Spur Auger head pulley to Vertical Conveyor Elevator tail pulley	20%
SV-004	CCH-XFER32	Drop from Refeed Auger head pulley to conveyor 2C4	20%
SV-005	CCH-C&SSILO1	Calcined coke transfer from C5 (Auger) head pulley to C6 (Bucket Elevator) tail pulley	20%
SV-005	CCH-C&SSILO2	Calcined coke transfer from C6 (Bucket Elevator) head pulley to C7 (Auger) tail pulley	20%
SV-005	CCH-C&SSILO3	Calcined coke transfer from C7 (Auger) tail pulley to Blend Silo 1, 2 or 3	20%
SV-006	CCH-XFER12	Calcined coke transfer from SC1 to Screen Feed Elevator or SC5 Loadout Belt or SC4 Bagging Belt	20%
SV-006	CCH-CRUSH	C&S Crushing Operation	20%
SV-006	CCH-XFER13	Calcined coke transfer from Crusher to Screen Feed Elevator	20%
SV-006	CCH-XFER14	Calcined coke transfer from Screen Feed Elevator to SC-1 Screen Feed Auger	20%
SV-006	CCH-XFER15A	Calcined coke transfer from SC-1 Screen Feed Auger to Best Vibrator	20%
SV-006	CCH-XFER15B	Calcined coke transfer from Best Vibrator to Sizer (Screener)	20%
SV-006	CCH-XFER16	Calcined coke transfer from Sizer (Screener) to Crusher	20%
SV-006	CCH-C&SPR1A	Calcined coke transfer from Sizer (Screener) to SC-3 Fines Auger tail pulley	20%
SV-006	CCH-C&SPR1B	Calcined coke transfer from SC-3 Fines Auger head pulley to -60 Silo	20%
SV-006	CCH-C&SPR2A	Calcined coke transfer from Sizer (Screener) to SC6 Product Belt tail pulley	20%
SV-006	CCH-C&SPR2B	Calcined coke transfer from SC6 Product Belt head pulley to Middle Tank or SC7 tail pulley	20%
SV-006	CCH-C&SPR3	Calcined coke transfer from SC7 head pulley to South Tank.	20%
SV-006	CCH-SIZER1	Calcined coke transfer from Sizer (Screener) to Bagging Belt SC-4 tail pulley	20%
SV-006	CCH-SIZER2	Calcined coke transfer from Sizer (Screener) to Loadout Belt SC-5 tail pulley	20%

EU	Source Operation	Description of Source Operation	Opacity Limit
SV-006	CCH-XFER17	Calcined coke transfer from -60 Silo, Middle Tank or South Tank to SC5 Loadout Belt or to Bagging Belt SC-4 tail pulley	20%
SV-006	CCH-XFER18	Calcined coke transfer from SC5 Loadout Belt head pulley to Loadout Elevator SC-3 tail pulley	20%
SV-006	CCH-XFER21	Calcined coke transfer from Bagging Belt SC-4 head pulley to Bagging Elevator tail pulley	20%
SV-006	CCH-XFER22	Calcined coke transfer from Bagging Elevator head pulley to Bagging Hopper	20%
SV-006	CCH-XFER23A	Calcined coke transfer from Bagging Hopper to Weigh Hopper	20%
SV-006	CCH-XFER23B	Calcined coke transfer from Weigh Hopper to Scale Belt	20%
SV-006	CCH-XFER24	Calcined coke transfer from Scale Belt to Bagger	20%
SV-006	CCH-BAGS	Calcined coke transfer from Bagger to Bags	20%
SV-006	CCH-SS1	Calcined coke transfer from Bagging Hopper to Supersacks	20%
SV-007	CCH-TR5RLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to railcar	20%
SV-007	CCH-TR5TLO	Calcined coke transfer from Loadout Elevator SC3 head pulley to truck	20%
SV-008	CCH-910TANK	Dust from SV-006 and SV-007 transfer drop into storage tank	20%
	CCH-SS2	Dust transfer from Track 6 DC material bin to supersack	20%
	CCH-SS3	Dust transfer from transfer shed DC material bin to supersack	20%
	CCH-SS4	Dust transfer from 7&8 track silo DC material bin (west) to supersack	20%
	CCH-SS5	Dust transfer from 7&8 track load out DC material bin (east) to supersack	20%
	CCH-SS6	Dust transfer from Kiln 2 multiclone (cyclone) to supersack	20%
	CCH-SS7	Dust transfer from Kiln 1 multiclone (cyclone) to supersack	20%
SV-009	CCH-SILO1	Calcined coke transfer from 2C5 head pulley to Calcine Silo #1 or 2C6 tail pulley or Rotex Screener	20%
SV-009	CCH-SILO2	Calcined coke transfer from 2C6 head pulley to Calcine Silo #2 or 2C7 tail pulley	20%

