

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

DRAFT

MEMORANDUM

July 14, 2016

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

THROUGH: Rick Groshong, Environmental Manager, Compliance and Enforcement

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

THROUGH: Peer Review

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

SUBJECT: Evaluation of Permit Application No. **2016-0604-TVR2**
Dal Italia LLC
Porcelain Floor Tile Plant (FAC ID 5305)
Section 10 – T14N – R18E
Muskogee, Muskogee County, Oklahoma
Latitude 35.42304°N, Longitude 95.23107°W

SECTION I. INTRODUCTION

Dal Italia has requested renewal of the Title V operating permit for a ceramic tile plant (SIC Code 3253). The facility is currently operating under Permit No. 2010-157-TVR (M-1) issued October 10, 2013.

The operator has requested that derivation of uncontrolled emission rate factors from the kilns be kept confidential.

The application has requested no changes from the current operating permit:

Since the facility emits more than 100 TPY of a regulated pollutant, it is subject to Title V permitting requirements. Emission units (EUs) have been arranged into Emission Unit Groups (EUGs) in the following outline. Pipeline-grade natural gas is the primary fuel with the kilns and dryers being operated continuously.

SECTION II. PROCESS DESCRIPTION

Raw Materials Receiving

The facility processes raw materials such as water, clay, sand, feldspar, nepheline, glazing compounds, etc., into porcelain ceramic floor tile. These raw materials are brought to the facility by truck or by rail. Each raw material is unloaded or transferred to one of the concrete storage bins. Emissions from the conveyor transfer points are routed through a baghouse. Unloading and storage operations take place inside the building. The raw materials typically contain enough natural moisture to help minimize PM emissions at the storage bins.

Batching and Mixing

Front-end loaders take the raw materials from the storage bins to hoppers from which they are conveyed to storage/batching silos. If required, the raw materials will be routed through screens, shredders and/or crushers on their way to the storage/batching silos. PM generated at conveyor transfer points and during silo loading are routed to a baghouse. From the storage/batching silos the materials are weighed and conveyed to the surge hoppers for four continuous ball mills. PM generated at the transfer points are routed to another baghouse. In addition the batching and mixing area are vacuum-cleaned each shift as needed and exhausted to still another baghouse. The fine particulates captured by the various PM collectors are conveyed to a fines storage silo that has a fabric filter on the bin vent. All of these operations are conducted inside the building.

Ball Milling and Slip (Slurry) Production

Continuous ball mills prepare the slip by mixing the raw materials with water and deflocculant. The ball mill product, slip/slurry, is pumped together with the slip from the green scrap (recycling) process through screens into underground slip tanks. Agitators keep the solids suspended in the slip. No emissions result from milling operations.

Spray Drying and Body Powder Storage

The slip from the slip storage tanks is pumped under high pressure into two vertical spray dryers where it will be atomized through spray nozzles. The nozzles spray the slip upwards while hot air, from a natural gas-fired heater, flows downward from the top of the spray dryer chamber. The moisture in the slip is reduced in the spray dryer from over 30% to less than 10%, and the body powder granules are formed. The granules continuously exit the bottom of the spray dryer chamber and are conveyed to the body storage silos.

Color body powder from the spray dryer storage silos is transferred by conveyor to the CMF queuing silos. Some of the powder is conveyed to a roller compactor to make color body flakes. Various colors of the body powder are conveyed from the silos and are mixed, with or without flakes, in two drum mixers. The CMF baghouse controls emissions from the transfer points.

Pressing

Conveyor belts and a bucket elevator transfer the granules from the body storage silos to an enclosed screen and then to batch hoppers located above each tile press. Any overrun material from the screen is collected and transferred to the “Green” scrap storage bin for recycling back into the slip process. PM generated at the transfer points of the bucket elevator, screen, conveyors, and loading of the press hoppers is collected and routed to a baghouse. The tile presses are cooled by an air-cooling system. PM generated at the presses and subsequent fettling tables are captured and routed to the same baghouse. The area around the prepared body storage and the area around the tile pressing operations are vacuum cleaned each shift as needed and the PM collected by a baghouse. There is a total of 13 tile presses.

Tile Drying

Next, the tiles pass through vertical tile dryers. The hot air in the dryers is recycled and only part of this air is emitted to the atmosphere. Emissions are particulates and products of combustion of natural gas plus some moisture.

Glaze Application

The tiles may pass through brush-type cabins, water spray type cabins, and/or one or more types of glaze application cabins.

Kiln Firing

The dried and glazed tiles are fed into storage cars and transferred into fast fire roller-hearth kilns. There the temperature is increased slowly to over 2,000°F and then decreased slowly to less than 150°F. The fired tiles are then sent on to the final steps of the process. Discharges from the Tile Kilns are processed by wet scrubbers for control of PM and acid gases.

Inspection, Sorting, Packaging and Shipping

The storage cars with fired tiles go to the sorting/inspection lines. Defective and/or off-specification tiles will be separated and sent off-site for disposal or recycling. The finished, inspected tiles are packed into cartons, stacked on pallets and moved to the warehouse for shipping.

Glaze Preparation

The glaze materials and stains arrive at the facility by truck in sealed bulk bags.

Emergency Generators

In addition to the above operations, five back-up diesel engines were installed in case of loss of electric power to the new kilns. Each engine is permitted at 77-hp, although one may be replaced with a 66-hp engine. Each emergency engine will be used a maximum of 500 hours per year.

Alternate Operating Scenarios

The facility has established an alternate operating scenario for start-up and shutdown events and when a scrubber becomes inoperative. The alternate scenario allows for re-routing of kiln discharges to whatever wet scrubber continues to operate.

SECTION III. EQUIPMENT

EUG 1: Raw Material Area

Point	Equipment	Maximum Throughput TPH	Installed Date
EPN-1	Railcar unloading operation	34	2003
EPN-4	Body powder conveying & loading	33	2003
EPN-6	Feeding & pressing	63	2003
EPN-16	Cleaning & glazing	63	2003
EPN-17	Glaze mixing & blending	2	2003
EPN-18	Raw material vacuum cleaning	--	2003
EPN-19	Body prep vacuum cleaning	--	2003
EPN-34	Body prep vacuum cleaning	--	2006
EPN 37	Raw material vacuum cleaning	--	2006
EPN-35	Body powder conveying & loading	33	2006
EPN-40	Feeding & pressing	28	2006
EPN-41	Cleaning & glazing	28	2006
EPN-44	CMF (colorbody preparation)	15	2008

