

DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

MEMORANDUM

June 8, 2022

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

THROUGH: Rick Groshong, Compliance and Enforcement Group Manager

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

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

FROM: Jennie Doan, E. I, Engineering Section, ROAT

SUBJECT: Evaluation of Permit Application No. **2016-1240-C (M-4)**
CP Kelco
1200 W 20th Street Okmulgee (SIC 2099/NAICS 311999)
AQD Facility ID: 1516
Latitude: 35.6096°, Longitude: 95.98504°
Section 13, Township 13N, Range 12E; Okmulgee, Okmulgee County
Physical Address: 1200 W 20th Street, Okmulgee, OK 74447

SECTION I. INTRODUCTION

CP Kelco US, Inc. (CP Kelco) has submitted a construction permit application for modification of their facility located in Okmulgee. The facility currently operates under Permit No. 2016-1240-TV3 (M-3) issued on May 7, 2021 and Permit No. 2016-1240-C (M-2) issued on December 28, 2020.

This facility is a PSD major source and an area source of HAP. The requested changes are discussed in detail in Section II of the Memorandum. The applicant has requested to process the construction permit through the Enhanced NSR process.

SECTION II. REQUESTED CHANGES

The applicant has requested multiple changes at the facility with the proposed changes listed below. CP Kelco stated that the facility-wide VOC emission would remain below the current limit of 721.3 TPY and is not requesting a change to this existing cap due to the proposed changes.

1. Increase of Fermentation Capacity
 - a. Install four (4) seed tanks, six (6) fermenters, three (3) beer wells, and a beer tank.
 - b. The upstream fermentation process only emits CO₂. However, increased upstream fermentation capacity may increase the VOC emissions from the downstream recovery process due to the increased facility production.
2. Installation of Biological Scrubber for Wastewater Treatment Biogas Sulfur Reduction

- a. Install one biological scrubber to remove 90% of the H₂S from the biogas from the anaerobic reactor which is burned in the heater.
- b. When the biological scrubber is down for maintenance, biogas will be vented to flare. Change Wastewater Heater Design Heat Input Capacity
3. Reduction of the Wastewater Heater Rating
 - a. Wastewater heater (EUG 18) was permitted in Permit No. 2016-1240-C (M-2) but has not yet been constructed. The heater's design heat input capacity changed to 12.00 MMBTUH from the previously permitted 20 MMBTUH. This change will result in a decrease in the PTE of the heater.
4. Venting of Nutsche Filter Recovery Condenser to Atmosphere
 - a. The Nutsche Filter and recovery condenser began construction in 2017 and was incorporated into Permit No. 2012-1240-TVR3. A larger and more efficient condenser was installed with a 99.64% IPA recovery according to Aspen simulation. This results in lower VOC emissions from the condenser (2.47 TPY) than originally permitted (31.71 TPY).
 - b. CP Kelco requests that the permit be revised to allow venting from the recovery condenser to the atmosphere or IPA Recovery Scrubber rather than to the boilers.
5. Installation of New VOC Recovery Scrubber for Waste Gum Centrifuge and Spent Pot
 - a. The Waste Gum Centrifuge and Spent Pot would be vented to the new condenser instead of the IPA Recovery Scrubber. The new recovery condenser has the same 98% VOC recovery as the recovery scrubber.
6. Venting of Additional Milling Cyclone Line to Atmosphere
 - a. Facility requests all Milling Cyclone lines to be vented to atmosphere.
7. Revision of EUG 16 Emissions During Venting to Atmosphere Due to Scrubber Breakdown
 - a. The emissions estimate is being revised to 120 hours for scrubber breakdown and four (4) lines operating instead of three (3) line operating.
8. Addition of Line 6 Precipitation Building
 - a. The Line 6 Precipitation Building has sealed equipment with no emissions to the atmosphere.
9. Removal of Double-Counted Fugitive Emissions from Line 6 Precip/Centrifuge Room
 - a. Requesting that the Precip/Centrifuge Room Fugitives for Line 6 be removed from the air permit since emissions are already accounted for in EUG 17.
 - b. Equipment in Line 6 Precip/Centrifuge Room is sealed and operated under and inert nitrogen blanket.

This facility is an existing PSD facility. The proposed project involves physical changes and is evaluated for PSD applicability in Section V.

SECTION III. PERMIT HISTORY

A summary of permit actions occurring since issuance of the latest Title V Renewal is shown below.

Permits	Date Issued	Description
2016-1240-TVR3 (M-3)	5/7/2021	Minor Modification: installation of an emergency fire pump engine (274 BHPs RICE engine).
2016-1240-C (M-2)	12/28/2020	Significant Modification: make several changes to the facility to increase gellan production capacity, increase IPA recovery rates, and reduce energy demands. These changes are described in Section II of Permit No. 2016-1240-C (M-2).
2016-1240-TVR3	10/24/2017	3 rd Title V Renewal

SECTION IV. FACILITY DESCRIPTION

CP Kelco presently operates a biogum (polymerized sugar) plant. In the process, polysaccharide rheological agents are produced by aerobic fermentation of various nutrients in a series of large fermentation vessels. The gums, soluble in the fermentation broth ("beer"), are precipitated upon the addition of isopropyl alcohol (IPA). The precipitated product, along with any entrained alcohol, goes to a series of dryers where most of the alcohol is vaporized. The exhaust gases from the dryers pass through cyclones, a series of plenums, and a baghouse to control particulates before being vented to either the IPA Recovery Scrubber, vapor recovery device, or to the atmosphere. Spent alcohol from the precipitation step is recovered in dilute aqueous form, re-concentrated in a closed distillation system, and transferred to storage tanks for recycling. Heat is currently supplied to the process from natural gas fired boilers. The facility also has two 125,000-gallon IPA (CBM) storage tanks, three 40,000-gallon spent IPA settling vessels, three 90,000-gallon spent IPA vessels, a 4,500-gallon mixing vessel, a waste gum centrifuge, spent pots to collect alcohol, and a waste-water treatment facility (WWTF).

Emissions from the concentrated IPA (CBM) storage tanks, spent IPA settling vessels, spent IPA vessels, and mixing vessel are vented to a small environmental packed tower wet scrubber (tank farm scrubber). Emissions from the waste gum centrifuge system, which reclaims product from the settling vessels, are vented to a condenser or a new IPA Recovery Scrubber. Emissions from the A dryers with first and second stage dryer cyclones are collected by the primary plenum and processed by the IPA Recovery Scrubber for recovery of IPA. Emissions from the B Dryers with third stage dryer cyclones are collected by the secondary plenum and processed by the IPA Recovery Scrubber. Emissions from the C Dryers with milling cyclones are collected by the mill plenum and vented to the atmosphere. The permit allows venting to the primary and secondary plenums to the atmosphere for up to 120 hours per year during scrubber downtime. Emissions from the press enclosures (including GTO press, screen and added with permit revision No. 2011-1028-TVR2 (M-2)) are vented to the IPA Recovery Scrubber. The spent pot added with permit revision No. 2011-1028-TVR2 (M-2)) is vented to a condenser or the new IPA Recovery Scrubber.

The Nutsche Filter filtration process receives biogum from the dryers. Except during loading, the gases from the filtration process are routed through a recovery condenser. The uncondensed vapors are vented to the atmosphere or the IPA Recovery Scrubber. The spent IPA from the condenser and filtration process are transferred to the storage tanks for recycling. The dry filtered biogum is then packaged.

The WWTF receives wastewater related to the production of biogum. The WWTF relies on biological media to degrade the constituents. The WWTF anaerobic processes occur in an enclosed system, except for influent equalization. The wastewater enters the WWTF and goes to the anaerobic reactor. The biogas generated in the reactor (primarily methane ~85%) is either sent to a biological scrubber or vented to a flare. Gases sent to the biological scrubber will be sent to the wastewater treatment plant water heater to be burned as fuel. The sludge from the reactors is sent to the sludge treatment area.

SECTION V. PSD REVIEW

A project is not a major modification if it does not cause a significant emissions increase. A significant emission increase of a regulated NSR pollutant will occur if the sum of emissions increases for each emission unit equals or exceeds the significant emission rate (SER) for that pollutant. For each EU, the emission increases are based on the difference between the “potential emissions” (PTE) or “projected actual emissions” (PAE) and the “baseline actual emissions” (BAE). Existing EU may use either their PAE or PTE to determine if a significant emission increase of a regulated NSR pollutant will result from a proposed project. Owners or operators who use the PTE are not subject to the recordkeeping requirements of OAC 252:100-8-36.2(c). New emissions units must utilize their PTE and BAE must be equal to zero.

CP Kelco included both emissions increases and decreases resulting from the project when calculating the sum of project emissions changes. BAE were calculated using the 24-month period from January 2015 through December 2016, except for new emission units that were recently permitted by Permit No. 2016-1240-C (M-2) issued on December 28, 2020. For this equipment, the BAE are the PTE from Permit No. 2016-1240-C (M-2). For equipment added by Permit No. 2016-1240-C (M-2), the future emissions are the PTE. For existing potentially affected equipment, future projected actual emissions were estimated as the maximum annual emission rate projected to occur during the five years after the project. To be conservative, capable of accommodating emissions and increase utilization emissions due to demand growth were not excluded.

EUG 1 & EUG 2: Boilers

The additional fermentation capacity results in an increase in future projected actual biogum production and an associated increase in future steam demand at the facility, resulting in an increase in boiler combustion emissions. Baseline actual and future projected actual boiler combustion emissions were calculated using past actual and future projected natural gas usage, along with AP-42 (07/98), Chapter 1.4 emissions factors. For NO_x, emissions were estimated using stack test emission factors and CEM measurements.

Baseline and Projected Fuel Usage for Boilers

Boilers	Baseline	Projected
	MMSCF	MMSCF
Boiler-601	555.58	----
Boiler-602	268.48	----
Boiler-603	524.26	----
Totals	1,348.32	1,887.22

Emission Factors for Boilers from 2015/2016 Actual Emissions

Pollutant	Source	2015	2016
		lb/MMSCF	lb/MMSCF
NO _x	Average emission factors from all boilers back-calculated from actual NO _x and fuel use	134	155
CO	AP-42 (7/98) Table 1.4-1, for wall-fired boilers > 100 MMBTUH	84	84
VOC	AP-42 (7/98) Table 1.4-2	5.5	5.5
SO ₂	AP-42 (7/98) Table 1.4-2	0.6	0.6
PM	AP-42 (7/98) Table 1.4-2	7.6	7.6
PM ₁₀	AP-42 (7/98) Table 1.4-2	7.6	7.6
PM _{2.5}	AP-42 (7/98) Table 1.4-2	7.6	7.6

BAE & PAE Evaluation for Boilers

Pollutant	BAE	PAE	Δ (PAE – BAE)
	TPY	TPY	TPY
NO _x	97.44	127.10	29.66
CO	56.63	79.26	22.63
VOC	3.71	5.19	1.48
SO ₂	0.40	0.57	0.17
PM	5.12	7.17	2.05
PM ₁₀	5.12	7.17	2.05
PM _{2.5}	5.12	7.17	2.05

EUG 5: Vessels & Tanks

The proposed project will result in increased throughput to the existing isopropyl alcohol vessels due to the overall biogum production increase. Past actual (2015 and 2016) and future projected actual emissions have been calculated using AP-42 (03/20), Chapter 7 methodology. Emissions from the vessels are controlled by the existing Tank Farm Scrubber, which is 98% efficient.

Emissions are calculated for each group of tanks rather than for individual tanks since all tanks in a group are the same size. For all tank it is conservatively assumed that water and isopropanol form an ideal solution and Raoult’s Law applies; actual vapor pressure of isopropanol in solution will be lower than the calculated values.