EU	Source Operation	Description of Source Operation	Opacity Limit
SV-009	CCH-SILO3	Calcined coke transfer from 2C7 head pulley to Calcine Silo #3 or 2C7A tail pulley	20%
SV-009	CCH-SILO4	Calcined coke transfer from Rotex Screener to Calcine Silo #1, Calcine Silo #2, and Calcine Silo #4; or Calcine Silo #1 and Calcine Silo #2; or Calcine Silo #1 and Calcine Silo #4; or Calcine Silo #2 and Calcine Silo #4	20%
SV-009	CCH-SILO5	Calcined coke transfer from 2C7A head pulley to Calcine Silo 5	20%
SV-010	CCH-XFER26A	Calcine coke transfer from Calcine Silo 1, 2 or 3 to 2C10 tail pulley	20%
SV-010	CCH-XFER26B	Calcined coke transfer from Silo 2, 3 or 4 to 2C8 tail pulley	20%
SV-010	CCH-XFER26C	Calcined coke transfer from Silo 5 to 2C10A tail pulley	20%
SV-010	CCH-XFER26D	Calcined coke transfer from 2C10A head pulley to 2C10 tail pulley	20%
SV-010	CCH-XFER26E	Calcined coke transfer from 2C8 head pulley to 2C9 tail pulley	20%
SV-010	CCH-XFER26F	Calcined coke transfer from 2C9 head pulley to 2C10 tail pulley	20%
SV-010	CCH-TR78LOA	Calcined coke transfer from 2C10 head pulley to 2C11 tail pulley	20%
SV-010	CCH-TR78LOB	Calcined coke transfer from 2C11 head pulley into railcar or truck	20%
SV-011	CCH-SSULB	Briquetter: Supersack unloading hopper to cyclone air to Bin 1, 2, 3 or 4	20%
SV-011	CCH-RRULB	Briquetter: Railcar unloading pan to cyclone air to Bin 1, 2, 3 or 4	20%
SV-011	BRIQ-VCE	Material transfer from Vertical Conveyor Elevator head pulley to Horizontal Screw Conveyor tail pulley	20%
SV-011	BRIQ-HSC	Material transfer from Horizontal Screw Conveyor head pulley to Bin 1, 2, 3 or 4	20%
SV-012	BRIQ-SILO1	Drop from elevator head pulley into Briquetter Silo	20%
SV-012	DRYER – XFER5	Coke Transfer from Auger #3 to Elevator Tail Pulley	20%
SV-013	BRIQ-LO1	Drop from Briquetter Silo to Briquetter Silo unloading belt tail pulley	20%
SV-013	BRIQ-LO2	Drop from Briquetter Silo unloading belt head pulley to railcar or truck	20%
SV-014	CCH-XFER3	Calcined coke transfer from C2 head pulley to Track 6 loadout or C3 tail pulley	20%

EU	Source Operation	Description of Source Operation	Opacity Limit
SV-014	CCH-TRK6LO	Calcined coke transfer from Track 6 loadout into railcars or trucks	20%
SV-014	CCH-XFER4	Calcined coke transfer from C3 head pulley to C4 tail pulley or chute to Syntron	20%
SV-014	CCH-XFER10	Calcined coke transfer from SC1B head pulley to SC1A tail pulley	20%
SV-014	CCH-XFER8	Calcined coke transfer from SC1A pit to SC1A tail pulley	20%
SV-014	CCH-XFER11A	Calcined coke transfer from SC1A head pulley to SC1	20%
SV-014	CCH-XFER11B	Calcined coke transfer from Syntron to SC1	20%
	CCH-DISCHG3B	Calcined coke transfer from 3C1 head pulley to 3C2 tail pulley or waste chute (to ground)	20%
	CCH-DISCHG3C	Calcined coke transfer from 3C1 DC auger to 3C2 head pulley	20%
	CCH-DISCHG3D	Dust transfer from Multi-clone DC material bin to 3C1 belt conveyor	20%
	CCH-DISCHG3E	Calcined coke transfer from 3C2 head pulley to 3C3 tail pulley	20%
	CCH-XFER25	Calcined coke transfer from 2C4 head pulley to 2C5 tail pulley	20%
	CCH-XFER5A	Calcined coke transfer from C4 head pulley to C5 Auger	20%
	CCH-XFER9	Calcined coke transfer from Blend Silo 1, 2 or 3 feeder auger to SC1B tail pulley	20%
	BRIQ-1	Briquetter: Material transfer from railcar to 7 Spur Auger tail pulley	20%
	BRIQ-2	Briquetter: Bins 1, 2, 3 and/or 4 into briquetter	20%
	BRIQ-3	Drop from Briquetter onto Bertha Belt tail pulley	20%
	BRIQ-4	Drop from Bertha Belt head pulley to Skinning Belt tail pulley	20%
	BRIQ-DRY1	Drop from Skinning Belt head pulley to Scalping Screen Spreader	20%
	BRIQ-DRY2	Drop from Scalping Screen Spreader to Briquetter Dryer	20%
	BRIQ-DRY4	Drop from Dryer onto North/South belt tail pulley	20%
	BRIQ-DRY7	Drop from North/South Belt head pulley to East/West Belt tail pulley	20%
	BRIQ-DRY6	Drop from East/West Belt tail pulley to Briquetter silo elevator tail pulley	20%

EU	Source Operation	Description of Source Operation	Opacity Limit
	BRIQ-DRY5	Drop from Barber Green to elevator silo head pulley to railcar	20%
	BRIQ-LO3	Drop from Briquetter Silo to truck or railcar	20%
	CCH-XFER31	Drop from railcar at 7 Spur to Refeed Auger tail pulley	20%

The above opacity limits exclude 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 neither case shall the average of any six-minute period exceed 60% opacity.

- a. The permittee shall conduct a Method 22 visual observation of emissions from the discharges from each of the above emission units at least once per week, when operating. In no case shall the observation period be less than six minutes in duration or until visible emissions are observed. If visible emissions are observed for any observation point, then the permittee shall conduct, for the identified points, within 24 hours, a six-minute visual observation of emissions, in accordance with 40 CFR Part 60, Appendix A, Method 9. When discharge points are located inside a building, the VE observations may be done on the building ventilation discharges or other significant discharge points.
  - (1) When four consecutive weekly visible emission observations or Method 9 observations show no visible emissions, or no six-minute average emissions of a shade or density greater than twenty (20) percent equivalent opacity, respectively, the frequency may be reduced to monthly visual observations, as above. If at any time the average of any six-minute Method 9 observation exceeds 60%, the owner or operator shall comply with the provisions for excess emissions reporting and revert back to weekly observations.
  - (2) If the average of a six-minute Method 9 observation exceeds 20% opacity, but is less than 60%, the permittee shall conduct at least three additional Method 9 observations during the next day of operation of the unit.
  - (3) If the average of more than one six-minute Method 9 observation exceeds 20% opacity in any consecutive 60 minutes; or if the average of more than three six-minute Method 9 observations in any consecutive 24 hours exceeds 20% opacity; or if the average of any six-minute Method 9 observation exceeds 60% opacity; the owner or operator shall comply with the provisions for excess emissions reporting. Upon any showing of non-compliance the observation frequency shall revert to weekly. [OAC 252:100-25]

