

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

MEMORANDUM

October 11, 2021

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

THROUGH: Rick Groshong, Sr. Environmental Programs Manager, Compliance and Enforcement

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

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

FROM: Kyle Walker, E.I., New Source Permits Section

SUBJECT: Evaluation of Permit Application No. **2016-0540-C (M-1)**
Midwest Cooling Towers, Inc.
Fiberglass Fabrication Facility (SIC 3089, NAICS 326199)
Facility ID No. 2239
Section 15, T6N, R7W, Grady County, Oklahoma
Latitude: 34.99309° North; Longitude: 97.92356° West
Directions: From the intersection of State Highway 19 and US Highway 81 southeast of Chickasha, proceed approximately 0.6 miles east on Highway 19. The facility is on the south side of the highway.

SECTION I. INTRODUCTION

Midwest Cooling Towers, Inc. (MWC) has applied for a construction permit to modify their current Part 70 operating permit. MWC currently operates their Fiberglass Fabrication Facility as authorized by Permit No. 2016-0540-TVR3, issued January 12, 2017. The applicant has requested the following changes.

- Move fiberglass winding operations from Ardmore location to MWC in Chickasha, Oklahoma. MWC owns Beetle Plastics, LLC, in Ardmore, Oklahoma. Beetle Plastics operates under Part 70 operating Permit No. 2019-1256-TVR4.
- Add pultrusion process to enhance structural integrity of parts.
- Add two 1.027-MMBTUH Make-Up Unit heaters.

Emissions inventories were summed for the facilities on an annual basis for years 2015 through 2019. The highest sum of emissions reported for MWC Chickasha and Beetle Plastics Ardmore between the years 2015 and 2019 were 42.93 TPY styrene and 45.66 TPY VOC reported for the year 2018. The facility is not currently subject to prevention of significant deterioration (PSD) requirements. The facility is a major source of hazardous air pollutants (HAP). The requested changes will result in no increase in facility-wide emission limits for all criteria pollutants. The facility has requested a construction permit to include new equipment at the facility.

SECTION II. FACILITY DESCRIPTION

The facility manufactures various fiberglass-reinforced plastic composite components. The facility may be described as a job shop where the components produced depend on demand and whatever contracts have been executed with various purchasers. Manufacturing may be performed in a number of large buildings, although only two are used for fiberglass manufacturing at this time. One of those buildings houses four paint booths which are used for fiberglass component manufacture and gel coating application. The booths have one open wall and the other three walls and the ceiling are closed. Each booth is connected to an exhaust fan and stack. The exhaust fan draws air from the booth and the air passes through filters before being emitted from the stack. The same building also contains a component finishing area where sawing and sanding are performed. The component finishing area is also enclosed on three sides and has a closed ceiling and the open side is equipped with a curtain. The finishing area is equipped with an exhaust fan and stack; the air is pulled through filters before being exhausted to the atmosphere. The building ventilation system provides positive air flow to each of the booths and to the component finishing area.

Additional buildings at the site include the Components and Assembly Building (formally known as the pipe building). Miscellaneous parts (such as connectors and repair patches) are fabricated in this building during the final assembly of housings, large diameter pipe systems, and other products prior to shipment. These operations are performed by spray-up using a high-volume low-pressure (HVLP) gun. Manual hand lay-up operations only occur when a repair is required in an area that cannot be reached by HVLP spray-up. Manual hand lay-up operations make up less than 1% of the resin used. The building is not equipped with booths or stacks and air is circulated in this building by a series of large ceiling fans.

A Winding and Pultrusion Building was constructed next to the Components and Assembly Building to perform fiberglass winding operations and pultrusion operations. Air is circulated in this building by a series of large ceiling fans.

Other buildings on the site are used for offices and equipment and materials storage. A diesel fuel tank is located at the site. Emissions from this tank fall into the category of “insignificant activities.”

Currently the facility manufactures large fiberglass components which may be bolted together to form cooling towers or large fan housings in addition to the large-diameter piping systems. Specific manufacturing processes are described following.

EUG 1: Open Mold Fiberglass/Vacuum Bagging

Fiberglass Fabrication Process

Styrene containing unsaturated polyester resin (UPR) is used to manufacture different products at the facility. The facility uses an open molding process with spray lay-up of the UPR to manufacture their products. The UPR is reinforced, usually with glass fibers. These composite

materials are often referred to as fiberglass reinforced plastic, fiberglass, or reinforced plastic/composites.

There are four open mold production areas or booths and each is equipped with a gel coat applicator and a resin applicator. (These are the “booths” mentioned previously.) The facility purchases resin and gel coat in bulk liquid form. The resin is currently stored on-site in three 7,500-gallon tanks next to the main manufacturing area. The gel coat is purchased in 55-gallon drums. This particular manufacturing operation is housed in a single building. The first step involves mold preparation. The molds are hand made, often using standard forms. After a mold is formed it is cleaned, waxed, and transported to a spray booth.

- Spray Layup

The mold is coated with a chemical release agent to ensure easy removal of the product from the mold after curing. It is wiped onto the mold with rags. A layer of gel coat is sprayed onto the mold, with a low pressure, air-assisted spray applicator, to form the outermost surface of the products. The gel coat is heated during application and drying times are closely watched to reduce emissions. The gel coats are highly pigmented unsaturated polyester resins that provide a smooth, colored surface that gives the appearance of a painted part.

The gel coat is allowed to cure and then the polyester resin is applied with an applicator that has a glass chopper attachment. This allows simultaneous spraying of resin and chopped glass into the mold. The ratio of resin to glass is usually 60 to 40 percent by weight, but varies by product. To reduce resin usage, the lines are heated for sprayability and wet out with resin. The resin is mixed with various fillers to displace the resin and reduce its ignitability. The resin applicator has an internal mix system where the resin and catalyst streams are mixed as they exit the applicator. The liquid peroxide catalyst, methyl ethyl ketone peroxide (MEKP), is used to promote curing at room temperature. The part cures on the mold and is then gel coated to fill voids and ensure proper compaction. After the final gel coat is dry, the part is sent to the fiberglass finishing area. In the fiberglass finishing area, each part is checked for defects in workmanship and repaired or rejected. The part is then waxed and buffed to a high sheen for packaging and shipment.

- Vacuum Bagging

Vacuum bagging is a clamping mechanism used for smaller parts manufactured in the facility. The parts are sealed into a flexible bag prior to curing and are vacuum sealed to provide pressure to securely hold the parts until the curing process is complete. Since the parts are in a closed bag, this reduced the emissions related to curing.

EUG 2: Components/Assembly Open Mold Spray-up

Fiberglass Fabrication Process for Components

The components/assembly building is also known as the Pipe Fitting Building. This building is used to make specialty pieces for parts and assemble product for shipment. Parts such as fittings

and flanges are fabricated using open mold HVLP spray-up process. Styrene containing UPR is used to construct components for installation in the end product and specialty items. The method described in EUG 1 applies to EUG 2 without a gelcoat step.

No vacuum bagging occurs in the fittings/components EUG 2. Hand lay-up is used infrequently to hold mold or patch assembled parts together. Statistically it makes up less than one percent of the resin used.

EUG 3: Winding Operations

Fiberglass Winding Operations

The facility manufactures fiberglass pipe, ducts, tanks, and associated fittings for specialty applications in a variety of industries. Piping is also produced by winding operations. A HVLP spray gun or chop gun is used to spray liners on the larger pipe. Upon completion, the pipe is either moved directly to assembly to be put together for shipment or storage for later assembly.

In the manufacturing process, liquid polyester resins with various additives (e.g. catalysts) are mixed in the mixing area. The resins are then applied using filament winding machines. Natural gas-fired radiant heaters are used to augment the polymerization of the resin into a solid product in the filament winding machines.

The thermosetting polyesters used are complex polymers resulting from the cross-linking reaction of a liquid, unsaturated polyester with a styrene monomer. Styrene emissions come from the evaporation of un-crosslinked styrene from the uncured resin. Different types of resin are used with a styrene monomer content of less than 50%. Other HAPs/volatile organic compounds (VOCs) are emitted from the mixing/fabrication process. The manufacturing of the reinforced plastic products is conducted in one building. The styrene and other HAPs or VOCs emissions are vented through multiple fans installed on the walls of the building.

EUG 4: Pultrusion Process

The pultrusion process produces continuous lengths of fiber-reinforced polymer (FRP) shapes. Fiberglass filament is pulled through a liquid resin bath which saturates the glass reinforcement with resin mixture (wet-out stage). The combination of resin and fiberglass is then pulled through a distinct heated and shaped die (called polymerization) using a continuous pulling device. The combination of material hardens to the die shape and is heat-set into a permanent rigid structural shape. Then the permanent structural shape is cut to the desired length. The facility will utilize two pultrusion machines.

Emissions will be controlled by enclosures on the wet sections of the lines to control HAP (styrene) emissions which comply with Title 40, Code of Federal Regulations (40 CFR), National Emissions Standards for Hazardous Air Pollutants (NESHAP), §63.5830(b).

Other Activities

Diesel Tank

There is one 1,000-gal diesel fuel storage and dispensing tank at the facility.