Throughputs for Storage Vessels

Vessels	Baseline	Projected
	GPY	GPY
CBM	168,429,445	317,252,914
Spent	251,058,740	418,860,806
Settling	251,058,740	418,860,806

Mix	2,000,000	2,000,000
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BAE & PAE for Storage Vessels

Vessels	BAE	PAE	Δ (PAE – BAE)
	VOC TPY	VOC TPY	VOC TPY
CBM	0.28	0.47	0.19
Spent	0.24	0.38	0.14
Settling	0.033	0.045	0.012
Mix	0.001	0.001	0
Total	0.55	0.90	0.34

EUG 8: Miscellaneous Fugitives

Emissions from new piping equipment (pumps, valves, connectors, pressure relief devices, and sampling connection systems) in VOC service that will be installed were estimated using estimated component counts and SOCM I Average Emission Factors without ethylene from the Texas Commission for Environmental Quality (TCEQ) publication “Air permit Technical Guidance for Chemical Sources Fugitive Guidance”, APDG 6422 June 2018, Appendix A Table 1. IPA concentrations from 2019 and 2019 equipment counts were used to estimate the BAE.

Changes in Fugitive Equipment

Component Type	Change in Count	BAE	PAE
		TPY	TPY
Valve Light Liq	110	3.91	5.33
Valve Light Liq	72	5.86	6.52
Valve-Vapor/Gas	26	-	1.26
Valve-Vapor/Gas	64	-	2.04
Valve-Vapor/Gas	28	0.10	0.13
Valve Heavy Liq	49	-	<0.01
Pump Seals Light Liq	0	9.84	9.84
Pump Seals Light Liq	2	0.57	0.85
Compressor Seals Gas	3	-	0.07
PSV's Gas	(8)	6.63	2.53
PSV's Gas	2	-	0.04
PSV's Gas	17	-	10.24
PSVs Liq	2	0.06	0.07
Connection	273	1.30	3.38
Connection Liq	365	1.91	2.39
Connection	103	0.28	1.38
Connection Liq	(22)	0.19	0.01
Connection	164	-	0.06
Connection Liq	463	-	0.85
Sampling Connection Open End	2	3.21	3.38
Sampling Connection Open End	0	0.14	0.14
VOC Emissions Totals	-	33.98	50.51

Fugitive VOC emissions from the wastewater treatment plant are projected to slightly increase due to an increase in the wastewater sent to the treatment plant. Past actual (2015 and 2016) and future projected actual emissions were calculated using emission factors previously developed for the wastewater treatment system using U.S. EPA’s WATER9 software and past actual and future projected isopropyl alcohol loading.

Wastewater Treatment Plant Emissions EQ Tank, Flume, SBR's

Parameters	BAE (2015/2016)	PAE (Projected)	Δ(PAE –BAE)
Total Stills WW, Gal/day	237,640	402,224	164,584
IPA in WW, Gal/day based on ppm	32.79	40.22	7.43
VOC emissions, TPY	7.27	7.40	0.13

EUG 9: Anaerobic Reactors Flare

Biogas from the anaerobic reactors is burned in a flare or in the new wastewater heater. The project is projected to increase sulfur loading to the reactors due to increased gellan production. The project also includes the addition of a biological scrubber to treat the biogas from the anaerobic reactors to reduce the sulfur content prior to burning in the heater. When the biological scrubber is down for maintenance, biogas will be vented directly to the flare. Past actual (2015 and 2016)/BAE and future projected actual emissions were estimated using biogas flow rates and sulfur content. Past actual sulfur content was calculated using a sulfur balance and past actual (2015 and 2016) operating conditions, and future sulfur content was estimated using a sulfur balance at worst-case future production rates, and assuming a maximum scrubber downtime.

SO₂ emissions are a function of the amount of biogas generated by the anaerobic reactors and the sulfur content of the biogas. Where the biogas is burned (flare or wastewater heater) does not affect SO₂ emissions. All future projected actual biogas SO₂ emissions were assigned to the flare.

Flare’s BAE & PAE Throughput

EU	Baseline	Projected
	MMSCF/yr	MMSCF/yr
WWTP Flare	62.99	111.72

BAE & PAE Evaluation for Flare

Pollutant	BAE	PAE	Δ (PAE – BAE)
	TPY	TPY	TPY
NO _x	1.83	3.19	1.36
CO	8.35	14.55	6.2
VOC	0.82	0.82	0.00
SO ₂	9.50	19.20	9.70
PM	0.20	0.35	0.15
PM ₁₀	0.20	0.35	0.15
PM _{2.5}	0.20	0.35	0.15

EUG 15: Filtration Process

This EUG consists of filter vacuum drying IPA vapors vented to the process recovery condenser, and from filter filling IPA displacement vapors vented to the tank farm scrubber. The baseline actual emissions were conservatively estimated as zero. Future emissions were calculated as future potential emissions based on filter vacuum drying recovery condenser venting to atmosphere and filter filling venting to the atmosphere.

BAE & PAE Evaluation for Filtration Process

EU	BAE	PAE ⁽¹⁾	Δ (PAE – BAE)
	VOC TPY	VOC TPY	VOC TPY
FILT	0	2.51	2.51

⁽¹⁾ The PAE for the filtration process consists of controlled emissions (with 99.6% control efficiency from process condenser and 98% control efficiency from IPA Recovery Scrubber) and uncontrolled emissions (atmospheric venting).

The Waste Gum Centrifuge and Spent Pot was formerly part of EUG 16 and is now moved to this EUG. The BAE is based on 2015 and 2016 actual emissions and the PAE is based on new testing performed by Cetcon in January 2019. Control of the emissions from these two units is required in the current permit.

BAE & PAE Evaluation for Waste Gum Centrifuge & Spent Pot

Parameters	BAE (2015/2016)	PAE	Δ (PAE – BAE)
	VOC TPY	VOC TPY	VOC TPY
Centrifuge VOC Emission Rate, lb/hr	18.4	18.4	0
Operating Hours, hr	2,222	8,760	6,538
Emissions Routed to Scrubber/Condenser, TPY	20.39	80.40	60.01
VOC Emissions (98% Control), TPY	0.41	1.61	1.20

EUG 16: Equipment Vented to Recovery Scrubber

This EUG consists of vapor streams from Lines 1 – 6 equipment that are vented to the IPA Recovery Scrubber. For existing Lines 1 – 5 equipment, baseline actual emissions were calculated as past actual (2015 and 2016) emissions. For the recently permitted new Line 6 equipment, baseline actual emissions are the potential emissions from Permit No. 2016-1240-C (M-2) because the equipment has operated less than two years. Future emissions were calculated as the projected actual emissions for the Line 1 – 5 equipment and potential to emit for Line 6 equipment.

Also, the future emissions estimate for EUG 16 venting to atmosphere during IPA Recovery Scrubber breakdown has been revised to 120 hours scrubber breakdown and the potential for four lines operating (versus 120 hours and 3 lines in the previous permit application).

BAE and PAE of VOC Emissions for the RCVY-SCRUB Streams

Stream Routed to RCVY-SCRUB	Uncontrolled		Controlled	
	BAE	PAE	BAE	PAE
	TPY	TPY	TPY	TPY
Press Enclosures (Lines 1 - 4) and GTO Line 5 Press, Screen, and Spent Pot	143.37	193.25 ⁽¹⁾	2.87	3.87
Line 6 Centrifuge and Spent Pot*	92.7	161	1.85	3.22
A Dryers (Lines 1 - 5)	7,380	2,614 ⁽²⁾	147.59	52.28
Line 6 Vacuum Stripper and Condenser*	124	124	2.48	2.48
B Dryers (Lines 1 - 5)	842 ⁽³⁾	1,202.50 ⁽⁴⁾	230.35	24.05
IPA Recovery Scrubber Malfunction or Breakdown*	46.26	61.68 ⁽⁵⁾	-	-
Total VOC Emissions, TPY	7,786.33	285	385.14	83.42

* Equipment/sources added in Eagle 1 Project.

(1) Based on potential 85.8% annual operating time.

(2) Based on recent testing of primary plenums, hours of operation, and three lines operating which accounts for the large reduction in uncontrolled emissions.

(3) Based on 625 TPY vented to the boilers and 218 TPY vented directly to the atmosphere.

(4) Based on recent testing of secondary plenums, hours of operation, and three lines operating.

(5) Based on recent testing of primary and secondary plenums, hours of operation, and four lines operating for 120 hours.

EUG 17: Equipment Vented to Atmosphere

Some of the Lines 1 – 6 equipment is designed to be vented directly to the atmosphere. As with EUG 16, this EUG contains both existing Lines 1 – 5 equipment and recently permitted new Line 6 equipment. For existing Lines 1 – 5 equipment, baseline actual emissions were calculated as past actual (2015 and 2016) emissions. For the Line 6 equipment, baseline actual emissions are the Permit No. 2016-1240-C (M-2) potential emissions. Future emissions were calculated to be projected actual emissions for the Lines 1 – 5 equipment. The exception is for C Dryers with Fourth Stage Milling Cyclones, where this project includes changing the vent configuration to allow all cyclones to be vented to the atmosphere. For these Milling Cyclones, the future emissions were calculated as the potential to emit (all Mill Cyclones vented directly to atmosphere). Future emissions for all new Line 6 equipment were calculated as potential to emit.

BAE and PAE of VOC Emissions for the RCVY-ATM Streams

Stream Routed to ATM	Uncontrolled		Δ (PAE – BAE)
	BAE	PAE	
	TPY	TPY	TPY
Recovery Fugitives (Lines 1 - 5)	60.34	81.28	20.94
C Dryers (Lines 1 - 5)	11.82	107.65	95.83
Line 6 Dryer*	2.89	2.89	0
Fugitives for Line 6*	-(1)	-(1)	-
New Distillation Column ⁽²⁾	3.72	3.72	0
Total Emissions, TPY	78.77	195.54	116.77

* Equipment/sources added in Eagle 1 Project

(1) Fugitive emissions from this source is included in EUG 8

(2) Vented to atmosphere

EUG 18: Wastewater Heater

Baseline actual emissions are based on the revised potential to emit of the heater because the equipment has been permitted but not yet installed. Future potential wastewater heater emissions were calculated using the rated heat input capacity of the heater and AP-42 (7/98), Section 1.4, natural gas emission factors. The heat input of the wastewater heater is 12 MMBTUH. SO₂ emissions from burning biogas are accounted for at EUG 9.

BAE and PAE of VOC Emissions for the Wastewater Heater

Pollutant	BAE	PAE	Δ (PAE – BAE)
	TPY	TPY	TPY
NO _x	5.15	5.15	0
CO	4.33	4.33	0
VOC	0.28	0.28	0
SO ₂	0.03	0.03	0
PM	0.39	0.39	0
PM ₁₀	0.39	0.39	0
PM _{2.5}	0.39	0.39	0

PSD Emissions Change Summary

Baseline Actual Emissions (2015-2016)

EUG	Description	NO _x TPY	CO TPY	PM _{10/2.5} TPY	SO ₂ TPY	VOC TPY
EUG 1/2	Boilers B-601, B-602, & B-603	97.44	56.63	5.12	0.40	3.71
EUG 5	Three (3) 40,000 gal IPA Settling vessels	-	-	-	-	0.033
	Three (3) 90,000 gal Spent IPA vessels	-	-	-	-	0.24
	One (1) 4,500 Mixing Vessel	-	-	-	-	0.0014
	Two (2) 125,000-gal IPA CBM Tanks	-	-	-	-	0.28
EUG 8	WW Treatment EQ Tanks and Flume	-	-	-	-	7.27
	Pipe Leaks Fugitives	--	-	-	-	33.98
EUG 9	Anaerobic Reactors and Flare	1.83	8.35	0.20	9.50	0.82
EUG 15	Filtration Process	-	-	-	-	0
	Waste Gum Centrifuge and Spent Pot	-	-	-	-	0.41
EUG 16	Press Enclosures (Lines 1 – 4) and GTO Line 5 Press, Screen and Spent Pot	-	-	-	-	2.87
	A Dryers (Lines 1 – 5)	-	-	-	-	147.59
	B Dryers (Lines 1 – 5)	-	-	-	-	230.35
	Line 6 Vacuum Stripper and Condenser*	-	-	-	-	2.48
	Line 6 Centrifuge and Spent Pot*	-	-	-	-	1.85
	IPA Recovery Scrubber Malfunction or Breakdown *	-	-	-	-	46.26
EUG 17	Recovery Fugitives (Lines 1 - 5)	-	-	-	-	60.34
	C Dryers (Lines 1 – 5)	-	-	-	-	11.82
	Line 6 Dryer*	-	-	-	-	2.89
	Fugitives for Line 6*	-	-	-	-	-