**EUG 4 Calcined Coke Storage Piles and Traffic**

EU	Description	Construction Date
CCH-LOADER	Spilled scrap coke pickup by front end loader - front end loader operations, also mobile equipment operations	1963
CCH-DMPTRK	Scrap coke hauled to storage	1963
CCH-WINDER	Scrap coke storage wind erosion	1963
CCH-XFER7A	Calcined coke transfer from C4 tail pulley to tripper	1964
CCH-XFER7B	Calcined coke transfer from tripper to drag shed pile or return to C4	1964
CCH-XFER5B	Calcined coke transfer from C5 Auger to drag shed pile	1998
CCH-XFER29	Scrap coke transfer by Front End Loader and onto screener	1963
CCH-XFER30	Scrap coke transfer from screener onto ground	1963

a. Reasonable precautions shall be taken to minimize fugitive dust emissions. These precautions may include, but are not limited to:

- (1) Use, where possible, of water, chemicals, or other materials on adjacent roads and stockpiles, and enclosures on material processing and transfer operations.
- (2) Plant and maintain vegetation coverings or windbreaks on adjacent areas, as necessary.

**EUG 5 Raw Coke Material Handling**

EU	Description of Source Operation	Opacity Limit
RCH-XFER5A	Raw coke transfer from pit at unloading station (belts RF1, RF2, RF3, or RF4) onto belt RF5.	20%
RCH-XFER5B	Raw coke transfer from belt RF5 to belt R2 tail pulley or belt R1 tail pulley	20%
RCH-XFER5C	Raw coke transfer from R2 head pulley into Crusher	20%
RCH-XFER6	Raw coke transfer from Crusher to R3 tail pulley	20%
RCH-XFER7A	Material transfer from belt R1 head pulley to ground	20%
RCH-XFER8A	Raw coke transfer from R3 head pulley to R23 tail pulley or Raw Silo 1 or Raw Silo 2	20%
RCH-XFER8B	Raw coke transfer from Raw Silo 1 to Conveyor Belt 1RF1 tail pulley and/or Raw Silo 2 to Conveyor Belt 1RF2 tail pulley	20%
RCH-XFER8C	Raw coke transfer from Conveyor Belt 1RF1 head pulley and/or Conveyor Belt 1RF2 head pulley to 1R5 tail pulley	20%
RCH-XFER9	Raw coke transfer from 1R5 head pulley to 1R6 tail pulley	20%
RCH-XFER10	Raw coke transfer from 1R6 head pulley to Kiln #1	20%
RCH-XFER11	Raw coke transfer from 1R7 refeed elevator to kiln 1 feed chute	20%
RCH-XFER12	Raw coke transfer from R23 head pulley to 3R1 tail pulley or Raw Silo 21 or Raw Silo 22	20%



EU	Description of Source Operation	Opacity Limit
RCH-XFER13	Raw coke transfer from Raw Silo 21 to Conveyor Belt 2RF1 tail pulley and/or Raw Silo 22 to Conveyor Belt 2RF2 tail pulley	20%
RCH-XFER14	Raw coke transfer from 2R7 re-feed elevator to Kiln #2 Feed Chute	20%
RCH-XFER15	Raw coke transfer from Conveyor Belt 2RF1 head pulley and/or Conveyor Belt 2RF2 head pulley to 2R5 tail pulley	20%
RCH-XFER16	Raw coke transfer from 2R5 head pulley to 2R6 tail pulley	20%
RCH-XFER17	Raw coke transfer from 2R6 head pulley to Kiln #2 Feed Chute	20%
RCH-XFER18	Raw coke transfer from 3R1 head pulley to Raw Silo 31 or Raw Silo 32	20%
RCH-XFER19	Raw coke transfer from Raw Silo 31 to Conveyor Belt 3RF1 tail pulley and/or Raw Silo 32 to Conveyor Belt 3RF2 tail pulley	20%
RCH-XFER20	Raw coke transfer from Conveyor Belt 3RF1 head pulley and/or Conveyor Belt 3RF2 head pulley to 3R3 tail pulley	20%
RCH-XFER21	Raw coke transfer from 3R3 head pulley to 3R4 tail pulley	20%
RCH-XFER22	Raw coke transfer from 3R4 head pulley to Kiln #3 Feed Chute	20%
RCH-XFER23	Raw coke transfer from 3R5 re-feed elevator to 3R4 tail pulley	20%
RCH-XFER24	Raw coke transfer from Reclaim Auger to re-feed elevator 3R5	20%
RCH-CRUSH	Raw coke crushing	20%
RCH-XFERTr2	Unloading hoppers to feeders tail pulley	20%
RCH-XFERTr3	Feeders head pulley to collection conveyor tail pulley	20%
RCH-XFERTr4	Collection conveyor head pulley to field conveyor tail pulley	20%
RCH-XFERTr5	Field conveyor head pulley to radial stacker tail pulley	20%
RCH-SIZER	Raw coke portable screener	20%

The above opacity limits exclude 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 neither case shall the average of any six-minute period exceed 60% opacity.

- a. The permittee shall conduct Method 22 visual observations of emissions from the discharges from each of the above units at least once per week. In no case shall the observation period be less than six minutes in duration or until visible emissions are observed. If visible emissions are observed for any observation point, then the permittee shall conduct, for the identified points, within 24 hours, a six-minute visual observation of emissions, in accordance with 40 CFR Part 60, Appendix A, Method 9. When discharge points are located inside a building, the VE observations may be done on the building ventilation discharges or other significant discharge points.