EUG 2: Equipment Subject to NSPS Subpart OOO

Point	Equipment	Maximum Throughput TPH	Installed Date
EPN-2	Crushing & sizing	34	2003
EPN-3	Batching & mixing	34	2003
EPN-38	Crushing & sizing	34	2006
EPN-39	Batching & mixing	30	2006

EUG 3: Spray Dryers

Point	Equipment	Maximum Throughput TPH	MMBTUH	Installed Date
EPN-5	Spray dryer	33.3	49.1	2003
EPN-36	Body powder spray dryer	33.3	49.1	2006

EUG 4: Tile Dryers

Point	Equipment	Maximum Throughput TPH	MMBTUH	Installed Date
EPN-7	Tile dryer	7	6.42	2003
EPN-8	Tile dryer	7	6.42	2003
EPN-9	Tile dryer	7	6.42	2003
EPN-10	Tile dryer	7	6.42	2003
EPN-11	Tile dryer	7	6.42	2003
EPN-12	Tile dryer	7	6.42	2003
EPN-13	Trim dryer	3.5	3.42	2003
EPN-14	Trim dryer	3.5	3.42	2003
EPN-15	Trim dryer	3.5	3.42	2003
EPN-30	Tile dryer	7	6.42	2006
EPN-31	Tile dryer	7	6.42	2006
EPN-32	Tile dryer	7	6.42	2006
EPN-33	Tile dryer	7	6.42	2006

EUG 5: Tile Kilns

Point	Equipment	Maximum Throughput TPH	MMBTUH	Installed Date
EPN-20	Tile kiln No. 1	9.0	30.36	2003
EPN-29	Tile kiln No. 2	9.0	30.36	2003
EPN-29	Tile kiln No. 3	9.0	30.36	2006
EPN-29	Tile kiln No. 4	9.0	30.36	2006
EPN-21	Trim kiln No. 5	3.5	10.62	2003
EPN-51	Trim kiln No. 6	3.0	9.10	2012

EUG 6: Emergency Engines

Point	Equipment	Capacity HP	MMBTUH	Installed Date
EPN-24	77-hp emergency diesel engine	77	0.53	2003
EPN-25	77-hp emergency diesel engine	77	0.62	2003
EPN-26	77-hp emergency diesel engine	77	0.62	2003
EPN-42	77-hp emergency diesel engine	77	0.62	2005
EPN-43	77-hp emergency diesel engine	77	0.62	2005

SECTION IV. EMISSIONS

Emissions were calculated using the factors shown following, which were taken from the references as shown:

Stack ID	Processes	Emission Factors	Factor Reference		
1	rail unloading/ raw material receiving	PM: 0.010 gr/DSCF	BACT (baghouse manufacturer guarantee plus safety factor)		
2	raw materials sizing & crushing	PM: 0.011 gr/DSCF	BACT (baghouse manufacturer guarantee plus safety factor)		
3	raw materials batching & mixing	PM: 0.011 gr/DSCF	BACT (baghouse manufacturer guarantee plus safety factor)		
4	body powder conveying & loading	PM: 0.010 gr/DSCF	BACT (baghouse manufacturer guarantee plus safety factor)		
5	body powder spray dryer	SO ₂ : confidential	facility stack tests + 50% safety factor		
		NO _x : confidential	other Dal-Tile facility stack tests + 20% safety factor		
		CO: confidential	facility stack tests + 20% safety factor		
		VOC: confidential	facility stack tests + 20% safety factor		
		PM: confidential	facility stack tests + 10% safety factor		
		HF: confidential	facility stack tests + 20% safety factor		
		HCl: confidential	facility stack tests + 100% safety factor		
6	Feeding, pressing	Cl ₂ : confidential	facility stack tests + 100% safety factor		
		PM: 0.010 gr/DSCF	baghouse guarantee		
		7 8 9 10 11 12	flat tile drying	SO ₂ : confidential	facility stack tests + safety factor
				NO _x : confidential	other Dal-Tile facility stack tests + safety factor
				CO: confidential	facility stack tests + safety factor
				VOC: confidential	facility stack tests
				PM: confidential	facility stack tests
				HF: confidential	facility stack tests + safety factor
HCl: confidential	facility stack tests + safety factor				
Cl ₂ : confidential	facility stack tests + safety factor				
13 14 15	trim tile drying	SO ₂ : confidential	facility stack tests + safety factor		
		NO _x : confidential	other Dal-Tile facility stack tests + safety factor		
		CO: confidential	facility stack tests + safety factor		
		VOC: confidential	facility stack tests		
		PM: confidential	facility stack tests		
		HF: confidential	facility stack tests + safety factor		
		HCl: confidential	facility stack tests + safety factor		
Cl ₂ : confidential	facility stack tests + safety factor				
16	body prep: cleaning & glazing	PM: 0.010 gr/DSCF	baghouse guarantee		
17	glaze prep: mixing & blending	PM: 0.010 gr/DSCF	baghouse guarantee		

Stack ID	Processes	Emission Factors	Factor Reference
18	raw materials vacuum cleaning	PM: 0.010 gr/DSCF	baghouse guarantee
19	body prep vacuum cleaning	PM: 0.010 gr/DSCF	baghouse guarantee
21	Tile Kiln No. 1	SO ₂ : confidential	facility stack tests + safety margin, 70% control
		NO _x : confidential	facility stack tests + safety margin
		CO: confidential	facility stack tests + safety margin
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests + safety margin
		HF: confidential	facility stack tests + safety margin, 90% control
		HCl: confidential	facility stack tests + safety margin, 90% control
22	Tile Kiln No. 2	SO ₂ : confidential	facility stack tests + safety margin, 70% control
		NO _x : confidential	facility stack tests + safety margin
		CO: confidential	facility stack tests + safety margin
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests + safety margin
		HF: confidential	facility stack tests + safety margin, 90% control
		HCl: confidential	facility stack tests + safety margin, 90% control
23	Trim Kiln	SO ₂ : confidential	facility stack tests + safety margin
		NO _x : confidential	facility stack tests + safety margin
		CO: confidential	facility stack tests
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests + safety margin
		HF: confidential	facility stack tests + safety margin
		HCl: confidential	facility stack tests + safety margin
		Cl ₂ : confidential	facility stack tests + safety margin
24 25 26	Emergency Engine No. 1, 2, 3	SO ₂ : 0.0025 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		NO _x : 0.031 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		CO: 0.00668 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		VOC: 0.00251 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		PM ₁₀ : 0.0022 lb/hp-hr	AP-42 (10/96), Sec. 3.3