EUG	Description	NO _x TPY	CO TPY	PM _{10/2.5} TPY	SO ₂ TPY	VOC TPY
	New Distillation Column*	-	-	-	-	3.72
EUG 18	Wastewater Heater*	5.15	4.33	0.39	0.03	0.28
Totals		104.42	69.31	5.71	9.93	557.19

* Equipment/sources added in Eagle 1 Project

Projected Actual Emissions

EUG	Description	NO _x TPY	CO TPY	PM _{10/2.5} TPY	SO ₂ TPY	VOC TPY
EUG 1/2	Boilers B-601, B-602, & B-603	127.10	79.26	7.17	0.57	5.19
EUG 5	Three (3) 40,000 gal IPA Settling vessels	-	-	-	-	0.045
	Three (3) 90,000 gal Spent IPA vessels	-	-	-	-	0.38
	One (1) 4,500 Mixing Vessel	-	-	-	-	0.001
	Two (2) 125,000-gal IPA CBM Tanks	-	-	-	-	0.47
EUG 8	WW Treatment EQ Tanks and Flume	-	-	-	-	7.40
	Pipe Leaks Fugitives	--	-	-	-	50.51
EUG 9	Anaerobic Reactors and Flare	3.19	14.55	0.35	19.20	0.82
EUG 15	Filtration Process	-	-	-	-	2.51
	Waste Gum Centrifuge and Spent Pot	-	-	-	-	1.61
EUG 16	Press Enclosures (Lines 1 – 4) and GTO Line 5 Press, Screen and Spent Pot	-	-	-	-	3.87
	A Dryers (Lines 1 – 5)	-	-	-	-	52.28
	B Dryers (Lines 1 – 5)	-	-	-	-	24.05
	Line 6 Vacuum Stripper and Condenser	-	-	-	-	2.48
	Line 6 Centrifuge and Spent Pot	-	-	-	-	3.22
	IPA Recovery Scrubber Malfunction or Breakdown	-	-	-	-	61.68
EUG 17	Recovery Fugitives (Lines 1 - 5)	-	-	-	-	81.28
	C Dryers (Lines 1 – 5)	-	-	-	-	107.65
	Line 6 Dryer	-	-	-	-	2.89
	Fugitives for Line 6	-	-	-	-	-
	New Distillation Column	-	-	-	-	3.72
EUG 18	Wastewater Heater	5.15	4.33	0.39	0.03 ⁽¹⁾	0.28
Totals		135.44	98.14	7.91	19.80	412.34

⁽¹⁾ PAE for SO₂ accounts for natural gas combustion emissions. SO₂ emissions from biogas is accounted for at EUG9.

PSD Applicability Analysis Summary

	NO_x TPY	CO TPY	PM₁₀ TPY	PM_{2.5} TPY	SO₂ TPY	VOC TPY
Projected Actual Emissions	135.44	98.14	7.91	7.91	19.8	412.34
Baseline Emissions	104.42	69.31	5.71	5.71	9.93	557.19
Project Emission Increase	31.02	28.83	2.20	2.20	9.87	-144.85
PSD SER	40	100	15	10	40	40
PSD Triggered	No	No	No	No	No	No

The project emission increases for this modification are below the significance levels for all regulated pollutants. The permittee is required to keep records of emissions per OAC 252:100-8-36.2(c) to demonstrate that the emission increases from the project will not exceed the PSD significance levels.

Relationship to Other Projects**Recent Projects**GTO Project (Line 5)

On May 31, 2016, CP Kelco was issued Permit No. 2011-1028-TVR2 (M-2), authorizing the conversion of existing Line 4 from xanthan gum production to the swing line (GTO Line 5) for xanthan or gellan. This GTO Line 5 project was a modification to the existing facility to produce a new, higher value biogum product (gellan). The separate expansion project described in this application will produce the same new biogum product, but the new Line 6 installation project is not the same physical change as the GTO Line 5 project. Line 6 will be a separate line. EPA's November 15, 2018, Federal Register notice specifically clarified that nominally separate projects are not sustainably related if they are only related to the extent that they both support the sources' "overall basic purpose".

The GTO project was separately funded (separate capital authorization) and separately planned from the current project. At the time of the GTO project, CP Kelco did not have a design or funding for the current project. The GTO project was not technically or economically dependent on the current project, and the current project does not request the relaxation of any permit limits imposed for the GTO project (no permit limits were imposed for that project).

The GTO project is separated in time from the current project. The GTO project was authorized by a permit issued on May 31, 2016, and the current project is not expected to begin construction until 2021.

Nutsche Filter Project

On December 20, 2016, CP Kelco submitted a minor permit modification application for the installation and testing of a new filtration process. The equipment began construction in early 2017 and was subsequently permitted as part of the Title V renewal permit [2012-1240-TVR3] issued on October 24, 2017. The project was for the installation of a process to allow a dry product and

isopropanol to be combined, and then filtered to produce another higher value biogum product. The project described in this application is completely unrelated to the Nutsche Filter Project. The processes are separate and occur on separate equipment. The Filter project was not technically or economically dependent on the current project, was funded under a separate capital authorization, and was designed separately. The current project does not request the relaxation of any permit limits imposed for the Filter project.

The Filter project started construction in early 2017, and the current project is not expected to begin construction until 2021.

Eagle Line 6 and IPA Recovery Scrubber

On January 10, 2020, CP Kelco submitted a permit application for the installation of a new processing line (Line 6) and a new packaging line, and the installation of a new IPA recovery scrubber. The equipment began construction in early 2020 and was subsequently permitted under permit 2016-1240-C (M-2) issued on December 28, 2020.

The Line 6/IPA Recovery Scrubber was separately funded (through a separate capital authorization) and separately designed (it is not part of the funding and design for the current project that is the subject of this permit application). At the time of the Line 6/IPA Recovery Scrubber permit application, CP Kelco did not have a design or funding for the current project. The current project was contingent upon continued increased market expansion for the gellan product, which has now occurred.

The Line 6/IPA Recovery Scrubber project was not technically or economically dependent on the current project, and the current project does not request the relaxation of any permit limits imposed for the previous project.

The Line 6/IPA Recovery Scrubber project was appropriately permitted as a separate project and does not need to be aggregated with the current project.

SECTION VI. EQUIPMENT

EUG 1 Pre-NSPS Boilers

EU	Manufacturer	MMBTUH	Serial #	Const. Date
Boiler-601	Erie City Zurn/Keystone	202	99217	1975
Boiler-602	Erie City Zurn/Keystone	202	99216	1975

EUG 2 NSPS Boiler

EU	Manufacturer	MMBTUH	Serial #	Const. Date
Boiler-603	Combustion Engineering	210	37291-3	1992

EUG 5 Vessels

EU	Point	Name/Model	Gallons	Const. Date
SET-VESELS	Tank Farm Scrubber or Atmosphere	Spent IPA Settling Vessel	40,000	1993
		Spent IPA Settling Vessel	40,000	1993
		Spent IPA Settling Vessel	40,000	1993
SPENT-VESELS	Tank Farm Scrubber or Atmosphere	Spent Vessel	90,000	1993
		Spent Vessel	90,000	1993
		Spent Vessel	90,000	1993
MIX-VESSEL	Tank Farm Scrubber or Atmosphere	Mixing Vessel	4,500	1993
CBM-TANKS	Tank Farm Scrubber	Concentrated Isopropyl Alcohol (CBM) Tank	125,000	1975
		Concentrated Isopropyl Alcohol (CBM) Tank	125,000	1975

EUG 8 Miscellaneous

EU	Number Items ⁽¹⁾	Type of Equipment	Construction/Modification Date
Pipe Leak Fugitives	1,373	Valves	1975-2022
	3,096	Connectors	
	103	Pump Seals	
	3	Compressor Seals	
	30	Pressure Relief Valves	
	89	Other	
WW System	EQ Tanks	WW Treatment Facility Equalization Tanks	2003
	WW Flume	WW Production Plant Flume	

⁽¹⁾ Estimated; WW – Wastewater.

EUG 9 Anaerobic Reactors

EU	Point	Name/Model	MMBTUH	Const. Date
Anaerobic Reactors	Flare	UASB	22	2003

EUG 12 Temporary Boiler

EU	Name	MMBTUH	Const. Date
Boiler-604	Mobile Steam Boiler	98.5	TBD

EUG 13 Diesel-Fired Reciprocating Engines

EU	Name	HP	Serial #	Mfg. Date
WWTU-EG	Cummins	435	30369469	10/30/2002
FWP-1	Caterpillar	165	9ON69459	7/17/1987

EUG 15 Filtration Process and Waste Gum Centrifuge Process

EU	Point	Name/Model	Const. Date
FILT	Atmosphere or IPA Recovery Scrubber	Nutsche Filter W/Recovery Condenser	2017
WGC	Condenser or IPA Recovery Scrubber	Waste Gum Centrifuge and Spent Pot	1993

Stack Parameters

EU	Height (feet)	Diameter (feet)	Flow (ACFM)	Temperature (°F)
Boiler-601	70	5.3	21,130	202
Boiler-602	70	5.3	21,130	202
Boiler-603	70	5.3	60,000	340
PURASIV	62	3.0	22,000	100
SCRUB	21	1.3	3,000	70
Bio. Digester	8	1.7	157,153	1,200
Sludge Treatment	9	1.5	500	120
Boiler-604	27	3.0	36,800	585

EUG 16 Equipment Vented to Recovery Scrubber

EU	Point	Name/Model	Const. Date
RCVY-SCRUB	IPA Recovery Scrubber Or Atmosphere	Press Enclosures (Line 1 – 4) and GTO Line 5 Press, Screen and Spent Pot	1975/2016
		Line 6 Centrifuge and Spent Pot	2020
		A Dryer with First and Second Stage Dryer Cyclones (Lines 1 – 5) to Primary Plenum	1975
		Line 6 Vacuum Stripper and Condenser	2020
		B Dryer with Third Stage Dyer Cyclones (Lines 1 – 5) to Secondary Plenum	1975

EUG 17 Equipment Vented to Atmosphere

EU	Point	Name/Model	Const. Date
RCVY-ATM	Atmosphere	Recovery Fugitives (Line 1 – 5) (Precip room, dryer rooms, and chiller building venting through roof fans and floor exhausts)	1975
	Atmosphere or IPA Recovery Scrubber	C Dryer with Fourth Stage Milling Cyclones (Lines 1 – 5) to Mill Plenum ⁽¹⁾	1975
	Atmosphere	Line 6 Dryer	2020
	Atmosphere	Distillation Column	2020

⁽¹⁾ May vent to atmosphere or IPA Recovery Scrubber

EUG 18 Wastewater Heater

EU	Name/Model	MMBTUH	Const. Date
WW HEATER	Wastewater Heater	12.0	TBD

EUG 19 Diesel-Fired Reciprocating Engines (NSPS)

EU	Name	HP	Serial #	Model #	Mfg. Date
FWP-2	Clarke	274	TBD	JU6H-UFADT0	2019

SECTION VII. EMISSIONS

Air emissions from the facility consist of both point-source and fugitive emissions. Point sources include the boilers' stacks, the two IPA storage tanks, the seven other tanks that are vented to the wet scrubber, and the IPA Recovery Scrubber stack. Fugitive emissions sources include the components of the alcohol distillation system, the precipitation system, and filtration process.

CP Kelco has submitted excerpts from an EPA report titled *Estimating Releases and Waste Treatment Efficiency for the Toxic Chemical Release Inventory Form*. In this report, volatilization of two alcohols were studied: methanol, a one-carbon alcohol, and n-butanol, a four-carbon alcohol. IPA, which is a three-carbon alcohol, was not included in the study but is assumed to have similar emissions. Of the two alcohols studied, methanol in wastewater showed an average volatilization of five percent while n-butanol was listed as zero percent. The remainder of the alcohols were either biodegraded or accumulated in the treatment sludge. This data implies the minimal amount of the IPA released into the wastewater will actually result in an insignificant amount of air emissions.