- (1) When four consecutive weekly visible emission observations or Method 9 observations show no visible emissions, or no six-minute average emissions of a shade or density greater than twenty (20) percent equivalent opacity, respectively, the frequency may be reduced to monthly visual observations, as above. If at any time the average of any six-minute Method 9 observation exceeds 60%, the owner or operator shall comply with the provisions for excess emissions reporting and revert back to weekly observations.
- (2) If the average of a six-minute Method 9 observation exceeds 20% opacity, but less than 60%, the permittee shall conduct at least three additional Method 9 observations during the next day of operation of the unit.
- (3) If the average of more than one six-minute Method 9 observation exceeds 20% opacity in any consecutive 60 minutes; or if the average of more than three six-minute Method 9 observations in any consecutive 24 hours exceeds 20% opacity; or if the average of any six-minute Method 9 observation exceeds 60% opacity; the owner or operator shall comply with the provisions for excess emissions reporting. Upon any showing of non-compliance the observation frequency shall revert to weekly. [OAC 252:100-25]

**EUG 6 Raw Coke Storage Piles and Traffic:**

Source Operation	Source Operation	Construction Date
RCH-LOADER	Front end loader traffic at unloading pit, loading scrapers, and storage area	1978
RCH-SCRAP	Scraper traffic to and on open coke storage piles and to raw coke unloading station, including to and from dryer operation	1978
RCH-WTRTK	Water truck traffic in coke storage area	1961
RCH-WINDER	Raw coke storage wind erosion	1961
RCH-OTHTRK	Raw coke receipts by Truck – Truck unloads in raw coke yard	1961
RCH-CONOCOTRK	Raw coke receipts by Truck through Truck Dump	1998
RCH-XFER1	Raw coke railcar tipper unloading (drop) into pit	1978
RCH-XFER2	Raw coke transfer by front end loaders (drop) into scrapers	1978
RCH-XFER3	Raw coke transfer from storage pile by front end loaders into scrapers	1964
RCH-XFER4	Raw coke transfer from scrapers into pit at unloading station	1964
RCH-XFER7B	Material transfer from emergency surge hopper into truck or scraper	1963
RCH-XFERTr1	Raw coke transfer from truck into unloading hoppers (truck dump)	1998
RCH-XFERTr6	Radial stacker head pulley to storage pile	1998

- a. Reasonable precautions shall be taken to minimize fugitive dust emissions. These precautions may include, but are not limited to:

- (1) Use of water or chemicals on roads, stockpiles, material processing and transfer operations.
- (2) Apply coatings or coverings to substances susceptible to becoming air-borne or wind-borne.
- (3) Plant and maintain vegetation coverings or windbreaks.
- (4) Locate stockpiles so as to provide minimum exposure to high wind and avoid open spaces near neighboring homes or businesses.
- (5) Curtail operations as required to comply with emissions limitations.

### EUG 7 Coal Storage Piles and Traffic

EU ID	Source Operation	Construction Date
COAL-VEHICLE	Vehicle traffic	2009
COAL-WINDER	Handling Emissions (material transfers)	2009
COAL-HANDLE	Coal storage piles wind erosion	2009

- a. Reasonable precautions shall be taken to minimize fugitive dust emissions. These precautions may include, but are not limited to:

- (1) Use of water or chemicals on roads, stockpiles, material processing and transfer operations.
- (2) Apply coatings or coverings to substances susceptible to becoming air-borne or wind-borne.
- (3) Plant and maintain vegetation coverings or windbreaks.
- (4) Locate stockpiles so as to provide minimum exposure to high wind and avoid open spaces near neighboring homes or businesses.
- (5) Curtail operations as required to comply with emissions limitations.

### EUG 8 Insignificant Activities

Emissions from the equipment listed below are estimated based on existing equipment items and are insignificant.

EU	Source Operation	Unit Capacity
INSIGN1	Railcar Heaters	5 MMBTUH
INSIGN2	Raw Coke Silo Gas Torches	5 MMBTUH
INSIGN7	Gasoline tank	1,000 gal
INSIGN8	Diesel tank	9,000 gal
INSIGN11	Oil Storage Tank	3,000 gal
INSIGN12	Oil Spraying	--
INSIG10	Diesel motor for raw coke portable screener	110 HP
INSIG13	Oil Storage Tank	3,000 gal
INSIG14	"Dedust" Oil Storage Tank	3,000 gal
INSIG15	"Dedust" Oil Spray at Product Loading	38,500 gal/yr

**EUG 9 Stationary Diesel Engine**

EU	Source Operation	Unit Capacity
SV-019	Caterpillar 3516B diesel emergency generator	2,160 HP

- a. The owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility, by October 20, 2013, including but not limited to: [40 CFR 63 § 63.6580 - § 63.6675]

What This Subpart Covers

- (1) § 63.6580 What is the purpose of subpart ZZZZ?
- (2) § 63.6585 Am I subject to this subpart?
- (3) § 63.6590 What parts of my plant does this subpart cover?
- (4) § 63.6595 When do I have to comply with this subpart?

Emission and Operating Limitations

- (5) § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?
- (6) § 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

General Compliance Requirements

- (7) § 63.6605 What are my general requirements for complying with this subpart?

Testing and Initial Compliance Requirements

- (8) § 63.6615 When must I conduct subsequent performance tests?
- (9) § 63.6620 What performance tests and other procedures must I use?
- (10) § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- (11) § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

Continuous Compliance Requirements

- (12) § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
- (13) § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

Notifications, Reports, and Records

- (14) § 63.6645 What notifications must I submit and when?
- (15) § 63.6650 What reports must I submit and when?
- (16) § 63.6655 What records must I keep?
- (17) § 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

- (18) § 63.6665 What parts of the General Provisions apply to me?
- (19) § 63.6670 Who implements and enforces this subpart?

