OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM

January 27, 2021

TO: Files

THROUGH: Legal

THROUGH: Rick Groshong, Environmental Programs Manager III
Compliance and Enforcement Group

THROUGH: Camas Frey, Environmental Programs Manager
Enforcement Section

THROUGH: Peer Review

FROM: Keely Dolan, Environmental Programs Specialist
Enforcement Section

cc: Jim Bennett
EHS Site Manager
Continental Carbon Corporation
1006 East Oakland Avenue
Ponca City, OK 74601
(580) 763-8135

SUBJECT: Full Compliance Evaluation ("FCE") at **Continental Carbon Corporation**
Carbon Black Production Facility
1006 East Oakland Avenue
Ponca City, Kay County, Oklahoma
Driving directions:
AIRS ID NUMBER: 071-00004
FCE ID NUMBER: 9056

Introduction

An off-site Air Quality full compliance evaluation ("FCE") was conducted via a conference call with representatives of Continental Carbon Corporation ("CCC") Carbon Black Production Facility ("Facility") on June 25, 2020, from approximately 1030 hours to 1126 hours. Keely Dolan, Environmental Programs Specialist with the Air Quality Division of the Department of Environmental Quality ("DEQ"), performed the evaluation to determine compliance with applicable state and federal regulations, and the Air Quality permits effective during the reporting period of February 1, 2018 through July 31, 2020. The evaluation was announced and scheduled

via email to ensure environmental personnel were available to review the specific conditions of the Facility's current permit over the phone and inventory the equipment currently on-site. CCC was represented by Asish Adhikary, Plant General Manager, Joseph Araiza, Corporate EHS Manager, Jim Bennett, EHS Site Manager, and Jennifer McClinton, EHS Specialist.

History/Process Description

The Facility is a carbon black manufacturing plant and is designated with Standard Industrial Classification Code 2895. Carbon black is produced by burning residual oil pipelined from Phillips 66 Ponca City petroleum refinery. The oil is burned in kilns and the soot (carbon black product) is separated from the waste stream using baghouses. The waste gases then exit the process through one of three thermal oxidizers ("TOxs") on-site. Refer to the memorandum of the Facility's current Air Quality Permit Nos. 2017-0914-TVR2 and 2004-302-C (M-4) (DEQ's Electronic Document Storage System ("Edoctus") IDs 2049297 and 2082418, respectively) for a detailed description of the process used to produce carbon black at the Facility. The following permits or applicability determinations ("AD") have been effective for the operation, construction, or determinations of the Facility, since the last FCE was conducted on June 25, 2018:

Permit No.	Issuance Status	Permit Details
2004-302-TVR (M-2)	Issued 3/29/2016 Voided 8/21/2018	Minor modification requested to make a like-kind replacement of Boiler #1 at the Facility.
2004-302-C (M-2)	Issued 4/25/2016	CCC requested this permit to incorporate the requirements of Consent Decree ("CD") 5:15-cv-00290F. The project will remove the three TOxs and replace them with two clean gas and energy cogeneration units ("CGEU") each consisting of one cogeneration electric unit combusting the tail gas from the reactors, followed by one selective catalytic reduction ("SCR") system for control of nitrogen oxides ("NOx") emissions, and one dry scrubber for control of sulfur dioxide ("SO_2") and secondary bag filters for particulate matter ("PM") emissions.
2004-302-AD (M-3)	Issued 12/29/2017	CCC requested an AD that determined that the replacement of Unit #3 air pre-heaters and replacement of Unit #4 dryer drum and firebox projects qualified for routine repair, maintenance, and replacement, so no permitting action was required.
2017-0914-TVR2 (Edoctus ID 2049297)	Issued 8/21/2018	Renewal Title V permit that CCC requested the emission limitations remain the same as Permit No. 2004-302-TVR (M-2). The only change requested was to update testing method required for PM to Method 5B to be consistent with the requirement in Permit No. 2004-302-C (M-2).
2017-0914-AD (M-1)	Issued 11/5/2018	CCC requested an AD that determined that the replacement of Unit #1 air pre-heaters qualified for routine repair, maintenance, and replacement, so no permitting action was required.
2004-302-C (M-4) (Edoctus ID 2082418)	Issued 11/30/2018	CCC requested this permit to modify Permit No. 2004-302-C (M-2) with the following alternative operating scenario: • Operate the electric cogeneration boilers prior to installation of the SCR and scrubber system. EPA has granted an extension to the CD which does not require the SCR or scrubber controls be operational prior to April 1, 2021. • Continue to vent the combustion gases from the plant's dryer combustors to the existing thermal oxidizer exhaust stacks. • Remove the requirement to operate continuous emission monitoring systems ("CEMSs") during this scenario.
2017-0914-AD (M-2)	Issued 8/13/2020	CCC requested AD that clarified the stack testing requirements in Permit No. 2004-302-C (M-4) for the Facility.