Potential emissions for the boilers are listed in the emission tables and are based on combustion of natural gas and continuous operation except for EU Boiler-604, which will only operate 180 days in any rolling 12-month period (4,320 hours/year). The highest hourly and ton per year values for the three boilers are used to calculate the maximum potential emissions.

Emission estimates from the natural gas-fired boilers are based on AP-42 (7/98), Chapter 1.4, Tables 1.4-1 and 1.4-2 except for emissions of NO_x. Emissions of NO_x for Boiler-601 and Boiler-602 are based on the allowable emission limit of OAC 252:100-33 for natural gas fired fuel-burning equipment (0.20 lb/MMBTU). Short term emissions of NO_x for Boiler-603 are based on the allowable emission limit of OAC 252:100-33 for natural gas fired fuel-burning equipment (0.20 lb/MMBTU). Annual emissions of NO_x for Boiler-603 are based on manufacturer's data (0.105 lb/MMBTU). Emissions of NO_x for Boiler-604 are based on the AP-42 emission factor for controlled (Low-NO_x burners) small boilers (0.049 lb/MMBTU). Emissions of VOC from the boilers are included in the facility-wide emission limit. Only two of the following boilers can be operated at one time: Boiler-601, Boiler-602, and Boiler 603 except during periods of startup, shutdown, repair or malfunction, and short-term tests not to exceed 16 hours per quarter. The total hourly and annual emission limits are based on the highest emissions from the boilers.

Boilers' Potential Emission Factors

EU	NO _x	CO	PM	SO ₂
	lb/MMBTU	lb/MMBTU	lb/MMBTU	lb/MMBTU
Boiler-601	0.20	0.0824	0.00745	0.00059
Boiler-602	0.20	0.0824	0.00745	0.00059
Boiler-603	0.105	0.0824	0.00745	0.00059
Boiler-604	0.049	0.0824	0.00745	0.00059

Potential Emissions from the Boilers

EU	NO _x		CO		PM		SO ₂	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Boiler-601	40.40	176.95	16.64	72.86	1.51	6.59	0.12	0.52
Boiler-602	40.40	176.95	16.64	72.86	1.51	6.59	0.12	0.52
Boiler-603	42.00	96.58	17.29	75.75	1.56	6.85	0.12	0.54
Boiler-604	4.83	10.43	8.11	17.52	0.73	1.59	0.06	0.13
TOTALS	87.23	364.33	42.04	166.13	3.80	15.03	0.30	1.19

Potential emissions of NO_x and CO from the flare are based on the maximum flow rate of the flare (26,798 SCFH at 820 BTU/SCF), AP-42 (1/95), Section 13.5. Potential emissions of PM and SO₂ from the flare are based on the maximum flow rate of the flare (26,798 SCFH at 820 BTU/SCF), AP-42 (7/98), Section 1.4. Potential emissions of SO₂ from the flare are based on the estimated annual average waste gas flow rate (10,055 CFH @ 100°F), a weighted average sulfur content of the waste gases (5,660 ppmv @ 100°F) based on 25% of the sulfur in the wastewater being emitted, and a 100% combustion efficiency. VOC emissions from the flare are based on 1% of the waste gases being emitted as IPA and a control efficiency of 98%. Emissions from combustion of natural gas for the flare pilot are based on AP-42 (7/98), Section 1.4 and a natural gas flow rate of 250 SCFH.

Emission estimates from the WW-Heater are based on the maximum heat input, AP-42 (7/98), Section 1.4, Tables 1.4-1 and 1.4-2, and continuous operation. When combusting waste gas, which accounts for less than 30% of the rated capacity, emissions are based on the same AP-42 (7/98), Section 1.4 emission factors which are adjusted based on the ratio of the heat content of the waste gas compared to the heat content of natural gas.

Emission estimates from the diesel-fired engines are based on AP-42 (10/06), Chapter 3.3, Table 3.3-1, except for SO₂ emissions which are based on AP-42 (10/06), Chapter 3.4 and a fuel sulfur content of 0.05%, and 500 hours of operation.

Potential emissions from the generator (FWP-2) are based on 500 hours per year of total operation. SO₂ emission factors are taken from Table 3.3-1 of AP-42 (10/96). All other pollutant emission factors are based on the vendor certification.

Emissions from the fugitive piping equipment (pumps, valves, connectors, pressure relief devices, and sampling connection system) in VOC service that will be installed, were estimated using estimated component counts and Synthetic Organic Chemicals Manufacturing Industry (SOCMI)

Average Emission Factors without ethylene (from the Texas Commission for Environmental Quality (TCEQ) publication “Air Permit Technical Guidance for Chemical Sources Fugitive Guidance”, APDG 6422, June 2018, Appendix A, Table 1).

Potential Emissions from Misc. Sources

EU	NO _x		CO		PM ₁₀		SO ₂	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Flare ⁽¹⁾	1.49	6.54	8.13	35.61	0.16	0.72	8.90	39.00
WWTU-EG ⁽²⁾	13.49	3.37	2.87	0.72	0.96	0.24	0.18	0.04
FWP-1 ⁽²⁾	5.12	1.28	1.09	0.27	0.36	0.09	0.07	0.02
FWP-2 ⁽²⁾	1.55	0.39	0.36	0.09	0.05	0.01	0.56	0.14
WW HEATER	1.18	5.15	0.99	4.33	0.089	0.39	1.35	5.91
Totals	22.83	16.73	13.44	41.02	1.62	1.45	11.06	45.11

⁽¹⁾ Flare is the emission point for EU ID Anaerobic Reactors in EUG 9.

⁽²⁾ Diesel engine

Facility-Wide VOC Emissions Cap

Pollutant	Units, TPY*
VOC	721.3

* Total VOC emissions are based on a twelve (12) months rolling total.

Facility-Wide Emissions

EU	NO _x		CO		PM ₁₀		SO ₂	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Boilers	87.23	364.33	42.04	166.13	3.80	15.03	0.30	1.19
Misc.	22.83	16.73	13.44	41.02	1.62	1.45	11.06	45.11
Post-Project Total	110.06	381.06	55.48	207.15	5.42	16.48	11.36	46.30
Pre-Project Total ¹	107.33	375.52	54.13	202.73	5.28	16.08	9.45	40.25
Δ Difference (Post-Pre)	2.73	5.54	1.35	4.42	0.14	0.40	1.91	6.05

¹ – Based on emissions from Permit No. 2016-1240-TVR3.

SECTION VIII. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Appropriate recordkeeping of activities indicated below with “*” is specified in the Specific Conditions. Any activity to which a state or federal applicable requirement applies is not insignificant, even if it is included on this list.

- * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. There is a tank, which is used to store and dispense diesel fuel and has an average monthly throughput of approximately 30 gallons/day.

2. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons, which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. The waste oil tank has a capacity of less than 39,894 gallons and stores products having a vapor pressure less than 1.5 psia.
3. Cold degreasing operations utilizing solvents that are denser than air. One parts washer is located at the facility that uses approximately 30 gallons/quarter of a solvent that is denser than air. Most of the solvent is recycled.
4. Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. However, welding is conducted as a part of routine maintenance and is considered a trivial activity and recordkeeping will not be required in the Specific Conditions.
5. Torch cutting and welding of under 200,000 tons of steel fabricated per year. However, torch cutting and welding is conducted as a part of routine maintenance and is considered a trivial activity and recordkeeping will not be required in the Specific Conditions.
6. * Non-commercial water washing operations (less than 2,250 barrels/year) and drum crushing operations of empty barrels less than or equal to 55 gallons with less than three percent residual material. No non-commercial water washing operations or drum crushing operations were identified but they may be used in the future.
7. Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. Small amounts of solvent used for degreasing are applied to facility components using a rag.
8. * Activities that have the potential to emit no more than 5 TPY (actual) of any criteria pollutant. The facility has dry product transfer separators and packaging system dust collectors that will have emissions of less than 5 TPY (actual) of any criteria pollutant and the facility will have other activities in the future.

SECTION IX. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]

Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]

This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]

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

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

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

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

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

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

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

This permit is not construction of a new source or reconstruction of a major HAP source. The proposed physical changes or changes in method of operation qualify as a significant modification. Therefore, a construction permit is required.

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]
 Subchapter 19 regulates emissions of particulate matter from fuel-burning equipment. Particulate emission limits are based on maximum design heat input rating. This subchapter specifies a PM emissions limitation of 0.6 lb/MMBTU from fuel-burning units with a rated heat input of 10 MMBTUH or less and a limit of 0.10 lb/MMBTU for units with a rated heat input of 10,000 MMBTUH or greater. For fuel-burning equipment with a capacity between 10 and 10,000 MMBTUH, this subchapter specifies a PM emission limitation based upon the heat input of the equipment and is calculated according to the following equations:

$$E = 1.042808 X^{-0.238561} \quad \text{For Units } > 10 \text{ MMBTUH but } < 1,000 \text{ MMBTUH}$$

$$E = 1.6 X^{-0.30103} \quad \text{For Units } > 1,000 \text{ MMBTUH but } < 10,000 \text{ MMBTUH}$$

Where: E = allowable total particulate matter emissions in pounds per MMBTU and
 X = the maximum heat input in MMBTU per hour.

EU ID	Equipment	Max. Heat Input (MMBTU/hr)	Reference	PM (lb/MMBTU)	
				App. C Limit	Potential
Boiler-601	Erie City Zurn/Keystone Boiler	202	AP-42 (7/98), Table 1.4-2	0.33	0.0076
Boiler-602	Erie City Zurn/Keystone Boiler	202	AP-42 (7/98), Table 1.4-2	0.33	0.0076
Boiler-603	Combustion Engineering Boiler	201	AP-42 (7/98), Table 1.4-2	0.32	0.0076
Boiler-604	Mobile Steam Boiler	98.5	AP-42 (7/98), Table 1.4-2	0.48	0.0076
WWTU-EG ¹	435-hp Cummins	3.10	AP-42 (10/96), Section 3.3	0.60	0.31
FWP-1 ¹	165-hp Caterpillar	1.16	AP-42 (10/96), Section 3.3	0.60	0.31
FWP-2 ⁽¹⁾	274-hp Clarke	0.16	AP-42 (10/96), Section 3.3	0.60	0.31
WW HEATER	Wastewater Heater	12.0	AP-42 (7/98), Table 1.4-2	0.58	0.0076

⁽¹⁾ Diesel-fired fired equipment

These emission factors are in compliance with this subchapter. The permit will require the use of natural gas for all fuel-burning equipment except the emergency generator engines to ensure compliance with Subchapter 19. The flare does not meet the definition of fuel-burning equipment and is not subject to Subchapter 19.

Section 19-12 limits particulate emissions from new and existing directly fired fuel-burning units and emission points in an industrial process based on process weight rate, as specified in Appendix G. Emissions from the recovery stream are processed through a baghouse that the facility considers integral to the process and not subject to Subchapter 19.

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

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 2 limits the ambient air concentration of hydrogen sulfide (H₂S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283 µg/m³. H₂S emissions from the wastewater treatment facility anaerobic reactor are routed to a flare. Ambient impacts of the H₂S emission from the flare (0.10 lb/hr) were estimated using AERSCREEN at less than 1 µg/m³ which is in compliance with the standard.
Part 5 limits sulfur dioxide (SO₂) emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over three hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. AP-42 (7/98), Table 1.4-2 lists the total SO₂ emissions for natural gas to be 0.6 lb/MMft³ or about 0.0006 lb/MMBTU which is in compliance with Subchapter 31. For liquid fuels, the limit is 0.8 lb/MMBTU heat input averaged over three hours. This is equivalent to approximately 0.8 weight percent sulfur in the fuel oil. AP-42, Table 3.4-1 (10/96) lists the total SO₂ emissions for diesel fuel to be 1.01*(% S by weight) lb/MMBTU or about 0.0505 lb/MMBTU for a fuel oil sulfur content of 0.05 weight percent which is in compliance with Subchapter 31. The permit will require the use of pipeline natural gas as defined in 40 CFR Part 72 or gases with a maximum sulfur content of 8 ppmv for the large boilers and diesel fuel with a maximum sulfur content of 0.0015 weight percent for the emergency generator and fire pump engines to ensure compliance with Subchapter 31.

