OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **June 19, 2023**

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

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

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

FROM: Joseph K. Wills, P.E., Engineering Section

SUBJECT: Evaluation of Permit Application No. **2021-0392-C PSD**
Company: Webco Industries, Inc.
Facility: Webco Industries Southwest Tube
Facility ID: 2734
Latitude: 36.13576°N; Longitude: 96.08830°W
Section 12, Township 19N, Range 11E, Tulsa County, Oklahoma
Address: 201 S. Woodland Drive, Sand Springs, OK 74063

SECTION I. INTRODUCTION

Webco Industries, Inc. (Webco) has applied for a PSD construction permit for their Southwest Tube and Keystone Structural Tube locations (collectively referred to as "the facility" hereafter). The Southwest Tube and Keystone Structural Tube locations are considered collocated for the purpose of Air Quality permitting. The facility is currently operating without an Air Quality permit.

The Southwest Tube location had been operating as a permit-exempt facility based on the recommendation of Applicability Determination No. 98-013-AD (M-2), issued on July 12, 2006. The applicability determination was made based on the application which inadvertently identified two atmospheric generators as being standard gas-fired heating units. Upon identification of this historical misclassification, Webco determined that the total facility-wide emissions of carbon monoxide have the potential to exceed the PSD and Title V major source thresholds. Webco submitted a voluntary self-disclosure on December 23, 2020, as a result of their findings. Enforcement Case 10016 was opened as a result of the self-disclosure. The enforcement case is discussed further in Section IX (Compliance) of this Memorandum.

Through review of this permitting action, Webco determined that the Keystone Structural Tube location to be considered collocated with the Southwest Tube location as the two facilities are considered adjacent, under common control, with Keystone Structural Tube operating in conjunction with Southwest Tube, and operating under the same two digit Standard Industrial Classification code. Prior to this permit action, Webco considered the Keystone Structural Tube location to be permit exempt.

The facility is classified as steel pipe and tube manufacturing facility (NAICS 331210 / SIC 3317). The facility will be permitted as a major source for Prevention of Significant Deterioration (PSD) and a minor source of Hazardous Air Pollutants (HAPs). The application will be processed through the "traditional NSR process" which requires a public review opportunity for a period of 30-days.

SECTION II. FACILITY DESCRIPTION

A. South West Tube

Webco's Southwest Tube is a seam-welded carbon steel tubing manufacturing facility with a rated nominal capacity of eight (8) tons per hour (tph) of carbon steel tubing. Production activities at the facility include raw material receiving and handling, steel tubing surface preparation, ERW welding of slit and formed sheet coiled into tubing, heat annealing of steel tubes, finishing and cold drawing of steel tubes, and shipping of finished product. In addition to these fundamental processing steps, ancillary operations include space heating, parts cleaning, and emergency generators used in the event of loss of electrical power. Surface preparation, which includes grinding (deburring) of tube ends, was evaluated to be minimal and have negligible quantities of emissions. Therefore, surface preparation activities will not be addressed further.

The natural gas-fired roller hearth furnaces are the heart of the site operations. The facility has two such furnaces, and their function is to heat-treat various grades and diameters of carbon steel tubing. The furnaces are continuous roller hearth furnaces where the heat provided to the furnaces is provided indirectly from separate furnace heaters. There are various lengths and configurations of tube annealed in the furnaces. To meet market demands, Webco must produce tubing with exceptional surface quality. Although the quality demands of the products vary, all products must meet strict surface quality specifications. The annealing process is used for improving mechanical or electrical properties of the metal, and can result in increased product stability, better ductility, relieving stress, and refined grain size.

To achieve acceptable surface quality and specifications of Webco's steel tubing, Webco must employ unique and specialized processing techniques. In particular, the furnace must be operated within a specific set of conditions that carefully control combustion to produce heat for the selected treatment process. As such, the design and engineering of the equipment that produces an acceptable atmosphere to achieve the required product quality is key. Webco's furnace design incorporates an atmospheric generator (DX Generator), which produces exothermic gas used to create an oxygen-free atmosphere necessary for product quality. This gas is also rich in carbon monoxide. The oxygen-free atmosphere allows Webco to control the amount and type of oxidation occurring on the product surface during the annealing process and on the furnace rollers during idling conditions.

The DX Generator produces an oxygen-free atmosphere through combustion of air and natural gas and is equipped with controls to operate at various air-to-fuel ratios. By altering the air-to-fuel ratio, the DX Generator makes it possible to create various internal atmosphere conditions or

"processes" in the furnace. Webco primarily operates under four different conditions. Conditions in the furnace reflect the various processes, and in general can be described as:

- Rich 7:1 air to fuel ratio at high temperature (Rich 7:1 HT)
- Rich 7:1 air-to-fuel ratio at low temperature (Rich 7:1 LT)
- Lean 9:1 air-to-fuel ratio at high temperature (Lean 9:1 HT)
- Lean 9:1 air-to-fuel ratio at low temperature (Lean 9:1 LT)

The Cold Draw Furnace 141 may operate at temperatures between 980°F and 1,750°F and the Weld Mill Furnace 241 may operate at temperatures between 900°F and 1,750°F. The Rich 7:1 LT process has not been used for FURN1 (Weld Mill Furnace 241) and the associated DX Generator (GEN1) for some time. The Lean 9:1 LT process has not been used for FURN2 (Cold Draw Furnace 141) and associated DX Generator (GEN2) for some time. Cycle times also vary, depending on product material steel grade, dimensions, and customer quality expectations. All of the processes are important to Webco's operations, and all processes regularly occur at multiple times over the course of an operating year.

During all processes, the furnace heaters provide indirect heating of the furnaces and the combustion products from the heaters exhaust directly to the inside of the building (i.e., not through the furnace) and exits the building though the general building ventilation systems, while the DX Generator process gas is routed to the furnace and exhausts through both the furnace inlets and the furnace outlets. Fiber curtains or stainless-steel flaps are installed at the inlets and outlets of the furnaces. Flame curtains are also in place at the furnace inlet and outlet locations. The flame curtains are operated for both the rich and lean atmospheric processes. After the flame curtains, the emissions from the furnace inlets and outlets are directed to collection hoods where the emissions and are directed outside the building to the atmosphere. While the DX Generator normally vents its produced gas directly to the furnace, a bypass stack for each DX Generator exists that vents the feed gas outside of the building to the atmosphere in the following circumstances: 1) during emergency conditions; 2) when the DX Generators and furnaces are shut down and started up for maintenance; and 3) when purging the atmosphere in the furnaces when switching to a new atmospheric process. During purging of the atmosphere in the furnaces when switching to a new atmospheric process, the bypass venting will only occur when switching from a lean atmosphere in the associated furnace to a "rich" atmosphere (i.e., bypass venting of "lean" exothermic gas). Bypass venting of "rich" exothermic gas is not required when switching from a "rich" atmosphere to a "lean" atmosphere in the furnace.

To allow for operational flexibility during periods of maintenance of the Weld Mill Furnace 241 (FURN1) and associated DX Generator (GEN1), some of the operations may be shifted from the Weld Mill Furnace 241 to the Cold Draw Furnace 141 (FURN2) and associated DX Generator (GEN2) from time to time.

B. <u>Keystone Structural Tube</u>

Webco's Keystone Structural Tube receives carbon steel tubing from Southwest Tube and other Webco facilities. The tubes may be cut, annealed (electrically), and/or applied with rust preventative. Some of the tubes at this facility are sold as scrap. Ancillary operations include

space heating and diesel fueling. This facility is considered co-located with Southwest Tube, as it is just across the street.

SECTION III. BACT ANALYSIS

The BACT analysis for this permit was performed using the traditional "top-down" approach following EPA's methodology for PSD projects. As discussed in Section IX (Compliance), the BACT analysis focuses only on CO for the DX Generators during normal operations and bypass venting.

A. BACT Methodology

Any major stationary source or major modification subject to PSD review must undergo an analysis to ensure the use of best available control technology (BACT). The requirement to conduct a BACT analysis is set forth in OAC 252:100-8-34(b). BACT is defined in OAC 252:100-8-31 as:

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

A BACT analysis is required for each new or physically modified emission unit for each pollutant that exceeds an applicable PSD significant emission rate (SER). Since the CO emissions from the proposed project exceed the applicable PSD SER, a BACT analysis is required to assess the necessary levels of control for this pollutant.

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

Step 1: Identify Available Control Technologies

Available control technologies or techniques are identified for each emission unit in question. The following methods are used to identify potential control technologies: 1) researching the

Reasonably Available Control Technology (RACT)/BACT/Lowest Achievable Emission Rate (LAER) Clearinghouse (RBLC) database; 2) surveying regulatory agencies; 3) drawing from previous engineering experience; 4) surveying air pollution control equipment vendors; and 5) surveying available literature.

Step 2: Eliminate Technically Infeasible Options

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

Step 3: Rank Remaining Control Options by Control Effectiveness

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

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

Beginning with the most efficient control option in the ranking, detailed economic, energy, and environmental impact evaluations are performed. If a control option is determined to be economically feasible without adverse energy or environmental impacts, it is not necessary to evaluate the remaining options with lower control efficiencies.

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

Step 5: Select BACT and Document the Selection as BACT

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

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

B. BACT Analysis for DX Generators (Normal Operations) – CO Emissions

1. Step 1 – Identify All Control Technologies

The first step in the BACT analysis is to identify the possible control technologies for each applicable pollutant for each source or comparable emissions sources. For most source types, the EPA's RACT/BACT/LAER Clearinghouse (RBLC) is the preferred reference. A review of the RBLC database was conducted to identify emissions control options that were imposed by permitting authorities as BACT between January 2001 through March 2021 for emissions sources comparable to the proposed project or that utilize CO control. The summary of the search of the RBLC database conducted is tabulated below.

Summary of BACT Control Options from EPA's RBLC Database							
RBLC ID	**Company Name**	**State**	**Permit Issuance Date**	**Furnace or Throughput (MMBtu/hr or tons steel per hour)**	**Process Name and Fuels**	**Furnace or Throughput (MMBtu/hr or tons steel per hour)**	**Control Method Description**
TX-0882	SDSW Steel Mill	TX	01/17/2020	Not Listed	Natural Gas-Fired Anneal Furnace	Not Listed	Good Combustion Practices including Use of Natural Gas
LA-0309	Benteler Steel Tube Facility	LA	06/04/2015	13.5 MMBtu/hr	Natural Gas-Fired Anneal Furnace	13.5 MMBtu/hr	Good Combustion Practices
IN-0220	AK Steel Corp. Rockport Works	IN	02/24/2015	6.75 MMBtu/hr	Natural Gas-Fired Hydrogen Batch Anneal Furnace	6.75 MMBtu/hr	Good Combustion Practices
AR-0140	Big River Steel, LLC	AR	09/18/2013	50 MMBtu/hr	Natural Gas-Fired Anneal Furnace Coating Line Section	50 MMBtu/hr	Good Combustion Practices including Use of Natural Gas
AR-0140	Big River Steel, LLC	AR	09/18/2013	32 MMBtu/hr	Natural Gas-Fired Final Annealing and Coating Line Section	32 MMBtu/hr	Good Combustion Practices including Use of Natural Gas
AR-0139	Nucor Steel, Arkansas	AR	02/11/2013	4.8 MMBtu/hr	Natural Gas-Fired Anneal Furnace	4.8 MMBtu/hr	Good Combustion Practices
PA-0274	Allegheny Ludlum Corp - Brackenridge	PA	02/16/2010	21 MMBtu/hr	Natural Gas-Fired Anneal Furnace	21 MMBtu/hr	Good Combustion and Operational Control Practices
AR-0095	Nucor Steel, Arkansas	AR	12/12/2007	4.8 MMBtu/hr	Natural Gas-Fired Anneal Furnace	4.8 MMBtu/hr	Good Combustion Practices

Summary of BACT Control Options from EPA's RBLC Database							
RBLC ID	**Company Name**	**State**	**Permit Issuance Date**	**Furnace or Throughput (MMBtu/hr or tons steel per hour)**	**Process Name and Fuels**	**Furnace or Throughput (MMBtu/hr or tons steel per hour)**	**Control Method Description**
PA-0262	Carpenter Tech Corp	PA	10/01/2007	Not Listed	Anneal Furnace	Not Listed	None Listed
AL-0230	Thyssenkrupp Steel and Stainless USA, LLC	AL	08/17/2007	33.4 MMBtu/hr	Natural Gas-Fired Batch Anneal Furnace	33.4 MMBtu/hr	None Listed
AL-0230	Thyssenkrupp Steel and Stainless USA, LLC	AL	08/17/2007	27.2 MMBtu/hr	Natural Gas-Fired Passive Anneal Furnace	27.2 MMBtu/hr	None Listed
PA-0251	Ellwood National Steel	PA	08/18/2006	30 tons/hr	Natural Gas-Fired ENS Annealing	30 tons/hr	None Listed
AR-0090	Nucor Steel, Arkansas	AR	04/03/2006	4.8 MMBtu/hr	Natural Gas-Fired Anneal Furnace	4.8 MMBtu/hr	Good Combustion Practices
WI-0206	Saukville Plant	WI	12/19/2003	10.4 MMBtu/hr	Natural Gas-Fired Box Anneal Furnace	10.4 MMBtu/hr	Good Combustion Practices and Use of Internal Flare
KY-0094	North American Stainless	KY	12/01/2003	40 MMBtu/hr	Natural Gas-Fired Anneal Furnace	40 MMBtu/hr	None Listed
IN-0090	Nucor Steel	IN	01/19/2001	4.8 MMBtu/hr	Natural Gas-Fired Batch Anneal Furnace	4.8 MMBtu/hr	Use of Natural Gas

While there were no existing add-on control technologies identified except for the flame curtains in the RBLC as BACT, the following control technologies were identified as potentially available controls of CO emissions for the DX Generators. These control technologies were taken from RBLC database review or were selected as being potentially available control technologies.

Available Control Technologies

Pollutant	Listed Control Technologies
CO	Regenerative/Recuperative Thermal Oxidizer (RTO)
	Regenerative Catalytic Oxidation (RCO)
	Flare
	Internal Flare (i.e., Flame Curtain)
	Good Design/Operation

Regenerative Thermal Oxidizers (RTOs)

An RTO consists of two or more heat exchangers connected by a common combustion zone. The heat exchangers use beds of ceramic beads to store and release heat recovered from the oxidation process. The pollutant-laden air stream enters the first heat exchange bed where the air stream passes directly through the ceramic media and is then preheated before entering the combustion chamber. In the combustion chamber, a burner is used to supply any heat necessary to reach the optimum combustion temperature and complete the oxidation process. The cleaned air stream next enters a second heat exchanger where it passes directly through the ceramic media and is cooled while simultaneously heating the media before the air stream is exhausted to the atmosphere. The airflow through the heat exchange beds is reversed at regular intervals to conserve the heat of combustion within the RTO. CO destruction efficiencies have been evaluated to be 75% to 95% for an application such as this.