Stack ID	Processes	Emission Factors	Factor Reference
27	Tile Kiln No. 3	SO ₂ : confidential	facility stack tests + safety margin, 70% control
		NO _x : confidential	facility stack tests + safety margin
		CO: confidential	facility stack tests + safety margin
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests + safety margin
		HF: confidential	facility stack tests + safety margin, 90% control
		HCl: confidential	facility stack tests + safety margin, 90% control
		Cl ₂ : confidential	facility stack tests + safety margin, 30% control
28	Tile Kiln No. 4	SO ₂ : confidential	facility stack tests + safety margin, 70% control
		NO _x : confidential	facility stack tests + safety margin
		CO: confidential	facility stack tests + safety margin
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests + safety margin
		HF: confidential	facility stack tests + safety margin, 90% control
		HCl: confidential	facility stack tests + safety margin, 90% control
		Cl ₂ : confidential	facility stack tests + safety margin, 30% control
30 31 32 33	flat tile drying	SO ₂ : confidential	facility stack tests + safety factor
		NO _x : confidential	other Dal-Tile facility stack tests + 100% safety factor
		CO: confidential	facility stack tests + safety factor
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests
		HF: confidential	facility stack tests + safety factor
		HCl: confidential	facility stack tests + safety factor
		Cl ₂ : confidential	facility stack tests + safety factor
34	body prep vacuum cleaning	PM: 0.010 gr/DSCF	baghouse guarantee
35	body powder conveying & loading	PM: 0.010 gr/DSCF	baghouse guarantee

Stack ID	Processes	Emission Factors	Factor Reference
36	body powder spray dryer	SO ₂ : confidential	facility stack tests + 50% safety factor
		NO _x : confidential	other Dal-Tile facility stack tests + 20% safety factor
		CO: confidential	facility stack tests + 20% safety factor
		VOC: confidential	facility stack tests + 20% safety factor
		PM: confidential	facility stack tests + 10% safety factor
		HF: confidential	facility stack tests + 20% safety factor
		HCl: confidential	facility stack tests + 100% safety factor
		Cl ₂ : confidential	facility stack tests + 100% safety factor
37	raw material vacuum cleaning	PM: 0.010 gr/DSCF	baghouse guarantee
38	raw materials sizing & crushing	PM: 0.011 gr/DSCF	baghouse guarantee
39	raw materials batching & mixing	PM: 0.011 gr/DSCF	baghouse guarantee
40	feeding, pressing	PM: 0.010 gr/DSCF	baghouse guarantee
41	cleaning & glazing	PM: 0.010 gr/DSCF	baghouse guarantee
42	Emergency Engine No. 4	SO ₂ : 0.0025 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		NO _x : 0.031 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		CO: 0.00668 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		VOC: 0.00251 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		PM ₁₀ : 0.0022 lb/hp-hr	AP-42 (10/96), Sec. 3.3
43	Emergency Engine No. 5	SO ₂ : 0.0025 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		NO _x : 0.031 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		CO: 0.00668 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		VOC: 0.00251 lb/hp-hr	AP-42 (10/96), Sec. 3.3
		PM ₁₀ : 0.0022 lb/hp-hr	AP-42 (10/96), Sec. 3.3
44	CMF (colorbody prep)	PM: 0.010 gr/DSCF	baghouse guarantee
51	Trim kiln No. 6	SO ₂ : confidential	facility stack tests + safety factor
		NO _x : confidential	other Dal-Tile facility stack tests + 100% safety factor
		CO: confidential	facility stack tests + safety factor
		VOC: confidential	facility stack tests
		PM: confidential	facility stack tests
		HF: confidential	facility stack tests + safety factor
		HCl: confidential	facility stack tests + safety factor
		Cl ₂ : confidential	facility stack tests + safety factor

Total Emissions By Point

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	Raw material receiving	--	--	--	--	--	--	--	--	0.33	1.46
2	Sizing & crushing	--	--	--	--	--	--	--	--	1.44	6.3
3	Batching & mixing	--	--	--	--	--	--	--	--	1.16	5.06
4	Conveying & loading	--	--	--	--	--	--	--	--	0.72	3.17
5	Spray dryer	0.45	1.96	3.88	16.99	13.77	60.30	9.67	42.36	7.98	34.94
6	Feeding, pressing	--	--	--	--	--	--	--	--	3.97	13.40
7	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
8	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
9	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
10	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
11	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
12	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
13	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
14	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
15	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
16	Cleaning & glazing	--	--	--	--	--	--	--	--	4.20	14.20
17	Mixing & blending	--	--	--	--	--	--	--	--	0.33	1.43
18	Vacuum cleaning	--	--	--	--	--	--	--	--	0.05	0.20
19	Vacuum cleaning	--	--	--	--	--	--	--	--	0.07	0.31
20	Tile Kiln 1 & Trim Kiln 5 Wet Scrubber	6.25	27.38	5.86	25.66	16.55	72.48	4.34	19.00	5.16	22.59
21	Tile Kiln 1 & 2	29.87	1.94	--	--	--	--	--	--	--	--
22	Bypass Stacks										
23	Trim Kiln 5	--	--	--	--	--	--	--	--	--	--
24	Emerg. Engine 1	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
25	Emerg. Engine 2	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
26	Emerg. Engine 3	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
29	Tile Kiln 2, 3 & 4 Wet Scrubber	13.50	59.13	11.59	50.76	29.40	128.8	8.60	37.69	10.06	44.08
27	Tile Kiln 3 & 4	29.87	1.94	--	--	--	--	--	--	--	--
28	Bypass Stack										
30	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
31	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
32	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
33	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
34	Body prep vacuum	--	--	--	--	--	--	--	--	0.07	0.31
35	Body powder conveying/loading	--	--	--	--	--	--	--	--	0.72	3.17
36	Spray dryer	0.45	1.96	3.88	16.99	13.77	60.30	9.67	42.36	7.98	34.94
37	Vacuum cleaning	--	--	--	--	--	--	--	--	0.05	0.20
38	Sizing & crushing	--	--	--	--	--	--	--	--	1.13	4.96
39	Batching & mixing	--	--	--	--	--	--	--	--	1.60	7.02
40	Feeding & pressing	--	--	--	--	--	--	--	--	2.49	8.40
41	Cleaning & glazing	--	--	--	--	--	--	--	--	1.84	6.45
42	Emerg. Engine 4	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
43	Emerg. Engine 5	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
44	CMF baghouse	--	--	--	--	--	--	--	--	1.11	4.90
50	Tile Kiln 6 Bypass	--	--	--	--	--	--	--	--	--	--
51	Tile Kiln 6 Wet Scrubber	1.50	6.57	1.71	7.49	5.78	25.33	1.26	5.52	1.55	6.77
TOTAL EMISSIONS		83.10	101.91	43.94	143.12	98.33	420.27	84.28	365.32	59.8	245.94

Greenhouse gas emissions have been stated as a potential of 141,529 metric tons per year CO₂e.