Wood Mill Process

Wooden molds are constructed at the facility under the existing permit and those operations are expected to generate some PM emissions. Based on the quantities of materials used, those emissions are included as insignificant activities.

SECTION III. PERMIT HISTORY

Permits	Date Issued	Description
99-136-TV	2/22/2001	Initial major source operating permit for unpermitted facility. The facility began operations in 1988.
99-136-C (M-1)	9/16/2002	Changed the material usage limitation to a facility wide emission cap, modified the layout of the facility, added a resin tank to the facility, and to increase the facility emissions up to 99 TPY of styrene.
99-136-TV (M-2)	11/19/2003	Incorporated construction authorized by Permit No. 99-136-C (M-1) and to increase the allowable methyl methacrylate (MMA) in their resins and gel coats.
2005-208-TVR	2/11/2006	First Title V renewal.
2010-333-TVR2	11/14/2011	Second Title V renewal. Adjust tank and fugitive requirements. Remove facility specific NESHAP Subpart WWW compliance demonstrations.
2010-333-TVR2 (M-1)	1/30/2014	Administrative amendment for a company name change due to a change in ownership.
2016-0540-TVR3	1/12/2017	Third Title V renewal. Corrected diesel tank volume. Adjust filter requirements.

SECTION IV. CHANGE SUMMARY

MWC requested this permit, Permit No. 2016-0540-C (M-1), to consolidate air permitting for two fiberglass facilities. The facilities are MWC – Fiberglass Fabrication Facility (Permit No. 2016-0540-TVR3, issued January 12, 2017) and Beetle Plastics, LLC – Ardmore Plant (Permit No. 2019-1256-TVR4, issued September 21, 2020). EUG 3 and EUG 4 are new emission unit groups at the facility. EUG 5 was added to list process heaters that are insignificant activities.

VOC and HAP permitted emission limitations will not change to include the Beetle Plastics operations. There are four resin and gel coat workstations being added to the MWC facility to perform fiberglass winding operations. The additional atomized spray guns at the four additional work stations increase the particulate matter (PM) potential to emit (PTE). However, the PTE of PM from atomized spray does not exceed major source thresholds. PTE of PM due to atomized spray operations at the MWC facility is presented in the calculations section. The “Fill Glue” process listed in previous permits is no longer performed at the facility and references to the “Fill Glue” process are being deleted. The facility is not subject to PSD requirements. The facility-

wide emissions limitations for fiberglass operations are sufficient to include emissions from Beetle Plastics, LLC – Ardmore Plant.

The emissions inventories for the permitted facilities have been summed for the years 2015 through 2019 to demonstrate the facility’s ability to comply with existing permit limitations. The following table sums annual styrene and VOC emissions. NOx and CO emissions are insignificant.

Emissions Summaries from 2015 to 2019

Year	MWC		Beetle Plastics		Sum of Emissions	
	Styrene (TPY)	VOC (TPY)	Styrene (TPY)	VOC (TPY)	Styrene (TPY)	VOC (TPY)
2015	22.86	23.85	7.94	7.97	30.79	31.82
2016	24.64	24.77	11.22	11.23	35.86	36.00
2017	24.83	24.89	5.57	5.60	30.40	30.49
2018	31.79	31.93	11.15	13.73	42.94	45.66
2019	28.79	29.01	5.65	7.13	34.44	36.14

Emissions of styrene and VOC will comply with existing permit limitations (99 TPY).

SECTION V. EQUIPMENT

EUG 1 Open-Mold Fiberglass/Vacuum Bagging

EU	Point	Name/Model	Const. Date
Bth#1	13913	Booth #1: Spray/Hand Layup Booth	5/1988
Bth#2	13914	Booth #2: Spray/Hand Layup Booth	5/1988
Bth#3	13915	Booth #3: Spray/Hand Layup Booth	5/1988
Bth#4	13916	Booth #4: Spray/Hand Layup Booth	5/1991
RST#1	T-1	Polyester Resin, 7,500-gal	5/1988
RST#2	T-2	Polyester Resin, 7,500-gal	5/1988
RST#3	T-10	Polyester Resin, 7,500-gal	5/1988
DP#1	13919	Detail Process	5/1988
MP#1	13920	Mold Process	5/1988
MixT#1	T-3	Polyester Resin (Mix Tank), 300-gal	5/1988
MixT#2	T-4	Polyester Resin (Mix Tank), 400-gal	5/1988
MixT#3	T-5	Polyester Resin (Mix Tank), 400-gal	5/1988
MixT#4	T-6	Polyester Resin (Mix Tank), 400-gal	5/1988

EUG 2 Components/Assembly Open Mold Spray-up

EU	Point	Name/Model	Const. Date
PLP#4	Fugitive	Component Spray Layup Process (fittings, flanges, etc.)	5/1988
	Fugitive	Components Assembly	5/1988

EUG 3 Winding Operations

EU	Point	Name/Model	Const. Date
Wnd#1	Fugitive	60-ft Winding Mandrel	1/2021
Wnd#2	Fugitive	40-ft Winding Mandrel	1/2021
Wnd#3	Fugitive	30-ft Winding Mandrel	1/2021
Wnd#4	Fugitive	20-ft Winding Mandrel	1/2021
MixT#2	Fugitive	Polyester Resin Mix Tank “Day Tank”, 400-gal	1/2021
CirT#3	Fugitive	Polyester Resin Mix/Circulation Tank, “Day Tank”, 400-gal	1/2021
CG	Fugitive	HVLP Chop Gun	10/2001
HTS	H1-H8	Radiant Heaters (eight 0.20 MMBTUH units)	5/1988
RST#4	T-11	Polyester Resin, 7,500-gal	1/2021
RST#5	T-12	Polyester Resin, 7,500-gal	1/2021
HTS	H9	South Make-Up Unit (1.072 MMBTUH)	1/2021

EUG 4 Pultrusion Process

EU	Point	Name/Model	Const. Date
Pul#1	Fugitive	Pultrusion Line #1 (Creel Rack, Mat/Veil Rack, Resin Baths, Performing Table, Pullers, Saw, Roller Conveyor)	1/2021
Pul#2	Fugitive	Pultrusion Line #2 (Creel Rack, Mat/Veil Rack, Resin Baths, Performing Table, Pullers, Saw, Roller Conveyor)	1/2021
HTS	H10-H11	Radiant Heaters (two 0.20 MMBTUH units)	1/2021
RST#6	T-13	Polyester Resin, 7,500-gal	1/2021
HTS	H12	North Make-Up Unit (1.072 MMBTUH)	1/2021

Miscellaneous Tanks

EU	Point	Contents	Gallons
Diesel#1	T-7	Diesel Fuel Tank	1,000

Process Piping Fugitives ⁽¹⁾

EU	Number Items	Type of Equipment
Fugitives	55-70	Valves
	12-25	Pump Seals
	75-100	Connectors

⁽¹⁾ This is an estimate of the number of components currently located at the facility.

EUG 5 Heaters

EU	Point	Name/Model	Const. Date
South Heater	H13	0.225 MMBTUH South Heater	2/2017
North Heater	H14	0.180 MMBTUH North Heater	2/2017

SECTION VI. EMISSIONS

Emissions from the fiberglass fabrication process consist of Hazardous Air Pollutants (HAPs) (mainly styrene) that are also VOCs. HAP emissions originate from several points located within the building but are primarily generated in the spraying booths during gel coating and resin

application. As required in §§ 63.5796, 63.5799(a)(1) and (b), and 63.5810(a)(1), to calculate organic HAP emission factors for specific open molding process streams, a facility must use the equations in Table 1 of NESHAP, Subpart WWWW, which is reproduced on the following pages. The emission factors calculated using Table 1 of Subpart WWWW are in pounds of organic HAP emitted per ton of resin or gel coat used and are based on the resin/gel coat organic HAP content. HAP emission estimates from the use of resins and gel coats were then calculated using the required NESHAP, Subpart WWWW, emission factors that were calculated using the equations in Table 1 of Subpart WWWW.

Potential emissions from use of the resins and gel coats are based on the emission factors for the resin/gel coats with the highest organic HAP content and the maximum estimated material usage. The facility uses low organic HAP content resins/gel coats, vapor suppressed resins, and non-atomized resin applicators to reduce emissions of organic HAP. For calculations of emissions for the Permit Memorandum, the vapor suppressant was assumed to have an emission reduction factor of 50% (0.50). To demonstrate the effectiveness of the vapor suppressant, an effectiveness test was performed by Eastman Companies on August 30, 2004. The results of this test demonstrate compliance with NESHAP, Subpart WWWW.

Emissions from the use of the liquid organic peroxide catalyst MEKP have been calculated, using the report prepared by Dr. Robert Haberlein of Engineering Environmental on behalf of the Composites Fabricators Association (CFA) "Emission Factors for Liquid Organic Peroxide Catalyst Used in Open Molding of Composites."

All other VOC/HAP emissions from other processes are based on the maximum VOC/HAP content of the material and material usage. All of these VOCs/HAPs are assumed to be emitted to the atmosphere. A small amount of particulate matter will result from overspray of the material. The particulate emissions were calculated with 90% transfer efficiency and 70% collection efficiency.