Regenerative Catalytic Oxidation (RCO)

RCO systems use a catalyst to initiate the oxidation reaction instead of depending on heat alone. These types of oxidizers are just as capable of removing CO from a gas stream; however, the destruction efficiency can be lower than with a recuperative thermal oxidizer; however, the control/reduction efficiency of an RCO tends to decrease as the catalyst ages. CO destruction efficiencies have been evaluated to be 75% to 95% for an application such as this.

Flare

Flaring is a high-temperature oxidation process used to burn waste gasses containing combustible components such as CO. The waste gases are piped to and burned in an open flame in ambient air using a specially designed burner tip, auxiliary fuel, and in some cases, assist gases like steam or air to promote mixing to promote destruction of the combustible components in the waste gas. Flares typically operate with pilot flames to provide the ignition source and use ambient air as the oxidizing agent. Completeness of combustion in a flare is governed by flame temperature, residence time, and flammability of the gas in the combustion zone, turbulent mixing of the components to complete the oxidation reaction, and available oxygen. CO destruction efficiencies have been evaluated to be 75% to 95% for an application such as this.

Internal Flare (i.e., Flame Curtain or Flame Tips)

Flame curtain systems (sometimes referred to as internal flares) combust natural gas or propane to provide a vertical flame that covers the cross section of the opening at a furnace inlet or outlet. Flame curtains systems can vary in design and may include tube burners, multiple slot burners, ribbon burners, etc. Flame curtains have multiple functions including: 1) to produce a vertical stream of combustion products across a furnace or equipment door opening; 2) to minimize the infiltration of air into a furnace or equipment chamber to prevent disruption of the atmosphere inside the furnace; and 3) to serve as an ignition source of the combustible atmosphere that escapes through the furnace door when open.

Good Design/Operation

Good design and operation include the operation and maintenance of equipment in accordance with good air pollution control practices, and manufacturers requirements, installation of monitoring and alarm systems, and recordkeeping to minimize CO emissions.

2. *Step 2 – Eliminate Technically Infeasible Control Options*

All control options are assumed to be technically feasible.

3. *Step 3 – Ranking of Remaining Control Technologies by Effectiveness*

All four add-on control options are assumed to have a CO reduction efficiency of approximately 75-95% based on a review of these various control types.

A properly operating flame curtain system can be installed across the openings of the inlet and outlet of a furnace for a potential capture efficiency of up to 100%, as all emissions exiting the furnace openings will pass across the flame curtains for reduction (i.e., no collection system is required). However, installation of a RTO, RCO, or flare would also require the installation of collection hoods for the capture of emissions and ducting to route captured emissions to the control devices. Collection hoods are expected to have a capture efficiency of less than 100%. While the control devices identified and reviewed under Step 1 of this analysis each have a reduction efficiency of 75-95%, flame curtains are assumed by Webco to be the most effective option when considering both capture and reduction efficiencies, where the other control technologies would be considered tied at second for the most effective control option (assuming the same capture system for these systems).

4. *Step 4 – Top-Down Evaluation of Control Options*

Per Part I, Chapter B, Subsection III.D of EPA's 1990 New Source Review Manual:

> *If the applicant accepts the top alternative in the listing as BACT, the applicant proceeds to consider whether impacts of unregulated air pollutants or impacts in other media would justify selection of an alternative control option. If there are no outstanding issues*

regarding collateral environmental impacts, the analysis is ended and the results proposed as BACT.

The primary adverse energy and environmental impacts are similar for all four add-on control options in that they will require additional natural gas usage and will generate additional combustion-related air emissions. However, Webco is not proposing that these adverse impacts allow for elimination of the flame curtains as an option, nor would they justify the selection of an alternative control option with similar impacts.

5. *Step 5 – Selection of BACT*

Add-on control devices on the bypass vent were determined by Webco to be economically infeasible in Subsection III.C.4. Based on the information provided by Webco, Webco has proposed and DEQ accepts BACT as the short-term controlled emission limits, presented in the following table, which are based on installation of flame curtains across the openings of the furnace inlets and outlets and good design/operating practices.

		Emissions Limits [1]
EU ID	**Description**	**lb/hr**
GEN1	DX Generator 241	70.1
GEN2	DX Generator 141	15.3

[1] Based on testing conducted by Webco in February 2021. Only includes emissions captured in the annealer inlet and outlet vents during the testing.

The annealing operating mode used for each furnace and associated DX Generator is based on customer specifications which are not consistent from customer to customer and cannot readily be predicted. Therefore, the emission rates for normal operations are based on the highest CO emissions annealing operating mode tested for each DX Generator and associated furnace.

BACT for good operating practices include the following conditions:

A. *A flame curtain system shall be installed at the both the inlet and outlet of each furnace (i.e., FURN1 & FURN2) and shall be operated at all times when the furnaces and associated DX Generators are operating. The flame curtains must be installed and operated as follows as required by BACT:*

   I. *The flame burners/tips of the flame curtains shall be installed, operated, and maintained in accordance with manufacturer's instructions.*
   II. *One or more controller systems, which is tied to the Programmable Logic Controller (PLC) tracking, shall be installed which monitors and records the presence of a flame for all flame tips of the flame curtains when the DX Generator is running. The system shall trigger a rotating alarm (both visual and auditory) when a flame outage occurs at any one of the flame tips.*
   III. *The operating status of the flame tips (i.e., "on" or "off") shall be transmitted to and displayed at the inlet operator station of the associated furnace, the outlet operator station of the associated furnace, and the maintenance human-machine interface.*

IV. Visible lights which indicate the status of flame tip operations shall be installed at each of the furnace outlets and at each of the DX Generators.

C. BACT Analysis for DX Generators (Bypass Venting) – CO Emissions

1. Step 1 – Identify All Control Technologies

While there were no existing add-on control technologies identified except for the flame curtains in the RBLC as BACT, an evaluation of various control options was conducted as discussed under Subsection III.B.1 of this Permit Memorandum.

2. Step 2 – Eliminate Technically Infeasible Control Options

It was determined that flame curtains could not be reasonably installed on the bypass vent. All of the other identified control technologies identified in Step 1 were assumed to be technically feasible.

3. Step 3 – Ranking of Remaining Control Technologies by Effectiveness

All of the remaining add-on control options were assumed to have a CO reduction efficiency of approximately 75-95% based on a review of these various control types.

The bypass vent can also be ducted directly to a flare with a potential capture efficiency of 100%. While the RTO or RCO control devices identified and reviewed under Step 1 of the previous analysis each have a reduction efficiency of 75-95%, a flare is assumed to be the most effective option when considering both capture and reduction efficiencies.

4. Step 4 – Top-Down Evaluation of Control Options

Per Part I, Chapter B, Subsection III.D of EPA's 1990 New Source Review Manual, "After the identification of available and technically feasible control technology options, the energy, environmental, and economic impacts are considered to arrive at the final level of control." As indicated in Step 3, a flare was considered to be the most effective control technology and is analyzed first under this step.

The economic consideration for the installation of a flare was based on a cost analysis, in part, of the total capital costs, direct costs, and total derived annualized cost. The cost analysis for installation of a flare was based on vendor provided costs and EPAs Air Pollution Control Cost Estimation Spreadsheet for Elevated Flares (July 2019) and is summarized in the following table.

Flare Cost Analysis

Cost Type	Parameter	Value
Capital Costs	Direct Installation Costs	$101,030
	Total Indirect Installation Costs	$20,592
	Contingency Cost	$18,243
	Total Capital Investment	$139,865

Cost Type	Parameter	Value
Annual Costs	Direct Annual Costs	$28,216
	Indirect Annual Costs	$32,170
	Total Annual Costs	$60,386
Cost Effectiveness	Total Annual Costs	$60,386
	Emissions Reduced, TPY	6.40
	Cost Effectiveness, $/ton reduced	**$9,434**

Based on the table above, the cost per ton reduced is approximately $8,801. This value represents a significant economic impact. Based on information provided by control technology vendors, the costs for the RTO and RCO control options are expected to be higher. Higher costs of the RTO and RCO control options would result in a higher cost per ton reduced than that of the flare control option analysis. Therefore, the RTO and RCO control options would also result in a significant economic impact. Additionally, the primary adverse energy and environmental impacts are similar for all of the add-on control options in that they will require additional natural gas usage and will generate additional combustion-related air emissions. Therefore, the only remaining feasible control option is good design and operation.

5. *Step 5 – Section of BACT*

Based on Steps 1 through 4 of this BACT analysis, add-on control devices on the bypass vent were determined to be economically infeasible. Based on information provided by Webco, Webco has proposed and DEQ accepts BACT as a short-term emission limit of 112.3 lb/hr CO during bypass venting events, a bypass venting event limit of less than 120 hrs/yr, and good design/operating practices. The following conditions will be added to the permit for good operating practices.

A. *Bypass venting of the DX Generators (GEN1 and GEN2) directly to the atmosphere shall only occur as follows:*

   I. *Total hours of bypass venting shall not exceed 120 hours in any 12-month period.*
   II. *Bypass venting shall only be permitted under the following circumstances:*
      a. *During emergency conditions;*
      b. *When a DX Generator and associated furnace are shut down and started up for maintenance; and*
      c. *When purging the atmosphere in a furnace when switching to a new atmospheric process, except as prohibited by Item V below.*
   III. *Each instance shall be documented and shall include the cause, duration, and calculated emissions of the bypass venting.*
   IV. *Bypass venting is be permitted for venting during the "lean" exothermic gas generation mode of a DX Generators.*
   V. *Bypass venting is prohibited for venting during the "rich" exothermic generation mode of the DX Generators, unless qualifying as an emergency event.*
   VI. *Each DX Generator shall install an electronic valve system, which is tied to the PLC tracking, to record the duration of each bypass event (in minutes). A rotating alarm (both visual and auditory) will be tied into the electronic valve system and will trigger during every bypass venting event.*

VII. Each DX Generator shall be limited to one hour of bypass venting in any 8-hr period.
VIII. No more than two hours of bypass venting shall occur in any 8-hr period.

B. Records shall be kept which document when bypass venting is occurring and shall include, but is not limited to, the following:

I. For each DX Generator, document the date, start time, and duration of each exothermic gas generation process mode.
II. For each furnace, document the date, start time, and duration of each annealing process mode.
III. Document the dates, start times, durations of, and reasons for each bypass venting event.

SECTION IV. AIR QUALITY ANALYSIS

A. Carbon Monoxide Modeling

An air dispersion modeling analysis for carbon monoxide was conducted as discussed below.

1. Model Selection

Webco used EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), version 22112. EPA's AERMOD model, a steady-state plume dispersion model used for assessment of pollutant concentrations from a variety of sources, is the primary model used for conducting refined modeling analyses. AERMOD incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.

2. Coordinate System

The location of emission sources, structures, and receptors were represented in the Universal Transverse Mercator (UTM) coordinate system. The datum for this modeling analysis was based on World Geodetic System (WSG) 1984 (UTM Zone 14).

3. Terrain

Modeling with elevated terrain was used for this analysis. AERMAP (version 18081), a terrain processor that incorporates complex terrain using U.S. Geological Survey (USGS) Digital Elevation Data, was used to determine stack, building, and receptor elevations/hill heights. Elevations were obtained using the National elevation Dataset (NED), the primary elevation data product of USGS.

4. Building Wake Effects (Downwash)

Building wake effects on each emission point source were incorporated through the use of the BPIP-PRIME (version 04274) algorithm. BPIP-PRIME calculates all direction specific building data required by the air dispersion model to enable it to include the appropriate building downwash algorithm into the calculations. The structure dimensions are then imported into AERMOD on an emission point-specific basis. The following buildings were represented in the model.

Building ID	Description	Easting (1)	Northing (1)	Base Elevation	Height	Width	Length	Rotation Angle
		meters	meters	meters	meters	meters	meters	degrees
WBLDG	West wing of SWT	761916.5	4003059.5	197.83	7.67	35	90	0
EBLDG	East wing of SWT	762077.7	4003053.7	197.66	7.62	29.8	89.6	0
SBLDG	South (center) section of SWT	761951.2	4002959.5	198.17	7.9248	128.2	89.7	0

(1) Coordinates based on northwest corner of the rectangular building section.

5. Meteorological Data

The model runs were performed using 2011-2015 surface meteorological data processed by the Oklahoma DEQ. The meteorological data was processed using the AERMET meteorological preprocessor (version 21112). The meteorological data used included surface meteorological data from the KTUL ASOS station (National Weather Service (NWS) station 13968) which included the use of 1-minute and 5-minute ASOS data processed using the AERMINUTE sub-hourly ASOS data preprocessor (version 15272). Upper air meteorological data for 2011-2015 were taken from the Norman, OK station (NWS station 03948).

6. Land Use Analysis

A review of area photographs and land use data using of EPA's AERSURFACE (version 13016) along with the Auer Land Use Method was conducted for a three-kilometer (3-km) area surrounding the facility. This analysis indicates the selection of a rural land use classification in the model is appropriate.

7. Receptor Grids

The air dispersion modeling analysis utilized a Cartesian receptor grid that extends 10 kilometers from the facility fence line, and the various spacing of the receptors was based on the most recent Oklahoma DEQ dispersion modeling guidance as summarized below:

- 100 m receptor grid spacing out to 1 km;
- 250 m receptor grid spacing out to 2.5 km;
- 500 m receptor grid spacing out to 5 km;
- 750 m receptor grid spacing out to 7.5 km; and
- 1 km receptor grid spacing out to 10 km from the facility.

8. Modeled Sources

The two DX Generators each have two stacks for the inlet and outlet of each furnace and one stack for the bypass of each DX Generator. The remaining CO-generating sources at the main facility (SWT) and the Keystone facility all exhaust indoors and are modeled as volume sources. A summary of the modeled sources from the facility are presented in the following tables.

Modeled Point Source Emissions and Parameters

Model ID	Description	Easting	Northing	Elev.	Em. Rate[(1)]	Stack Ht.	Stack Temp.	Stack Vel.	Stack Diam.
		meters	meters	meters	lb/hr	feet	°F	ft/s	in.
241_FEED	DX-241 Bypass	761970.2	4002951.9	198.22	112.30	46.8	251	16.9	10.0
141_FEED	DX-141 Bypass	761997.4	4002906.1	198.17	112.30	46.9	251	16.9	10.0
DX241O	DX-241 Outlet	762053.3	4002946.3	198.17	35.05	40.1	250	0.42	22.1
DX241I	DX-241 Inlet	761998.1	4002945.9	198.32	35.05	40.1	250	4.35	22.1
DX141O	DX-141 Outlet	762030.5	4002905.6	198.13	7.65	40.1	250	10.10	16.0
DX141I	DX-141 Inlet	761986.4	4002905.1	198.13	7.65	40.1	250	7.37	12.0

(1) Based on stack testing conducted during February of 2021.