WW-Heater is subject to standards for gaseous fuel. The WW-Heater is also subject to standards for alternate fuels, which is biogas with sulfur content of less than 105.8 lb SO₂/10⁶ ft³ (626 ppmv S), and is an authorized enforceable limit listed in the specific conditions.

OAC 252:100-33 (Nitrogen Oxides) [Applicable]
NO_x emissions are limited to 0.20 lb/MMBTU from all new gas-fired fuel-burning equipment with a rated heat input of 50 MMBTUH or greater. All of the boilers are subject to this requirement except for the new heater which is rated at 12.0 MMBTUH. Stack testing of one of the pre-NSPS boilers (Boiler-601 or Boiler-602) conducted in March of 2000, indicated emissions of NO_x from these boilers are approximately 0.184 lb/MMBTU which is in compliance with this subchapter. Boiler-603 is subject to the NSPS, Subpart Db, NO_x emission limit of 0.2 lb/MMBTU. CEM data from Boiler-603 indicates that emissions from this boiler are within the SC 33 limitation of 0.2 lb/MMBTU. Boiler-604 has emissions of 0.049 lb/MMBTU, which is in compliance with this subchapter. WW HEATER (wastewater heater) and all the engines on-site have the heat input less than 50 MMBTUH, and thus, these equipment are not subject to this subchapter.

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

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. Pure IPA at actual storage temperatures has a vapor pressure less than 1.5 psia. The other tanks store an IPA water mixture, which also will have a vapor pressure of less than 1.5 psia under actual storage conditions.
Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. This facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.
Part 5 limits the VOC content of coatings used in coating lines or operations. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.
Part 7 requires fuel-burning and refuse-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.
Part 7 requires all effluent water separators openings or floating roofs to be sealed or equipped with an organic vapor recovery system. There are no effluent water separators located on-site. Distillation units do not meet the definition of an effluent water separator.

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

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

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

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

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

SECTION X. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable for this Modification]
 Total potential emissions for NO_x and VOC are greater than the major source threshold of 250 TPY. The projected emission increases from the modifications do not exceed the PSD significant emission rates (SER) as indicated in Section III. Any future increases of emissions must be evaluated for PSD if they exceed a SER (NO_x, SO₂, & VOC - 40 TPY; CO - 100 TPY; and PM₁₀/PM_{2.5} - 15/10 TPY).

NSPS, 40 CFR Part 60 [Subparts Db, Dc, and IIII Applicable]
Subpart D, Fossil-Fuel-Fired Steam Generators. The two older boilers were constructed after the applicability date of this subpart (August 17, 1971) but are below the de minimis level of 250 MMBTUH.

Subpart Da, Electric Utility Steam Generating Units. The units at this plant were constructed prior to the applicability date of this subpart (September 18, 1978). All of the boilers are below the de minimis level of 250 MMBTUH and do not meet the definition of electric utility steam generating unit.

Subpart Db, Industrial-Commercial-Institutional Steam Generating Units. This subpart affects steam generating units with a heat input capacity greater than 100 MMBTUH and that commence construction, modification, or reconstruction after June 19, 1984. The two older boilers were

constructed prior to the effective date of this subpart. The Boiler-603 has a heat input of 210 MMBTUH and is applicable to this subpart. The Boiler-603 is permitted to combust natural gas. With a firebox heat release of 93,000 BTU/cubic foot, the Boiler-603 is defined as a "high heat release rate unit" (more than 75,000 BTUH per cubic foot of firebox) and is subject to the NO_x emission limit of § 60.44b(a)(1)(ii) (0.2 lb/MMBTU) and all applicable requirements when fired with natural gas. Boiler-603 has a continuous emission monitor for NO_x, which is used to determine excess emissions. In accordance with § 60.13(i), an alternative span value of 250 ppm was approved by AQD in a letter dated October 15, 1996. All applicable requirements have been incorporated into the permit.

Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. This subpart affects steam generating units with a heat input capacity between 10 and 100 MMBTUH and that commence construction, modification, or reconstruction after June 9, 1989.

According to §60.41c definition, a temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO₂ emissions rate no greater than 26ng/J (0.060 lb/MMBTU), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of wheels, skids, carrying handles, dollies, trailers, or platform. Boiler-604 is not located on-site; facility will bring this unit on-site whenever they need supplemental steam. Boiler-604 meets the requirement for a temporary boiler and therefore is exempt from this subpart per §60.40c(i).

All applicable requirements have been incorporated into the permit. The wastewater heater (WW-Heater) meets the definition of a steam generating unit, and is subject to the recordkeeping requirements of this subpart. The facility may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month per § 60.48c(g)(3).

Subpart K, Ka, Petroleum Liquids Storage Vessels. Subparts K and Ka only affect storage vessels that store petroleum liquids. IPA is not considered a petroleum liquid.

Subpart Kb, Volatile Organic Liquid (VOL) Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. The large IPA storage vessels were built prior to the effective date of Subpart Kb. Subpart Kb does not affect "process tanks," tanks used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. While the throughput of the tanks will increase as a result of this project, per 40 CFR § 60.14(e)(2), an increase in production at an affected facility is not a modification "if the increase can be accompanied without a capital expenditure on that facility." There will be no capital expenditures on the storage tanks themselves, so the change will not be a modification and NSPS Subpart Kb applicability will not be triggered for the CBM tanks. The other tanks are used primarily as settling vessels, i.e., low-velocity areas where residual gum is allowed to settle out before the IPA is distilled and are therefore not subject to this subpart.

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) that are constructed (ordered) after July 11, 2005 and manufactured after April 1, 2006 (July 1, 2006, for fire pump engines).

Reciprocating Engines

EU	HP	Serial #	Mfg. Date
WWTU-EG	435	30369469	10/30/2002
FWP-1	165	9ON69459	7/17/1987
FWP-2	274	TBD	2019

WWTU-EG and FWP-1 engines are constructed prior to applicability dates and not modified or reconstructed. Therefore, they are not subject to this subpart.

FWP-2 is constructed after 2007 and is used as an emergency fire pump engine. Therefore, this engine is subject to this subpart and the emission standards for this engine are listed below.

Emission Standards from Table 4 to Subpart IIII - for Stationary Fire Pump Engines

Engine Type	Max Power	NO _x	CO	PM
	HP	g/hp-hr	g/hp-hr	g/hp-hr
2009+ Model Year	175≤HP<300	3.0	2.6	0.2

The fuel for the engine is limited to low sulfur diesel fuel with a maximum sulfur content of 15 ppmw. This engine is certified to nonroad emission standards by the engine manufacture. EPA Certificates of Conformity for the engine family has been provided as part of the application Permit No. 2016-1240-TVR3 (M-3). As a result, the diesel-fired FWP-2 is exempted from conducting the NSPS Subpart IIII tests.

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

NESHAP, 40 CFR Part 63 [Subpart ZZZZ Applicable]
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:
 - i) 2SLB and 4SRB stationary RICE with a site rating of ≤ 500 brake HP;
 - ii) 4SLB stationary RICE with a site rating of < 250 brake HP;
 - iii) 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;
 - iv) Emergency or limited use stationary RICE with a site rating of ≤ 500 brake HP; and
 - v) CI stationary RICE with a site rating of ≤ 500 brake HP.

This facility is a minor source of HAP and the existing emergency generator engine(s) and fire pump engine are subject to this subpart.

Existing CI RICE

EU	Name	HP
WWTU-EG	Cummins	435
FWP-1	Caterpillar	165

Facilities with existing stationary CI RICE located at an area source of HAP emissions must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. Existing emergency stationary CI RICE at area sources must comply with the following management practices:

- Change oil and filter every 500 hours of operation or annually, whichever comes first;
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and
- Minimize the engine's time spent at idle and minimize the engine's start-up time at start-up to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-start-up emission limitations apply.

Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement. CI RICE are limited to a fuel sulfur limit of 15 ppmw. Additionally, there are limitations on the hours that an emergency engine may operate. Total operating hours are limited to 100 hours/year for maintenance and readiness checks unless Federal, State, or local standards require maintenance and testing beyond 100 hours per year. The 100 hours/year includes up to 50 hours of non-emergency operations. The 50 hours cannot include peak shaving or other income generating power production. The 50 hours includes up to 15 hours of power generation as part of a demand response program in the event of a potential electrical blackout situation. All applicable requirements have been incorporated into the permit.

FWP-2 is considered a new affected source under this subpart and will satisfy the requirements of Subpart ZZZZ through compliance with NSPS Subpart III. No further requirements apply for engines subject to NSPS under this part.

Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters. This subpart affects any boiler or process heater located at a major source of HAP. This facility is not a major source of HAP and is not subject.

Subpart JJJJJ, Commercial and Institutional Boilers. This subpart affects new and existing boilers located at area sources of HAP, except for gas-fired boilers. Gas fired boilers are defined as any boiler that burns gaseous fuel not combined with any solid fuels, liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing under this definition shall not exceed a combined total of 48 hours during any calendar year. The boilers at this facility meet the definition of gas fired boilers and are exempted under §63.11195(e). WW-Heater is also gas-fired and therefore exempted from this subpart.

CAM, 40 CFR Part 64 [Applicable]
Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY

The processes use IPA recovery scrubbers, condensers (a condenser for EUG WGC waste gum centrifuge and spent pot, and a condenser for EU FILT Nutsche Filter), and combustion in a boiler to achieve compliance with a facility wide emissions cap. However, the vapor recovery scrubber and condensers are considered inherent process equipment since they are used for material recovery. The vapor recovery scrubbers and condensers recover IPA for recycle and reuse. Also, emission caps are specifically exempt from CAM per §64.2(b)(v). The new biological scrubber used to remove H₂S from the wastewater anaerobic reactor biogas will not be subject to CAM requirements because the potential pre-control emissions of SO₂ will be 59 TPY, which is less than 100 TPY major source threshold. The flare used to control VOC from the anaerobic reactor biogas will not be subject to CAM requirements because the potential pre-control VOC emissions will be 40.9 TPY, which is less than 100 TPY threshold.

None of the other emission units use a control device to achieve compliance with the applicable emission limit or standard. Therefore, the facility is not subject to this rule.

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.

SECTION XI. COMPLIANCE

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

In addition to the permitting requirements, the following periodic inspections were conducted since issuance of the last Title V renewal permit.

Inspection Type	Date	Summary/Results
Full Inspection	05/29/2020	In compliance
Full Inspection	05/16/2018	In compliance

There have been the following enforcement actions since issuance of the last Title V renewal permit.

Case ID	Date Referred	Date Closed	Summary/Results
9639	9/19/2019	6/30/2021	Self-Disclosure involving the VOC emissions that were previously incorrectly reported
9371	12/28/2018	7/26/2021	Self-Disclosure involving the VOC emissions that were previously incorrectly reported
8808	7/6/2017	11/7/2017	Self-Disclosure involving the VOC analyzer reported to be out of tolerance for approximately 4 months

SECTION XII. TIER CLASSIFICATION, PUBLIC, AND EPA REVIEW

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

This application has been determined to be **Tier II** based on the request for a major source construction permit for a significant modification to an existing major source permit. The applicant has requested to process the construction permit through the Enhanced NSR process.

The applicant published the “Notice of Filing a Tier II Application” in the *Okmulgee Times* newspaper, a local newspaper in Okmulgee County on September 3, 2021. 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>.

The applicant will publish the “Notice of Draft Permit” in the *Okmulgee Times* newspaper, a local newspaper in Okmulgee County. The notice will state the location where the draft permit be available for review. The notice will also state that the draft permit will be available for review at the Air Quality Division’s main office in Oklahoma City.