Table 1 to Subpart WWWW – Equations to Calculate Organic HAP Emission Factors Specific Open Molding and Centrifugal Casting Process Streams¹

If your operation type is a new or existing ...	And you use ...	With ...	Use this organic HAP Emission Factor (EF) Equation for materials with less than 33 % organic HAP (19 % organic HAP for nonatomized gel coat) ^{2 3 4} ...	Use this organic HAP Emission Factor (EF) Equation for materials with 33 % or more organic HAP (19 % organic HAP for nonatomized gel coat) ^{2 3 4} ...
1. Open molding operations	a. Manual resin application	i. Nonvapor-suppressed resin,	EF = 0.126 × %HAP × 2000.	EF = ((0.286 × %HAP) - 0.0529) × 2000.
		ii. Vapor-suppressed resin,	EF = 0.126 × %HAP × 2000 × (1 - (0.5 × VSE factor)).	EF = ((0.286 × %HAP) - 0.0529) × 2000 × (1 - (0.5 × VSE factor)).
		iii. Vacuum bagging/closed mold curing with roll-out,	EF = 0.126 × % HAP × 2000 × 0.8.	EF = ((0.286 × %HAP) - 0.0529) × 2000 × 0.8.
		iv. Vacuum bagging/closed mold curing with out roll-out,	EF = (0.126 × % HAP × 2000 × 0.5.	EF = ((0.286 × %HAP) - 0.0529) × 2000 × 0.5.
	b. Atomized mechanical resin application	i. Nonvapor-suppressed resin,	EF = 0.169 × %HAP × 2000.	EF = ((0.714 × %HAP) - 0.18) × 2000.
		ii. Vapor-suppressed resin,	EF = 0.169 × %HAP × 2000 × (1 - (0.45 × VSE factor)).	EF = ((0.714 × %HAP) - 0.18) × 2000 × (1 - (0.45 × VSE factor)).
		iii. Vacuum bagging/closed mold curing with roll-out,	EF = 0.169 × %HAP × 2000 × 0.85.	EF = ((0.714 × %HAP) - 0.18) × 2000 × 0.85.
		iv. Vacuum bagging/closed mold curing with out roll-out,	EF = 0.169 × %HAP × 2000 × 0.55.	EF = ((0.714 × %HAP) - 0.18) × 2000 × 0.55.
	c. Nonatomized mechanical resin application	i. Nonvapor-suppressed resin,	EF = 0.107 × %HAP × 2000.	EF = ((0.157 × %HAP) - 0.0165) × 2000.
		ii. Vapor-suppressed resin,	EF = 0.107 × %HAP × 2000 × (1 - (0.45 × VSE factor)).	EF = ((0.157 × %HAP) - 0.0165) × 2000 × (1 - (0.45 × VSE factor)).
		iii. Closed mold curing with roll-out,	EF = 0.107 × %HAP × 2000 × 0.85.	EF = ((0.157 × %HAP) - 0.0165) × 2000 × 0.85.
		iv. Vacuum bagging/closed mold curing with out roll-out,	EF = 0.107 × %HAP × 2000 × 0.55.	EF = ((0.157 × %HAP) - 0.0165) × 2000 × 0.55.
	d. Atomized mechanical resin application with robotic or automated spray control ⁵	Nonvapor-suppressed resin,	EF = 0.169 × %HAP × 2000 × 0.77.	EF = 0.77 × ((0.714 × %HAP) - 0.18) × 2000.

Table 1 to Subpart WWWW – Equations to Calculate Organic HAP Emission Factors Specific Open Molding and Centrifugal Casting Process Streams (Cont.)

If your operation type is a new or existing ...	And you use ...	With ...	Use this organic HAP Emission Factor (EF) Equation for materials with less than 33 % organic HAP (19 % organic HAP for nonatomized gel coat) ^{2 3 4} ...	Use this organic HAP Emission Factor (EF) Equation for materials with 33 % or more organic HAP (19 % organic HAP for nonatomized gel coat) ^{2 3 4} ...
	e. Filament application ⁶	i. Nonvapor-suppressed resin,	EF = 0.184 × %HAP × 2000.	EF = ((0.2746 × %HAP) - 0.0298) × 2000.
		ii. Vapor-suppressed resin,	EF = 0.12 × %HAP × 2000.	EF = ((0.2746 × %HAP) - 0.0298) × 2000 × 0.65.
	f. Atomized spray gel coat application	Nonvapor-suppressed gel coat,	EF = 0.445 × %HAP × 2000.	EF = ((1.03646 × %HAP) - 0.195) × 2000.
	g. Nonatomized spray gel coat application	Nonvapor-suppressed gel coat,	EF = 0.185 × %HAP × 2000.	EF = ((0.4506 × %HAP) - 0.0505) × 2000.
	h. Atomized spray gel coat application using robotic or automated spray	Nonvapor-suppressed gel coat,	EF = 0.445 × % HAP × 2000 × 0.73.	EF = ((1.03646 × %HAP) - 0.195) × 2000 × 0.73.
2. Centrifugal casting operations. ^{7 8}	a. Heated air blown through molds	Nonvapor-suppressed resin,	EF = 0.558 × (%HAP) × 2000.	EF = 0.558 × (%HAP) × 2000.
	b. Vented molds, but air vented through the molds is not heated	Nonvapor-suppressed resin,	EF = 0.026 × (%HAP) × 2000.	EF = 0.026 × (%HAP) × 2000.

Footnotes to Table 1

- ¹ The equations in this table are intended for use in calculating emission factors to demonstrate compliance with the emission limits in Subpart WWWW. These equations may not be the most appropriate method to calculate emission estimates for other purposes. However, this does not preclude a facility from using the equations in this table to calculate emission factors for purposes other than rule compliance if these equations are the most accurate available.
To obtain the organic HAP emissions factor value for an operation with an add-on control device multiply the EF above by the add-on control factor calculated using Equation 1 of § 65.5810. The organic HAP emissions factors have units of lbs of organic HAP per ton of resin or gel coat applied.
- ³ %HAP means total weight percent of organic HAP (styrene, methyl methacrylate, and any other organic HAP) in the resin or gel coat prior to the addition of fillers, catalyst, and promoters. Input the percent HAP as a decimal, *i.e.* 33 %HAP should be input as 0.33, not 33.
- ⁴ The VSE factor means the percent reduction in organic HAP emissions expressed as a decimal measured by the VSE test method of Appendix A to Subpart WWWW.
- ⁵ This equation is based on an organic HAP emissions factor equation developed for mechanical atomized controlled spray. It may only be used for automated or robotic spray systems with atomized spray. All spray operations using hand held spray guns must use the appropriate mechanical atomized or mechanical nonatomized organic HAP emissions factor equation. Automated or robotic spray systems using nonatomized spray should use the appropriate nonatomized mechanical resin application equation.
- ⁶ Applies only to filament application using an open resin bath. If resin is applied manually or with a spray gun, use the appropriate manual or mechanical application organic HAP emissions factor equation.
- ⁷ These equations are for centrifugal casting operations where the mold is vented during spinning. Centrifugal casting operations where the mold is completely sealed after resin injection are considered to be closed molding operations.
- ⁸ If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, use the appropriate open molding equation with covered cure and no rollout to determine an emission factor for operations prior to the closing of the centrifugal casting mold. If the closed centrifugal casting mold is vented during spinning, use the appropriate centrifugal casting equation to calculate an emission factor for the portion of the process where spinning and cure occur. If a centrifugal casting operation uses mechanical or manual resin application techniques to apply resin to an open centrifugal casting mold, and the mold is then closed and is not vented, treat the entire operation as open molding with covered cure and no rollout to determine emission factors.

The hourly emission rates of the individual resins and gel coats are based on the maximum application rate of eight pounds per minute per applicator and a total of four applicators (one for each booth). These numbers are significantly higher than normal operation and overestimate emissions. The total hourly emission rate is based on application of the individual resin/gel coat with the highest maximum hourly emission rate. Hourly emissions from usage of other styrene containing materials are based on total emissions averaged over the number of hours expected to operate per year (5,200 hours/year).

Emissions of Styrene from UPR Mfg. Operations

	lb/hr	TPY
Emissions of Styrene from UPR Mfg. Operations	750.11	99.0

Other Styrene Containing Materials VOC/HAP Emissions

Material	lb/year	lb/hr	% VOC	lb/hr	TPY
Catalysts					
CADOX Catalyst	32,693	6.29	2	0.13	0.33
Thermacure Catalyst	2,329	0.45	22	0.10	0.26
DDM Catalyst	9,638	1.85	8	0.15	0.39
Raw Chemicals					
Cobalt Solutions	668	0.13	56	0.07	0.19
Dimethylaniline	93	0.02	100	0.02	0.05
Dimethylacetoacetamide	88	0.02	80	0.02	0.04
Cleaners & Waxes					
Mold Cleaners	484	0.09	100	0.09	0.24
Waxes	610	0.12	100	0.12	0.31
Applicator Cleaners	17,850	3.43	56	1.92	5.00
Frekote Mold Sealer	336	0.06	99	0.06	0.17
Glues					
Adhesives	307,550	59.14	21	12.42	32.29
Resin Compounds					
Promoter Solution 46-559-00	40	0.01	75	0.01	0.02
Hetrolac 105	40	0.01	85	0.01	0.02
Chemlease 41-90	625	0.12	99	0.12	0.31
ISOSET WD3-A320	459	0.09	10	0.01	0.02

The resins, gelcoats, glue, and solvents contain HAP. The chemical composition and safety data are available on Material Safety Data Sheets (MSDS) that are kept on file on location. The table below lists estimates of the HAP emissions. Hourly emission rates are based on the gallon per hour usage.