Hazardous Air Pollutant Emissions

HAP	lb/hr	TPY
Chlorine	1.10	4.61
Hydrogen Chloride	3.00	9.94
Hydrogen Fluoride	2.92	9.94

There is a total of 317 MMBTUH fuel-burning equipment. With a formaldehyde emission factor from AP-42 (7/98) of 0.075 lb/MMSCF, formaldehyde emissions will be approximately 0.10 TPY. With 24.49 TPY of other HAPs, formaldehyde emissions will not push facility emissions above major source levels. The facility is an “area” source of HAPs.

Significant Discharge Points

Stack ID	Processes	Height feet	Diameter Inches	Temp. °F	Flow ACFM
1	rail unloading/ raw material receiving	30	12	72	4,202
2	raw materials sizing & crushing	65	29	72	16,480
3	raw materials batching & mixing	65	27	72	13,243
4	body powder conveying & loading	44	22*	72	9,123*
5	body powder spray dryer	108	71	184	76,421
6	feeding, pressing	109	53	72	53,985
7	flat tile drying	54	15	264	4,669
8	flat tile drying	53	15	264	4,669
9	flat tile drying	52	15	264	4,669
10	flat tile drying	51	15	264	4,669
11	flat tile drying	50	15	264	4,669
12	flat tile drying	50	15	264	4,669
13	trim tile drying	48	15	264	4,669
14	trim tile drying	47	15	264	4,669
15	trim tile drying	46	15	264	4,669
16	body prep: cleaning & glazing	110	53	72	52,972
17	glaze prep: mixing & blending	40	15	72	4,120
18	raw materials vacuum cleaning	65	7	72	589
19	body prep vacuum cleaning	44	7*	72	883*
20	wet scrubber (Kilns 1 & 2)	46	60	145	39,600
21	Tile Kiln No. 1 Bypass	49	40	559	27,700
22	Tile Kiln No. 2 Bypass	50	40	556	27,700
23	Trim Kiln	36	24	477	11,363
27	Tile Kiln No. 3 Bypass	49	40	559	27,700
28	Tile Kiln No. 4 Bypass	50	40	556	27,700
29	wet scrubber (Kilns 3 & 4)	51	64	144	37,264
30	flat tile drying	54	15	260	4,954
31	flat tile drying	54	15	260	4,954
32	flat tile drying	52	15	260	4,954
33	flat tile drying	51	15	260	4,954
34	body prep vacuum cleaning	44	**	70	883
35	body powder conveying & loading	76	18	70	6,098
36	body powder spray drier	122	71	184	78,063
37	raw material vacuum cleaning	35	***	70	589
38	raw material sizing & crushing	74	28	70	14,291
39	raw material batching & mixing	74	24	70	8,892

Significant Discharge Points - Continued

Stack ID	Processes	Height feet	Diameter Inches	Temp. °F	Flow ACFM
40	pressing & drying	76	39	70	29,239
41	cleaning & glazing	121	33	70	21,617
44	CMF Colorbody prep)	32	24	70	12,950
51	Trim Kiln 6 wet scrubber	46	32	145	8,245

* Horizontal stack

** Combined with exhaust from EPN 41

*** Combined with Exhaust from EPN 39

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Records are available to confirm the insignificance of the activities. Appropriate recordkeeping of activities indicated below with “*” is specified in the Specific Conditions.

1. Stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or diesel fuel which are either used exclusively for emergency power or for peaking power service not exceeding 500 hours/year. The facility emergency engines are now subject to a BACT requirement, therefore, are not listed among the “insignificant activities.”
2. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTU/hr heat input (commercial natural gas).
3. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. The facility has gasoline and diesel fueling operations.
4. Cold degreasing operations utilizing solvents that are denser than air. Degreasing is conducted as part of plant maintenance, which is a listed “trivial activity,” therefore, no recordkeeping will be required.
5. Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year electrodes. Welding and soldering are conducted as part of plant maintenance, which is a listed “trivial activity,” therefore, no recordkeeping will be required.
6. Torch cutting and welding of under 200,000 tons of steel fabricated per year. Torch cutting is conducted as part of plant maintenance, which is a listed “trivial activity,” therefore, no recordkeeping will be required.

7. * Non-commercial water washing operations and drum crushing operations (less than 2,250 barrels/year) of empty barrels less than or equal to 55 gallons with less than three percent by volume of residual material. The facility has equipment to wash and re-use drums, which would have emissions less than 5 TPY.
8. Hazardous waste and hazardous materials drum staging areas. The facility includes a waste storage area.
9. Sanitary sewage collection and treatment facilities other than incinerators and Publicly Owned Treatment Works (POTW). Stacks or vents for sanitary sewer plumbing traps are also included (i.e., lift station).
10. Surface coating operations which do not exceed a combined total usage of more than 60 gallons/month of coatings, thinners, and clean-up solvents at any one emissions unit. These are part of the facility maintenance activities, which are actually “trivial activities,” therefore recordkeeping will not be required.
11. Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. These are part of the facility maintenance activities, which are actually “trivial activities,” therefore recordkeeping will not be required.
12. Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. There are numerous portable engines for power washers, generators, welding, etc., which are all smaller than 50-hp. Others also may be used in the future.

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]
Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. At this time, all of Oklahoma is in “attainment” of these standards. In addition, modeled emissions from the proposed facility demonstrate that the facility would not have a significant impact on air quality.

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

OAC 252:100-8 (Major Source/Part 70 Permits) [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 single HAP that the EPA may establish by rule

Emissions limitations have been established for each Emission Unit Group based on information from the permit application and previous permits.

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 affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

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

OAC 252:100-19 (Particulate Matter) [Applicable]
This subchapter specifies a particulate matter (PM) emissions limitation for fuel-burning equipment based on the rated heat input of the types of units. The facility is in compliance with these limitations.

EPN ID	Description	Heat Input MMBTUH	PM Emissions Limitation, lb/MMBTU	PM Emissions, lb/MMBTU
24-26 43-44	emergency engines	0.62	0.60	0.274

The emission of particulate matter from any new or existing emission point in an industrial process shall not exceed the limits specified in Appendix G. This applies to this facility. As shown in the table following, the facility is in compliance with these limitations.