Landowner Notification

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

State Review

This facility is not located within 50 miles of the border of Oklahoma so no notice to other states is required.

Tribal Review

Tribal Nations will be notified of the draft permit.

EPA Review

The applicant requested and was granted concurrent public and EPA review periods. The draft/proposed permit will undergo a 30-day public comment period and the draft/proposed permit will be sent to EPA for a 45-day review period. If no comments are received from the public, the draft/proposed permit will be deemed the proposed permit. The EPA review period may be extended so that the EPA review period does not end before the public review period ends.

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of OAC 252:100-8-8(j) may petition the Administrator within 60 days after the expiration of the Administrator’s 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2., unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or

unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under OAC 252:100-8-8(j), the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection under OAC 252:100-8-8(j), the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

Fee Paid

Part 70 construction application fee of \$5,000 has been received on May 27, 2021.

SECTION XIII. 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 concerning this facility. Issuance of the permit is recommended contingent on public and EPA review.

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

**CP Kelco US, Inc.
CP Kelco Okmulgee Biogum Plant**

**Permit Number 2016-1240-C (M-4)
Facility ID: 1516**

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on May 25, 2021. The Evaluation Memorandum, dated June 8, 2022, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

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

EUG 1: Emission limitations for emission units (EU) Boiler-601, and Boiler-602. VOC emissions shall be included in the facility wide cap. Compliance with the emission limits shall be based on fuel consumption and the following: NO_x - The most recent stack test data; CO - AP-42 (7/98), Section 1.4; SO₂ - Mass balance.

Permitted Emissions from Utilizing Natural Gas/Biogas

EU ID	Description	NO _x		CO	
		lb/hr	TPY	lb/hr	TPY
Boiler-601	202-MMBTUH Keystone	40.40	176.95	16.64	72.86
Boiler-602	202-MMBTUH Keystone	40.40	176.95	16.64	72.86

- a. Except during periods of startup, shutdown, repair or malfunction, and short-term tests not to exceed 16 hours per quarter, only one of these boilers (Boiler-601 or Boiler-602) shall be operated at any time when Boiler-603 is operating. During periods of startup, shutdown, repair or malfunction, and short-term tests, one of the three boilers will be shut down within two hours of the third boiler being put into operation. Operation is defined as when the boiler is at pressure and generating steam into the header.
- b. When Boiler-603 is operating, the permittee shall record the hours of operation of Boiler-601, Boiler-602, and Boiler-603.
- c. Boiler-601 and Boiler-602 shall only be fueled with pipeline natural gas as defined in Part 72 having a sulfur content of 0.5 grains/100 SCF or less or gases from the RCVY-SCRUB or Anaerobic Reactors with a sulfur content of less than 8 ppmv. Compliance can be shown by the following methods: for pipeline natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once every calendar year.

[OAC 252:100-31]

EUG 2: Emission limitations for EU Boiler-603. VOC emissions shall be included in the facility wide cap. Compliance with the emission limits shall be based on fuel consumption and the following: NO_x - CEM data; CO - AP-42 (7/98), Section 1.4; SO₂ - Mass balance.

Permitted Emissions from Utilizing Natural Gas/Biogas

EU ID	Description	NO _x			CO	
		lb/MMBTU ⁽¹⁾	lb/hr	TPY	lb/hr	TPY
Boiler-603	210-MMBTUH Combustion Engineering	0.20	42.00	96.58	17.29	75.75

⁽¹⁾ Three-hour average

- a. Boiler-603 shall only be fueled with pipeline natural gas as defined in Part 72 having a sulfur content of 0.5 grains/100 SCF or less or gases from the RCVY-SCRUB or Anaerobic Reactors with a sulfur content of less than 8 ppmv. Compliance can be shown by the following methods: for pipeline natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-31]
- b. The permittee shall comply with all applicable requirements of the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units NSPS Subpart Db, for emission unit Boiler-603, the 210 MMBTUH Combustion Engineering Boiler, including but not limited to the following: [§§60.40b through 60.49b]
 - (1) The affected facility when combusting natural gas or natural gas with byproduct/waste shall not discharge into the atmosphere any gases that contain nitrogen oxides (NO_x) (expressed as NO₂) in excess of the following emission limit: [§§60.44b(a) & (e)]
 - i) High heat release rate: 86 ng/J (0.20 lb/MMBTU) [§60.44b(a)(1)(ii)]
 - (2) For purposes of §60.44b(i) (determining compliance), the NO₂ standard of §60.44b(a)(1)(ii) shall apply at all times including periods of startup, shutdown, or malfunction. [§60.44b(h)]
 - (3) Compliance with the NO₂ emission limit shall be determined on a 30-day rolling average basis. [§60.44b(i)]
 - (4) Compliance with the NO₂ emission standards under § 60.44b shall be determined through performance testing under § 60.46b(e). [§60.46b(c)]
 - (5) The owner or operator shall upon request determine compliance with the NO₂ standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO₂ emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO₂ emission standard. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO₂ emission data for the preceding 30 steam generating unit operating days. [§60.46b(e)(4)]

- (6) The owner or operator of an affected facility subject to the NO₂ standards under §60.44b shall install, calibrate, maintain, and operate a continuous monitoring system and record the output of the system, for measuring NO₂ emissions discharged to the atmosphere. [§60.48b(b)(1)]
- (7) The continuous monitoring systems required under §60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments. [§60.48b(c)]
- (8) The 1-hour average NO₂ emission rates measured by the continuous NO₂ monitor required by §60.48b(b) and required under §60.13(h) shall be expressed in ng/J or lb/MMBTU heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2). [§60.48b(d)]
- (9) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. [§60.48b(e)]
 - i) For affected facilities combusting natural gas and natural gas with byproduct/waste the span value for NO₂ is 500 ppm. [§60.48b(e)(2)]
 - ii) See Specific Condition 1, EUG 2(c) for Approved Alternative Span Value.
- (10) When NO₂ emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [§60.48b(f)]
- (11) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBTUH) or less, and which has an annual capacity factor for natural gas greater than 10 percent (0.10) shall comply with the provisions of §§ 60.48b(b), (c), (d), (e)(2), (e)(3), and (f). [§60.48b(g)(1)]
- (12) The owner or operator of each affected facility subject to the NO₂ emission limits under § 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B. [§60.49b(b)]
- (13) The owner or operator of an affected facility shall record and maintain records of the amounts of natural gas combusted during each day and calculate the annual capacity factor for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [§60.49b(d)]
- (14) The owner or operator of an affected facility subject to the NO_x standards under §60.44b shall maintain records of the following information for each steam generating unit operating day: [§60.49b(g)]
 - i) Calendar date.
 - ii) The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBTU heat input) measured or predicted.
 - iii) The 30-day average NO₂ emission rates (ng/J or lb/MMBTU heat input) calculated at the end of each steam generating unit operating day from the

- measured or predicted hourly NO₂ emission rates for the preceding 30 steam generating unit operating days.
- iv) Identification of the steam generating unit operating days when the calculated 30-day average NO₂ emission rates are in excess of the NO_x emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
 - v) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
 - vi) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
 - vii) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted.
 - viii) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
 - ix) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
 - x) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1.
- (15) The owner or operator of any affected facility in any category listed §60.49b(h)(1) or (2) is required to submit excess emission reports for any excess emissions which occurred during the reporting period. [§60.49b(h)]
- i) Any affected facility that is subject to the NO_x standard of §60.44b, and that: [60.49b(h)(2)]
 - (A) Combusts natural gas; or
 - (B) Has a heat input capacity of 73 MW (250 MMBTU/hour) or less and is required to monitor NO_x emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).
 - ii) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_x emission rate, as determined under §60.46b(e), which exceeds the applicable emission limits in §60.44b. [§60.49b(h)(4)]
- (16) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO₂ under §60.48b(b) shall submit reports containing the information recorded under §60.49b(g). [§60.49b(i)]
- (17) All records required under §60.49b shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record. [§60.49b(o)]
- (18) The owner or operator of an affected facility may submit electronic quarterly reports for NO₂ in lieu of submitting the written reports required under §§60.49b(h) and (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was

achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [§60.49b(v)]

- (19) The reporting period for the reports required under this subpart is each 6-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [§60.49b(w)]

c. Approved Alternative Span Value

- (1) A span value of 250 ppmv can be used for the nitrogen oxides continuous emission monitor.

EUG 1 through EUG 12 & EUG 15 through EUG 17: VOC emission limits for EU Boiler-601, Boiler-602, Boiler-603, SET-VESSELS, SPENT-VESSELS, MIX-VESSEL, CBM-Tanks, Pipe Leak Fugitives, Wastewater Treatment Facility Fugitives (EQ Tanks, WW Flume), Anaerobic Reactor, Boiler-604, FILT, RCVY-SCRUB, and RCVY-ATM. The emission limit is based on a rolling 12-month total. This permit authorizes the facility to make minor changes in the operation and control of processes that do not result in the facility wide cap established by the permit being exceeded. This authorization does not allow the installation of additional production lines or emission units. Although the facility-wide VOC emissions cap includes all VOC emissions from all the emission sources at this facility. VOC emissions from EUG 18 and 19 are not listed under this group.

Facility-Wide VOC Emissions Cap⁽¹⁾

Pollutant	TPY⁽²⁾
VOCs	721.30

(1) Does not include VOC emissions from EUG 13.

(2) Based upon a twelve (12) month rolling total.

EUG 5 Vessels

EU	Point	Name/Model	Gallons
SET-VESSLS	Tank Farm Scrubber or Atmosphere	Spent IPA Settling Vessel	40,000
		Spent IPA Settling Vessel	40,000
		Spent IPA Settling Vessel	40,000
SPENT-VESSLS	Tank Farm Scrubber or Atmosphere	Spent IPA Vessel	90,000
		Spent IPA Vessel	90,000
		Spent IPA Vessel	90,000
MIX-VESSSEL	Tank Farm Scrubber or Atmosphere	Mixing Vessel	4,500
CBM-TANKS	Tank Farm Scrubber	Concentrated Isopropyl Alcohol (CBM) Tank	125,000
		Concentrated Isopropyl Alcohol (CBM) Tank	125,000

EUG 8 Miscellaneous

EU	Number Items ⁽¹⁾	Type of Equipment
Pipe Leak Fugitives	1,373	Valves
	3,096	Connectors
	103	Pump Seals
	3	Compressor Seals
	30	Pressure Relief Valves
	89	Other
WW System	EQ Tanks	WW Treatment Facility Equalization Tanks
	WW Flume	WW Production Plant Flume

(1) Estimated; WW – Wastewater.