Modeled Volume Source Emissions and Parameters

Model ID	Description	Easting	Northing	Elev.	Em. Rate	Release Ht.	Initial Lat. Dim.	Initial Vert. Dim.
		meters	meters	meters	lb/hr	feet	feet	feet
OTHR_SO1	Other SWT Sources 1	761984.1	4002922.1	198.25	1.895	13	56.5	12.1
OTHR_SO2	Other SWT Sources 2	762045.2	4002922.1	198.16	1.895	13	56.5	12.1
KEYSTONE	Keystone Sources	761572.1	4002812.0	197.82	0.222	13	46.5	12.1

9. Modeled Scenarios

There are various potential operating scenarios at SWT. The following is description of the various operating scenarios which were modeled to demonstrate the facility will be in compliance with the applicable air quality standards under any of these modeling scenarios.

- *1-hr CO NAAQS Modeling:*
  - Scenario 1: Normal Operations:
    - Does not include bypass venting,
    - Includes normal operations furnace DX241O and DX241I,
    - Includes normal operations furnace DX141O and DX141I, and
    - Includes nearby sources.
  - Scenario 2: 241 Bypass:
    - Includes 241_FEED bypass venting,
    - Does not include normal operations from DX241O and DX241I,
    - Includes normal operations from DX141O and DX141I, and
    - Includes nearby sources.
  - Scenario 3: 141 Bypass:
    - Includes 141_FEED bypass venting,
    - Does not include normal operations from DX141O and DX141I,
    - Includes normal operations from DX241O and DX241I, and

        - Includes nearby sources.
- *8-hr CO NAAQS Modeling:*
    - Scenario 1: Normal Operations:
        - Does not include bypass venting,
        - Includes normal operations from DX241O and DX241I,
        - Includes normal operations from DX141O and DX141I, and
        - Includes nearby sources.
    - Scenario 2: 241 Bypass:
        - Includes 241_FEED bypass venting where the emission rate is based on averaging 1 hour of bypass venting emissions over 8 hours of operation,
        - Includes normal operations from DX241O and DX241I where the emission rate is based on averaging 7 hours of normal emissions over 8 hours of operation,
        - Includes normal operations from DX141O and DX141I, and
        - Includes nearby sources.
    - Scenario 3: 141 Bypass:
        - Includes 141_FEED bypass venting where the emission rate is based on averaging 1 hour of bypass venting emissions over 8 hours of operation,
        - Includes normal operations from DX141O and DX141I where the emission rate is based on averaging 7 hours of normal emissions over 8 hours of operation,
        - Includes normal operations from DX241O and DX241I, and
        - Includes nearby sources.
    - Scenario 4: 141 and 241 Bypass:
        - Includes 241_FEED bypass venting where the emission rate is based on averaging 1 hour of bypass venting emissions over 8 hours of operation,
        - Includes normal operation from DX241O and DX241I where the emission rate is based on averaging 7 hours of normal emissions over 8 hours of operation,
        - Includes 141_FEED bypass venting where the emission rate is based on averaging 1 hour of bypass venting emissions over 8 hours of operation,
        - Includes normal operations from DX141O and DX141I where the emission rate is based on averaging 7 hours of normal emissions over 8 hours of operation, and
        - Includes nearby sources.

For the modeling scenarios identified above, the following considerations were made.

- The actual duration of each bypass event is less than 15 minutes; however, it is conservatively assumed that a bypass event could last up to one hour for the modeling demonstration.
- As stated in Section VI, EUG 2, the bypass emission rates for each DX Generator were based on testing conducted in February of 2021.
- For the 1-hr CO NAAQS compliance demonstration, a bypass event from a DX Generator is assumed to have a higher emission rate than normal operations of the associated furnace inlet and outlets. Therefore, while normal operations from a furnace are likely to occur

during the same hour as a bypass event from the associated DX Generator, normal operations of a furnace were not modeled during bypass events from the associated DX Generator furnace.

- For the 8-hr CO NAAQS compliance demonstration, it is assumed that each DX Generator will have one 1-hr bypass event per 8-hr period with normal operations from the associated furnace emitted for the remainder of the 8-hr period. Therefore, bypass emissions from each DX Generator are modeled as 1/8 of the bypass emission rate for the 8-hr averaging period and normal operations from each furnace were modeled as 7/8 of the furnace inlet and outlet emission rates for the 8-hr period.
- Each DX Generator is expected to have no more than one bypass event in a given 8-hr period.
- One bypass event from each DX Generator could occur in a given 8-hr period.

Based on these modeling scenarios and considerations discussed above, specific conditions will be added to the permit which require the following:

A. No more than one bypass event may occur during any single hour.
B. Each DX Generator shall be limited to one bypass event in any 8-hr period.
C. No more than two (2) bypass events shall occur in any 8-hr period.

10. Modeling Results: NAAQS Analysis

To complete the NAAQS analysis, the facility-wide post-project emissions were modeled simultaneously with the emissions from the nearby NAAQS sources identified in the inventory developed and provided by the Oklahoma DEQ. The background concentrations for the respective averaging periods are added to the modeled concentration for comparison with the NAAQS. CO Background is based on the highest second high (H2H) of the most recent data from a single year from the nearest air quality background monitoring station. For this modeling analysis, the CO background concentration was based on data from 2020 for the North Tulsa monitor (Site ID 40-143-1127). The appropriate modeled concentration plus the calculated monitored background is compared to the corresponding NAAQS to predict if the post-project emissions will cause or contribute to a violation of the NAAQS. This NAAQS analysis must demonstrate compliance with the 1-hr CO standard of 35 ppm and the 8-hr CO standard of 9 ppm, not to be exceeded more than once per year. A summary of the modeling results is presented below.

CO Modeling Results

Averaging Period	Scenario	Modeled Concentration	Background Concentration	Total Concentration	NAAQS	Compliance Demonstrated?
		µg/m³	µg/m³	µg/m³	µg/m³	
1-hr	Scenario 1	17,085	1,603	18,688	40,000	Yes
1-hr	Scenario 2	22,587	1,603	24,190	40,000	Yes
1-hr	Scenario 3	31,001	1,603	32,604	40,000	Yes
8-hr	Scenario 1	7,091	1,031	8,122	10,000	Yes
8-hr	Scenario 2	6,853	1,031	7,884	10,000	Yes
8-hr	Scenario 3	7,517	1,031	8,548	10,000	Yes
8-hr	Scenario 4	7,421	1,031	8,452	10,000	Yes

11. PSD Increment Analysis

No PSD Increments have been established for CO. Therefore, no PSD Increment analysis is required.

B. Class I Area Analyses

One of the purposes of the PSD program is "to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value." Under the PSD provisions, Congress established a land classification scheme for these areas of the country (Class I), specifically including:

- International parks;
- National wilderness areas which exceed 5,000 acres in size;
- National memorial parks which exceed 5,000 acres in size; and
- National parks which exceed six thousand acres in size.

Class I area analyses, when requested, typically include a Class I PSD Increment Assessment for NO_X, SO_2, and/or PM_{10}, and an Air Quality Related Values (AQRV) assessment, including a visibility analysis or increases in visibility impairing pollutants and a deposition analysis for nitrogen and sulfur deposition.

In October 2010, The Federal Land Managers AQRV Workgroup (FLAG) Phase I Report – Revised (FLAG 2010) set a threshold ratio of emissions to distance, below which an AQRV review is not required. Specifically, if Q (TPY) / d (km) < 10, no AQRV analysis is required. "Q" is the combined emissions increase of SO_2, NO_X, PM_{10}, and sulfuric acid mist (H_2SO_4) in tons per year. Based on the 24-hour maximum allowable emissions (which are annualized) and "d" is the nearest distance to a Class I area in kilometers.

For the proposed project, the expected emissions are as follows: SO_2 = 0, NO_X = 25.41, PM_{10} = 6.15, and H_2SO_4 = 0; therefore, Q = 31.56. The closest Class I areas to the facility are the Upper Buffalo Wilderness Area, for which d = 233 km and the Wichita Mountains, for which d = 265 km. This project is not expected to impact any AQRVs because the ratios of Q/d are less than 10. Therefore, further analysis is not required.

C. Additional Impacts Analyses

1. Growth Analysis

A growth analysis is intended to qualify the amount of new growth that is likely to occur in support of the facility and to estimate emissions resulting from that associated growth. Associated growth includes residential and commercial/industrial growth resulting from a new facility. Residential growth depends on the number of new employees and availability of housing in the area, while associated commercial and industrial growth consists of new sources providing services to the new employees and the facility. The facility is an existing facility located in an area that has an

available population to supply employees and the area is already commercially and industrially developed. Therefore, additional growth from the facility is expected to be minimal.

2. Soil and Vegetation Analysis

The effects of gaseous air pollutants on vegetation may be classified into three rather broad categories: acute, chronic, and long-term. Acute effects are those that result from relatively short (less than 1 month) exposures to high concentrations of pollutants. Chronic effects occur when organisms are exposed for months or even years to certain threshold levels of pollutants. Long-term effects include abnormal changes in ecosystems and subtle physiological alterations in organisms. Acute and choric effects are caused by the gaseous pollutant acting directly on the organism, whereas long-term effects may be indirectly caused by secondary agents such as changes in soil pH.

At the levels of CO that occur in urban air, there is no detrimental effects on materials or plants. However, human health may be adversely affected at such levels. As demonstrated by dispersion modeling, CO impacts are below all applicable ambient standards and are therefore not expected to adversely impact human health.

3. Visibility Analysis

The project is not expected to produce any perceptible visibility impacts in the immediate vicinity of the facility. Given the limitation of 20% opacity of emissions, and a reasonable expectation that normal operation of the facility will result in less than 20% opacity, no immediate vicinity visibility impairment is anticipated.

SECTION V. EQUIPMENT

A. EUG 1: Furnace Heaters

EU ID#	Point ID#	EU Description	Design Capacity	Construction Date
FURN1	FURN1	Weld Mill Furnace 241	21.42 MMBtu/hr	1989 (1)
FURN2	FURN2	Cold Draw Furnace 141	17.34 MMBtu/hr	1975

(1) The entire 241 Furnace was relocated to its current location at the facility in 2020.

B. EUG 2: DX Generators and Flame Curtains

EU ID#	Point ID#	EU Description	Design Capacity (1)	Construction Date
GEN1	FC1 & FC2 / GEN1 Bypass	DX Generator 241	4.57 MMBtu/hr	1989
GEN2	FC3 & FC4 / GEN2 Bypass	DX Generator 141	1.53 MMBtu/hr	1975

EU ID#	Point ID#	EU Description	Design Capacity [1]	Construction Date
FC1 & FC2	FC1 & FC2	Flame Curtains 241	0.176 MMBtu/hr (each)	1989
FC3 & FC4	FC3 & FC4	Flame Curtains 141	0.143 MMBtu/hr (each)	1975

[1] The design capacity listed represents flame curtain installed on the inlet or outlet of the associated furnace.

C. EUG 3: Emergency Generator

EU ID#	Point ID#	EU Description	Design Capacity	Construction Date
GEN3	GEN3	Kohler 80RZG Generator	150-hp	2005

D. EUG 4: Coatings

EU ID#	Point ID#	EU Description	Design Capacity	Construction Date
COAT1	COAT1	Coating Operations	N/A	1969

E. EUG 5: Tanks

EU ID#	Point ID#	EU Description	Design Capacity	Construction (Replacement) Date
TK-GAS-1	TK-GAS-1	Gasoline Tank (SWT)	300 gal	2000 (06/2022)
TK-DSL-1	TK-DSL-1	Diesel Tank (SWT)	500 gal	2000 (06/2022)
TK-DSL-2	TK-DSL-2	Diesel Tank (Keystone)	500 gal	2010

F. EUG 6: Parts Washers

EU ID#	Point ID#	EU Description
WASH	WASH	Parts Washers

G. EUG 7: Cooling Towers

EU ID#	Point ID#	EU Description	Design Capacity	Construction (Replacement) Date
CT1	CT1	Three (3) 20,000 Cooling Towers (241 Furnace)	570 gpm (each)	1989 (2 of 3 in 2006) (1 of 3 in 2019)
CT2	CT2	Compressor Cooling Tower	600 gpm	1975 (2000)
CT3	CT3	BAC Mill 1 Cooling Tower	200 gpm	1970 (2008)

EU ID#	Point ID#	EU Description	Design Capacity	Construction (Replacement) Date
CT4	CT4	10,000 Cooling Tower (141 Furnace)	600 gpm	1975 (2000)
CT1-KS	CT1-KS	Cooling Tower (Keystone)	600 gpm	2010

H. EUG 8: Space Heaters

EU ID#	Point ID#	EU Description	Design Capacity	Construction Date
HEAT1	HEAT1	Space Heaters	13.45 MMBtu/hr [(1)]	Various

[(1)] Value shown is the sum of various space heaters of different rated design capacities throughput the facility. The lowest rated design capacity is 0.09 MMBtu/hr. The highest rated design capacity is 0.40 MMBtu/hr.

I. EUG 9: Welding

EU ID#	Point ID#	EU Description	Construction Date
WELD1	WELD1	Welding Activities	--

SECTION VI. EMISSIONS

Unless otherwise stated, emissions are based on 8,760 hours per year of operation.

A. EUG 1: Furnace Heaters

Emissions from the annealing furnace heaters are based on AP-42 (7/98), Section 1.4 emission factors shown in the following table, a natural gas heating value of 1,020 Btu/scf, and the ratings shown in the following second table. Emissions from SO_2 were estimated to have negligible emissions.

Furnace Heater Emission Factors

NO_X	CO	VOC	$PM_{10/2.5}$
lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf
100.0	84.0	5.5	7.6

Furnace Heater Emissions

ID#	Rating	NO_X		CO		VOC		$PM_{10/2.5}$	
	MMBtu/hr	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
FURN1	21.42	2.10	9.20	1.76	7.73	0.12	0.51	0.16	0.70
FURN2	17.34	1.70	7.45	1.43	6.26	0.09	0.41	0.16	0.57

B. EUG 2: DX Generators and Flame Curtains

CO emissions from the DX Generators are based on testing conducted by Webco between February 2nd and February 5th of 2021, and an applied 20% safety factor. The testing was conducted on the atmosphere supply lines from the DX Generators and the captured emissions (after control from the flame curtains) from the collection hoods installed at the inlets and outlets of the annealing furnaces. These emissions do not include emissions not collected by the inlet and outlet hoods. The emission rates established below will be verified through formal EPA Reference Method stack testing requirements established in the specific conditions.