EPN	Procedure/Equipment	Throughput TPH	PM Limit lb/hr	PM Emissions (Controlled) lb/hr
1	Rail Unloading	34	41.06	0.33
2	Sizing & Crushing	34	41.06	1.44
3	Batching & Mixing	34	41.06	1.16
4	Conveying & Loading	34	41.06	0.72
5	Spray Dryer	34	41.06	7.98
6	Feeding, Pressing, etc.	33	40.80	3.97
7	Tile Drying	7	15.10	0.65
8	Tile Drying	7	15.10	0.65
9	Tile Drying	7	15.10	0.65
10	Tile Drying	7	15.10	0.65
11	Tile Drying	7	15.10	0.65
12	Tile Drying	7	15.10	0.65
13	Trim Drying	3.5	9.49	0.65
14	Trim Drying	3.5	9.49	0.65
15	Trim Drying	3.5	9.49	0.65
16	Cleaning & Glazing	32.5	40.66	4.20
17	Glaze prep	2	6.52	0.33
18	Raw Material & Press Areas Vacuum	*	*	*
19	Body Prep Area Vacuum cleaning	*	*	*
21	Tile Kiln	9.0	17.87	3.35
22	Tile Kiln	9.0	17.87	3.35
21	Tile Kiln (Bypass)	9.0	17.87	3.35
22	Tile Kiln (Bypass)	9.0	17.87	3.35
23	Trim Kiln	3.5	9.49	1.80
27	Tile Kiln	9.0	17.87	3.35
28	Tile Kiln	9.0	17.87	3.35
27	Tile Kiln (Bypass)	9.0	17.87	3.35

EPN	Procedure/Equipment	Throughput TPH	PM Limit lb/hr	PM Emissions (Controlled) lb/hr
28	Tile Kiln (Bypass)	9.0	17.87	3.35
30	Tile Dryer	4.5	11.23	0.65
31	Tile Dryer	4.5	11.23	0.65
32	Tile Dryer	4.5	11.23	0.65
33	Tile Dryer	4.5	11.23	0.65
34	Body Prep Vacuum	*	*	*
35	Body Powder Conveying & Loading	33	40.80	0.72
36	Body Powder Spray Dryer	33	40.80	7.98
37	Raw Material Vacuum Cleaning	*	*	*
38	Crushing & Sizing (To Silos)	34	41.06	1.13
39	Batching & Mixing (To Mills)	30	41.06	1.60
40	Feeding & Pressing	30	40.40	2.49
41	Cleaning & Glazing	28	38.23	1.91
44	CMF (Colorbody prep)	15	25.16	1.21
51	Trim Kiln 6	3	8.56	1.55

* these baghouses control nuisance dust; there is not a finite process rate associated with them.

OAC 252:100-25 (Visible Emissions, and Particulates) [Applicable]
 No discharge of greater than 20% opacity is allowed except for short-term occurrences, which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. Any unit which is subject to an opacity limit under NSPS is not subject to Subchapter 25. All units except for EPNs-2 & 38 (crushing & sizing) and EPNs-3 & 39 (batching & mixing) are subject to the opacity limitations under Subchapter 25.

OAC 252:100-29 (Fugitive Dust) [Applicable]
 No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. Conducting unloading of raw materials in an enclosed building achieves compliance with Subchapter 29.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
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, three-hour average. The permit will require all dryers and kilns to be fired with pipeline-grade natural gas with SO₂ emissions equivalent to 0.0006 lb/MMBTU. The backup diesel generator will fire diesel fuel with a maximum sulfur content of 0.5% by weight. This fuel will produce emissions of approximately 0.4 lbs/MMBTU, which is well below the allowable emission limitation of 0.8 lb/MMBTU for liquid fuels.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NO_x per MMBTU. All units are smaller than the 50 MMBTUH threshold.

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

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The diesel tanks are below the 1.5 psia threshold and have capacities less than 400 gallons.
Part 5 limits the VOC content of coatings used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is not an affected operation.
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 kiln, dryers, and emergency generators are designed to provide essentially complete combustion 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.

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

OAC 252:100-11	Alternative Reduction	not eligible
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	Feed & Grain Facility	not in source category
OAC 252:100-39	Nonattainment Areas	not in a subject area
OAC 252:100-47	Landfills	not type of source category

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
 PSD does not apply. Initial emissions were less than the major source threshold of 250 TPY of any single regulated pollutant and added emissions from the plant expansion were also less than 250 TPY, and the facility is not one of the 26 specific industries with an emission threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Subparts OOO Applicable]
Subpart A, General Provisions. This subpart requires the submittal of several notifications for NSPS-affected facilities. Within 30 days after starting construction of any affected facility, the facility must notify DEQ that construction has commenced. A notification of the actual date of initial start-up of any affected facility must be submitted within 15 days after such date. Initial performance tests are to be conducted within 60 days of achieving the maximum production rate, but not later than 180 days after initial start-up of the facility. The facility must notify DEQ at least 30 days prior to any initial performance test and must submit the results of the initial performance tests to DEQ. The facility has complied with the notification requirements set forth in Subpart A.

Subpart III, Standards of Performance for 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 engines pre-date Subpart III.

Subpart OOO (Nonmetallic Mineral Processing Plants) affects those plants if they are either (1) in a fixed location and have a capacity of 25 TPH or more, or (2) are portable and have a capacity of 150 TPH or more, or (3) common clay plants and pumice plants with a capacity of 10 TPH or more. The following facilities at a nonmetallic minerals processing plant which commenced construction or modification after August 31, 1983, are affected by Subpart OOO: each crusher, grinding mill, bucket elevator, screening operation, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading operation. Excluded from the list of affected facilities are truck dumping and transfer points from belt conveyors to stockpiles. EPNs 2, 3, 38, and 39 are subject to NSPS Subpart OOO. Subpart OOO specifies the following standards for emissions of particulate matter: no fugitive emissions discharge from any crusher greater than 15% opacity, no fugitive discharge from any other affected facility greater than 10% opacity, and no stack emissions with greater than 7% opacity or PM concentrations greater than 0.022 gr/DSCF.

Subpart UUU (Calciners and Dryers in the Mineral Industries) affects equipment which commenced construction after April 23, 1986. Subpart UUU prohibits discharge of particulate matter in excess of 0.04 gr/dscf and prohibit discharges in excess of 10% opacity unless the discharges are processed by a wet scrubber. Tile dryers were determined by EPA not to be subject to Subpart UUU (Applicability Determination Index No. 0600017). BACT requirements for the spray driers are more stringent than Subpart UUU.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: asbestos, benzene, beryllium, coke oven emissions, radionuclides, or vinyl chloride except for trace amounts of arsenic, benzene, beryllium, and mercury. Subpart J, Equipment Leaks of Benzene, concerns only process streams that contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63

[Subparts ZZZZ and RRRRRR Applicable]

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart previously affected only RICE with a site-rating greater than 500 brake horsepower that are located at a major source of HAP emissions. On January 18, 2008, the EPA published a final rule that promulgates standards for new and reconstructed engines (after June 12, 2006) with a site rating less than or equal to 500 HP located at major sources, and for new and reconstructed engines (after June 12, 2006) located at area sources. These emergency engines pre-date the June 12, 2006, standards.