EUG 9 Anaerobic Reactors

EU	Point	Name/Model	MMBTUH
Anaerobic Reactors	Flare	UASB	22

EUG 15 Filtration Process and Waste Gum Centrifuge Process

EU	Point	Name/Model
FILT	Atmosphere or IPA Recovery Scrubber	Nutsche Filter W/Recovery Condenser
WGC	Condenser or IPA Recovery Scrubber	Waste Gum Centrifuge and Spent Pot

EUG 16 Equipment Vented to Recovery Scrubber

EU	Point	Name/Model
RCVY-SCRUB	IPA Recovery Scrubber Or Atmosphere	Press Enclosures (Line 1 – 4) and GTO Line 5 Press, Screen and Spent Pot
		Line 6 Centrifuge and Spent Pot
		A Dryer with First and Second Stage Dryer Cyclones (Lines 1 – 5) to Primary Plenum
		Line 6 Vacuum Stripper and Condenser
		B Dryer with Third Stage Dyer Cyclones (Lines 1 – 5) to Secondary Plenum

EUG 17 Equipment Vented to Atmosphere

EU	Point	Name/Model
RCVY-ATM	Atmosphere	Recovery Fugitives (Line 1 – 5) (Precip room, dryer rooms, and chiller building venting through roof fans and floor exhausts)
	Atmosphere or IPA Recovery Scrubber	C Dryer with Fourth Stage Milling Cyclones (Lines 1 – 5) to Mill Plenum ¹
	Atmosphere	Line 6 Dryer

EU	Point	Name/Model
	Atmosphere	Distillation Column

⁽¹⁾ May vent to atmosphere or IPA Recovery Scrubber

- a. Facility-wide VOC emissions shall be calculated each month and each month the permittee shall total all of the VOC emissions from the facility from the last 12 months to show compliance with this limit.
- b. The permittee shall calibrate, maintain, and operate a continuous monitoring system that measures and records the make-up water flow rate of the IPA Recovery Scrubber. The system shall calculate and record the daily average make-up flow rate. A daily average flow rate less than the average flow rate during the most recent scrubber compliance test shall be reported as an excursion.
- c. The permittee shall develop and implement a quality assurance and quality control program for the IPA Recovery Scrubber make-up water flow rate monitoring system that shall describe in detail, complete, step-by-step monitoring procedures and operations.
- d. VOC emissions from EUG 16 shall be vented to the IPA Recovery Scrubber. VOC emissions may be vented to atmosphere for up to 120 hours per year during scrubber downtime. VOC emissions when venting to the atmosphere shall be determined and recorded. The permittee shall calibrate, maintain and operate a VOC analyzer and flow meter that measures and records the VOC concentration and flow of VOC emissions from EUG 16 to atmosphere during scrubber downtime. A Dryer (Primary Plenum) and B Dryer (Secondary Plenum) may be vented to atmosphere after material processing has stopped and the dryer is empty of process material. The following shall be used to determine emissions.
 - (1) IPA Recover Scrubber (Normal Operation): measurement of the emissions and hours of operation.
 - (2) IPA Recovery Scrubber (Downtime): measurement of emissions and number of hours scrubber is down and emissions are being vented directly to the atmosphere.
 - (3) Measurement of emissions may be based on existing test results.
- e. VOC emissions from the EUG 17 shall be vented to the IPA Recovery Scrubber or determined and recorded when being emitted to the atmosphere. The following shall be used to determine emissions.
 - (1) Recovery Lines (Fan Exhausts): measurement of the emissions and hours of operation.
 - (2) C Dryers (Milling Cyclones Lines 1-5): measurement of the emissions and hours of operation.
 - (3) Line 6 Dryer (IPA in Cake): measurement of concentration of IPA in product and amount of product produced.
 - (4) Line 6 Fugitives (Room Vent): measurement of the emissions from the condenser outlet and the number of hours operated.
 - (5) Distillation Column (Condenser Outlet): measurement of the emissions from the condenser outlet and the number of hours operated.
 - (6) Measurement of emissions may be based on existing test results.
- f. The filtration process condenser shall be vented to the atmosphere or to the IPA Recovery Scrubber.

- g. The waste gum centrifuge and spent pot shall be vented to a condenser or to the IPA Recovery Scrubber.

EUG 9: Emission limits for the Anaerobic Reactor. VOC emissions shall be included in the facility wide cap.

Anaerobic Reactor’s Emission Limits

NO _x		CO		SO ₂ ¹	
lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
----	3.19	----	14.55	----	19.20

⁽¹⁾ The SO₂ limit is for the total anaerobic reactor SO₂ emitted from EUG 9 (Flare) and EUG 18 (WW-Heater). The NO_x and CO limits are for EUG 9 only. EUG 18 has separate NO_x and CO limits.

- a. All emissions from the Anaerobic Reactor shall be routed to the Anaerobic Reactor Flare or combusted in the Wastewater Heater.
- b. To demonstrate compliance with the 12-month rolling total SO₂ emission limit, the SO₂ emissions shall be calculated monthly based on the flow rate and sulfur concentration.
- c. The facility shall determine and record the flow rate and sulfur concentration of the waste gases from the Anaerobic Reactor vented directly to the flare, and from the biological scrubber outlet vented to the flare or Wastewater Heater. The sulfur concentration daily average shall be determined using either a continuous monitoring system or daily “stain tube” or portable analyzer analysis of a grab sample during periods of monitor downtime.
- d. The presence of the Anaerobic Reactor Flare pilot flame shall be monitored using a thermocouple, flame detection system such as fire-eye for or any other equivalent device to detect the presence of a flame. Records of pilot flame(s) outages shall be maintained along with the time and duration of all periods during which the pilot flame is/was absent.

EUG 12: Emission limitations for EU Boiler-604. VOC emissions shall be included in the facility wide cap.

Permitted Emissions from Scenario I & II (Natural Gas)

EU ID	Description	NO _x			CO	
		lb/MMBTU ¹	lb/hr	TPY	lb/hr	TPY
Boiler-604	98.5-MMBTUH Mobile Steam Boiler	0.049	4.83	10.43	8.11	17.52

⁽¹⁾ Three-hour average (contiguous)

- a. Boiler-604 shall only be fueled with pipeline natural gas as defined in Part 72 having a sulfur content of 0.5 grains/100 SCF or less or gases from the RCVY-SCRUB or Anaerobic Reactors with a sulfur content of less than 343 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other

approved methods. Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-31]

- b. Boiler-604 shall not be operated at the facility for more than 180 days (4,320 hours) within any 12-month period. [OAC 252:100-8-6(a)]
- c. Boiler-604 shall be equipped with low-NO_x burners. [OAC 252:100-8-6(a)]
- d. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, NSPS Subpart Dc, for emission unit Boiler-604, the 98.5 MMBTUH Boiler.

[§§60.40c through 60.48c]

- (1) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each operating day. [§ 60.48c(g)(1)]
- (2) As an alternative to meeting the requirements of § 60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§ 60.48c(g)(2)]
- (3) As an alternative to meeting the requirements of § 60.48c(g)(1), the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, and/or fuels not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. [40 CFR § 60.48c(g)(3)]

EUG 13: Emission limitations for EU IDs WWTP-EG and FWP-1. There are no emission limits established for EU IDs WWTP-EG or FWP-1 but they are subject to NESHAP, Subpart ZZZZ.

EU ID	Name	HP	Serial #
WWTU-EG	Cummins	435	30369469
FWP-1	Caterpillar	165	9ON69459

- a. The engines shall only be fueled with distillate fuel oil containing 0.05% sulfur by weight or less. Compliance can be shown by the following methods: for fuel oil, supplier’s latest delivery ticket(s). Compliance shall be demonstrated at least once every calendar year. [OAC 252:100-31]
- b. The owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, no later than May 3, 2013, for each affected facility including but not limited to: [40 CFR §§ 63.6580 through 63.6675]
 - (1) § 63.6580 What is the purpose of subpart ZZZZ?
 - (2) § 63.6585 Am I subject to this subpart?
 - (3) § 63.6590 What parts of my plant does this subpart cover?
 - (4) § 63.6595 When do I have to comply with this subpart?

- (5) § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?
- (i) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d of 40 CFR Part 63, Subpart ZZZZ which apply to you. [§ 63.6603(a)]
- (A) Change oil and filter every 500 hours of operation or annually, whichever comes first or utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement. [Table 2d, 40 CFR part 63, Subpart ZZZZ]
- (B) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and [Table 2d, 40 CFR part 63, Subpart ZZZZ]
- (C) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Table 2d, 40 CFR part 63, Subpart ZZZZ]
- (6) § 63.6605 What are my general requirements for complying with this subpart?
- (7) § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- (i) You must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [§ 63.6625(e)(2)]
- (ii) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed. [§ 63.6625(f)]
- (iii) You have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d of 40 CFR Part 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d of 40 CFR Part 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil

- changes for the engine. The analysis program must be part of the maintenance plan for the engine. [§ 63.6625(i)]
- (8) § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
- (9) § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
- (i) You must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2d of 40 CFR Part 63, Subpart ZZZZ that apply to you according to methods specified in Table 6 of 40 CFR Part 63, Subpart ZZZZ. [§ 63.6640(a)]
- (ii) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in §§ 63.6640 (f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §§ 63.6640(f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in §§ 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [§ 63.6640(f)]
- (A) There is no time limit on the use of emergency stationary RICE in emergency situations. [§ 63.6640(f)(1)]
- (B) You may operate your emergency stationary RICE for any combination of the purposes specified in §§ 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §§ 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by § 63.6640(f)(2). [§ 63.6640(f)(2)]
- (C) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§ 63.6640(f)(2)(i)]
- (D) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§ 63.6640(f)(2)(ii)]

- (E) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§ 63.6640(f)(2)(iii)]
- (F) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in § 63.6640(f)(2). Except as provided in §§ 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§ 63.6640(f)(4)]
- (10) § 63.6655 What records must I keep?
- (i) You must keep the records required in Table 6 of 40 CFR Part 63, Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you. [§ 63.6655(d)]
- (ii) If you own or operate an existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d of 40 CFR Part 63, Subpart ZZZZ, you must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan. [§ 63.6655I(3)]
- (iii) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§ 63.6655(f)(2)]
- (11) § 63.6660 In what form and how long must I keep my records?
- (i) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1). [§ 63.6660(a)]
- (ii) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§ 63.6660(b)]
- (iii) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). [§ 63.6660(c)]
- (12) § 63.6665 What parts of the General Provisions apply to me?

- (i) Table 8 of 40 CFR Part 63, Subpart ZZZZ shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. [§ 63.6665(a)]
- (13) § 63.6670 Who implements and enforces this subpart?
- (14) § 63.6675 What definitions apply to this subpart?

EUG 18: Emission Limitations for EU ID WW-Heater. VOC emissions shall be included in the facility-wide cap. Compliance with the emission limits shall be based on fuel consumption and the following: NO_x and CO – AP-42 (7/98), Section 1.4, SO₂ emissions from biogas are accounted for in the SO₂ limit for EUG 9. VOC emissions from this unit are included in facility-wide VOC cap.

Permitted Emissions

EU ID	Description	NO _x		CO	
		lb/hr	TPY	lb/hr	TPY
WW-Heater	12.0-MMBTUH Wastewater Heater	1.18	5.15	0.99	4.33

- a. The WW-Heater shall only be fueled with pipeline natural gas as defined in Part 72 having a sulfur content of 0.5 grains/100 SCF or less or gases from the Anaerobic Reactor with a sulfur content of less than 105.8 lb SO₂/10⁶ ft³. [OAC 252:100-31-25(1)(A) & 25(4)]
- b. Sulfur dioxide emissions from burning biogas in the WW-Heater shall be included when determining compliance with the sulfur dioxide emission limit for EUG 9.
- c. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, NSPS Subpart Dc, for EU WW-Heater. [40 CFR §§60.40c through 60.48c]
 - (1) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. [§60.48c(g)(1)]
 - (2) As an alternative to meeting the requirements of §60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)(2)]
 - (3) As an alternative to meeting the requirements of §60.48c(g)(1), the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, and/or fuels not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. [40 CFR §60.48c(g)(3)]

EUG 19: EU FWP-2 is subject to NSPS Subpart IIII and NESHAP Subpart ZZZZ. NSPS Subpart IIII emission standards are listed below.

NSPS Subpart IIII Emission Standards

EU	Description	NO _x	CO	PM
		g/hp-hr	g/hp-hr	g/hp-hr
FWP-2	274-hp Clarke	3.0	2.6	0.2

- a. Liquid diesel fuel for the emergency generators shall have a sulfur content less than or equal to 0.0015% (15 ppm) by weight. Compliance can be shown by supplier's latest delivery ticket(s), and shall be demonstrated at least once each calendar year. [OAC 252:100-31]
- b. The owner/operator shall comply with all applicable requirements of NSPS Subpart IIII, for each affected compression ignition reciprocating internal combustion engine (RICE) including but not limited to the following. [40 CFR Part 60, Subpart IIII]
- (1) §60.4200 Am I subject to this subpart?
 - (2) §60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
 - (3) §60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
 - (4) §60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?
 - (5) §60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?
 - (6) §60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year?
 - (7) §60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - (8) §60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - (9) §60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
 - (10) §60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?
 - (11) §60.4218 What parts of the General Provisions apply to me?
 - (12) §60.4219 What definitions apply to this subpart?
- c. The owner/operator shall comply with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines. A new or reconstructed stationary Reciprocating Internal Combustion Engine located at an area source must the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII. No further requirements of Subpart ZZZZ apply. [§ 63.6590(c)]
2. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
 3. Boiler-601, Boiler-602, Boiler-603, and Boiler-604 shall have a permanent identification plate attached that shows the make, model number, and serial number. [OAC 252:100-43]
 4. When calculation of the Facility Wide VOC Emission Cap, as a 12-month rolling total, exceeds the established limit, the owner or operator shall comply with the provisions of OAC 252:100-9. [OAC 252:100-9]

5. The permittee shall keep records of operations as listed below. These records shall be maintained on-site for inspection by regulatory personnel upon request. Required records shall be retained for a period of at least five years following the date of recording.