CO Emissions from DX Generator GEN1

Operating Mode	Emission Factors	Hours of Operation (1)	Emissions
	lb/hr	hr/yr	TPY
Rich (7:1 HT)	6.2	1,448	5.39
Lean (9:1 HT)	70.1	7,192	302.5
Rich (7:1 LT)	Not Tested (2)	NA	NA
Lean (9:1 LT)	1.2	0	0
Bypass (3)	112.3	120	6.74
Totals			**314.62**

(1) Based on historic operating records.
(2) This mode was not tested as it is not used for the Weld Mill Furnace 241.
(3) Bypass emissions are emitted from the bypass vent during purging of the atmosphere in the furnace before switching between operating modes. Bypass event emissions were extrapolated to represent a potential full hour event.

CO Emissions from DX Generator GEN2

Operating Mode	Emission Factors	Hours of Operation (1)	Emissions
	lb/hr	hr/yr	TPY
Rich (7:1 HT)	15.3	3,500	32.13
Lean (9:1 HT)	5.2	5,140	16.04
Rich (7:1 LT)	4.3	0	0.00
Lean (9:1 LT)	Not Tested (2)	NA	NA
Bypass (3)	112.3	120	6.74
Totals		**8,760**	**54.90**

(1) Based on historic operating records.
(2) This mode was not tested as it is not used for the Cold Draw Furnace 141.
(3) Bypass emissions are emitted from the bypass vent during purging of the atmosphere in the furnace before switching between operating modes. Bypass event emissions were extrapolated to represent a potential full hour event.

NO_X, VOC, and $PM_{10/2.5}$ emissions from the combustion of natural gas in the DX Generators to produce the exothermic gas which is supplied to the furnaces and NO_X, CO, VOC, and $PM_{10/2.5}$ emissions from the combustion of natural gas from the flame curtains are based on AP-42 (7/98), Section 1.4 emission factors shown in the following table, a natural gas heating value of 1,020

Btu/scf, and the ratings shown in the following second table. The DX Generators and flame curtains were estimated to have negligible SO_2 emissions.

Combustion Emission Factors

NO_X	CO [1]	VOC	$PM_{10/2.5}$
lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf
100.0	84.0	5.5	7.6

[1] The CO emission factor was not used to calculate the CO emissions generated by GEN1 or GEN2.

DX Generator and Flame Curtain Emissions

ID#	Rating	NO_X		CO		VOC		$PM_{10/2.5}$	
	MMBtu/hr	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
GEN1	4.57	0.45	1.96	70.1 [1]	314.62 [2]	0.02	0.11	0.03	0.15
GEN2	1.53	0.15	0.66	15.3 [1]	54.90 [2]	0.01	0.04	0.01	0.05
FC1	0.18	0.02	0.08	0.02	0.08	<0.01	<0.01	<0.01	<0.01
FC2	0.18	0.02	0.08	0.02	0.08	<0.01	<0.01	<0.01	<0.01
FC3	0.14	0.01	0.06	0.01	0.05	<0.01	<0.01	<0.01	<0.01
FC4	0.14	0.01	0.06	0.01	0.05	<0.01	<0.01	<0.01	<0.01

[1] Emissions are calculated based on worst case hourly emission rates from February 2021 testing for normal operations as discussed previously.

[2] Emissions are calculated based on hourly emission rates from February 2021 testing and historic operations as discussed previously.

C. EUG 3: Emergency Generators

Emission of NO_X, CO, and VOC from the natural gas-fired emergency generator engine are based on Table 1 of 40 CFR Part 60, Subpart JJJJ for emergency engines with a maximum engine power of greater than or equal to 130 HP. Although GEN3 was constructed prior to the applicability date of 40 CFR Part 60, Subpart JJJJ, Webco has voluntarily elected calculate emissions from GEN3 based on the Subpart JJJJ emission limits. Emissions of $PM_{10/2.5}$ and H_2CO are based on AP-42 (7/00), Table 3.2-3 for four-stroke, rich-burn engines and an assumed design firing rate of 7,500 Btu/hp-hr. Since the NSPS Subpart JJJJ limit and manufacturer data for VOC does not include H_2CO, H_2CO is added to the VOC emissions shown in the facility-wide emissions summary to represent total VOC. SO_2 emissions from the engine were estimated as negligible.

Emergency Generator Emissions

EU ID	Rated Power	Pollutant	Emission Factors	Emissions	
				lb/hr	TPY [1]
GEN3	150 HP	NO_X	2.00 g/hp-hr	0.66	0.17
		CO	4.00 g/hp-hr	1.32	0.33
		VOC	1.00 g/hp-hr	0.33	0.08
		$PM_{10/2.5}$	0.0194 lb/MMBtu	0.02	0.01
		H_2CO	0.0205 lb/MMBtu	0.02	0.01

[1] Based on a maximum of 500 hours of operation per year.

D. EUG 4: Coatings

Coating operations include cleaning solvents, lubricants, corrosion inhibitors, paint, and inks. Emissions from coating operations are based on mass balance using the material properties from the SDS of each coating and the maximum historical coating usage from calendar year 2021.

Transfer efficiencies used for calculating particulate matter emissions is based on those listed in AP-42 Section (1/95) 4.2.2.4. Additionally, DEQ guidance document "Permit Application Guide for Facilities with Coating/Painting Operations" (12/28/2011) states, "[f]or dip coating, roll coating, or similar operations (other than spraying), emissions of solid components will be minimal…" However, a transfer efficiency of 99% for a conservative emissions estimate.

2021 Coating Properties and Emissions

Coating Operation	Usage	Density	VOC	Solids	Transfer Eff.	VOC	PM_{10} / $PM_{2.5}$
	gal/hr	lb/gal	wt. %	wt. %	%	TPY	TPY
Southwest Tube Coatings							
Diagraph yellow quickspray	24	4.50	79.0	21.0	25.0	0.04	<0.01
Krylon "Flour" Orange 1811	82	6.51	60.0	40.0	60.0	0.16	0.04
Krylon White k357	35	6.51	47.0	53.0	60.0	0.21	0.09
Krylon Spray Paint Chrome K345	1	6.17	70.0	30.0	25.0	<0.01	<0.01
Krylon Spray Paint GOLD 1701	2	6.51	46.0	54.0	25.0	<0.01	<0.01
Krylon Spray Paint Forrest Green	3	6.17	45.3	54.7	25.0	<0.01	<0.01
Marsh stencil ink (aerosol)	41	6.00	60.0	40.0	25.0	0.07	0.04
Prussian Blue Permatex 80038	0	8.34	10.0	90.0	25.0	<0.01	<0.01
Quick Spray Ink Diagraph 1553-155	216	4.50	23.3	76.7	25.0	0.11	0.28
Rustoleum black	5	6.51	60.0	40.0	25.0	<0.01	<0.01
Rustoleum red-orange	5	6.51	60.0	40.0	25.0	<0.01	<0.01
Rustoleum regal blue	35	6.51	60.0	40.0	25.0	0.07	0.03
Spray Green Rusto 1638830	2	6.00	70.0	30.0	25.0	<0.01	<0.01
Spray Lt Blue Rusto V2123838	0	6.00	57.5	42.5	25.0	<0.01	<0.01
Spray Pink Rusto 209568	2	6.00	62.0	38.0	25.0	<0.01	<0.01
Spray Safety Orange Rusto 1653830	6	6.00	80.0	20.0	25.0	0.02	<0.01
Spray Yellow	79	6.51	70.0	30.0	25.0	0.18	0.06
Spray Green Fluorescent 5W908	1	7.08	655	34.5	25.0	<0.01	<0.01
Diagraph orange quickspray	0	4.50	79.0	21.0	25.0	<0.01	<0.01
Krylon Spray Paint Chrome Clear K1301	3	6.17	70.0	30.0	60.0	<0.01	<0.01
Perkote 10-985	3432	7.69	85.0	15.0	80.0	11.22	0.40
Rustoleum beige	0	6.51	60.0	40.0	25.0	<0.01	<0.01
Ferrocote 118-DC	132	7.66	17.0	83.0	60.0	0.09	0.17
Ferrocote EGL-1	9,814	8.80	8.0	92.0	99.0	3.45	0.40
Roll film	792	7.09	95.0	5.0	60.0	2.67	0.06
Rustilo	60	8.34	13.0	87.0	99.0	0.03	<0.01
Syntilo Castrol 9902 Coolant	1,980	8.90	20.0	80.0	99.0	1.76	0.07
Syntilo Castrol 9904 Coolant	15,840	8.80	20.0	80.0	99.0	13.94	0.56
UT Coolant Magnaflux Utragel 25-905	432	9.00	20.0	73.0	99.0	0.52	0.01
Southwest Tube Totals						**34.58**	**2.24**
Keystone Structural Tube Coatings							
Amcol 2400 HDF Charcool	55	9.17	50	20	60	0.13	0.02
Ink MEK, Pigmented, LTR Yellow Pannier	58	8.06	71	29	30	0.17	0.05

Coating Operation	Usage	Density	VOC	Solids	Transfer Eff.	VOC	PM_{10} / $PM_{2.5}$
	gal/hr	lb/gal	wt. %	wt. %	%	TPY	TPY
Rust VETO FB-20	990	7.76	14	86	60	0.54	1.32
Propane	75	4.20	100	0	0	0.16	0.00
Keystone Specialty Tube Emissions						**0.99**	**1.39**
Facility-Wide Coating Emissions						**35.57**	**3.63**

Webco has requested a facility-wide VOC emissions of 90.0 TPY (which is based on historical emissions and a safety factor of 2.5) which includes emissions from coating operations and the parts washers (as discussed in Section VI.F).

E. EUG 5: Tanks

Working and breathing emissions from the gasoline and diesel storage tanks were calculated using AP-42 (6/20), Section 7.1, the properties of the liquids stored, and the listed annualized throughputs in the following table.

Tank Emissions (per tank)

Parameter	TK-GAS-1	TK-DSL-1	TK-DSL-2
Throughput, gal/yr	3,998	29,148	5,000
Liquid in Tank(s)	Gasoline (RVP 13)	Distillate Fuel Oil No 2 (Diesel)	Distillate Fuel Oil No 2 (Diesel)
Working/Breathing Method/Tool	AP-42 (06/20), Section 7.1	AP-42 (06/20), Section 7.1	AP-42 (06/20), Section 7.1
Flash Calculation Method/Tool	N/A	N/A	N/A
Working/Breathing Emissions, TPY	0.14	<0.01	<0.01
Flashing Emissions, TPY	N/A	N/A	N/A
Control Type	None	None	None
VOC Emissions, TPY	0.14	<0.01	<0.01

HAP emissions from the tanks were evaluated and determined to be negligible.

F. EUG 6: Parts Washers

Emissions from the parts washers are based on mass balance using the material properties from the SDS of mineral spirits and the maximum historical solvent throughput for the facility. The throughput listed in the following table was determined by subtracting the amount of solvent recovered from the amount used.

Parts Washer Emissions

Material	Throughput	Density	VOC Content	Control Efficiency	VOC
	gal/yr	lb/gal	wt %	%	TPY
Cleaning Solvent	100	6.76	100	0	0.34

Webco has requested a facility-wide VOC emissions of 90.0 TPY which includes emissions from coating operations (as discussed in Section VI.D) and the parts washers.

G. EUG 7: Cooling Towers

Particulate emissions from cooling towers were estimated based on the calculation methodology and water droplet size distribution for low efficiency drift eliminators from EPA's Effects of Pathogenic and Toxic Material Transport Via Cooling Device Drift - Vol. 1 Technical Report. EPA-600/7-79-251a. November 1979. A sample calculation and emissions summary table are presented as follows.

Annual drift

$$\frac{570\ gal\ water}{1\ min} \times \frac{8.34\ lb}{1\ gal\ water} \times \frac{60\ min}{1\ hr} \times 0.020\%\ drift\ = \frac{57.05\ lb\ drift}{1\ hr}$$

Particulate emissions

$$\frac{57.05\ lb\ drift}{1\ hr} \times \frac{386\ lb\ TDS}{10^6\ lb\ water} \times 31.3\%\ PM_{30} \times \frac{8{,}760\ hrs}{1\ year} \times \frac{1\ ton}{2{,}000\ lbs} = 0.091\ TPY\ PM_{30}$$

Cooling Tower Parameters and Emissions

Parameter	CT1	CT2	CT3	CT4	CT1-KS
Water circulation rate, gpm	1,710 (1)	600	200	600	600
TDS concentration, ppmw (2)	386	386	386	386	20,000
TDS density, g/cc (3)	2.5	2.5	2.5	2.5	2.5
Drift loss, %	0.0200	0.0200	0.0200	0.0200	0.0200
Calculated drift rate, lb/hr	57.05	60.05	20.02	60.05	60.05
PM_{30} distribution, %	31.3	31.3	31.3	31.3	31.3
PM_{10} distribution, %	27.1	27.1	27.1	27.1	7.8
$PM_{2.5}$ distribution, %	7.8	7.8	7.8	7.8	0.4
PM emissions, TPY	0.09	0.03	0.01	0.03	1.65
PM_{10} emissions, TPY	0.08	0.03	0.01	0.03	0.41
$PM_{2.5}$ emissions, TPY	0.02	<0.01	<0.01	<0.01	0.02

(1) CT1 includes three towers, each with design circulation rates of 570 gpm.
(2) Estimated TDS concentrations.
(3) Average density of common salts ($CaCO_3$, $CaSO_4$, $CaCl_2$, NaCl, Na_2SO_4, Na_2CO_3).

H. EUG 8: Space Heaters

Emissions from the space heaters are based on AP-42 (7/98), Section 1.4 emission factors shown in the following table, a natural gas heating value of 1,020 Btu/scf, and the ratings shown in the following second table. Emissions of SO_2 were estimated to be negligible.

Space Heater Emission Factors

NO_X	CO	VOC	$PM_{10/2.5}$
lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf
100.0	84.0	5.5	7.6

Space Heater Emissions

ID#	Rating	NO_X		CO		VOC		$PM_{10/2.5}$	
	MMBtu/hr	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
HEAT1	13.95	1.37	5.99	1.15	5.032	0.08	0.33	0.10	0.46

I. EUG 9: Welding

Welding emissions are calculated based on material usage from calendar year 2021, welding process types used at the facility, emission factors from AP-42, Section 12-19.2 shown in the following table, and assuming similar electrode types to that used at the facility.