HAP Emissions

Pollutant	CAS #	lb/hr	TPY
Dibasic Ester	TS	0.224	0.582
Diethylene Glycol Methyl Ether	111-77-3	0.010	0.027
Dimethyl Phthalate	131-11-3	0.003	0.006
Ethyl Benzene	100-41-4	<0.001	0.002
Glycol Ether Ester	TS	0.002	0.004
Methyl Methacrylate*	80-62-6	750.11	99.00
Styrene*	100-42-5	750.11	99.00
Toluene	108-88-3	0.052	0.135
Vinyl Acetate	108-05-4	0.005	0.012
Vinyl Monomer	TS	0.005	0.012
Xylene*	1330-20-7	0.061	0.158

* - These two HAPs are the major HAPs emitted during UPR Mfg. Operations and are shown as being the only HAPs emitted to allow for the greatest flexibility for the facility.

TS - Trade Secret

Atomized Spray Particulate Matter Emissions

Particulate emissions from the facility are listed below but are not included in the permit specific conditions. Particulate emissions are calculated as total particulate. PM10 was calculated equal to total particulate. PM2.5 emissions can equal PM10 emissions.

Estimated emissions for the gelcoat and resin application are based on recommendations made in the *Draft Guide to the Estimation and Permitting of Particulate Emissions from the Manufacture of Reinforced Plastic Composites* from David J. Lipiro Environmental Compliance & Risk Management Inc. for Composite Fabricators' Association (method) and the following information.

$$PM = [Captured Emissions] + [Fugitive Emissions]$$

$$PM = [MS(1-De)Cae(1-Coe)] + [MS(1-De)(1-Cae)]$$

PM = total particulate emission rate, lb/hr

M = usage rate of material sprayed, lb/hr

S = solids content, expressed as a ratio

De = deposition efficiency of gel coat, ratio

Cae = capture efficiency of booth, ratio

Coe = control efficiency of booth filters, ratio

M is equal to the maximum application rate for an individual HVLP spray gun multiplied by the maximum number of hours the spray guns are utilized. Solids content is the maximum possible solids content from manufacturer safety data sheets. Deposition efficiency could approach 95% for uncontrolled gel coating. Capture efficiency is at least 80% for required process ventilation systems and was assumed for the filter booths. Booth filters are at least 92% effective according to the guidance.

The PTE of PM will increase with four additional resin and gel coating stations. The PTE of atomized spray is based on the following assumptions. Deposition is equal to 95%. The guidance states: “For processes served by ventilation systems designed per practices recommended by American Conference of Governmental Industrial Hygienists, LLC *Industrial Ventilation – A Manual for Recommended Practices* a capture efficiency of at least 80% may be assumed.” Fiberglass operations require worker safety ventilation. Therefore, the capture efficiency of the ventilation is used in the PTE calculations but is considered part of the process.

$$PM_{PTE} = [MS(1-De)(1-Cae)]$$

M = 9 guns x 900 lb/hr-gun at maximum capacity

S = 70% maximum solids content

De = 95% uncontrolled atomized spray

Cae = 80% capture efficiency of process ventilation

PTE based on 8,760 hrs/yr

$$PM_{PTE} = [(9 \text{ guns} \times 900 \text{ lb/hr-gun})(0.70)(1-0.95)(1-0.80)] = 56.7 \text{ lb/hr} = 248.35 \text{ TPY}$$

Actual winding PM is based on 97% deposition efficiency for winding operations. Actual PM is based on 99% deposition efficiency for controlled atomized spray inside spray booths. Capture efficiencies for spray booths and process ventilation systems are at least 80%. This results in an overestimate for the spray booths. Filters in the spray booths are assumed to be at least 99% effective due to filter maintenance requirements. Actual emissions are based on annual product inventories, 65% average solids content, 4,160 hours of operation per year, and include a 20% safety factor.

Actual PM from Atomized Spray

Point	Description	M (lb/hr)	S	De	Cae	Coe	Captured Emissions (lb/hr)	Fugitive Emissions (lb/hr)	Totals (lb/hr)
Bth#1	Booth	67.72	65%	99%	80%	92%	0.03	0.09	0.12
Bth#2	Booth	67.72	65%	99%	80%	92%	0.03	0.09	0.12
Bth#3	Booth	67.72	65%	99%	80%	92%	0.03	0.09	0.12
Bth#4	Booth	67.72	65%	99%	80%	92%	0.03	0.09	0.12
Booth Totals							0.11	0.35	0.47
PLP#4	Components	3.59	65%	97%	80%	0	0	0.01	0.01
Components Totals							0	0.01	0.01
Wnd#1	Winding	19.37	65%	97%	80%	0	0	0.08	0.08
Wnd#2	Winding	19.37	65%	97%	80%	0	0	0.08	0.08
Wnd#3	Winding	19.37	65%	97%	80%	0	0	0.08	0.08
Wnd#4	Winding	19.37	65%	97%	80%	0	0	0.08	0.08
Winding Totals							0	0.30	0.30
Totals of Atomized Spray PM Emissions							0.11	0.66	0.78
Totals of Atomized Spray PM Emissions + 20% safety factor							0.14	0.80	0.94
Totals of Atomized Spray PM Emissions + 20% safety factor (TPY)							0.28	1.67	1.95

Grinding and Sawing Particulate Matter Emissions

The facility estimated particulate matter emissions for grinding and wood sawing operations based on the following information.

$$PM = [Control Loss] + [Process Loss]$$

$$PM = [M(1-De)Cae(1-Coe)] + [M(1-De)(1-Cae)] \quad (Eq.2)$$

Where:

PM = Particulate Matter emission rate, pounds per hour

M = Rate of material abrasion, pounds per hour

S = Solids content, expressed as a ratio

De = Deposition efficiency of fugitive dust on surfaces, ratio

Cae = Capture efficiency of process ventilation system, ratio

Coe = PM control efficiency of process ventilation system, ratio

Finishing operations take place inside buildings. The facility assumes a deposition efficiency of 50% for grinding and wood sawing. Filter booths have a capture efficiency of at least 90%. The booth filters are at least 95% effective. Actual grinding emissions are based on 4,160 hours of operation per year. Actual wood sawing emissions are based on 280 hours of operation per year. Wood sawing emissions are captured with 80% efficiency and controlled with 92% efficiency by dust collectors.

Actual PM from Grinding and Sawing

Point	Description	D ¹ (lb/hr)	Time (hr)	M ² (lb/hr)	De	Cae	Coe	Control Loss (lb/hr)	Process Loss (lb/hr)	Totals (lb/hr)
Grind#1	Fiberglass Detail	1.250	4,160	1.460	50%	90%	95%	0.0329	0.073	0.11
Grind#2	Fiberglass Mold	0.063	4,160	0.073	50%	90%	95%	0.0016	0.004	0.01
Grind#3	Fiberglass Door	0.250	4,160	0.290	50%	90%	95%	0.0065	0.015	0.02
Grind#4	Components Pipe	0.500	4,160	0.580	50%	90%	95%	0.0131	0.029	0.04
Grinding Totals								0.0541	0.121	0.17
Saw#1	Pultrusion Saw	0.500	4,160	0.580	50%	90%	95%	0.0131	0.029	0.04
Saw#2	Mill CNC	0.750	280	1.019	50%	80%	92%	0.0326	0.102	0.13
Saw#3	Mill Arm Saw	0.125	280	0.170	50%	80%	92%	0.0054	0.017	0.02
Saw#4	Mill Drill Presses	0.125	280	0.170	50%	80%	92%	0.0054	0.017	0.02
Saw#5	Mill Misc Saws	0.125	280	0.170	50%	80%	92%	0.0054	0.017	0.02
Sawing Totals								0.0619	0.182	0.24
Totals of Grinding and Sawing PM Emissions								0.1160	0.303	0.41
Totals of Grinding and Sawing PM Emissions (TPY)								0.15	0.33	0.48

1 – D is the weight measurement of dust collected in a torrit over an 80 hour period.

2 – M = D/(Cae*Coe) from *Draft Guide to the Estimation and Permitting of Particulate Emissions from the Manufacture of Reinforced Plastic Composites*

Potential to emit for grinding and sawing was estimated based on the sum actual average hourly rates (M), continuous operation, and a safety factor of 2.5. M is equal to total mass collected. No correction is made for the ratio of particulate to total mass.

$$PTE_{GRIND/SAW} = [4.512 \text{ lb/hr} * 8,760 \text{ hr/yr} \div 2,000 \text{ lb/ton}] * 2.5 = 49.41 \text{ TPY}$$

Combustion Emissions

Emission estimates for the heaters are based on AP-42 (7/98), Section 1.4, Table 1.4-1 through Table 1.4-3 for small commercial boilers, the ratings listed, and a fuel heating value of 1,020-BTU/SCF. The heaters are insignificant activities.