(20) § 63.6675 What definitions apply to this subpart?

**EUG 9A Stationary Gas-Fired Engines**

EU	Source Operation	Unit Capacity
SV-016	Kiln 1 natural gas fired pony motor	24 HP
SV-017	Kiln 2 natural gas fired pony motor	24 HP
SV-018	Kiln 3 natural gas fired pony motor	24 HP

a. The engines listed above are subject to 40 CFR Part 60, Subpart JJJJ, and shall comply with all applicable standards for owners or operators of stationary spark ignition internal combustion engines for each affected facility including but not limited to:

[40 CFR § 60.4230- § 60.4248]

- (1) § 60.4230: Am I subject to this subpart?
- (2) § 60.4231: What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines?
- (3) § 60.4232: How long must my engines meet the emissions standards if I am a manufacturer of stationary SI internal combustion engines?
- (4) § 60.4233: What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?
- (5) § 60.4234: How long must I meet the emissions standards if I am an owner or operator of a stationary SI internal combustion engine?
- (6) § 60.4235: What fuel requirements must I meet if I am an owner or operator of a stationary SI internal combustion engine?
- (7) § 60.4236: What is the deadline for importing or installing stationary SI ICE produced in the previous model year?
- (8) § 60.4237: What are the monitoring requirements if I am an owner or operator of a stationary SI internal combustion engine?
- (9) § 60.4238: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines  $\leq$  19 KW (25 HP).
- (10) § 60.4239: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines  $\geq$  19 KW (25 HP) that use gasoline?
- (11) § 60.4240: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines  $\geq$  19 KW (25 HP) that use LPG?
- (12) § 60.4241: What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program?
- (13) § 60.4242: What other requirement must I meet if I am a manufacturer of stationary SI internal combustion engines?
- (14) § 60.4243: What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
- (15) § 60.4244: What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?
- (16) § 60.4245: What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?
- (17) § 60.4246: What parts of the General Provisions apply to me?

- (18) § 60.4247: What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines?
- (19) § 60.4248: What definitions apply to this subpart?
- b. Engines shall have a permanent identification plate attached that shows the make, model, and serial number. [OAC 252:100-43]
- c. The owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility, by October 20, 2013, including but not limited to: [40 CFR § 63.6580 - § 63.6675]

#### What This Subpart Covers

- (1) § 63.6580 What is the purpose of subpart ZZZZ?
- (2) § 63.6585 Am I subject to this subpart?
- (3) § 63.6590 What parts of my plant does this subpart cover?
- (4) § 63.6595 When do I have to comply with this subpart?

#### Emission and Operating Limitations

- (5) § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?
- (6) § 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

#### General Compliance Requirements

- (7) § 63.6605 What are my general requirements for complying with this subpart?

#### Testing and Initial Compliance Requirements

- (8) § 63.6615 When must I conduct subsequent performance tests?
- (9) § 63.6620 What performance tests and other procedures must I use?
- (10) § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- (11) § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

#### Continuous Compliance Requirements

- (12) § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
- (13) § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

#### Notifications, Reports, and Records

- (14) § 63.6645 What notifications must I submit and when?
- (15) § 63.6650 What reports must I submit and when?
- (16) § 63.6655 What records must I keep?
- (17) § 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

(18) § 63.6665 What parts of the General Provisions apply to me?

(19) § 63.6670 Who implements and enforces this subpart?

(20) § 63.6675 What definitions apply to this subpart?

**EUG 10 Screening Operation**

Point ID	Unit ID	Description	PM <sub>10</sub>	
			lb/hr	TPY
SV-015	C&SSILO1	Existing Screw Conveyor SC-SC6 from Plant to Existing Bucket Elevator BE-SE5	0.06	0.19
SV-015	C&SSILO2	Existing Bucket Elevator BE-SE5 to Existing Blend Silo Screw Conveyor or SC-BH1 or Screen		
SV-015	CCH-PDTSILO	Screw Conveyor SC-BH-1 to Screener or 400T Silo SIBHP1, SIBHP2, SIBHP3, SIBHP4, or SIBHP5		
SV-015	CCH-XFER33	Screener SCR-BH to Crusher CRS-BH		
SV-015	CCH-XFER34	Screener SCR-BH to Bucket Elevator BE-BH1		
SV-015	CCH-XFER35	Screener SCR-BH to Bucket Elevator BE-BH2		
SV-015	CCH-XFER36	Screener SCR-BH to Bucket Elevator BE-BH3		
SV-015	CCH-XFER37	Crusher CRS-BH to Existing Bucket Elevator BE-SE5		
SV-015	CCH-XFER38	Bucket Elevator BE-BH1 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1		
SV-015	CCH-XFER39	Bucket Elevator BE-BH2 to Existing Blend Silo Screw Conveyor SC-SC6 or Screw Conveyor SC-BH1		
SV-015	CCH-XFER40	Bucket Elevator BE-BH3 to Screw Conveyor SC-BH-US1		
SV-015	CCH-XFER41	Screw Conveyor SC-BH-US1 to 150T Silo SIBHUS		
SV-015	CCH-SILO-P1	400T Silo SIBHP1 to Screw Conveyor SC-BH-P1		
SV-015	CCH-SILO-P2	400T Silo SIBHP2 to Screw Conveyor SC-BH-P2		
SV-015	CCH-PDTSILO3	150T Silo SIBHUS to Screw Conveyor SC-BH-US2		
SV-015	CCH-SILO-P3	400T Silo SIBHP3 to Screw Conveyor SC-BH-P3		
SV-015	CCH-SILO-P4	400T Silo SIBHP4 to Screw Conveyor SC-BH-P4		
SV-015	CCH-SILO-P5	400T Silo SIBHP5 to Screw Conveyor SC-BH-P5		
SV-015	CCH-XFER42	Screw Conveyor SC-BH-P1 to Conveyor CB-BH1		