Welding Process	Electrode Type	Electrode Used	Emission Factors (1)						
			PM_{10}	Cr	Cr (VI)	Co	Mn	Ni	Pb
		lbs/yr	lb/10^3 lb						
SMAW	E7018	350	18.4	0.06	ND	0.01	10.3	0.02	ND
	E6010	100	25.26	0.03	0.01	ND	9.91	0.04	ND
GMAW	E70S	5,455	5.2	0.01	ND	0.01	3.18	0.01	ND
FCAW	E71T	99	12.2	0.02	ND	0.01	6.62	0.04	ND

(1) ND = Nondetectable.

Welding Process	Electrode Type	Emissions						
		PM_{10}	Cr	Cr (VI)	Co	Mn	Ni	Pb
		TPY						
SMAW	E7018	0.003	<0.001	--	<0.001	0.002	<0.001	--
	E6010	0.001	<0.001	<0.001	--	<0.001	<0.001	--
GMAW	E70S	0.014	<0.001	--	<0.001	0.009	<0.001	--
FCAW	E71T	0.001	<0.001	--	<0.001	<0.001	<0.001	--
Totals		**0.019**	**<0.001**	**<0.001**	**<0.001**	**0.011**	**<0.001**	**--**

J. Facility-Wide Emissions

EU ID	NO_X		CO		VOC		PM_{10}		$PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
FURN1	2.10	9.20	1.76	7.73	0.12	0.51	0.16	0.70	0.16	0.70
FURN2	1.70	7.45	1.43	6.26	0.09	0.41	0.16	0.57	0.16	0.57
GEN1	0.45	1.96	70.1	314.62	0.02	0.11	0.03	0.15	0.03	0.15
GEN2	0.15	0.66	15.3	54.90	0.01	0.04	0.01	0.05	0.01	0.05
FC1	0.02	0.08	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FC2	0.02	0.08	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FC3	0.01	0.06	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FC4	0.01	0.06	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
GEN3	0.66	0.17	1.32	0.33	0.35	0.09	0.02	0.01	0.02	0.01
COAT1	--	--	--	--	--	35.57	--	3.63	--	3.63
TK-GAS-1	--	--	--	--	--	0.14	--	--	--	--
TK-DSL-1	--	--	--	--	--	<0.01	--	--	--	--
TK-DSL-2	--	--	--	--	--	<0.01	--	--	--	--
WASH	--	--	--	--	--	0.34	--	--	--	--
CT1	--	--	--	--	--	--	0.02	0.08	0.01	0.02
CT2	--	--	--	--	--	--	0.01	0.03	<0.01	0.01
CT3	--	--	--	--	--	--	<0.01	0.01	<0.01	<0.01
CT4	--	--	--	--	--	--	0.01	0.03	<0.01	0.01
CT1-KS	--	--	--	--	--	--	0.09	0.41	<0.01	0.02
HEAT1	1.37	5.99	1.15	5.032	0.08	0.33	0.10	0.46	0.10	0.46
WELD1	--	--	--	--	--	--	--	0.02	--	0.02
Totals	**6.49**	**25.71**	**91.12**	**389.13**	**0.67**	**37.57**	**0.61**	**6.15**	**0.49**	**5.65**

SECTION VII. OKLAHOMA AIR POLLUTION CONTROLL RULES

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

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

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

OAC 252:100-5 (Registration, Emission Inventory, and Annual 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. The owner/operator will be required to submit emissions inventories and pay the appropriate fees.

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 or construction permit. Insignificant activities mean individual emission units that are either listed 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 HAP or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a 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 developed from the permit application and the applicable requirements.

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

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

Installation of the DX Generators triggered the requirements for construction of a major source and thus required a construction permit.

Part 7 incorporates the Prevention of Significant Deterioration requirements that apply to the construction of any new major stationary source or any project that is a major modification at an existing major stationary source in an area designated as attainment or unclassifiable. Construction of the facility is subject to this part. Therefore, a BACT analysis (see Section III of this Memorandum) and air quality impacts analysis (see Section IV of this Memorandum) were required.

Part 9 incorporates requirements that apply to the construction of any new major stationary source or major modification which would locate in or affect a nonattainment area located in Oklahoma. At this time, all of Oklahoma is in Attainment. Therefore, this part does not apply.

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 engine and heaters located at this facility are subject to the requirements of this section.

Appendix C of OAC 252:100 specifies a PM emission limitation of 0.60 lbs/MMBtu for all equipment with a heat input rating of 10 MMBtu/hr or less. Appendix C of OAC 252:100 also specifies a PM emission limitation for all equipment with a heat input rating of greater than 10 MMBtu/hr but less than 1,000 MMBtu/hr based on the following calculation: $E = 1.0428080X^{-0.238561}$, where E is the allowable emission rate (lb/MMBtu), and X is the maximum heat input (MMBtu/hr). AP-42 (7/00), Table 3.2-3 lists an uncontrolled PM_{10} emission factor of 0.0194 lb/MMBtu for four-stroke, rich-burn engines. AP-42 (7/98), Table 1.4-2 lists an uncontrolled PM emission factor of 7.6 lb/10^6 scf (approximately 0.007 lb/MMBtu based on a fuel heat capacity of 1,020 Btu/scf) for natural gas combustion in heaters and boilers. As shown in the following table, the emission rates from the fuel-burning equipment at this facility are in compliance with the applicable particulate matter emission limits.

OAC 252:100-19-4 Particulate Matter Emission Limits

EU ID	Maximum Heat Input	Appendix C Emission Limit	Emission Rate
	MMBtu/hr	lb/MMBtu	lb/MMBtu
FURN1	21.42	0.50	<0.01
FURN2	17.34	0.53	<0.01
GEN1	4.57	0.60	<0.01
GEN2	1.53	0.60	<0.01
FC1	0.176	0.60	<0.01
FC2	0.176	0.60	<0.01
FC3	0.143	0.60	<0.01
FC4	0.143	0.60	<0.01
GEN3	1.125	0.60	0.02
HEAT1 (1)	13.95 (total) 0.09 (min) 0.40 (max)	-- 0.60 0.60	-- <0.01 <0.01

(1) HEAT1 represents multiple space heaters of various sizes.

The permit requires the use of pipeline natural gas (as defined under 40 CFR §72.2) to a limit of 0.5 grains of total reduced sulfur (TRS) per 100 scf (approximately 8.5 ppm) for all stationary fuel-burning sources to ensure compliance with the requirements of this section.

Section 19-12 limits emissions of particulate matter from industrial processes and direct-fired fuel-burning equipment based on their process weight rates. Appendix G of OAC 252:100 specifies a PM emission limitation for all processes with process weight rates of 30 tons per hour or less based on the following calculation: $E = 4.10P^{0.67}$, where E is the allowable emission rate (lb/hr) and P is the process weight rate (tons per hour). Appendix G of OAC 252:100 specifies a PM emission limitation for all processes with process weight rates of greater than 30 tons per hour based on the following calculation: $E = (55.00P^{0.11})-40$, where E is the allowable emission rate (lb/hr) and P is the process weight rate (tons per hour). As shown in the following table, the emission rates from directly fired fuel-burning units or any industrial processes are in compliance with the applicable particulate emission limits.

OAC 252:100-19-12 Particulate Emission Limits

EU ID	Process Weight Rate	Appendix G Emission Limit	Actual PM Emissions
	TPH	lb/hr	lb/hr
CT1	427.8 (combined) 142.6 (each tower)	67.1 (combined) 54.9 (each)	0.021 (combined) 0.007 (each)
CT2	150.1	55.4	0.007
CT3	50.0	44.5	0.002
CT4	150.1	55.4	0.007
CT1-KS	150.1	55.4	0.376

The process weight rates for coating and welding operations were determined to be less than 100 lb/hr. Per AQD policy, sources with a process weight rates of less than 100 lb/hr are exempt from the requirements of OAC 252:100-19-12.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas, there is very little possibility of exceeding the opacity standards. The applicant shall comply with all opacity limitations.

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 fugitive dust problems; therefore, it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 2, Section 31-7 limits the ambient air concentration of hydrogen sulfide (H_2S) emissions from any facility to 0.2 ppm at standard conditions (24-hour average), which is equivalent to 283 $\mu g/m^3$. Fuel-burning equipment fired with pipeline natural gas (as defined under 40 CFR §72.2) will not have the potential to exceed the H_2S ambient air concentration limit.
Part 5, Section 31-25 limits sulfur dioxide emissions from new fuel-burning equipment (constructed or modified after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBtu heat input averaged over 3 hours; for liquid fuels, the limit is 0.8 lb/MMBtu heat input averaged over 3 hours. The gas fuel limit is equivalent to approximately 0.2 weight percent sulfur in the fuel gas, which is equivalent to 2,000 ppmw sulfur. For combustion units burning gas, the permit requires the use of pipeline natural gas (as defined under 40 CFR §72.2) to a limit of 0.5 grains of total reduced sulfur (TRS) per 100 scf (approximately 8.5 ppm) for all stationary fuel-burning sources.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBtu/hr to emissions of 0.20 lbs of NOx per MMBtu, three-hour average. There are no equipment items at this facility that exceed the 50 MMBtu/hr threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
None of the affected sources are associated with this project: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3, Section 37-15 requires VOC storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The gasoline storage tank has a maximum storage capacity of less than 400 gallons. Therefore, the gasoline storage tank is not subject to the requirements of this section. The diesel stored in each of the two (2) diesel storage tanks has a vapor pressure of less than 1.5 psia under actual storage conditions and are exempt from the requirements of this section per OAC 252:100-37-4(a).
Part 5, Section 37-25 limits owners and operators of any coating line or coating operation with VOC emissions from using coatings that as applied contain VOCs in excess of the amounts listed under OAC 252:100-37-25(a), as duplicated in the following table. These coating type limits are expressed in pounds (lbs) of VOC per gallon of coating-as applied, excluding the volume of any water and exempt organic compounds. Emissions from the clean-up with VOCs of any article, machine, or equipment used in applying coatings shall be counted in determining compliance with this rule per OAC 252:100-37-26. The facility will be required to maintain records of monthly coating usage, keep records of SDS for each coating used, and demonstrate compliance with the emission limits under this section on an annual basis.

VOC Coating Type Limits (As Applied) from OAC 252:100-37-25(a)

Coating Type	Definition	VOC Limitation lb/gal
Alkyd primer	A chemical coating composed primarily of alkyd applied to a surface to provide a firm bond between the substrate and any additional coating	4.8
Vinyl	A chemical coating containing plasticized or unplasticized polymers and co-polymers of vinyl acetate, vinyl chloride, polyvinyl alcohols or their condensation products. The primary mode of cure is solvent evaporation.	6.0
Nitrocellulose lacquer (NC lacquer)	A chemical coating containing nitrocellulose and suitable resinous modifiers. The primary mode of cure is solvent evaporation.	6.4
Acrylics	A chemical coating containing polymers or co-polymers of acrylic or substitute acrylic acid in combination with resinous modifiers. The primary mode of cure is solvent evaporation.	6.0
Epoxies	A chemical coating containing epoxy groups and suitable chemical cross-linking agents. The primary mode of cure involves a chemical reaction between the epoxy and the cross-linking agent.	4.8
Maintenance finishes	A chemical coating that protects a given substrate from adverse chemical or physical conditions.	4.8
Custom products finish	A proprietary chemical coating designed for a specific customer and use.	6.5

(1) Based on the highest VOC content of the coatings used at the facility.

Part 7, Section 37-36 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. The fuel-burning emergency generator, space heaters, and indirect-fired furnace heaters are affected fuel-burning equipment subject to this requirement.

OAC 252:100-39 (VOCs in Nonattainment & Former Nonattainment Areas) [Applicable]
In addition to any application of the requirements contained in 252:100-37, the additional requirements contained in Subchapter 39 shall be required of existing and new facilities located in Tulsa and Oklahoma Counties.
Part 7, Section 39-41 contains requirements for storage, loading, and transport/delivery of VOCs. Subsection 39-41(a) covers storage of VOCs in vessels with a storage capacity greater than 40,000 gallons. This facility does not have any VOC storage vessels with capacity greater than 40,000 gallons.
Subsection 39-41(b) covers storage of VOCs in vessels with a storage capacity of 400-40,000 gallons. The 300-gallon gasoline storage tank is not subject to this section as it has a maximum storage capacity less than the applicability threshold. The diesel stored at the facility has a vapor

pressure of less than 1.5 psia under actual storage conditions; therefore, the diesel storage tanks are exempt from the requirements of this section.

Part 7, Section 39-42 contains requirements for metal cleaning activities in Tulsa and Oklahoma County.

Subsection 42(a) covers cold solvent cleaning units, noting standards for construction and operation of such equipment. The requirements for cold solvent cleaning units are summarized in the table below. The parts washers are considered cold solvent cleaning units and are subject to the requirements of this subsection. All applicable requirements have been incorporated into the permit.

Summary of Cold Solvent Cleaning Unit Requirements

(1.) Equipment Requirements: An owner or operator of any cold cleaning unit for metal degreasing which uses a VOC shall:	
A.	install a cover or door on the facility that can be easily operated with one hand;
B.	provide an internal drain board that will allow lid closure if practical; if not practical, provide an external drainage facility; and,
C.	attach a permanent, conspicuous label summarizing the operating requirements specified in 252:100-39-42(a)(2) to the facility.
(2.) Operating Requirements: As a minimum operators shall:	
A.	drain clean parts at least 15 seconds or until dripping ceases before removal;
B.	close degreaser cover when not handling parts in cleaner;
C.	store waste VOC in covered containers;
D.	not dispose or allow disposition of waste VOC in such a manner that more than 20 percent by weight can evaporate into the atmosphere; and
E.	use a solid fluid stream, not an atomized spray, when VOC is sprayed.
(3.) Requirements for Controls: If the vapor pressure of the VOC is greater than 0.6 psi (4.1 kPa) measured at 100°F (38°C) or if VOC is heated to 248°F (120°C), the owner or operator shall apply one or more of the following control devices/techniques.	
A.	Freeboard that gives a freeboard ratio greater than or equal to 0.7.
B.	Water cover where the VOC is insoluble in and denser than water or such equivalent.
C.	Another system of equivalent control as approved by the Division Director.

Subsection 42(b) covers vapor-type metal degreasers, noting standards for construction and operation of such equipment. There are no operable vapor degreasers at the facility.

Subsection 42(c) contains operating and control requirements or conveyorized degreasing units. There are no such activities or equipment located at this facility.