Combustion Emission Factors

EU	Heat Rating (MMBTUH)	NOx (lb/MMSCF)	CO (lb/MMSCF)	PM ₁₀ (lb/MMSCF)	SO ₂ (lb/MMSCF)	VOC (lb/MMSCF)
S. Make-Up	1.027	100	84	7.6	0.6	5.5
N. Make-Up	1.027	100	84	7.6	0.6	5.5
S. Heater	0.225	100	84	7.6	0.6	5.5
N. Heater	0.180	100	84	7.6	0.6	5.5
Rad. Heaters	0.20	100	84	7.6	0.6	5.5

Combustion Emissions

EU	Point	NOx		CO		PM ₁₀		SO ₂		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S. Make-Up	H9	0.10	0.44	0.08	0.37	0.01	0.03	0.001	0.003	0.006	0.02
Radiant Heater	H1	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H2	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H3	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H4	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H5	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H6	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H7	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H8	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
N. Make-Up	H12	0.10	0.44	0.08	0.37	0.01	0.03	0.001	0.003	0.006	0.02
Radiant Heater	H10	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
Radiant Heater	H11	0.02	0.09	0.02	0.07	0.001	0.01	0.000	0.001	0.001	0.005
S. Heater	H13	0.02	0.10	0.02	0.08	0.002	0.007	0.000	0.001	0.001	0.005
N. Heater	H14	0.02	0.08	0.01	0.06	0.001	0.006	0.000	0.000	0.001	0.004
Totals		0.44	1.96	0.39	1.58	0.03	0.17	0.002	0.02	0.02	0.10

The following table summarizes actual PM emissions from gel coating, grinding, wood sawing, and combustion sources at the facility. Estimated emissions are total particulate. PM₁₀ emissions can equal total particulate emissions. PM_{2.5} emissions are assumed equal to PM₁₀ emissions. The facility is a minor source of particulate matter.

Particulate Emissions

Description	PM (lb/hr)	PM (TPY)
Bth#1	0.12	0.24
Bth#2	0.12	0.24
Bth#3	0.12	0.24
Bth#4	0.12	0.24
PLP#4	0.01	0.15
Wnd#1	0.08	0.79
Wnd#2	0.08	0.79
Wnd#3	0.08	0.79
Wnd#4	0.08	0.79
Fiberglass Detail	0.11	0.22
Fiberglass Mold	0.01	0.01
Fiberglass Door	0.02	0.04
Components Pipe	0.04	0.09
Pultrusion Saw	0.04	0.09
Mill CNC	0.13	0.02
Mill Arm Saw	0.02	<0.01
Mill Drill Presses	0.02	<0.01
Mill Misc Saws	0.02	<0.01
Combustion Sources	0.03	0.17
TOTALS	1.25	4.94

Fugitive VOC emissions are based on EPA’s 1995 *Protocol for Equipment Leak Emission Estimates* (EPA-453/R-95-017), Table 2-1, SOCMI Average Emission Factors, an estimated number of components, and an estimated % VOC. For the purposes of estimating VOC emissions, VOC is defined in Subchapter 37 and excludes acetone.

Fugitive VOC Emissions

Equipment	%C3+	Emission Factor	(lb/hr)	TPY
70 Valves	44	0.008885	0.2737	1.1988
25 Pump Seals	44	0.043872	0.4826	2.1138
150 Connectors	44	0.004034	0.2662	1.1660
Total Emissions			1.0225	4.4786

Total Facility VOC and HAP Emissions

EU	VOCs		HAPs	
	lb/hr	TPY	lb/hr	TPY
UPR MFG	750.11	99.00	750.11	99.00
Other	15.25	39.64	0.36	0.93
Fugitives	1.02	4.48	1.02	4.48
TOTALS	766.38	143.12	751.49	104.41

SECTION VII. INSIGNIFICANT ACTIVITIES

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

1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). There are some space heaters located at the facility, all of which are rated less than 5 MMBTUH, and others may be used in the future.
2. Emissions from stationary internal combustion engines rated less than 50 hp output. None identified but may be used in the future.
3. * Emissions from storage tanks constructed with a capacity less than 10,000 gallons which store VOC with a vapor pressure less than 1.0 psia at maximum storage temperature. Tanks T-1 through T-13 have capacities less than 10,000 gallons and store products having a vapor pressure less than 1.0 psia. The tanks, volumes, and contents are listed in Section V. Equipment.
4. Cold degreasing operations utilizing solvents that are denser than air. There are two parts washers located at the facility which use a solvent denser than air and others may be used in the future.
5. Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. The facility has chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas, all which have emissions below 5 TPY.
6. 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. The facility uses containers with less than 1 liter capacity for spot cleaning and/or degreasing.
7. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. The following activities each result in emissions of less than 5 TPY actual emissions. The emissions given below are based on the projected maximum usage.
 - Sanding and grinding of the products - < 1 TPY of PM.
 - Use of the liquid organic catalyst in the UPR operations - < 1 TPY of VOCs.
 - Use of mold cleaners – < 1 TPY of VOCs.
 - Use of pastes and waxes – < 1 TPY of VOCs.
 - Use of resin additives (raw chemicals) – < 2 TPY VOCs.
 - Use of cement primers and caulking – < 1 TPY VOCs.
 - Use of applicator cleaners - <5 TPY of VOCs.
 - Preparation of wooden molds and materials - <5 TPY of PM-10 and PM-2.5.
 - Other activities may be used in the future.

SECTION VIII. OKLAHOMA AIR POLLUTION CONTROL RULES

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

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

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

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

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

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

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

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

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

OAC 252:100-19 (Particulate Matter) [Applicable]
Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment, with emission limits based on maximum design heat input rating. Fuel-burning equipment is defined in OAC 252:100-19 as any internal combustion engine or gas turbine, or other combustion device used to convert the combustion of fuel into usable energy. Thus, the make-up units are subject to the requirements of this subchapter. OAC 252:100, Appendix C specifies a PM emission limitation of 0.60 lb/MMBTU for all equipment at this facility with a heat input rating of 10-MMBTUH or less. This permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

Source	Maximum Heat Input	Emissions (lbs/MMBTU)	
		Appendix C	Potential
South Make-Up Unit	1.027	0.60	0.00745
North Make-Up Unit	1.027	0.60	0.00745

This subchapter also addresses the limits for industrial processes in Appendix G. The equation used to calculate the Subchapter 19 limit follows:

$E = 4.10 \cdot P^{0.67}$
 E = allowable total particulate matter emission rate in lb/hr
 P = process weight rate in tons per hour.

The Subchapter 19 emission limit for atomized spray per spray booth follows:

Description	Appendix G Limit (lb/hr)	Estimated Emissions (lb/hr)
900 lb/hr Atomized Spray Gun (each)	2.40	0.12

P for grinding and wood sawing are unknown, but the throughput mass of fiberglass products and wood is much larger than the collected mass of grinded material and sawdust. These operations will not exceed Subchapter 19 limits.

OAC 252:100-25 (Visible Emissions and Particulate Matter) [Applicable]
 No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case, shall the average of any six-minute period exceed 60% opacity. When using natural gas as a fuel for the heaters there is very little possibility of exceeding the opacity standards. Particulate emissions from the sanding and grinding are controlled by use of filters. PM emissions from the coating operations overspray are controlled by use of either HVLP or flow coat application and use of particulate emission filters. All other emissions are VOCs. Based on experience with other operations of this type, the potential for violating the standard is negligible.

OAC 252:100-29 (Fugitive Dust) [Applicable]

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Not Applicable]

Part 2 limits the ambient air concentration of hydrogen sulfide (H₂S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 µg/m³. Fuel-burning equipment fired with pipeline natural gas will not have the potential to exceed the H₂S ambient air concentration limit.

Part 5 limits sulfur dioxide emissions from new equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/million BTU heat input. This is equivalent to approximately 0.2 weight percent sulfur in the fuel gas which is equivalent to 2,000 ppm sulfur. AP-42 (7/98), Table 1.4-2, lists the total SO₂ emissions for natural gas to be 0.6 lb/MMft³ or about 0.0006 lb/MMBTU which is in compliance with Subchapter 31. The facility does not have any stationary combustion units other than those considered to be insignificant activities. Therefore, there is no need to include any specific conditions to ensure compliance with this subchapter.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]

This subchapter limits NO_x emissions from new 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. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]

None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Parts 5 and 7 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 resin storage tanks store a VOC with a vapor pressure less than 1.5 psia under actual storage conditions.