SV-015	CCH-XFER43	Screw Conveyor SC-BH-P2 to Conveyor CB-BH1		
SV-015	CCH-XFER44	Screw Conveyor SC-BH-P3 to Conveyor CB-BH1		
SV-015	CCH-XFER45	Screw Conveyor SC-BH-P4 to Conveyor CB-BH1		
SV-015	CCH-XFER46	Screw Conveyor SC-BH-P5 to Conveyor CB-BH1		
SV-015	CCH-XFER47	Screw Conveyor SC-BH-US2 to Conveyor CB-BH-1 or Conveyor CB-SC1B		
SV-015	CCH-TR56LOEA	Conveyor CB-BH1 to Conveyor CB-SC1B or Loadout Bucket Elevator BE-BH4		
SV-015	CCH-TR56LOEB	Loadout Bucket Elevator BE-BH4 to Transfer Conveyor CB-BH2		
SV-015	CCH-XFER48	Dust Collector DCL-BH1 to Existing Plant Bucket Elevator		
SV-015	CCH-CRUSH2	Crusher CRS-BH Crusher Operation		
SV-015	CCH-SCR-BH	Screeener SCR-BH		

Point ID	Unit ID	Description	PM <sub>10</sub>	
			lb/hr	TPY
SV-016	CCH-TR56LOEC	Transfer Conveyor CB-BH2 to Transfer Conveyor CB-BH3	0.001	0.0022
SV-016	CCH-XFER50	Dust Collector DCL-BH3 to Loadout Shuttle Conveyor CB-BH4		
SV-017	CCH-TR56LOED	Transfer Conveyor CB-BH3 to Loadout Shuttle Conveyor CB-BH4	0.013	0.057
SV-017	CCH-TR56LOEE	Loadout Shuttle Conveyor CB-BH4 to Railcar or Truck		
SV-017	CCH-XFER49	Dust Collector DCL-BH2 to Transfer Conveyor CB-BH3		
SV-017	CCH-SS8	Super Sack Loading from DCL-BH3		

- a. Discharges to the atmosphere from the above units shall be processed by filters which are at least 98% efficient for PM emissions control. The filters shall be maintained per manufacturer specifications. [OAC 252:100-8-6(a)]
  - b. The Screening Operation shall be authorized to process 613,200 TPY petroleum coke, 12-month rolling total. Monthly records of production rates shall be kept. [OAC 252:100-43]
2. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]



3. All fuel-burning equipment shall be fired with commercial-grade pipeline grade natural gas as defined in 40 CFR Part 72 or propane (combustion of coke/carbon in kilns and settling chambers is not counted as fuel for these units). Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once each calendar year. [OAC 252:100-31]

4. When required monitoring shows emissions in excess of the established emission limits, the owner or operator shall comply with the provisions for excess emissions. [OAC 252:100-9]

5. 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. For the 1,000-gallon gasoline storage tank, and any fuel storage/dispensing equipment operated solely for facility owned vehicles which might be added in the future: records of the amount of gasoline purchased (monthly).
- b. For the 9,000-gallon diesel storage tank, and any VOC 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, vapor pressure of material stored 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). Trivial activities, and those insignificant activities which have been specifically identified as not requiring recordkeeping, are not subject to this requirement.

6. The permittee shall maintain records of operations as listed below. Records may be maintained electronically. These records shall be maintained on-site 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. Raw petroleum coke feed rates and calcined coke production rates for each kiln, tons per day (daily).
- b. Hours of operation (daily).
- c. Temperature of settling/combustion chamber of each kiln during operation (every 3 hours).
- d. Sulfur content of the raw and processed petroleum coke product(s) (monthly).
- e. Ash content of the raw petroleum coke being processed (monthly).
- f. Records of the date and time of visual emission observations, stack or emission point observed, operational status of the emission unit, observed results and conclusions, and Reference Method No. 9 results, if required.
- g. Calculations of average hourly SO<sub>2</sub> and PM emissions from kilns (monthly).
- h. For the fuel(s) burned (natural gas, propane, and diesel fuel but excluding coke/carbon), the appropriate document(s) as described in Specific Condition 3.
- i. Records as required by NESHAP Subpart ZZZZ.
- j. Throughput of the Screening Operation (EUG-10) (monthly).
- k. Records as required by NSPS Subpart JJJJ.

7. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit (April 15, 2004), the permittee shall submit to 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. Data ranges for the reports may become April 1<sup>st</sup> through September 30<sup>th</sup> and October 1<sup>st</sup> through March 31<sup>st</sup>. [OAC 252:100-8-6 (c)(5)(A) & (D)]

8. At least once during the term of the operating permit, the permittee shall conduct performance testing of PM and SO<sub>2</sub> emissions from each kiln and submit a written report of results. [OAC 252:100-43]

- a. Performance testing by the permittee shall use the following test methods specified in 40 CFR 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, 201 or 201A: Determination of PM Emissions from Stationary Sources
- Method 202: Condensable Particulate Matter
- Method 6C: SO<sub>2</sub> 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 kiln is operating within 10% of the stated capacity.

9. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility, or the listed emissions unit groups: [OAC 252:100-8-6(d)(2)]

- a. EUG 1
  - (1) OAC 252:100-8, Part 7      Non-attainment area
  - (2) OAC 252:100-17          Incinerators
  - (3) OAC 252:100-23          Cotton Gins
  - (4) OAC 252:100-24          Feed, Grain, Seed Operations
  - (5) OAC 252:100-31, Part 3   Existing Equipment Standards
  - (6) OAC 252:100-33          Oxides of Nitrogen
  - (7) OAC 252:100-35          Carbon Monoxide
  - (8) OAC 252:100-39          VOC in Non-attainment Area
  - (9) 40 CFR 60                  NSPS
  - (10) 40 CFR 61                 NESHAP
  - (11) 40 CFR 63                 NESHAP
  - (12) 40 CFR 70.6               CAA Section 114(a)(3) compliance
  - (13) 40 CFR 72                 Acid Rain

- b. EUG 2
  - (1) OAC 252:100-31-26 Petroleum and Natural Gas Processes
  - (2) OAC 252:100-31-27 Pulp Mills
  
- c. EUG 3
  - (1) OAC 252:100-31, Part 5 New Equipment Standards
  
- d. EUG 4
  - (1) OAC 252:100-31, Part 5 New Equipment Standards
  
- e. EUG 5
  - (1) OAC 252:100-31, Part 5 New Equipment Standards
  
- f. EUG 6
  - (1) OAC 252:100-31, Part 5 New Equipment Standards
  
- g. EUG 7
  - (1) OAC 252:100-31-26 Petroleum and Natural Gas Processes
  - (2) OAC 252:100-31-27 Pulp Mills

10. Compliance Assurance Monitoring requirements and specifications: [OAC 252:100-43]

Indicator	Settling/Combustion Chambers
Measurement Approach	Temperature shall be monitored using an optical pyrometer, kiln camera, thermocouple or equivalent
Indicator Range	An excursion is defined as a 3-hour average temperature below 1,500°F. Excursions trigger an inspection, corrective actions, and a reporting requirement.
Data Representativeness Performance Criteria	The thermocouple monitors the settling/combustion chamber operating temperature downstream of the combustion zone
QA/QC Practices and Criteria	Accuracy $\pm$ 3%; annual calibration or replacement of temperature monitors
Monitoring Frequency	temperature is monitored at least once every 15 minutes
Data Collection Procedure	Data are recorded by computer and 1-hour averages are displayed
Averaging Period	3-hour

11. This facility is considered an existing Prevention of Significant Deterioration (PSD) facility. As such, the facility is subject to the provisions of OAC 252:100-8-36.2(c) for any project as defined therein. [OAC 252:100-8-36.2(c)]

12.. This permit supersedes and replaces all previous Air Quality operating permits for this facility.



**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<sub>10</sub>). 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]





# PART 70 PERMIT

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

Permit Number: 2019-0973-TVR3

Oxbow Calcining LLC,

having complied with the requirements of the law, is hereby granted permission to operate a petroleum coke calcining plant at Kremlin, Garfield County subject to standard conditions dated June 21, 2016, and specific conditions, both attached

This permit shall expire five (5) years from the issuance date, except as authorized under Section VIII of the Standard Conditions.

\_\_\_\_\_  
Division Director  
Air Quality Division

\_\_\_\_\_  
Issuance Date





SCOTT A. THOMPSON  
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT  
Governor

Oxbow Calcining LLC  
Attn: Ms. Whitney Hall  
11826 N. 30<sup>th</sup> Street  
Kremlin, OK 73753

SUBJECT: Operating Permit No. 2019-0973-TVR3  
Petroleum Coke Calcining Plant (FAC ID 801)  
Kremlin, Garfield County, Oklahoma

Dear Ms. Hall:

Enclosed is the permit authorizing 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 through DEQ's electronic reporting system by April 1<sup>st</sup> of every year. Any questions concerning the submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact the permit writer at [david.schutz@deq.ok.gov](mailto:david.schutz@deq.ok.gov), or at (405) 702-4198.