On March 3, 2010, EPA finalized additional requirements for stationary CI RICE located at major and area sources. A summary of these requirements for the emergency generator engines located at this facility are shown below.

Engine Category	Normal Operation
Existing Emergency CI & Black Start CI	Change oil and filter every 500 hours of operation or annually, whichever one comes first; Inspect air cleaner every 1,000 hours of operation or annually, whichever one comes first; and Inspect all hoses and belts every 500 hours of operation or annually, whichever one comes first and replace as necessary.

Sources have the option to utilize an oil analysis program in order to extend the specified oil change requirements of this subpart.

Subpart KKKKK, Clay Ceramics Manufacturing. Subpart KKKKK affects major sources of HAPs only. Clay ceramics manufacturing area sources of HAPs are subject to Subpart RRRRRR.

Subpart RRRRRR, Clay Ceramics Manufacturing Area Sources. This subpart affects clay ceramics manufacturing operations which fire glazed ceramic ware or have an atomized glaze spray booth. Kilns are required to use natural gas fuel and maintain peak temperatures below 2,800°F. An atomized glaze spray booth is required to be operated with an air pollution control device such as a wet scrubber or fabric filter. The facility uses natural gas fuel on the kilns and has baghouses on the glaze applications.

CAM, 40 CFR Part 64 [Applicable]

This part applies to any pollutant-specific emission unit at a major source that is required to obtain an operating permit, for any application for an initial operating permit submitted after April 18, 1998, that addresses “large emissions units,” or any application that addresses “large emissions units” as a significant modification to an operating permit, or for any application for renewal of an operating 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 of 100 TPY or 10/25 TPY of a HAP

CAM specifications for the two wet scrubbers and larger baghouses have been incorporated into the permit.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]

This facility will not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: www.epa.gov/ceppo.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subparts A and F are 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.

Conditions are included in the standard conditions of the permit to 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

Inspection

The facility was inspected on August 18, 2015, by Michael Provence of the Regional Office at Tulsa. No violations were noted from the FCE.

Tier Classification And Public Review

This application has been determined to be Tier II based on the request for renewal of a major source operating permit.

The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land.

The applicant published the “Notice of Filing a Tier II Application” in the *Muskogee Daily Phoenix*, a daily newspaper in Muskogee County, on June 5, 2016. The notice stated that the application was available for public review at the Muskogee Public Library, 801 W. Okmulgee, Muskogee, Oklahoma and the Air Quality Division’s main office at 707 North Robinson, Oklahoma City, Oklahoma. The applicant will also publish a “Notice of Draft Tier II Permit.” The facility is not within 50 miles of the border with the state of Arkansas; the distance to the state line is 50.11 miles. The “proposed” permit will be submitted to EPA for a 45-day review period.

The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land.

Fees Paid

Title V operating permit renewal application fee of \$7,500.

SECTION IX. SUMMARY

The facility was constructed as described in the permit application. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance / enforcement issues which affect the proposed permit. Issuance of the permit is recommended, contingent on public and EPA review.

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

DRAFT

Dal Italia LLC

Muskogee Porcelain Floor Tile Plant

Permit No. 2016-0604-TVR2

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on June 1, 2016. The Evaluation Memorandum dated July 14, 2016, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating permit limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

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

EUG 1: Raw Material Area

Point	Equipment	PM ₁₀ Emissions		
		gr/DSCF	lb/hr	TPY
EPN-1	railcar unloading operation	0.010	0.33	1.46
EPN-4	body powder conveying & loading	0.010	0.72	3.17
EPN-6	feeding & pressing	0.010	3.97	13.4
EPN-16	Cleaning & glazing	0.010	4.20	14.2
EPN-17	glaze mixing & blending	0.010	0.33	1.43
EPN-18	raw material vacuum cleaning	0.010	0.05	0.20
EPN-19	body prep vacuum cleaning	0.010	0.07	0.31
EPN-34	press vacuum cleaning	0.010	0.07	0.31
EPN-35	body powder conveying & loading	0.010	0.72	3.17
EPN-37	raw material vacuum cleaning	0.010	0.05	0.20
EPN-40	feeding & pressing	0.010	2.49	8.40
EPN-41	cleaning & glazing	0.010	1.84	6.45
EPN-44	CMF (colorbody prep)	0.010	1.11	4.90

A. Baghouses shall be operated at a pressure differential of at least 1 inch WC. Except for EPN-18, EPN-19, EPN-34 and EPN-37, the pressure differential shall be monitored and recorded at least once per operating week. [OAC 252:100-8-6(a)]

EUG 2: Equipment Subject to NSPS Subpart OOO

Point	Equipment	PM ₁₀ Emissions		
		Gr/DSCF	lb/hr	TPY
EPN-2	crushing & sizing	0.011	1.44	6.30
EPN-3	batching & mixing	0.011	1.16	5.06
EPN-38	crushing & sizing	0.011	1.13	4.96
EPN-39	batching & mixing	0.011	1.60	7.02

- A. The equipment is subject to federal New Source Performance Standards, 40 CFR 60, Subpart OOO, and shall comply with all applicable requirements. [40 CFR 60.670 through 60.676]
- B. Stack opacity shall not exceed 7%. [40 CFR 60.672(a)(2), (f), and (g)]
- C. Stack PM emissions shall not exceed 0.022 gr/dscf. [40 CFR 60.672(a)(1)]
- D. Either no visible fugitive emissions shall be discharged from any building enclosing an affected facility, or opacity shall not exceed 10% from any affected facility as per 40 CFR 60.672(b). [40 CFR 60.672(e)(1)]
- E. Reports shall be submitted as specified. [40 CFR 60.676]

EUG 3: Spray Dryers

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
5	Spray dryer	0.45	1.96	3.88	16.99	13.77	60.30	9.67	42.36	7.98	34.94
36	Spray dryer	0.45	1.96	3.88	16.99	13.77	60.30	9.67	42.36	7.98	34.94

- A. All air discharges from the stacks 5 and 36 shall be processed by fabric filters or equivalent devices which achieve discharge concentrations of 0.018 gr/DSCF or less.
- B. The Spray Dryers shall be fueled with pipeline-grade natural gas only.
- C. Baghouses shall be operated at a pressure differential of at least 1 inch WC. The pressure differential shall be monitored and recorded at least once per week when each above unit is operated.