Part 7, Section 39-46 applies to industries located in Tulsa County which manufacture and/or coat metal parts and products and establishes limitations in Subsection 39-46(d) for surface coatings in pounds of VOC per gallon of coating as applied (water and exempt compounds), as duplicated in the following table. Compliance with these emissions limits for surface coatings shall include VOC-containing materials used for clean up Subsection 39-46(g). Compliance with the coating limits of Subsection 39-46(d) is required to be calculated on a daily weighted average basis per Subsection 39-46(f). The facility will also be required to maintain records of monthly coating usage, keep records of SDS for each coating used, and demonstrate compliance with the emission limits under this section on an annual basis.

Coating Type	Definition	VOC Limitation lb/gal	
Air or Forced Air Dry	Coatings that are dried by the use of air or forced warm air at temperatures up to 194°F.	3.5	
Clear Coat	A coating that lacks color and opacity or is transparent and uses the undercoat as a reflectant base.	4.3	
Extreme Performance	Coatings designed for harsh exposure or extreme environmental conditions (e.g., exposure to the weather all of the time, temperature above 200°F, detergents, abrasive and scouring agents, solvents, corrosive atmosphere or similar conditions).	3.5	
Powder	A coating that is applied in a finely divided state by various method and becomes a continuous, solid film when the metal part or product is moved to an oven for curing.	0.4	
Other	A coating that does not meet the definition any other coating type defined in OAC 252:100-39-46(b).	3.0	

(2) Based on the highest VOC content of the coatings used at the facility.

Several coatings used at the facility have been identified to have VOC contents which exceed the air or forced air dry coating type VOC emission limitation of this section; however, compliance with these limits is based on the daily weighed average basis of the coatings used. Specific conditions have been added to the permit requiring compliance with these limitations.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates TAC that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring, and recordkeeping and applies to any testing, monitoring, or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain, and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any

required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

Each emissions unit was evaluated for periodic testing in accordance with the Periodic Testing Standardization guidance issued December 1, 2011, on a pollutant-by-pollutant basis. Periodic testing requirements are not required for an emission unit that is subject to an applicable requirement that already requires periodic testing, continuous emission monitoring (CEM), or predictive emission monitoring (PEMS). The following sources are required to demonstrate compliance with emission limits by conducting periodic emission testing for the pollutants listed as indicated in the following table.

Periodic Testing Review

EU ID	Point ID	Pollutant	TPY	Periodic Testing (Yes/No)
GEN1	FC1 & FC2 / GEN1 Bypass	NO_X	1.96	No
		CO	314.62	**Yes**
		VOC	0.11	No
		$PM_{10/2.5}$	0.15	No
GEN2	FC3 & FC4 / GEN2 Bypass	NO_X	0.66	No
		CO	54.90	**Yes**
		VOC	0.04	No
		$PM_{10/2.5}$	0.05	No
COAT1	COAT1	VOC	35.57	No[(1)]
		$PM_{10/2.5}$	3.63	No

(1) Mass balance does not require periodic testing; however, monitoring requirements are required.

The CO emissions from GEN1 (which include controlled emissions during normal operations of the furnaces and uncontrolled emissions which are released to the atmosphere through the bypass vent during furnace purging) are limited to 314.62 TPY. Per the December 1, 2011, Periodic Testing Standardization guidance, periodic testing is required at least every other year for sources which have permitted emissions between 250 TPY and 500 TPY. The CO emissions from GEN2 (which include controlled emissions during normal operations of the furnaces and uncontrolled emissions which are released to the atmosphere through the bypass vent during furnace purging) are limited to 57.90 TPY. Per the December 1, 2011, Periodic Testing Standardization guidance, periodic testing is required at least every five (5) year or at least once during the permit term for sources where pre-controlled emissions are greater than 100 TPY but permitted emissions are between 40 TPY and 100 TPY. The December 1, 2011, Periodic Testing Standardization guidance also requires monitoring for sources where pre-controlled emissions are greater than 100 TPY but permitted emission less than 40 TPY. The coating operations VOC emissions will be limited to less than 40 TPY and only requires monitoring; therefore, monitoring of the coating operations will be required.

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 252:100-21	Wood-Waste Burning Equipment	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 252:100-35	Carbon Monoxide	not type of emission unit
OAC 252:100-39	Nonattainment Areas	not in area category
OAC 252:100-47	Landfills	not in source category

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Applicable]

The facility is a PSD major source. A PSD analysis to include BACT and modeling is required for any PSD major source. Also, any project at a PSD major source that results in a significant emissions increase or a significant net emissions increase is subject to a PSD analysis. A significant emissions increase or significant net emissions increase is any project emissions increase that exceeds the following PSD SER: 100 TPY CO, 40 TPY NO_X, 40 TPY SO_2, 25 TPY PM, 15 TPY PM_{10}, 10 TPY $PM_{2.5}$, 40 TPY VOC, 0.6 TPY lead, 3 TPY fluorides, 7 TPY Sulfuric Acid Mist, 10 TPY H_2S, 10 TPY Total Reduced Sulfur, or 75,000 TPY CO_2-equivalent. A PSD applicability analysis for this permit action was conducted and the facility was determined to be significant for CO, and therefore subject to the PSD permitting process. A BACT analysis for CO emissions from the DX generators and an impacts analyses of CO emissions from the facility have been conducted as discussed previously in this Memorandum.

NSPS, 40 CFR Part 60 [None Applicable]

Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. This subpart affects steam generating units constructed after June 9, 1989, with a design heat input capacity of 100 MMBtu/hr or less, but greater than 10 MMBtu/hr. The two furnace heaters (FURN1 and FURN2) each have design heat input capacities of 100 MMBtu/hr or less, but greater than 10 MMBtu/hr, and are subject to the requirements of this subpart. However, both FURN1 and FURN2 meet the definition of a process heater, i.e., they do not heat a heat transfer medium, which is excluded from the definition of steam generating unit. Therefore, these units are not subject to the requirement of this subpart. All other fuel-burning units on-site have design heat input capacities of less than 10 MMBtu/hr and are therefore not subject to the requirements of this subpart.

Subpart Kb, Volatile Organic Liquid (VOL) Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984. This subpart applies to VOL storage vessels which have a capacity of 19,812 gallons (40 m^3) or greater. The storage tanks located on-site all have capacities below the minimum applicability threshold capacity of this subpart. Therefore, this subpart does not apply.

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines (CI-ICE). This subpart affects stationary CI-ICE based on power and displacement ratings, depending on date of

construction, beginning with those constructed after July 11, 2005, and manufactured after April 1, 2006, or engines reconstructed after July 11, 2005. There are no stationary CI-ICE located at this facility.

Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and numerous manufacture dates. Engine manufacturers are required to certify certain engines to meet the emission standards and may voluntarily certify other engines. The 150-hp natural gas-fired Kohler emergency generator engine was constructed in 2005 and is therefore not subject to the requirements of this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]
There are no emissions of any of the regulated pollutants: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J (Equipment Leaks of Benzene) concerns only process streams which contain more than 10% benzene by weight. All streams at Webco are less than 1% benzene by weight.

NESHAP, 40 CFR Part 63 [Subparts ZZZZ and CCCCCC Applicable]
Subpart Q, Industrial Process Cooling Towers. This subpart applies to all industrial process cooling towers (IPCTs) that utilize chromium–based water treatment chemicals located at a major source of HAP. This facility is not a major source of HAP; therefore, this subpart is not applicable.

Subpart MMMM, Surface Coating of Miscellaneous Metal Parts and Products. This subpart establishes standards for miscellaneous metals parts and products surface coating facilities for major sources of HAP. This subpart sets forth limitations on coating HAP content. Compliance with these limitations can be met through one of three options: 1) compliance material, 2) emission rate without add-on controls, and 3) emission rate with add-on controls. The facility is not a major source of HAP emissions; therefore, the facility is not subject to this subpart.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of the following new or reconstructed RICE must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines):

1) Stationary RICE located at an area source;
2) The following Stationary RICE located at a major source of HAP emissions:
   (a) 2SLB and 4SRB stationary RICE with a site rating of ≤ 500 brake HP;
   (b) 4SLB stationary RICE with a site rating of < 250 brake HP;
   (c) Stationary RICE with a site rating of ≤ 500 brake HP which combust landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis;
   (d) Emergency or limited use stationary RICE with a site rating of ≤ 500 brake HP; and
   (e) CI stationary RICE with a site rating of ≤ 500 brake HP.

No further requirements apply for engines subject to NSPS under this part. Based on emission calculations, this facility is a minor source of HAP. A stationary RICE located at an area source of HAP emissions is new if construction commenced on or after June 12, 2006. The natural gas fired emergency generator engine is a SI RICE located at an area source of HAP under this subpart and was required to comply with the applicable emission limitations, operating limitations, and other requirements no later than the compliance date of May 3, 2013. The following summary shows the requirements for the existing stationary CI RICE located at this facility from Table 2d of 40 CFR Part 63, Subpart ZZZZ.

NESHAP Subpart ZZZZ Requirements

Engine Category	Requirements [1]
Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year [3]a	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; [2]
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(1) During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

(2) Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.

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

The permit incorporates all applicable requirements.

Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters. This subpart establishes notional emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial and institutional boilers and process heaters located at major sources of HAP. This facility is not a major source of HAP.

Subpart CCCCCC, Gasoline Dispensing Facilities. This subpart establishes emission limitations and management practices for HAP emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF) located at an area source of HAP emissions. GDF means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. The gasoline storage tank has a monthly throughput of less than 10,000 gallons and is required to comply with the requirements of §63.11116, which requires the facility to follow housekeeping measures to minimize the release of gasoline vapors to the atmosphere. All applicable requirements have been incorporated into the permit.

Subpart HHHHHH, Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. This subpart establishes requirements for area sources of HAP involving paint stripping operations involving the use of chemical strippers containing methylene chloride (MeCl), autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations, and spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). This facility does not engage in stripping operations or autobody refinishing operations. The facility does not use spray coating paints that contain any of the target HAPs in this subpart. Therefore, the facility is not subject to the requirements of this subpart.

Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers Area Sources. This subpart applies to new and existing industrial, commercial, and institutional boilers located at area sources of HAPs. The furnace heaters, DX Generator burners, and space heaters meet the definition of process heaters which are excluded from the definition of a boiler. Therefore, these units are not subject to the requirements of this subpart.

Subpart WWWWWW, Plating and Polishing Operations at Area Sources. This subpart applies to "plating and polishing" facilities engaged in one or more of the following processes: non-chromium electroplating, electroless or non-electrolytic plating, other non-electrolytic metal coating processes, dry mechanical polishing of finished metals and formed products after plating or thermal spraying, electroforming, and electropolishing. The facility does not engage in any of the listed processes; therefore, this subpart is not applicable.

Subpart XXXXXX, Area Source Standards for Nine Metal Fabrication and Finishing Source Categories. This subpart applies to owners and operators of area sources that primarily engage in electrical and electronic equipment finishing operations, fabricated metal products, fabricated plate work (boiler shops), fabricated structural metal manufacturing, heating equipment (except electric), industrial machinery and equipment finishing operations, iron and steel forging, primary metal products manufacturing, or valve and pipe fittings. Affected sources include dry abrasive blasting, machining, dry grinding and dry polishing with machines, spray painting, and welding. The primary NAICS for the facility is 331210 (Iron and Steel Pipe and Tube Manufacturing from Purchased Steel). This activity is not one of the affected source categories under this subpart. Therefore, this subpart does not apply.

Compliance Assurance Monitoring, 40 CFR Part 64 [Applicable]

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

1. It is subject to an emission limit or standard for an applicable regulated air pollutant,
2. It uses a control device to achieve compliance with the applicable emission limit or standard, and
3. It has potential emissions, prior to the control device, of the applicable regulated air pollutant equal to or greater than major source thresholds (e.g., 100 TPY).

Emissions from the DX Generator (GEN1), which is associated with the Weld Mill Furnace 241 (FURN1) and the DX Generator (GEN2), which is associated with the Cold Draw Furnace 141 (FURN2), are controlled by flame curtains and has potential uncontrolled CO emissions which exceed 100 TPY. Therefore, GEN1 and GEN2 will be subject to CAM. CAM requirements will be addressed during Part 70 permitting, as appropriate. Emissions from the remaining equipment items have potential emissions that are below major source thresholds and are, therefore, not subject to CAM.

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

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.

This facility does not utilize any Class I & II substances in the manufacturing process.

SECTION IX. 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 methods used to document compliance were 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.

On December 23, 2020, Webco submitted a voluntary self-disclosure for this facility which resulted in Enforcement Case 10016. The self-disclosure identified a historical misclassification of the exothermic gas generators (DX Generators) as regular natural gas-fired heaters. The exothermic gas generated by the DX Generators contains significant quantities of CO where potential emissions were estimated to exceed major source NSR and PSD permitting thresholds. Potential emissions from coating operations also likely exceeded Title V major source permitting thresholds.

The facility began operations in 1970 and was originally permitted under Permit No. 98-013-O, issued on July 20, 1998. The first DX Generator (GEN2) was installed in 1975 and the second DX Generator (GEN1) was installed in 1989. The Southwest Tube location had been operating as a permit-exempt facility based on the recommendation of Applicability Determination No. 98-013-AD (M-2), issued on July 12, 2006. The applicability determination was made based on the application which inadvertently identified the two DX Generators as being standard gas-fired heating units.

Due to the lack of historical facility records, historical PSD applicability analyses could not be conducted to determine which facility projects would have triggered full PSD review and BACT and ambient air modeling requirements. After a review of current facility operations, it was determined that the only operations contributing to an exceedance of any PSD significance thresholds were the CO emissions from the DX Generators. As a part of the enforcement case, and in an effort to bring the facility into compliance as soon as practical, Compliance and Enforcement required the submittal of a PSD construction permit application for the facility which includes BACT emissions controls and emission limitations analysis for CO emissions from the DX Generators. This memorandum includes a review of BACT for the DX Generators and PSD ambient air dispersion modeling analysis. Specific conditions have been added to the permit which require compliance with BACT emission limits for CO, installation of controls, and operating requirements for the DX Generators.

SECTION X. TIER CLASSIFICATION, PUBLIC AND EPA REVIEW

This application has been determined to be a **Tier II** based on the request for a new major source construction permit for Part 70 facility under OAC 252:100-8-4(a)(1)(A) which is required to undergo the significant modification procedures under OAC 252:100-8-7.2(b)(2). The applicant requested that the permit be processed through the "traditional NSR process" which requires a public review opportunity for a period of 30-days. EPA will have an opportunity to review the draft construction permit during this public review period.

The applicant published a "Notice of Filing a Tier II Application" on November 7, 2021, in the *Tulsa World*, a daily newspaper printed and published in the City of Tulsa, County of Tulsa, in the State of Oklahoma, and having general circulation therein. The "Notice of Filing a Tier II Application" stated that the application was available for public review at the Charles Page Library, 551 E. 4th St., Sand Springs, OK 74063, and at the Air Quality Division main office.