Part 5 limits the VOC content of alkyd primer, epoxy, and maintenance finish coatings to 4.8 lbs/gallon, vinyl and acrylic coatings to 6.0 lbs/gallon, lacquers to 6.4 lbs/gallon, and custom product finishes to 6.5 lbs/gallon less water. Facilities that emit less than 100 lbs of solvent per 24-hour day are exempt from this requirement. The gel coats do not exceed the 6.5 lb/gal VOC content standard for custom product finishes. The gel coats contain approximately 4 lb/gallon of VOCs of which only a small portion is emitted. The resins are not surface coatings and are not subject to VOC content limitations.

Part 5 requires all emissions of VOCs from the clean up of any article, machine, or equipment used in applying coatings to be included when determining compliance with the above stated solvent limitations and emission limits. Most of the cleanup is done using acetone which is not

considered a VOC. Other solvents used to clean up have been averaged over the gel coat usage and the gel coats still would not exceed the standard.

Part 7 requires fuel-burning equipment to be cleaned, operated, and maintained so as to minimize VOC emissions. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded and temperature and available air must be sufficient to provide essentially complete combustion. This is an applicable requirement.

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

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in Areas of Concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no AOC has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]

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

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

OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Grain Elevators	not in source category
OAC 252:100-39	Nonattainment Areas	not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	not in source category

SECTION IX. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]

Total emissions are less than the major source threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Not Applicable]
Subparts K, Ka, Kb, VOL Storage Vessels. The 5,300 and 5,000 gallon resin storage tanks are not subject because they are below the de minimis size (19,813 gallons).
Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. This facility is not a SOCOMI plant.

NESHAP, 40 CFR Part 61 [Not Applicable]
 There are no non-negligible emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride.

NESHAP, 40 CFR Part 63 [Subpart WWWW]
Subpart WWWW, Reinforced Plastics Composites Production. The facility is an existing affected source, because it began operations in 1988, prior to the cutoff date (August 2, 2001) for new sources. The owner/operator requested a permit condition limiting total HAP emissions to less than 100 tons per year. In accordance with § 63.5800(b), an existing facility that does not have any centrifugal casting or continuous lamination/casting operations must meet the applicable organic HAP emissions limits in Table 3 and work practice standards of Table 4 of Subpart WWWW. The organic HAP emission limits from Table 3 that are applicable are shown following.

Open Molding - Corrosion-Resistant (CR)/High Strength (HS)	lb HAP/ton
Mechanical resin application	112
Manual resin application	123
Open Molding – Non-CR/HS	lb HAP/ton
Mechanical resin application	88
Manual resin application	87
Open Molding – Tooling	lb HAP/ton
Mechanical resin application	254
Manual resin application	157
Open Molding – Low-Flame Spread/Low Smoke Products	lb HAP/ton
Mechanical resin application	497
Manual resin application	238
Open Molding – Shrinkage Controlled Resins	lb HAP/ton
Mechanical resin application	354
Manual resin application	180
Open Molding – Gel Coat	lb HAP/ton
Tooling gel coating	440
White/off white pigmented gel coating	267
All other pigmented gel coating	377
CR/HS or high performance gel coat	605
Fire retardant gel coat	854
Clear production gel coat	522

The owner/operator is required to demonstrate compliance with these limits using equations to calculate organic HAP emissions factors specified in Table 1 Subpart WWWW. The method the facility uses to demonstrate compliance is the compliant material option. In implementing this

option, the facility agrees to the following: (1) to abide by HAP content limits for gel coats, resins, and other materials covered by this subpart; (2) to use non-atomized spray applicators; (3) to collect and retain 12-month rolling total HAP usage records; and (4) to use cleaning materials that do not contain HAPs. If the owner/operator elects to change this compliance method, they will be required to notify the AQD within 15 days of the change and identify the new method in their semi-annual compliance report.

The MACT standard also requires the following work practices for existing sources:

- Cleaning operations shall not use cleaning solvents that contain HAP, except that organic HAP containing cleaners can be used to clean cured resin from application equipment.
- Keep containers that store HAP materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

This facility is a major source of HAP subject to this subpart and was required to comply with this subpart by April 21, 2006. In addition to the emission limits, work practice standards, notice, and recordkeeping requirements, it should be noted that this subpart requires the owner/operator to submit semi-annual Part 63 compliance reports. These reports must be submitted under separate cover from the Title V semi-annual reports (SARs). The permit requires the owner/operator to comply with all applicable requirements of this subpart.

Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters. This subpart affects boilers or process heaters, as defined in §63.7575, that are located at, or is part of, a major source of HAP. This facility is a major source of HAP. *Unit designed to burn gas 1 subcategory* includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Boilers and process heaters in the *Unit designed to burn gas 1 subcategory and rated less than 5 MMBTUH* are required to comply with the work practice standards: new and existing boilers and process heaters must conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540; and *existing boilers and process heaters* must have a one-time energy assessment performed by a qualified energy assessor. A boiler or process heater is new if construction commenced after June 4, 2010. The heaters at this facility are existing sources under this subpart.

CAM, 40 CFR Part 64

[Not Applicable]

Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of the criteria on the following page:

- 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 for the source to be classified as a major source.

None of the emission units located at this source use a control device to achieve compliance with the applicable emission limits or standards for any regulated air pollutant.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This facility does not store any regulated substance above the applicable threshold limits. More information on this federal program is available at the web site: <http://www.epa.gov/rmp/>.

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.

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

SECTION X. COMPLIANCE

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

In addition to the permitting requirements, the following periodic inspections were conducted at the Midwest Cooling Towers Chickasha facility and the Beetle Plastics Ardmore facility since 2016.

Midwest Cooling Towers Chickasha, Permit No. 2016-0540-TVR3

Inspection Type	Date	Summary/Results
Full Inspection	5/7/2021	In compliance
Full Inspection	9/20/2018	In compliance
Full Inspection	2/28/2017	In compliance

Beetle Plastics Ardmore, Permit No. 2019-1256-TVR4

Inspection Type	Date	Summary/Results
Full Inspection	12/2/2019	In compliance
Full Inspection	6/21/2018	In compliance
Full Inspection	1/26/2016	In compliance

There have been no other enforcement actions since issuance of the last Title V renewal permits. The Beetle Plastics facility no longer operates.

Inspection

An inspection is not required prior to issuance of a construction permit.

Tier Classification and Public Review

This application has been determined to be **Tier II** based on the request for a physical change to a facility with a Part 70 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 (or applicant business) owns the land used to accomplish the permitted purpose.

The applicant published the “Notice of Filing a Tier II Application” in *The Express-Star*, a daily newspaper in Grady County, on January 7, 2021. The notice stated that the application was available for public review at the facility and at the AQD main office. The applicant will publish a “Notice of Draft Permit,” in a newspaper circulating in Grady County. The “Notice of Draft Permit” will state the draft permit will be available for public review for a period of thirty days at the a publicly accessible location in Grady County, at the AQD main office, and on the Air Quality section of the DEQ web page at <http://www.deq.ok.gov>. This facility is not located within 50 miles of the border of Oklahoma and any other state.

Fees Paid

Part 70 source construction permit modification application fee of \$5,000.

SECTION XI. SUMMARY

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

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

**Midwest Cooling Towers, Inc.
Fiberglass Fabrication Facility**

Permit Number 2016-0540-C (M-1)

The permittee is authorized to construct and operate in conformity with the specifications submitted to Air Quality on December 10, 2020 and supplemental information submitted after that date. The Evaluation Memorandum, dated October 11, 2021, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

- Facility-Wide VOC, Styrene, and Total HAP Emission Limits:** VOC and HAP emissions from the whole facility are based on an estimated material usage, emission factors, and hours of operation and shall be limited to the emission limits shown below. The VOC and HAP emissions from the whole facility shall not exceed the following limits based on a monthly 12-month rolling total. Each month the permittee shall calculate the total emissions from the whole facility for that month and for the previous twelve months of the following: VOCs, Styrene, Individual HAPs, and Total HAPs.
[OAC 252:100-8-6(a)(1)]

Pollutant	Facility-Wide Emission Limit¹
VOCs	99.0 TPY
HAPs	
Styrene	99.0 TPY
Each Individual HAP other than Styrene	9.5 TPY
Combination of HAPs	99.0 TPY

¹ TPY limits are based upon a 12-month rolling total.