EUG 4: Tile Dryers

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
7	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
8	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
9	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
10	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
11	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
12	Flat tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
13	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
14	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
15	Trim tile drying	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
30	Flat Tile dryer	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
31	Flat Tile dryer	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
32	Flat Tile dryer	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67
33	Flat Tile dryer	0.02	0.06	0.39	1.71	1.27	5.57	3.83	16.78	0.38	1.67

Stack ID	Description	HF		HCl	
		lb/hr	TPY	lb/hr	TPY
7	Flat tile drying	0.035	0.153	0.014	0.061
8	Flat tile drying	0.035	0.153	0.014	0.061
9	Flat tile drying	0.035	0.153	0.014	0.061
10	Flat tile drying	0.035	0.153	0.014	0.061
11	Flat tile drying	0.035	0.153	0.014	0.061
12	Flat tile drying	0.035	0.153	0.014	0.061
13	Trim tile drying	0.035	0.153	0.014	0.061
14	Trim tile drying	0.035	0.153	0.014	0.061
15	Trim tile drying	0.035	0.153	0.014	0.061
30	Flat Tile dryer	0.035	0.153	0.014	0.061
31	Flat Tile dryer	0.035	0.153	0.014	0.061
32	Flat Tile dryer	0.035	0.153	0.014	0.061
33	Flat Tile dryer	0.035	0.153	0.014	0.061

A. The Tile Dryers shall be fueled with pipeline-grade natural gas only.

EUG 5: Tile Kilns

Primary Operating Scenario: Kilns 1 and 5 Into Wet Scrubber No. 1 (EPN-20), Kilns 2, 3, and 4 into Wet Scrubber No. 2 (EPN-29), Kiln 6 into Wet Scrubber No. 3 (EPN-51)

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
20	Kiln No. 1 & 5	6.25	27.38	5.86	25.66	16.55	72.48	4.34	19.00	5.16	22.59
29	Tile Kiln No. 2, 3 & 4	13.50	59.13	11.59	50.76	29.40	128.79	8.60	37.69	10.06	44.08
51	Tile Kiln 6	1.50	6.57	1.71	7.49	5.78	25.33	1.26	5.52	1.55	6.77

Stack ID	Description	HF		HCl		Cl ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
20	Kiln No. 1 & 5	0.14	0.60	0.24	1.04	0.13	0.55
29	Tile Kiln No. 2, 3 & 4	0.41	1.77	0.54	2.37	0.54	2.37
51	Tile Kiln 6	0.03	0.14	0.06	0.26	0.14	0.59

Alternate Scenario 1: Kilns 1 and 2 Into Wet Scrubber No. 1 (EPN-20), Kilns 3 and 4 into Wet Scrubber No. 2 (EPN-29), Kiln 6 into Wet Scrubber No. 3 (EPN-51), Kiln 5 to atmosphere; and Start-up / Shutdown Events

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
20	Tile Kiln No. 1 & 2	8.96	39.25	7.73	33.84	19.60	85.86	4.78	20.94	6.71	29.39
29	Tile Kiln No. 3 & 4	8.96	39.25	7.73	33.84	19.60	85.86	4.78	20.94	6.71	29.39
--	Start-up / Shutdown/ Maintenance Events Kilns 1,2,3,4 & 6	20.92	3.88	--	--	--	--	--	--	--	--
--	Start-up / Shutdown/ Maintenance Events Kiln5	9.70	10.62	--	--	--	--	--	--	--	--

Stack ID	Description	HF		HCl		Cl ₂	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
20	Tile Kiln No. 1 & 2	0.14	0.60	0.24	1.04	0.13	0.55
29	Tile Kiln No. 3 & 4	0.41	1.77	0.54	2.37	0.54	2.37
51	Trim Kiln 6	0.03	0.14	0.06	0.26	0.14	0.59
--	Start-up / Shutdown/ Maintenance Events Kilns 1,2,3,4 & 6	12.85	1.86	14.36	2.08	0.37	0.16
--	Start-up / Shutdown/ Maintenance Events Kiln 5	3.47	0.95	0.97	1.06	0.32	0.09

- A. The kilns shall be fueled with pipeline-grade natural gas only.
- B. Except for periods of start-up, shutdown, or maintenance not to exceed 4,680 tons tile production in any 12-month period from Kilns 1, 2, 3, 4, and 6, or 1,916 tons tile production from Kiln 5 in any 12-month period, exhausts from Tile Kilns No. 1, 2, 3, 4, 5, and 6 shall be processed by wet scrubbers, or equivalent method (to achieve 90% or greater control efficiency for HCl and HF, 70% for SO₂, and 30% for Cl₂). Except for Kiln No. 5 in Alternate Scenario 1, the kilns shall operate no more than 12 hours in any 24-hour period without the wet scrubbers operational.
- C. The wet scrubber liquor shall be maintained at a pH of 7.5 or higher. The pH shall be measured and recorded at least once per day.
- D. Records shall be kept of the tonnage of tile produced while any wet scrubber is bypassed in any day.
- E. The kilns shall be operated at temperatures no greater than 2,800°F. The operating temperatures of the kilns shall be monitored per 40 CFR Part 63.11440.

[40 CFR 63.11438 and 11440]

EUG 6: Emergency Engines

Stack ID	Description	SO ₂		NO _x		CO		VOC		PM ₁₀	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
24	Emerg. Engine No. 1	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
25	Emerg. Engine No. 2	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
26	Emerg. Engine No. 3	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
42	Emerg. Engine No. 4	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04
43	Emerg. Engine No. 5	0.19	0.05	2.39	0.60	0.51	0.13	0.19	0.05	0.17	0.04

- A. The emergency generators shall be fueled with No. 2 diesel with a maximum sulfur content of 0.5 % by weight. [OAC 252:100-8-6(a)]
- B. A serial number or another acceptable form of permanent (non-removable) identification shall be on each engine. [OAC 252:100-8-6(a)]
- C. The emergency engines shall be fitted with non-resettable hour-meters. [OAC 252:100-8-6(a)]
- D. As of the compliance date of Subpart ZZZZ, the owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility including but not limited to: [40 CFR 63.6580 through 63.6675]
 - i. § 63.6580 What is the purpose of subpart ZZZZ?
 - ii. § 63.6585 Am I subject to this subpart?
 - iii. § 63.6590 What parts of my plant does this subpart cover?
 - iv. § 63.6595 When do I have to comply with this subpart?
 - v. § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
 - vi. § 63.6605 What are my general requirements for complying with this subpart?
 - vii. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
 - viii. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
 - ix. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
 - x. § 63.6650 What reports must I submit and when?
 - xi. § 63.6655 What records must I keep?
 - xii. § 63.6660 In what form and how long must I keep my records?
 - xiii. § 63.6665 What parts of the General Provisions apply to me?
 - xiv. § 63.6670 Who implements and enforces this subpart?
 - xv. § 63.6675 What definitions apply to this subpart?