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

- a. Total fuel usage for each boiler (annual).
 - b. Records required by Specific Condition 1, EUG 1 (c), EUG 2 (a), EUG 12 (a), EUG 13 (a), and EUG 18 (a) including sulfur content of the diesel combusted in the emergency generator (analysis or supplier statement for each delivery).
 - c. Specific hours of day of operation for each boiler as required by Specific Condition 1, EUG 1, (b) when EU B-603 is operating in conjunction with EU B-601 and/or B-602.
 - d. Daily average flow rate of the make-up water for the IPA Recovery Scrubber.
 - e. VOC emissions from the EUG 16 RCVY-SCRUB (daily and cumulative annual).
 - f. VOC emissions from the EUG 17 RCVY-ATM (daily and cumulative annual).
 - g. IPA Scrubber downtime.
 - h. Monthly throughput of EUG 15 - Filtration Process (Biogum and IPA).
 - i. Monthly Facility Wide VOC emission calculations and 12-month rolling total Facility Wide VOC emission calculations used to show compliance with the Facility Wide VOC Emissions Cap in Specific Condition 1 to include the variables used to calculate emissions from each emission unit.
 - j. Monthly SO₂ emissions calculations from EUG 9 and EUG 18 and 12-month rolling total emission calculations used to show compliance with the SO₂ Emissions Cap in Specific Condition 1 to include measured flow rate and sulfur concentration of the waste gases from the Anaerobic Reactor.
 - k. Flare pilot outages for EUG 9.
 - l. Number of days Boiler-604 is located at the facility (daily).
 - m. Records required by NSPS, Subparts Db, Dc. And IIII.
 - n. Records required by NESHAP, Subpart ZZZZ.
6. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations that qualify as Trivial Activities.

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

- a. For stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or diesel fuel used exclusively for emergency power generation or for peaking power service not exceeding 500 hours/year: records of the number of hours operated (annual).
- b. For fuel storage/dispensing equipment operated solely for facility owned vehicles: records of the type and amount of fuel dispensed (annual).
- c. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of the capacity of the tanks and the contents.
- d. For activities (except for trivial activities) that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions or a surrogate measure of the activity (annual).

7. At least once during the term of the permit, the permittee shall conduct tests of NO_x and CO concentrations in exhaust gases from Boiler-601 and Boiler-602 when operating under representative conditions. Testing shall be conducted using approved reference methods.
[OAC 252:100-8-6 (a)(3)(A)]
8. No later than 30 days after each anniversary date of the issuance of the original Title V operating permit (11/21/2000), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit.
9. 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 using “projected actual emissions.” If the permittee materially fails to comply with these provisions, then emissions are presumed to equal the source’s potential to emit.
[OAC 252:100-8-36.2(c)]
10. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility, or the listed emissions unit groups:
[OAC 252:100-8-6(d)(2)]
 - a. Facility
 - (1) 40 CFR Part 60, NSPS, **except** for Subpart A, General Provisions, Subpart Db, Industrial-Commercial-Institutional Steam Generating Units, Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units, and Subpart III Compression Ignition Internal Combustion Engines.
 - (2) 40 CFR Part 61, NESHAP, except for Subpart M
 - (3) 40 CFR Part 68, Chemical Accident Prevention Provisions
 - (4) 40 CFR Part 72, Acid Rain
 - (5) OAC 252:100-11, Alternative Emission Reduction Permits
 - (6) OAC 252:100-15, Motor Vehicle Pollution Control Devices
 - (7) OAC 252:100-17, Incinerators
 - (8) OAC 252:100-23, Control of Emissions from Cotton Gins
 - (9) OAC 252:100-24, Control of Emissions from Grain Elevators
 - (10) OAC 252:100-31-12, Sulfur Oxides (Existing Equipment Standards)
 - (11) OAC 252:100-31-26, Requirements for new petroleum and natural gas processes
 - (12) OAC 252:100-35, Control of Emission of Carbon Monoxide
 - (13) OAC 252:100-39, Emissions of VOCs in Nonattainment and Former Nonattainment Areas
 - b. EUG 1 (Pre-NSPS Boilers)
 - (1) 40 CFR Part 60, NSPS
 - (2) 40 CFR Part 63, NESHAP, Subpart JJJJJ
 - c. EUG 2 (NSPS Boiler)
 - (1) 40 CFR Part 60, NSPS, Subpart D, Fossil-Fuel-Fired Steam Generators
 - (2) 40 CFR Part 60, NSPS, Subpart Da, Electric Utility Steam Generating Units

- (3) 40 CFR Part 60, NSPS, Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units
 - (4) OAC 252:100-25, Visible Emissions and Particulates
 - (5) 40 CFR Part 63, NESHAP, Subpart JJJJJ
- d. EUG 5 (Vessels)
- (1) 40 CFR Part 60, NSPS, Subparts K, Ka, Kb, VOL Storage Vessels
- e. EUG 18 (WW Heater)
- (1) 40 CFR Part 63, NSPS, Subpart JJJJJ
11. Within 180 days of commencement of operation of the modifications authorized by this permit, the owner/operator shall submit an administratively complete operating permit application to incorporate these modifications into the Title V operating permit.
- [OAC 252:100-8-4(b)(5)]

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

SECTION I. DUTY TO COMPLY

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

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

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

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

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

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

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

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

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

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

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

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

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

[OAC 252:100-43]

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

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1),

OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

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

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

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

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer’s instructions and in accordance with a protocol meeting the requirements of the “AQD Portable Analyzer Guidance” document or an equivalent method approved by Air Quality. [OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

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

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

SECTION IV. COMPLIANCE CERTIFICATIONS

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

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

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

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

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

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

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

SECTION VI. PERMIT SHIELD

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

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

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

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

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

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

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

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

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

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.

[OAC 252:100-8-6(a)(7)(D)]

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

SECTION XI. DUTY TO PROVIDE INFORMATION

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

terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

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

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances:

[OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

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

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

[OAC 100-8-7.3(d)]

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

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

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

SECTION XIII. INSPECTION & ENTRY

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

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

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

SECTION XIV. EMERGENCIES

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

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

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

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

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

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

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

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

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

SECTION XV. RISK MANAGEMENT PLAN

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

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

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

SECTION XVII. TRIVIAL ACTIVITIES

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

SECTION XVIII. OPERATIONAL FLEXIBILITY

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

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

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

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

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

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

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

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
- (5) Persons owning commercial or industrial process refrigeration equipment must comply

- with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

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

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

SECTION XXII. CREDIBLE EVIDENCE

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



PERMIT

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

Permit No. 2016-1240-C (M-4)

CP Kelco US, Inc.,

having complied with the requirements of the law, is hereby granted permission to construct within the boundaries of the CP Kelco Okmulgee Biogum Plant in the N/2, NE/4 of Section 13, T13N, R12E, Okmulgee County, Oklahoma, subject to the Standard Conditions dated June 21, 2016, and the Specific Conditions, both of which are attached:

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

Kendal Stegmann, Division Director
Air Quality Divisi

Issuance Date

CP Kelco US, Inc.
Attn.: Mr. Dave Nicholls
1200 West 20th Street
Okmulgee, OK 74447

SUBJECT: Evaluation of Permit Application No. **2016-1240-C (M-4)**
CP Kelco
1200 W 20th Street Okmulgee (SIC 2099/NAICS 311999)
AQD Facility ID: 1516
Latitude: 35.6096°, Longitude: 95.98504°
Section 13, Township 13N, Range 12E; Okmulgee, Okmulgee County
Physical Address: 1200 W 20th Street, Okmulgee, OK 74447

Dear Mr. Nicholls:

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

Also, note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted electronically by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact our office at (405) 702- 4100.

Sincerely,

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

Enclosures

CP Kelco US, Inc.
Attn.: Mr. Dave Nicholls
1200 West 20th Street
Okmulgee, OK 74447

SUBJECT: Evaluation of Permit Application No. **2016-1240-C (M-4)**
CP Kelco
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Section 13, Township 13N, Range 12E; Okmulgee, Okmulgee County
Physical Address: 1200 W 20th Street, Okmulgee, OK 74447

Dear Mr. Nicholls:

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

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

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or the permit writer at (918) 293-1615.

Sincerely,



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

Muscogee Creek Nation
Attn: David Hill, Principal Chief
P.O. Box 580
Okmulgee, OK 74447

SUBJECT: Evaluation of Permit Application No. **2016-1240-C (M-4)**
CP Kelco
1200 W 20th Street Okmulgee (SIC 2099/NAICS 311999)
AQD Facility ID: 1516
Section 13, Township 13N, Range 12E; Okmulgee, Okmulgee County
Physical Address: 1200 W 20th Street, Okmulgee, OK 74447

Dear Mr. Hill:

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

Copies of draft permits and comment opportunities are also provided to the public on the ODEQ website at the following location: <https://www.deq.ok.gov/air-quality-division/air-permits/public-participation-issued-permits/>

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

Department of Environmental Quality (DEQ)

Air Quality Division (AQD)

Acronym List

9-10-21

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

NO₂	Nitrogen Dioxide	SCR	Selective Catalytic Reduction
NO_x	Nitrogen Oxides	SER	Significant Emission Rate
NOI	Notice of Intent	SI	Spark Ignition
NSCR	Non-Selective Catalytic Reduction	SIC	Standard Industrial Classification
NSPS	New Source Performance Standards	SIP	State Implementation Plan
NSR	New Source Review	SNCR	Selective Non-Catalytic Reduction
O₃	Ozone	SO₂	Sulfur Dioxide
O&G	Oil and Gas	SO_x	Sulfur Oxides
O&M	Operation and Maintenance	SOP	Standard Operating Procedure
O&NG	Oil and Natural Gas	SRU	Sulfur Recovery Unit
OAC	Oklahoma Administrative Code	T	Tons
OC	Oxidation Catalyst	TAC	Toxic Air Contaminant
PAH	Polycyclic Aromatic Hydrocarbons	TEG	Triethylene Glycol
PAE	Projected Actual Emissions	THC	Total Hydrocarbons
PAL	Plant-wide Applicability Limit	TPY	Tons per Year
Pb	Lead	TRS	Total Reduced Sulfur
PBR	Permit by Rule	TSP	Total Suspended Particulates
PCB	Polychlorinated Biphenyls	TV	Title V of the Federal Clean Air Act
PCE	Partial Compliance Evaluation	µg/m³	Micrograms per Cubic Meter
PEA	Portable Emissions Analyzer	US EPA	U. S. Environmental Protection Agency
PFAS	Per- and Polyfluoroalkyl Substance	VFR	Vertical Fixed Roof
PM	Particulate Matter	VMT	Vehicle Miles Traveled
PM_{2.5}	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers	VOC	Volatile Organic Compound
PM₁₀	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers	VOL	Volatile Organic Liquid
POM	Particulate Organic Matter or Polycyclic Organic Matter	VRT	Vapor Recovery Tower
ppb	Parts per Billion	VRU	Vapor Recovery Unit
ppm	Parts per Million	YR	Year
ppmv	Parts per Million Volume	2SLB	2-Stroke Lean Burn
ppmvd	Parts per Million Dry Volume	4SLB	4-Stroke Lean Burn
PSD	Prevention of Significant Deterioration	4SRB	4-Stroke Rich Burn
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		