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

EUG 1: Booths and Processing Areas

EUG 1 Booth 1 through Booth 4

EU	Point	Name/Model
Bth#1	13913	Booth #1: Spray/Hand Layup Booth
Bth#2	13914	Booth #2: Spray/Hand Layup Booth
Bth#3	13915	Booth #3: Spray/Hand Layup Booth
Bth#4	13916	Booth #4: Spray/Hand Layup Booth
PLP#4	13918	Pipe Layup Process

EU	Point	Name/Model
DP#1	13919	Detail Process
MP#1	13920	Mold Process

- a. Organic HAP emissions shall comply with the limits identified in Table 3 of NESHAP, Subpart WWWW.
- b. VOC emissions, individual HAP emissions, and total HAP emissions shall be summed with those from other sources for the purposes of demonstrating compliance with the facility-wide emissions limits.
- c. Emission calculations to show compliance with the facility-wide 99.0 TPY total HAP emissions limit as well as the organic HAP emissions limits from NESHAP, Subpart WWWW shall be calculated consistent with the following:
 - i. The emission factors for the specific resin and gel coat application method based on the percent organic HAP content of the resin or gel coat used shall be calculated using the equations from Table 1 of 40 CFR Part 63, Subpart WWWW.
 - ii. If the organic HAP content is provided by the material supplier as a range, the upper limit of the range shall be used.
 - iii. To use the emission reductions provided by the vapor suppressant in the calculations, the vapor suppressant effectiveness (VSE) Factor shall be determined by conducting testing according to the procedures specified in Appendix A of 40 CFR Part 63, Subpart WWWW.
 - iv. The emissions from the open molding operations shall be calculated using the emission factors calculated using the methods indicated above and the material usage of each resin and gel coat application method and, if determined, the applicable VSE factors.
 - v. Each month the permittee shall calculate the total organic HAP emissions from the facility over the previous twelve months.
 - vi. The permittee shall determine compliance for the first 12 months of this permit based on material usage and emission calculations from the previous 12 months.
 - vii. Calculations used to determine compliance with the 99.0 TPY organic HAP emission limit shall include fugitive emissions as well as emissions from all other sources of HAP at the facility.

EUG 3: Storage tank VOC emissions shall be summed with those from other sources for the purposes of demonstrating compliance with the facility-wide emissions limits. The permittee may bring additional tanks into service or retire existing tanks as needed, provided that each tank conforms with the maximum volume limitations provided in the table below and provided that the tank contents have a true vapor pressure less than 1.5 psia. In addition, the permittee shall apply for a construction permit for any new tank if installation of that tank constitutes a modification under NSPS or NESHAP, a significant modification under PSD, or otherwise triggers construction permit requirements. For each tank used in these operations, the applicant shall record the date that the tank was brought into service, the tank volume, the tank contents, and the date the tank is removed from service.

EU	Point	Contents	Maximum Volume of Each Tank (gallons)
RST#1+	Per Tank	Polyester Resin Storage Tanks	10,000
MixT#1+	Per Tank	Polyester Resin Mix Tanks	400
CirT#1+	Per Tank	Polyester Resin (Mix/Circulation) Tanks	400
Diesel#1+	Per Tank	Diesel Fuel	1,000

EUG 4: Fugitive VOC emissions shall be summed with those from other sources for the purposes of demonstrating compliance with the facility-wide emissions limits. The permittee may add or remove valves, pump seals, connectors, and related items from service as needed. The permittee shall estimate and record the number of equipment items by type and shall estimate fugitive emissions from those items using factors obtained from the EPA’s *1995 Protocol for Equipment Leak Emission Estimates* (EPA-453/R-95-017), an estimated number of components, and an estimated % VOC.

3. The permittee is authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
4. The permittee shall employ all General Purpose Resins in accordance with NESHAP, Subpart WWWW, including, if required, the use of a vapor suppressant. [OAC 252:100-8-6(a) and 40 CFR §§ 63.5780 through 63.5935]
5. Particulate filters shall be installed and operable during all operations. The filters shall be maintained in accordance with manufacturer’s recommendations on a scheduled basis to insure maximum operating efficiency of the particulate filters. The particulate filters may be replaced only by a control device with an equal or greater control efficiency (70%). [OAC 252:100-8-6(a)]
6. All gel coating operations shall be performed using either HVLP, “air assisted” airless application equipment, flow coaters, or hand lay-up. Resins application shall be performed using either flow coaters or hand lay-up. [OAC 252:100-8-6(a)]
7. The permittee shall comply with all applicable requirements of NESHAP, 40 CFR Part 63, Subpart WWWW affecting any operations performed at the facility, including, but not limited to, the following. [40 CFR §§ 63.5780 through 63.5935]
 - a. § 63.5785 Am I subject to this subpart?
 - b. § 63.5790 What parts of my plant does this subpart cover?
 - c. § 63.5795 How do I know if my reinforced plastic composites production facility is a new affected source or an existing affected source?
 - d. § 63.5796 What are the organic HAP emissions factor equations in Table 1 to this subpart and how are they used in this subpart?
 - e. § 63.5797 How do I determine the organic HAP content of my resins and gel coats?

- f. § 63.5799 How do I calculate my facility's organic HAP emissions on a tpy basis for purposes of determining which paragraphs of § 63.5805 apply?
 - g. § 63.5800 When do I have to comply with this subpart?
 - h. § 63.5805 What standards must I meet to comply with this subpart?
 - i. § 63.5810 What are my options for meeting the standards for open molding and centrifugal casting operations at new and existing sources?
 - j. §63.5835 What are my general requirements for complying with this subpart?
 - k. §63.5840 By what date must I conduct a performance test or other initial compliance demonstration?
 - l. § 63.5860 How do I demonstrate initial compliance with the standards?
 - m. § 63.5895 How do I monitor and collect data to demonstrate continuous compliance?
 - n. § 63.5900 How do I demonstrate continuous compliance with the standards?
 - o. § 63.5905 What notifications must I submit and when?
 - p. § 63.5910 What reports must I submit and when? The semi-annual Part 63 compliance report required under this subpart must be submitted under separate cover from the Part 70 semi-annual report even though both reports are submitted on the same schedule.
 - q. § 63.5915 What records must I keep?
 - r. § 63.5920 In what form and how long must I keep my records?
 - s. § 63.5925 What parts of the General Provisions apply to me?
 - t. § 63.5935 What definitions apply to this subpart?
8. The permittee shall comply with all applicable requirements of NESHAP, 40 CFR Part 63, Subpart DDDDD affecting any operations performed at the facility, including, but not limited to, the following. [40 CFR §§ 63.7480 through 63.7575]
- a. §63.7480 What is the purpose of this subpart?
 - b. §63.7485 Am I subject to this subpart?
 - c. §63.7490 What is the affected source of this subpart?
 - d. §63.7491 Are any boilers or process heaters not subject to this subpart?
 - e. §63.7495 When do I have to comply with this subpart?
 - f. §63.7499 What are the subcategories of boilers and process heaters?
 - g. §63.7500 What emission limitations, work practice standards, and operating limits must I meet?
 - h. §63.7505 What are my general requirements for complying with this subpart?
 - i. §63.7510 What are my initial compliance requirements and by what date must I conduct them?
 - j. §63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?
 - k. §63.7520 What stack tests and procedures must I use?
 - l. §63.7521 What fuel analyses, fuel specification, and procedures must I use?
 - m. §63.7522 Can I use emissions averaging to comply with this subpart?
 - n. §63.7525 What are my monitoring, installation, operation, and maintenance requirements?
 - o. §63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

- p. §63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?
 - q. §63.7535 Is there a minimum amount of monitoring data I must obtain?
 - r. §63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?
 - s. §63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?
 - t. §63.7545 What notifications must I submit and when?
 - u. §63.7550 What reports must I submit and when?
 - v. §63.7555 What records must I keep?
 - w. §63.7560 In what form and how long must I keep my records?
 - x. §63.7565 What parts of the General Provisions apply to me?
 - y. §63.7570 Who implements and enforces this subpart?
 - z. §63.7575 What definitions apply to this subpart?
9. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations that qualify as Trivial Activities.
[OAC 252:100-8-6 (a)(3)(B)]
- a. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia; records of capacity of the tanks and contents.
 - b. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant; the type of activity and the amount of emissions from that activity (cumulative annual).
10. The permittee shall maintain records of operations 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 252:100-8-6 (a)(3)(B)]
- a. Resin usage (vapor suppressed and non-vapor suppressed) by type of application and organic HAP content, gel coat usage by type of application and organic HAP content, and adhesive usage (monthly and 12-month rolling totals).
 - b. If applicable, test results used to determine the VSE Factor using Appendix A of 40 CFR Part 63, Subpart WWWW.
 - c. Emission calculations (monthly and 12-month rolling total).
 - d. Material Safety Data Sheets (MSDSs) for all resins, gel coats, and other materials used at the facility showing the weight per gallon, % organic HAP by weight, and the % by weight of all toxic constituents.
 - e. Records required by 40 CFR Part 63, Subpart WWWW.
 - f. Records required by 40 CFR Part 63, Subpart DDDDD.
11. No later than 30 days after each anniversary date of the issuance of the original Title V operating permit (February 22, 2001), 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. The following specific information for the past year is required to be included:
[OAC 252:100-8-6 (c)(5)(A) & (D)]

- a. Resin usage (vapor suppressed and non-vapor suppressed) by type of application and organic HAP content, gel coat usage by type of application and organic HAP content, and adhesive usage (monthly and 12-month rolling totals).
 - b. Emission calculations (monthly and 12-month rolling total).
-
12. Within 180 days of operational start-up of the proposed project, the permittee shall submit an application for a modified operating permit and inform AQD of any changes in operation from the construction permit application.