Plant-wide Hazardous Air Pollutant Emissions Limits

HAP	lb/hr	TPY
Chlorine	1.10	4.61
Hydrogen Chloride	3.00	9.94
Hydrogen Fluoride	2.92	9.94

Compliance with plant-wide HAP emissions limits may be shown by emissions factors developed from stack testing. Monthly records of HAP emissions shall be kept.

2. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year) up to a maximum production rate of 372,300 tons tile per 12-month rolling period. The emergency diesel generators (EUG-6) shall each be limited to 500 hours of operation per twelve-month rolling period. [OAC 252:100-8-6(a)]

3. The facility is subject to 40 CFR Part 63, Subpart RRRRRR, and shall comply with all applicable provisions: [40 CFR 63.11435 – 11447]

- A. §63.11435 Am I subject to this subpart?
- B. §63.11436 What parts of my plant does this subpart cover?
- C. §63.11437 What are my compliance dates?
- D. §63.11438 What are the standards for new and existing sources?
- E. §63.11439 What are the initial compliance demonstration requirements for new and existing sources?
- F. §63.11440 What are the monitoring requirements for new and existing sources?
- G. §63.11441 What are the notification requirements?
- H. §63.11442 What are the recordkeeping requirements?
- I. §63.11443 What General Provisions apply to this subpart?
- J. §63.11444 What definitions apply to this subpart?
- K. §63.11445 Who implements and enforces this subpart?
- L. §§63.11446-63.11447 [Reserved]

4. The permittee shall maintain records as listed below. 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 252:100-43]

- A. Pressure differentials of each baghouse (weekly when operated).
- B. Kiln wet scrubber liquor flows (daily when operated).
- C. Kiln wet scrubber pH values (daily when operated).
- D. Tile production (monthly and 12-month rolling totals).
- E. Dates, times, tile tonnage produced, and durations when kilns are operated and wet scrubbers are bypassed.
- F. Records as required by 40 CFR Part 63, Subpart ZZZZ and Subpart RRRRRR.
- G. HAP (HCl, HF, and Cl₂) emissions (monthly and 12-month rolling totals).

4. Compliance Assurance Monitoring specifications:

[40 CFR Part 64]

A. For wet scrubbers on Stacks 20 and 29:

	Indicator No. 1	Indicator No. 2
Indicator	Scrubber liquid pH	Scrubber liquor flow
Measurement Approach	Scrubber liquid pH is measured using a pH sensor	Scrubber liquid flow is measured using a magnetic flow tube element
Indicator Range	An excursion is defined as an hourly scrubber pH value less than 7.5. Excursions trigger an inspection, corrective actions, and a reporting requirement.	An excursion is defined as an hourly scrubber liquid flow less than 200 GPM. Excursions trigger an inspection, corrective actions, and a reporting requirement.
Data Representativeness Performance Criteria	The scrubber liquid pH sensor is located in the scrubber liquid recirculation line.	The scrubber liquid flow rate sensor is located on the scrubber liquid recirculation line.
QA/QC Practices and Criteria	Monitoring equipment and process downtime is recorded in a log. The pH meter is checked for accuracy at least monthly (\pm 0.2 pH units). The pH sensor is calibrated at least annually according to the manufacturer specifications	Monitoring equipment and process downtime is recorded in a log. The flow sensor is calibrated at least annually in accordance with manufacturer specifications.
Monitoring Frequency	Measured hourly	Measured continuously
Data Collection Procedure	Recorded at least once per day either in a log or by computer.	Recorded at least once per day either in a log or by computer.
Averaging Period	Hourly	Daily

B. For baghouses EPN-5 and EPN-36

Indicator	Baghouse pressure differential
Measurement Approach	Differential pressure transducer or manometer
Indicator Range	An excursion is defined as a pressure differential below 1 inch water column. Excursions trigger an inspection, corrective actions, and a reporting requirement.
Data Representativeness Performance Criteria	The differential pressure transducer monitors the static pressures upstream and downstream of the baghouse.
QA/QC Practices and Criteria	Monthly comparison to U-tube manometer. Acceptability criterion is 0.5 inches WC.
Monitoring Frequency	pressure differential is monitored at least daily when operated
Data Collection Procedure	Data are recorded by computer or manual logs
Averaging Period	Each operating day

5. No later than 30 days after each anniversary date of the issuance of the initial Title V operating permit (October 21, 2005), 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. [OAC 252:100-8-6 (c)(5)(A) & (D)]

6. At least once prior to expiration of this permit, and at other such times as directed by Air Quality, the permittee shall conduct performance testing as follows and furnish a written report to Air Quality. Testing shall be conducted while a process unit is being operated at least 90% of permitted hourly capacity. A sampling protocol and notification of testing date(s) shall be submitted at least 30 days in advance of commencement of testing. The following USEPA methods shall be used for testing of emissions, unless otherwise approved by Air Quality: [OAC 252:100-43]

A. Stack 29 in the primary alternative operating scenario:

- 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: Moisture in Stack Gases.
- Method 10: CO Emissions from Stationary Sources

7. On issuance, Permit No. 2016-0604-TVR2 replaces and supersedes Permit No. 2010-157-TVR (M-1); Permit No. 2010-157-TVR (M-1) will be cancelled.

Dal Italia LLC
Attn: Mr. Steve Willis
7834 CF Hawn Freeway
Dallas, TX 75217

Re: Permit Number 2016-0604-TVR2
Porcelain Floor Tile Plant (FAC ID 5305)
Section 10 – T14N – R18E
Muskogee, Muskogee County, Oklahoma

Dear Mr. Willis:

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 on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me at (405) 702-4198.

Sincerely,

David S. Schutz, P.E.
New Source Permits Section
AIR QUALITY DIVISION



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: 2016-0604-TVR2

Dal Italia LLC,

having complied with the requirements of the law, is hereby granted permission to operate a porcelain floor tile plant in Sec. 10 – T14N – R18E, near Muskogee, Muskogee 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 below, except as authorized under Section B of the Standard Conditions.

Division Director
Air Quality Division

Date

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

SECTION I. DUTY TO COMPLY

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

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

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

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

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

[OAC 252:100-43]

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

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

G. Any owner or operator subject to the provisions of New Source Performance Standards (“NSPS”) under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

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

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

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

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

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM₁₀). 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]