The applicant published the "Notice of Tier II Draft Permit" on May 17, 2023, in the *Sand Springs Leader*, a semi-weekly newspaper printed and published in the City of Sand Springs, County of Tulsa, in the State of Oklahoma, and having general circulation therein. The Notice of Tier II Draft Permit stated that the draft permit was available for a 30-day public review at the Charles Page Library, 551 E. 4th St., Sand Springs, OK 74063, and at the Air Quality Division's main office. The draft permit was also available for review under the DEQ Permits for Public Review webpage at https://www.deq.ok.gov/. No comments were received from the public or EPA.

This facility is not located within 50 miles of the Oklahoma border and any other state. Tribal Nations were notified of the draft permit. No comments were received from any Tribal Nations.

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

The information on all permit actions is available for review by the public in the Air Quality section of the DEQ web page at https://www.deq.ok.gov.

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 issues that would prevent issuance of this permit. Issuance of the permit is recommended.

Webco Industries, Inc.
Attn: Clark Watson
P.O. Box 100
Sand Springs, OK 74063

SUBJECT: Permit No. **2021-0392-C PSD**
Southwest Tube
AQD Facility ID: 2734
201 S. Woodland Drive, Sand Springs, OK 74063
Section 12, Township 19N, Range 11W, Tulsa County, Oklahoma

Dear Mr. Watson:

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

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

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or Joseph Wills, the permit writer, at Joseph.Wills@deq.ok.gov or (405) 702-4100.

Sincerely,

Phillip Fielder

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

Enclosures

NSR CONSTRUCTION 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. 2021-0392-C PSD

Webco Industries, Inc.,

having complied with the requirements of the law, is hereby granted permission to operate the Southwest Tube facility located at 201 S. Woodland Drive, Sand Springs, OK 74063, 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, as authorized under Section VIII of the Standard Conditions.

6/21/2023

Kendal Stegmann, Division Director
Air Quality Division

Date

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Webco Industries, Inc. **Permit No. 2021-0392-C PSD**
Southwest Tube **Facility ID: 2734**

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on August 21, 2021, and supplemental information received thereafter. The Evaluation Memorandum dated June 19, 2023, is attached to this permit to explain the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of and consent to, the conditions contained herein:

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

a. EUG 1: Furnace Heaters

i. Emissions from the furnace heaters shall be limited to the following maximum design heat input ratings and emission limits:

ID#	Description	Maximum Design Heat Input Rating	NO_X	CO
		MMBtu/hr	TPY	TPY
FURN1	Weld Mill Furnace 241	21.42	9.20	7.73
FURN2	Cold Draw Furnace 141	17.34	7.45	6.26

ii. Compliance with the TPY emission limits shall be based 12-month rolling total of monthly emission calculations based on fuel consumption or maximum heater ratings and AP-42 Section 1.4 emission factors and demonstrated by means of maintaining records on-site.

b. EUG 2: DX Generators

i. Emissions Limits:

A. The following BACT CO emissions limits apply to GEN1 and GEN2.
[OAC 252:100-8-34(b)]

EU ID	Operating Type	CO Emissions Limits (1)
		lb/hr
GEN1	Normal Operations	70.1
	Bypass Venting	112.3
GEN2	Normal Operations	15.3
	Bypass Venting	112.3

(1) Compliance shall be demonstrated based on a 3-hr average.

I. Compliance with these emission limits shall be demonstrated through initial compliance testing as required under Specific Condition No. 1.b.iii and periodic compliance testing as required under Specific Condition No. 1.b.iv. Testing shall consider the capture efficiencies as determined under Specific Condition No. 1.b.iii.C. IV

B. Emissions from GEN1 and GEN2 shall be limited to the following maximum design heat input ratings and emission limits:

ID#	Maximum Design Heat Input Rating	CO
	MMBtu/hr	TPY
GEN1	4.57	314.62 (1)
GEN2	1.53	54.90 (1)

(1) Includes normal operations and bypass venting.

I. Compliance with the CO TPY emission limits shall be based on 12-month rolling totals of monthly emission calculations based on the operating mode, stack testing, and hours of operation for each operating mode during each month and demonstrated by means of maintaining records on-site.

ii. Operating Limitations and Requirements:

A. Flame curtains shall be installed at the inlets and outlets of each furnace (i.e., FURN1 & FURN2) and shall operate at all times when the furnaces and associated DX Generators are operating. The flame curtains must be installed and operated as follows as required by BACT: [OAC 252:100-8-34(b) & OAC 252:100-8-35]

I. The flame burners/tips of the flame curtains shall be installed, operated, and maintained in accordance with manufacturer's instructions.

II. One or more controller systems, which is tied to the Programmable Logic Controller (PLC) tracking, shall be installed which monitors and records the presence of a flame for all flame tips of the flame curtains when the DX Generator is running. The system shall trigger a rotating alarm (both visual and auditory) when a flame outage occurs at any one of the flame tips.

III. The operating status of the flame tips (i.e., "on" or "off") shall be transmitted to and displayed at the inlet operator station of the associated furnace, the

outlet operator station of the associated furnace, and the maintenance human-machine interface.

IV. Visible lights which indicate the status of flame tip operations shall be installed at the furnace outlets, and at each of the DX Generators.

B. Bypass venting of the DX Generators (GEN1 and GEN2) directly to the atmosphere shall only occur as permitted below:[OAC 252:100-8-34(b) & OAC 252:100-8-35]

I. Total hours of bypass venting shall not exceed 120 hours in any 12-month period.

II. Bypass venting shall only be permitted under the following circumstances:

a. During emergency conditions;
b. When a DX Generator and associated furnace are shut down and started up for maintenance; and
c. When purging the atmosphere in a furnace when switching to a new atmospheric process, except as prohibited by Specific Condition No. 1.b.ii.D.V.

III. Each instance shall be documented and shall include the cause, duration, and calculated emissions of the bypass venting.

IV. Bypass venting is permitted for venting during the "lean" exothermic gas generation mode of a DX Generator.

V. Bypass venting is prohibited for venting during the "rich" exothermic generation mode of the DX Generators, unless qualifying as an emergency event.

VI. Each DX Generator shall install an electronic valve system, which is tied to the PLC tracking, to record the duration of each bypass event (in minutes). A rotating alarm (both visual and auditory) will be tied into the electronic valve system and will trigger during every bypass venting event.

VII. Each DX Generator shall be limited to one hour of bypass venting in any 8-hr period.

VIII. No more than two hours of bypass venting shall occur in any 8-hr period.

C. The owner/operator shall develop and maintain operator work instructions for each of the DX Generators to include target differential pressure settings of the inlet air and inlet natural gas lines for each DX Generator and target flow rates for each air/gas ratio operating mode.

D. For each DX Generator, the owner/operator shall record the manometer differential pressure readings (in inches) of the inlet air and inlet natural gas lines of each DX Generator at least once daily or after changing to a new operating mode, whichever is more frequent. Readings shall include any corrections for capillary error and corrections for temperature from standard conditions.

E. The owner/operator shall conduct semi-annual inspections and calibration checks of the differential pressure measurement devices for the inlet air and inlet natural gas lines to the DX Generators including, but not limited to, the following:

I. Inspect the orifice plates for wear or damage. If signs of wear or damage are identified, replace the orifice plate. Keep records of inspections and orifice plate replacements.

II. Conduct calibration checks on each of the differential pressure u-tube manometers. Calibration checks shall include, but are not limited to, zero error checks, scale error checks, and capillary error checks. Corrective actions shall be made for any calibration checks which do not meet the manometer manufacturer calibration specifications. Keep records of calibration check results and corrective actions made.

iii. Initial Testing Requirements:

A. Within 24 months of the issuance of this permit, the permittee shall conduct initial compliance testing of CO emission from the DX Generator (GEN1) associated with Weld Mill Furnace 241 (FURN1) when operating. Each test shall meet the general testing requirements of Specific Condition No. 1.b.ii.C and shall include the following: [OAC 252:100-43]

I. Testing for each of the following operating modes:

a. the "rich" 7:1 air-gas ratio low temperature operating mode;
b. the "rich" 7:1 air-gas ratio high temperature operating mode;
c. the "lean" 9:1 air-gas ratio low temperature operating mode; and
d. the "lean" 9:1 air-gas ratio high temperature operating mode.

II. For each operating mode identified under Specific Condition No. 1.b.iii.A.I, all the following shall be conducted during the same testing period:

a. Testing of the gases in the supply line from the DX Generator to the furnace;
b. Testing of the emissions captured by the furnace inlet collection hood; and
c. Testing of the emissions captured by the furnace outlet collection hood.
d. Monitoring of the furnace operating temperature.

III. The testing results shall be used to:

a. Demonstrate compliance with the lb/hr emission limits of Specific Condition No. 1.b.i.A;
b. Determine the highest emissions producing operating mode as relied upon for Specific Conditions No. 1.b.iv.A.I and II; and

c. Determine the collection efficiency of the furnace inlet and outlet hoods and collection system as required under Specific Condition No. 1.b.iii.C.IV.
d. Establish the normal furnace operating temperature range for each operating mode tested which will be relied upon in Specific Condition No. 1.b.iv.A.III.

IV. For any operating mode not tested as required above, the written report required by Specific Condition No. 1.b.ii.C must include the reasons why the operating mode was not tested.

B. Within 24 months of the issuance of this permit, the permittee shall conduct initial compliance testing of CO emission from the DX Generator (GEN2) associated with Cold Draw Furnace 141 (FURN2) when operating. Each test shall meet the general testing requirements of Specific Condition No. 1.b.ii.C and shall include the following: [OAC 252:100-43]

I. Testing for each of the following operating modes:

a. he "rich" 7:1 air-gas ratio low temperature operating mode;
b. the "rich" 7:1 air-gas ratio high temperature operating mode;
c. the "lean" 9:1 air-gas ratio low temperature operating mode; and
d. the "lean" 9:1 air-gas ratio high temperature operating mode.

II. For each operating mode identified under Specific Condition No. 1.b.iii.B.I, all the following shall be conducted during the same testing period:

a. Testing of the gases in the supply line from the DX Generator to the furnace;
b. Testing of the emissions captured by the furnace inlet collection hood; and
c. Testing of the emissions captured by the furnace outlet collection hood.
d. Monitoring of the furnace operating temperature.

III. The testing results shall be used to:

a. Demonstrate compliance with the lb/hr emission limits of Specific Condition No. 1.b.i.A;
b. Determine the highest emissions producing operating mode as relied upon for Specific Conditions No. 1.b.iv.B.I and II; and
c. Determine the collection efficiency of the furnace inlet and outlet hoods and collection system as required under Specific Condition No. 1.b.iii.C.IV.
d. Establish normal furnace operating temperature range for each operating mode tested which will be relied upon in Specific Condition No. 1.b.iv.B.III.

IV. For any operating mode not tested as required above, the written report required by Specific Condition No. 1.b.ii.C must include the reasons why the operating mode was not tested.

C. General Testing Requirements [OAC 252:100-8-6(a)(3)(A) & OAC 252:100-43]

I. Required testing of CO emissions shall be conducted using approved reference methods as listed below.

a. Method 1: Sample and Velocity Traverses for Stationary Sources.
b. Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate.
c. Method 3 or 3A: Gas Analysis for CO_2, Excess Air, and Dry Molecular Weight.
d. Method 4: Determination of Moisture in Stack Gasses.
e. Method 10: Determination of CO Emissions from Stationary Sources or Method 320: Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared Spectroscopy.

II. Testing shall conform with the Guidelines for Conducting Air Quality Stack Tests in Oklahoma (December 20, 2018), located at https://www.deq.ok.gov/wp-content/uploads/air-division/PG_Stack_Test_Guidance.pdf.

III. The owner/operator shall record the differential pressure readings (in inches) at the manometers for the inlet air and inlet natural gas to the DX Generator being tested for each testing run conducted.

IV. The capture efficiency of the furnace inlet and outlet hoods and collection systems shall be determined during testing using one of the following methods:

a. Erecting of a permanent or temporary enclosure at each furnace inlet and outlet hood and collection systems during testing. The enclosure shall meet the requirements of Method 204 for Permanent or Temporary Enclosure for Determining Capture Efficiency.
b. Mass balance of the CO and CO_2 concentrations tested from the DX generator supply line and compared to the CO and CO_2 concentrations tested from the hood and collection system of a furnace's inlet and outlet.

V. A protocol describing the testing plan shall be submitted to the Air Quality Division at least 30 days prior to the testing.

VI. A written report documenting the results of emissions testing shall be submitted within 60 days of completion of on-site testing. The written report shall include the manometer readings for each testing run conducted and shall document the normal furnace internal temperature range during each test run.

The normal furnace internal temperature range may include a safety factor (e.g., ± X%, ± X°F, etc.).

iv. Periodic Testing Requirements:

A. After initial compliance testing has been conducted as required in Specific Condition No. 1.b.iii.A, the permittee shall conduct periodic compliance testing of CO emissions, at least once every 24-month period, from the DX Generator (GEN1) associated with Weld Mill Furnace 241 (FURN1) when operating under representative conditions. The required testing shall not be conducted within 365 days of any previously completed testing of the source. Each test shall meet the general testing requirements of Specific Condition No. 1.b.iv.C and shall include the following: [OAC 252:100-43]

I. Testing of the gases in the supply line from the DX Generator to the furnace during the highest emissions producing operating mode as determined by testing conducted under Specific Condition No. 1.b.iii.A. The testing results shall be used to demonstrate compliance with the lb/hr emission limits for bypass venting operations of Specific Conditions No. 1.b.i.A.

II. Testing of the furnace inlet and outlet during the highest emissions producing operating mode as determined by testing conducted under Specific Condition No. 1.b.iii.A. The sum of the testing results of the furnace inlet and outlet shall be used to demonstrate compliance with the lb/hr emission limits for normal operations of Specific Conditions No. 1.b.i.A.

III. Monitoring of the furnace operating temperature during the highest emissions producing operating mode as determined by testing conducted under Specific Condition No. 1.b.iii.A. The furnace shall be operating with the furnace internal operating temperature range documented in Specific Condition No. 1.b.iii.C.VI.

B. After initial compliance testing has been conducted as required in Specific Condition No. 1.b.iii.B, the permittee shall conduct periodic compliance testing of CO emissions, at least at least once every 60-month period, from the DX Generator (GEN2) associated with Cold Draw Furnace 141 (FURN2) when operating. The required testing shall not be conducted within 730 days of any previously completed testing of the source. Each test shall meet the general testing requirements of Specific Condition No. 1.b.iv.C and shall include the following: [OAC 252:100-43]

I. Testing of the gases in the supply line from the DX Generator to the furnace during the highest emissions producing operating mode as determined by testing conducted under Specific Condition No. 1.b.iii.B. The testing results shall be used to demonstrate compliance with the lb/hr emission limits for bypass venting operations of Specific Conditions No. 1.b.i.A.