Sincerely,

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

Enclosures





**Department of Environmental Quality (DEQ)**  
**Air Quality Division (AQD)**  
**Acronym List**  
**7-1-20**

<b>ACFM</b>	Actual Cubic Feet per Minute	<b>HP</b>	Horsepower (hp)
<b>AD</b>	Applicability Determination	<b>HR</b>	Hour (hr)
<b>AFRC</b>	Air-to-Fuel Ratio Controller	<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
<b>API</b>	American Petroleum Institute		
<b>ASTM</b>	American Society for Testing and Materials	<b>I&amp;M</b>	Inspection and Maintenance
		<b>IBR</b>	Incorporation by Reference
		<b>IC</b>	Internal Combustion
<b>BACT</b>	Best Available Control Technology		
<b>BHP</b>	Brake Horsepower (bhp)	<b>LAER</b>	Lowest Achievable Emission Rate
<b>BTU</b>	British thermal unit (Btu)	<b>LB</b>	Pound(s) [Mass] (lb, lbs, lbm)
		<b>LB/HR</b>	Pound(s) per Hour (lb/hr)
<b>C&amp;E</b>	Compliance and Enforcement	<b>LDAR</b>	Leak Detection and Repair
<b>CAA</b>	Clean Air Act	<b>LNG</b>	Liquefied Natural Gas
<b>CAM</b>	Compliance Assurance Monitoring	<b>LT</b>	Long Ton(s) (metric)
<b>CAS</b>	Chemical Abstract Service		
<b>CAAA</b>	Clean Air Act Amendments	<b>M</b>	Thousand (Roman Numeral)
<b>CC</b>	Catalytic Converter	<b>MAAC</b>	Maximum Acceptable Ambient Concentration
<b>CD</b>	Consent Decree	<b>MACT</b>	Maximum Achievable Control Technology
<b>CEM</b>	Continuous Emission Monitor		
<b>CFC</b>	Chlorofluorocarbon	<b>MM</b>	Prefix used for Million (Thousand-Thousand)
<b>CFR</b>	Code of Federal Regulations	<b>MMBTU</b>	Million British Thermal Units (MMBtu)
<b>CI</b>	Compression Ignition	<b>MMBTUH</b>	Million British Thermal Units per Hour (MMBtu/hr)
<b>CNG</b>	Compressed Natural Gas		
<b>CO</b>	Carbon Monoxide or Consent Order	<b>MMSCF</b>	Million Standard Cubic Feet (MMscf)
<b>COM</b>	Continuous Opacity Monitor	<b>MMSCFD</b>	Million Standard Cubic Feet per Day
		<b>MSDS</b>	Material Safety Data Sheet
<b>D</b>	Day	<b>MWC</b>	Municipal Waste Combustor
<b>DEF</b>	Diesel Exhaust Fluid	<b>MWe</b>	Megawatt Electrical
<b>DSCF</b>	Dry Standard (At Standard Conditions) Cubic Foot (Feet)		
		<b>NA</b>	Nonattainment
<b>EGU</b>	Electric Generating Unit	<b>NAAQS</b>	National Ambient Air Quality Standards
<b>EI</b>	Emissions Inventory	<b>NAICS</b>	North American Industry Classification System
<b>EPA</b>	Environmental Protection Agency	<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>ESP</b>	Electrostatic Precipitator		
<b>EUG</b>	Emissions Unit Group	<b>NH<sub>3</sub></b>	Ammonia
<b>EUSGU</b>	Electric Utility Steam Generating Unit	<b>NMHC</b>	Non-methane Hydrocarbon
		<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>FCE</b>	Full Compliance Evaluation	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>FIP</b>	Federal Implementation Plan	<b>NOI</b>	Notice of Intent
<b>FR</b>	Federal Register	<b>NSCR</b>	Non-Selective Catalytic Reduction
		<b>NSPS</b>	New Source Performance Standards
<b>GACT</b>	Generally Achievable Control Technology	<b>NSR</b>	New Source Review
<b>GAL</b>	Gallon (gal)		
<b>GDF</b>	Gasoline Dispensing Facility	<b>O<sub>3</sub></b>	Ozone
<b>GEP</b>	Good Engineering Practice	<b>O&amp;G</b>	Oil and Gas
<b>GHG</b>	Greenhouse Gases	<b>O&amp;M</b>	Operation and Maintenance
<b>GR</b>	Grain(s) (gr)	<b>O&amp;NG</b>	Oil and Natural Gas
		<b>OAC</b>	Oklahoma Administrative Code
<b>HAP</b>	Hazardous Air Pollutants	<b>OC</b>	Oxidation Catalyst
<b>HC</b>	Hydrocarbon		
<b>HCFC</b>	Hydrochlorofluorocarbon		
<b>HON</b>	Hazardous Organic NESHAP	<b>PAH</b>	Polycyclic Aromatic Hydrocarbons

<b>PAL</b>	Plant-wide Applicability Limit	<b>VRU</b>	Vapor Recovery Unit
<b>Pb</b>	Lead		
<b>PBR</b>	Permit by Rule	<b>YR</b>	Year
<b>PCB</b>	Polychlorinated Biphenyls		
<b>PCE</b>	Partial Compliance Evaluation	<b>µg/m<sup>3</sup></b>	Micrograms Per Cubic Meter
<b>PEA</b>	Portable Emissions Analyzer	<b>2SLB</b>	2-Stroke Lean Burn
<b>PFAS</b>	Per-and Polyfluoroalkyl Substance	<b>4SLB</b>	4-Stroke Lean Burn
<b>PM</b>	Particulate Matter	<b>4SRB</b>	4-Stroke Rich Burn
<b>PM<sub>2.5</sub></b>	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers		
<b>PM<sub>10</sub></b>	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers		
<b>POM</b>	Particulate Organic Matter Or Polycyclic Organic Matter		
<b>ppb</b>	Parts per Billion		
<b>ppm</b>	Parts per Million		
<b>ppmv</b>	Parts per Million Volume		
<b>ppmvd</b>	Parts per Million Dry Volume		
<b>PSD</b>	Prevention of Significant Deterioration		
<b>psi</b>	Pounds per Square Inch		
<b>psia</b>	Pounds per Square Inch Absolute		
<b>psig</b>	Pounds per Square Inch Gage		
<b>RACT</b>	Reasonably Available Control Technology		
<b>RATA</b>	Relative Accuracy Test Audit		
<b>RICE</b>	Reciprocating Internal Combustion Engine		
<b>RO</b>	Responsible Official		
<b>ROAT</b>	Regional Office at Tulsa		
<b>RVP</b>	Reid Vapor Pressure		
<b>SCC</b>	Source Classification Code		
<b>SCF</b>	Standard Cubic Foot		
<b>SCFD</b>	Standard Cubic Feet per Day		
<b>SCFM</b>	Standard Cubic Feet per Minute		
<b>SCR</b>	Selective Catalytic Reduction		
<b>SER</b>	Significant Emission Rate		
<b>SI</b>	Spark Ignition		
<b>SIC</b>	Standard Industrial Classification		
<b>SIP</b>	State Implementation Plan		
<b>SNCR</b>	Selective Non-Catalytic Reduction		
<b>SO<sub>2</sub></b>	Sulfur Dioxide		
<b>SO<sub>x</sub></b>	Sulfur Oxides		
<b>SOP</b>	Standard Operating Procedure		
<b>T</b>	Tons		
<b>TAC</b>	Toxic Air Contaminant		
<b>THC</b>	Total Hydrocarbons		
<b>TPY</b>	Tons Per Year		
<b>TRS</b>	Total Reduced Sulfur		
<b>TSP</b>	Total Suspended Particulates		
<b>TV</b>	Title V of the Federal Clean Air Act		
<b>US EPA</b>	U. S. Environmental Protection Agency		
<b>VMT</b>	Vehicle Miles Traveled		
<b>VOC</b>	Volatile Organic Compound		