**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]

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
4-15-21

ACFM	Actual Cubic Feet per Minute	GR	Grain(s) (gr)
AD	Applicability Determination	H₂CO	Formaldehyde
AFRC	Air-to-Fuel Ratio Controller	H₂S	Hydrogen Sulfide
API	American Petroleum Institute	HAP	Hazardous Air Pollutants
ASTM	American Society for Testing and Materials	HC	Hydrocarbon
		HCFC	Hydrochlorofluorocarbon
		HFR	Horizontal Fixed Roof
BACT	Best Available Control Technology	HON	Hazardous Organic NESHAP
BAE	Baseline Actual Emissions	HP	Horsepower (hp)
BHP	Brake Horsepower (bhp)	HR	Hour (hr)
BTU	British thermal unit (Btu)		
		I&M	Inspection and Maintenance
C&E	Compliance and Enforcement	IBR	Incorporation by Reference
CAA	Clean Air Act	ICE	Internal Combustion Engine
CAM	Compliance Assurance Monitoring		
CAS	Chemical Abstract Service	LAER	Lowest Achievable Emission Rate
CAAA	Clean Air Act Amendments	LB	Pound(s) [Mass] (lb, lbs, lbm)
CC	Catalytic Converter	LB/HR	Pound(s) per Hour (lb/hr)
CCR	Continuous Catalyst Regeneration	LDAR	Leak Detection and Repair
CD	Consent Decree	LNG	Liquefied Natural Gas
CEM	Continuous Emission Monitor	LT	Long Ton(s) (metric)
CFC	Chlorofluorocarbon		
CFR	Code of Federal Regulations	M	Thousand (Roman Numeral)
CI	Compression Ignition	MAAC	Maximum Acceptable Ambient Concentration
CNG	Compressed Natural Gas	MACT	Maximum Achievable Control Technology
CO	Carbon Monoxide or Consent Order	MM	Prefix used for Million (Thousand-Thousand)
COA	Capable of Accommodating	MMBTU	Million British Thermal Units (MMBtu)
COM	Continuous Opacity Monitor	MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
		MMSCF	Million Standard Cubic Feet (MMscf)
D	Day	MMSCFD	Million Standard Cubic Feet per Day
DEF	Diesel Exhaust Fluid	MSDS	Material Safety Data Sheet
DG	Demand Growth	MWC	Municipal Waste Combustor
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)	MWe	Megawatt Electrical
		NA	Nonattainment
EGU	Electric Generating Unit	NAAQS	National Ambient Air Quality Standards
EI	Emissions Inventory	NAICS	North American Industry Classification System
EPA	Environmental Protection Agency	NESHAP	National Emission Standards for Hazardous Air Pollutants
ESP	Electrostatic Precipitator	NH₃	Ammonia
EUG	Emissions Unit Group	NMHC	Non-methane Hydrocarbon
EUSGU	Electric Utility Steam Generating Unit	NGL	Natural Gas Liquids
		NO₂	Nitrogen Dioxide
FCE	Full Compliance Evaluation	NO_x	Nitrogen Oxides
FCCU	Fluid Catalytic Cracking Unit	NOI	Notice of Intent
FIP	Federal Implementation Plan	NSCR	Non-Selective Catalytic Reduction
FR	Federal Register	NSPS	New Source Performance Standards
		NSR	New Source Review
GACT	Generally Achievable Control Technology		
GAL	Gallon (gal)		
GDF	Gasoline Dispensing Facility		
GEP	Good Engineering Practice		
GHG	Greenhouse Gases		

O₃	Ozone	SOP	Standard Operating Procedure
O&G	Oil and Gas	SRU	Sulfur Recovery Unit
O&M	Operation and Maintenance	T	Tons
O&NG	Oil and Natural Gas	TAC	Toxic Air Contaminant
OAC	Oklahoma Administrative Code	THC	Total Hydrocarbons
OC	Oxidation Catalyst	TPY	Tons per Year
PAH	Polycyclic Aromatic Hydrocarbons	TRS	Total Reduced Sulfur
PAE	Projected Actual Emissions	TSP	Total Suspended Particulates
PAL	Plant-wide Applicability Limit	TV	Title V of the Federal Clean Air Act
Pb	Lead	µg/m³	Micrograms per Cubic Meter
PBR	Permit by Rule	US EPA	U. S. Environmental Protection Agency
PCB	Polychlorinated Biphenyls	VFR	Vertical Fixed Roof
PCE	Partial Compliance Evaluation	VMT	Vehicle Miles Traveled
PEA	Portable Emissions Analyzer	VOC	Volatile Organic Compound
PFAS	Per- and Polyfluoroalkyl Substance	VOL	Volatile Organic Liquid
PM	Particulate Matter	VRT	Vapor Recovery Tower
PM_{2.5}	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers	VRU	Vapor Recovery Unit
PM₁₀	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers	YR	Year
POM	Particulate Organic Matter or Polycyclic Organic Matter	2SLB	2-Stroke Lean Burn
ppb	Parts per Billion	4SLB	4-Stroke Lean Burn
ppm	Parts per Million	4SRB	4-Stroke Rich Burn
ppmv	Parts per Million Volume		
ppmvd	Parts per Million Dry Volume		
PSD	Prevention of Significant Deterioration		
psi	Pounds per Square Inch		
psia	Pounds per Square Inch Absolute		
psig	Pounds per Square Inch Gage		
RACT	Reasonably Available Control Technology		
RATA	Relative Accuracy Test Audit		
RAP	Regulated Air Pollutant		
RFG	Refinery Fuel Gas		
RICE	Reciprocating Internal Combustion Engine		
RO	Responsible Official		
ROAT	Regional Office at Tulsa		
RVP	Reid Vapor Pressure		
SCC	Source Classification Code		
SCF	Standard Cubic Foot		
SCFD	Standard Cubic Feet per Day		
SCFM	Standard Cubic Feet per Minute		
SCR	Selective Catalytic Reduction		
SER	Significant Emission Rate		
SI	Spark Ignition		
SIC	Standard Industrial Classification		
SIP	State Implementation Plan		
SNCR	Selective Non-Catalytic Reduction		
SO₂	Sulfur Dioxide		
SO_x	Sulfur Oxides		

DRAFT



PART 70 PERMIT

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

Permit No. 2016-0540-C (M-1)

Midwest Cooling Towers, Inc.,

having complied with the requirements of the law, is hereby granted permission to construct and operate the Fiberglass Fabrication Facility located in Section 15, T6N, R7W, Grady County, Oklahoma, subject to the Standard Conditions dated June 21, 2016, and Specific Conditions, both of which are attached.

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

DRAFT

Kendal Stegmann, Director,
Air Quality Division

Date



SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

Ms. Ann Pate
President
Midwest Cooling Towers, Inc.
1156 E. Highway 19
Chickasha, OK 73018

SUBJECT: Title V Construction Permit No. **2016-0540-C (M-1)**
Midwest Cooling Towers, Inc.
Fiberglass Fabrication Facility
Facility ID No. 2239
Section 15, Township 6N, Range 7W
Grady County, Oklahoma

Dear Ms. Pate:

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

Also note that you are required to annually submit an emission inventory for this facility. An emission 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 Emission 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 or Kyle Walker, the permit writer, at (405) 702-4193 or kyle.walker@deq.ok.gov.

Sincerely,

DRAFT

Phillip Fielder, P.E.
Permits & Engineering Group Manager
AIR QUALITY DIVISION

Enclosure





SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

Chickasaw Nation
Attn: Bill Anoatubby, Governor
P.O. Box 1548
Ada, OK 74821

Re: Permit Application No. 2016-0540-C (M-1)
Company, Facility (FAC ID 2239)
Grady County
Date Received: December 10, 2020

Dear Governor Anoatubby:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II/Tier III application referenced above. A Tier II/III application requires the facility provide a 30-day public comment period on the draft Tier II/III permit and a 20-day public comment period on a proposed Tier III permit at a public location within the county of the facility. The process requires the facility to notify the public by newspaper notice in a newspaper in the county of the proposed project. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to the newspaper notice.

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

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

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

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

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

Sincerely,

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



SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

Ms. Ann Pate, President
Midwest Cooling Towers, Inc.
1156 E. Highway 19
Chickasha, OK 73018

SUBJECT: Title V Construction Permit No. **2016-0540-C (M-1)**
Midwest Cooling Towers, Inc.
Fiberglass Fabrication Facility, Facility ID No. 2239
Section 15, Township 6N, Range 7W
Grady County, Oklahoma

Dear Ms. Pate:

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

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

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or Kyle Walker, the permit writer, at (405) 702-4193 or kyle.walker@deq.ok.gov.

Sincerely,

A handwritten signature in black ink that reads 'Phillip Fielder'.

Phillip Fielder, P.E.
Permits & Engineering Group Manager
AIR QUALITY DIVISION

Enclosure



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

APPLICANT RESPONSIBILITIES

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

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

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

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

SAMPLE NOTICE on page 2 (*Italicized print is to be filled in by the applicant.*):

DEQ NOTICE OF TIER ...II or III... DRAFT PERMIT

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

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

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

This draft permit would authorize the facility to emit the following regulated pollutants: (list each pollutant and amounts in tons per year (TPY)), which represents (identify the emissions change (increase or decrease) involved in the modification). [Or add: **The modification will not result in a change in emissions.] [For PSD permits only, add: **The project will consume the following increment levels: (list the amount of increment consumption for each pollutant in ug/m³).**]**

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

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

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