II. Testing of the furnace inlet and outlet during the highest emissions producing operating mode as determined by testing conducted under Specific Condition

No. 1.b.iii.B. The sum of the testing results of the furnace inlet and outlet shall be used to demonstrate compliance with the lb/hr emission limits for normal operations of Specific Conditions No. 1.b.i.A.

III. Monitoring of the furnace operating temperature during the highest emissions producing operating mode as determined by testing conducted under Specific Condition No. 1.b.iii.B. The furnace shall be operating within the furnace internal operating temperature range documented in Specific Condition No. 1.b.iv.C.V.

C. General Testing Requirements [OAC 252:100-8-6(a)(3)(A) & OAC 252:100-43]

I. Required testing of CO emissions shall be conducted using portable analyzers or an equivalent method approved by Air Quality.

II. Testing shall conform with the Guidelines for Portable Electrochemical Analyzer Testing used for Compliance Monitoring (Revised March 7, 2003), located at https://www.deq.ok.gov/wp-content/uploads/air-division/PG_PEA_Guidance.pdf.

III. The owner/operator shall record the differential pressure readings (in inches) at the manometers for the inlet air and inlet natural gas to the DX Generator being tested for each testing run conducted.

IV. A protocol describing the testing plan shall be submitted to the Air Quality Division at least 30 days prior to the testing.

V. A written report documenting the results of emissions testing shall be submitted within 60 days of completion of on-site testing. The written report shall include the manometer readings for each testing run conducted and shall document the normal furnace internal temperature range during each test run.

c. EUG 3: Emergency Generators Engine(s)

i. The facility is authorized to operate the emergency generator engine(s) as listed below.

EU ID#	Point ID#	EU Description	Rating (hp)	Fuel
GEN3	GEN3	Kohler 80RZG Generator	150	Natural-gas

ii. GEN3 shall be limited to operate not more than 500 hours in any 12-month period. Hours of operation shall be monitored using a non-resettable hour meter. [OAC 252:100-8-6(a)]

iii. The engine shall have a permanent identification plate attached that shows the make, model number, and serial number. [OAC 252:100-43]

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

A. § 63.6580 What is the purpose of subpart ZZZZ?

B. § 63.6585 Am I subject to this subpart?
C. § 63.6590 What parts of my plant does this subpart cover?
D. § 63.6595 When do I have to comply with this subpart?
E. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
F. § 63.6605 What are my general requirements for complying with this subpart?
G. § 63.6612 By what date must I conduct initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary ICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
H. § 63.6615 When must I conduct subsequent performance tests?
I. § 63.6620 What performance tests and other procedures must I use?
J. § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?
K. § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?
L. § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
M. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?
N. § 63.6645 What notifications must I submit and when?
O. § 63.6650 What reports must I submit and when?
P. § 63.6655 What records must I keep?
Q. § 63.6660 In what form and how long must I keep my records?
R. § 63.6665 What parts of the General Provisions apply to me?
S. § 63.6670 Who implements and enforces this subpart?
T. § 63.6675 What definitions apply to this subpart?

d. EUG 4: Coatings

i. Emissions from coating operations and usage of VOC containing materials at the facility shall be limited to 90.0 TPY of VOC. Compliance with this emission limit shall be calculated monthly on a 12-month rolling total basis and shall be based on a mass balance of the VOC content of the coatings and materials used during the month.
[OAC 252:100-8-6(a)(1)]

ii. The VOC content of coatings as applied, less water and exempt solvents, shall not exceed the following limits and shall include all solvents used to cleanup any article, machine, or equipment used in applying coatings.
[OAC 252:100-37-25(a) & OAC 252:100-37-26]

Coating Type	**VOC Emission Limits lb / gallon of coating**
Alkyd Primers	4.8

Coating Type	VOC Emission Limits lb / gallon of coating
Epoxies	4.8
Maintenance Finishes	4.8
Vinyls	6.0
Acrylics	6.0
NC Lacquers	6.4
Custom Product Finishes	6.5

iii. The VOC content of coatings shall not exceed the following limits. Compliance with these limits shall be calculated on a daily weighted average basis.
[OAC 252:100-39-46(d) & OAC 252:100-39-46(f)]

Coating Type	VOC Emission Limits lb / gallon of coating
Air or Forced Air Dry	3.5
Clear Coat	4.3
Extreme Performance	3.5
Powder	0.4
Other	3.0

iv. VOC-containing materials used for cleanup shall be considered in the VOC content limits of Specific Condition No. 1.d.iii unless: [OAC 252:100-39-46(g)]

A. The VOC containing materials are maintained in a closed container when not in use;
B. Closed containers are used for the disposal of cloth or paper or other materials used for surface preparation and cleanup;
C. The spray equipment is disassembled and cleaned in a VOC vat and the vat is closed when not in use; or,
D. The VOC containing materials used for the cleanup of spray equipment are sprayed directly into closed containers.

e. EUG 5: Tanks

i. Emissions from storage tanks are estimated based on existing equipment and liquid throughput of each tank but do not have any specific emissions limits.

ii. The gasoline tank (TK-GAS-1) at the facility is subject to 40 CFR Part 63, Subpart CCCCCC, "Gasoline Dispensing Facilities." The permittee shall comply with all applicable requirements, including but not limited to the following:
[40 CFR §§ 63.11110 to 63.11132]

What this subpart covers
A. §63.11110, What is the purpose of this subpart?
B. §63.11111, Am I subject to the requirements in this subpart?

C. §63.11112, What parts of my affected source does this subpart cover?
D. §63.11113, When do I have to comply with this subpart?

Emission Limitations and Management Practices

E. §63.11115, What are my general duties to minimize emissions?
F. §63.11116, Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

Testing and Monitoring Requirements

G. §63.11120, What testing and monitoring requirements must I meet?

Notification, Records, and Reports

H. §63.11124, What notifications must I submit and when?
I. §63.11125, What are my recordkeeping requirements?
J. §63.11126, What are my reporting requirements?

Other Requirements and Information

K. §63.11130, What parts of the General Provisions apply to me?
L. §63.11131, Who implements and enforces this subpart?
M. §63.11132, What definitions apply to this subpart?

f. EUG 6: Parts Washers

i. Compliance with the VOC emissions limit for coating operations of Specific Condition No. 1.d.i shall include emissions from the parts washers. Compliance with this emission limit shall be calculated monthly on a 12-month rolling total basis and shall be based on a mass balance of the VOC content of the coatings used during the month. [OAC 252:100-8-6(a)(1)]

ii. The permittee shall operate the parts washers in accordance with the cold cleaning facility requirements of OAC 252:100-39-42(a) which includes, but is not limited to, the following: [OAC 252:100-39-42(a)]

A. The permittee of any cold cleaning unit for metal degreasing which uses a VOC shall:

I. install a cover or door on the facility that can be easily operated with one hand;
II. provide an internal drain board that will allow lid closure if practical; if not practical, provide an external drainage facility; and
III. attach a permanent, conspicuous label summarizing the operating requirements specified in OAC 252:100-39-42(a)(2) to the facility.

B. Owners or operators shall at a minimum:

I. drain clean parts at least 15 seconds or until dripping ceases before removal;
II. close degreaser cover when not handling parts in cleaner;
III. store waste VOC in covered containers;
IV. not dispose or allow disposition of waste VOC in such a manner that more than 20 percent by weight can evaporate into the atmosphere; and

V. use a solid fluid stream, not an atomized spray, when VOC is sprayed.

C. If the vapor pressure of the VOC is greater than 0.6 psi measured at 100°F or if VOC is heated to 248°F, the owner or operator shall apply one or more of the following control devices/techniques.

I. Freeboard that gives a freeboard ratio greater than or equal to 0.7.
II. Water cover where the VOC is insoluble in and denser than water or such equivalent.
III. Another system equivalent control as approved by the Division Director.

D. Compliance shall be determined in accordance with EPA guidance document "Control of Volatile Organic Emissions from Solvent Metal Cleaning," 450/2-77-022. Test reports and maintenance and repair records of control equipment shall be maintained by the source for at least two years.

g. EUG 7: Cooling Towers

i. The permittee shall conduct initial testing of total dissolved solid (TDS) concentration (ppmw) of the cooling tower water.

ii. The following records shall be kept for all cooling towers operating at the facility:

A. Records of initial testing of cooling tower water total dissolved solids (TDS) concentration (ppmw);
B. Records of vendor certification of maximum recirculation rate (gallons/minute); and
C. Records of design and construction showing 0.0200% or less drift.

h. EUG 8: Space Heaters

A. Emissions from space heaters are estimated based on existing equipment, fuel usage, and the design heat input capacity of each heater but do not have any specific limitations.

i. EUG 9: Welding

A. Emissions from welding are estimated based on existing equipment and welding rod usage but do not have any specific limitations.

2. The permittee shall be authorized to operate the facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)(1)]

3. The stationary fuel-burning sources operating at this facility shall be fueled with pipeline natural gas (as defined under 40 CFR §72.2 having no more than 0.5 gr TRS per 100 scf).

Compliance can be shown by the following: for pipeline natural gas, a current gas company bill. [OAC 252:100-31]

4. The permittee shall maintain records of operations as listed below. Such records shall be maintained on-site for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-43]

   a. Records of emissions calculations for each source of emissions (monthly, 12-month rolling totals).
   b. For each DX Generator, document each exothermic gas generation mode and the dates, start times, and durations of each process mode.
   c. For each furnace, document each annealing process mode and the dates, start times, and durations of that process mode.
   d. Document the dates, start times, durations of, and reasons for each bypass venting event.
   e. Documents required by Specific Condition No. 1.b.ii.E.
   f. Records of DX Generator differential pressure readings as required by Specific Condition No. 1.b.ii.F.
   g. Records of inspections and calibration checks of DX Generator differential pressure measurement systems as required by Specific Condition No. 1.b.ii.G.
   h. Initial compliance testing as required by Specific Condition No. 1.b.iii.
   i. Periodic emissions testing as required by Specific Condition No. 1.b.iv.
   j. Records as required by Specific Condition No. 1.c.ii. for hours of operation of the emergency generator.
   k. The amounts of cleaning solvents, lubricants, corrosion inhibitors, paint, and inks, including amounts mixed, reclaimed, and disposed (monthly and 12-month rolling total) to demonstrate compliance with Specific Condition No. 1.d.ii.
   l. Records of the calculated daily weighted average VOC content of coatings used to demonstrate compliance with Specific Conditions No. 1.d.iii and 1.d.iv.
   m. Current SDS for each cleaning solvents, lubricants, corrosion inhibitors, paint, and inks used at the facility which documents the volatile organic solvent content and solids content expressed in pounds of VOC or solids per gallon of coating less water and exempt solvents, percentage of water by weight, solids percent by weight, solvent density and percentage of exempt solvents by weight (if any) of each VOC material, and the Hazardous Air Pollutant (HAP) content.
   n. Initial testing of total dissolved solids (TDS) concentration (ppm) in the cooling tower water.
   o. Maximum recirculation rate (gal/min) for each cooling tower.
   p. Drift rate of each cooling tower.
   q. Throughput and contents of each storage tank (monthly, 12-month rolling total).
   r. Quantity of welding rod consumed, type of welding rod used, and HAP content of each welding rod type used.
   s. For the fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 3.
   t. Records required by 40 CFR Part 63, Subpart ZZZZ.
   u. Records required by 40 CFR Part 63, Subpart CCCCCC.
   v. Records required by OAC 252:100-39-42(a) for the parts washers.

w. Records required by Specific Condition No. 5 to demonstrate compliance with OAC 252:100-8-36.2(c).
x. Manufacturer's instructions for flame burner/tips of the flame curtains. Records demonstrating the flame burners/tips of the flame curtains are installed, operated, and maintained in accordance with manufacturer's instructions.

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

6. To the extent this permit requires the permittee to record and/or maintain records, the same may be conducted in hardcopy or electronically as long as such records can be provided to DEQ personnel within a reasonable time following a request for the same.
[OAC 252:100-8-6(a)(7)(E)]

7. The permittee shall apply for a modified operating permit within 180 days of commencement of operation of any new equipment authorized by this construction permit, incorporating the various changes. [OAC 252:100-8-4(b)(5)(A)]

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

SECTION I. DUTY TO COMPLY

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION IV. COMPLIANCE CERTIFICATIONS

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

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

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source. [OAC 252:100-8-6(c)(5)(C)(i)-(v)]

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

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

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

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

SECTION VI. PERMIT SHIELD

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

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

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.
[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

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

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

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

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

SECTION IX. SEVERABILITY

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

SECTION X. PROPERTY RIGHTS

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

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

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing,

terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.
[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.
[OAC 252:100-8-6(a)(7)(E)]

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

SECTION XII. REOPENING, MODIFICATION & REVOCATION

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

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

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

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

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

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

SECTION XIII. INSPECTION & ENTRY

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

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

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

SECTION XIV. EMERGENCIES

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

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

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

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

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

(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;

(2) the permitted facility was at the time being properly operated;
(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

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

SECTION XVII. TRIVIAL ACTIVITIES

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

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

SECTION XX. STRATOSPHERIC OZONE PROTECTION

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

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

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

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

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
(2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
(3) Persons performing maintenance, service, repair, or disposal of appliances must be

certified by an approved technician certification program pursuant to § 82.161;
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
(5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

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

(10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

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

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [OAC 252:100-43-6]

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

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

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

From:	Joseph Wills
To:	Mike Howard
Cc:	Clark Watson; Lauren Branum; Greg Phillips; Kyle Dunn; Scott Petty
Subject:	Oklahoma DEQ - Air Quality Division - Final Permit - 2021-0392-C PSD - Webco Industries, Inc. - Southwest Tube
Date:	Wednesday, June 21, 2023 9:50:06 AM
Attachments:	2021-0392-C PSD.pdf

Mr. Howard,

Attached, please find a copy of the final permit for the subject referenced facility and as listed below.

Permit No.: 2021-0392-C PSD
Company: Webco Industries, Inc.
Facility: Southwest Tube
Facility ID: 2734

The attached document is an official communication from DEQ. You will not receive a hard copy. If you have any questions about this permit action, please contact me.

We continuously evaluate how we can better serve you. To that end we would appreciate feedback through the linked survey. You are welcome to provide specific permit information to aid us in follow-up or respond anonymously.
https://forms.office.com/g/bTfAQ3jiLr

Thank you,

Joseph K. Wills, P.E.
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Air Quality Division, Engineering Section
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Quality