As of the date of the off-site evaluation, CCC representatives explained that none of the changes listed in the construction permits have been implemented at the Facility. They said they are still in the commissioning phase currently due to Covid-19 restrictions on travel, which has prohibited some of the contractors to be available to construct the new equipment at the Facility. They are not required to make majority of the changes until April 1, 2021, according to an extension granted by EPA for the CD. A progress report on the requirements of the CD was requested to be provided to DEQ on October 25, 2022. The confidential progress report was provided to DEQ as requested. It is stored in the Restricted Access portion of Edoctus (SI #34740).

Emissions/Source Classification

The Facility is classified as a Prevention of Significant Deterioration ("PSD") major source of carbon monoxide ("CO"), NOx, PM, and SO_2 emissions. The Facility is a major source of volatile organic compounds ("VOCs"), total hazardous air pollutants ("HAP"), and the following individual HAPs: total reduced sulfur ("TRS"), hydrogen sulfide ("H_2S"), and carbon disulfide ("CS_2"). The Facility is a minor source of the individual HAP of carbonyl sulfide ("COS"). The memorandums of Permit Nos. 2004-302-TVR (M-2) (effective from 3/29/16 to 8/21/18) and 2017-0914-TVR2 (effective from 8/21/18 to present) show potential emissions of 4,941.31 tons per year ("TPY") of CO, 2,487.76 TPY of NOx, 652.30 TPY of PM, 16,555.20 TPY of SO_2, 230.06 TPY of VOCs, 132.88 TPY of TRS, 89.99 TPY of H_2S, 42.20 TPY of CS_2, and 2.14 TPY of COS, which are the permits that apply to the emission inventories ("EIs") reviewed below.

The EIs for the calendar years of 2017, 2018, and 2019 were reviewed for the Facility (Edoctus IDs 2002085 (p. 102), 2147407 (p. 102), and 2298740)). The equipment listed in the EIs was the same as the equipment confirmed by CCC representatives to be on-site. A summary of emissions in TPY for the calendar years of 2017, 2018, and 2019, with the resulting percent changes in emissions from year to year, is provided in the table below.

Pollutant	2017	% Change	2018	% Change	2019
CO	339.15	**-45.20**	185.87	-6.10	174.54
NOx	930.88	14.07	1061.88	-2.62	1034.08
PM	162.94	13.26	184.54	-2.97	179.06
SO_2	2,606.95	-11.17	2,315.77	27.59	2,954.67
VOC	22.74	-22.38	17.65	-10.03	15.88
CS_2	1.09	-70.83	0.32	23.90	0.39
COS	0.043	-72.09	0.01	233.33	0.04
H_2S	2.21	-71.49	0.63	73.02	1.09

An explanation of the greater than 30% change in CO emissions between 2017 and 2018 was requested of CCC, but was not provided for the Facility, so it is listed as an area of concern in the *Exit Interview/Summary* section of this report. The remaining emissions between the above calendar years remained stable or were insignificant emission levels.

State/Federal Regulatory Applicability

Oklahoma Administrative Code ("OAC") 252:100-19 (PM)

This subchapter specifies a PM emission limitation of 0.6 pounds per million British thermal units ("lb/MMBTU") from existing fuel-burning equipment with a rated heat input of 10 million British

thermal units per hour ("MMBTUH") or less. AP-42 (7/98), Table 1.4-2, lists the total PM emission for the combustion of natural gas to be 0.0076 lb/MMBTU. **The current permit requires the use of natural gas in the boilers and the sections of the reactors which combust natural gas to produce carbon black to ensure compliance with this subchapter. Refer to Specific Conditions 1(EUG 1) and 6 under the *Off-site Evaluation* section of this report for a compliance determination.**

OAC 252:100-31 (Sulfur Compounds)
Part 5 limits SO_2 emissions from gaseous fuel-burning equipment constructed after July 1, 1972, to 0.2 lb/MMBTU heat input. **The section of the reactor in Unit 4 which combusts natural gas to heat the feedstock to produce carbon black is subject to this standard. The current permit requires the fuel-burning section of the reactor of Unit 4 to be fired with commercial grade natural gas to comply with this subchapter. Refer to Specific Condition 6 under the *Off-site Evaluation* section of this report for a compliance determination.**

OAC 252:100-37 (VOC)
Part 3 is applicable to storage tanks built after December 28, 1974, which have a capacity equal to or greater than 400 gallons and storing a VOC with a vapor pressure that exceeds 1.5 pounds per square inch absolute ("psia"). The storage tanks that meet the aforementioned criteria are required to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. **The Facility has one 300-gallon gasoline tank and one 500-gallon diesel tank, but the gasoline tank is below the tank capacity threshold and diesel fuel has a vapor pressure of less than 1.5 psia. Therefore, neither tank is subject to this regulation.**

PSD, 40 C.F.R. Part 52
Facilities with potential emissions above the major source threshold of 250 TPY are subject to this Part. **The Facility is a PSD major source and is in an attainment area. Any future increases in emissions will be evaluated in comparison to the PSD significance levels.**

New Source Performance Standards ("NSPS"), 40 Code of Federal Regulations ("C.F.R.") Part 60
Subparts D, Da, Db, and Dc (Steam Generating Units)
These subparts are applicable to steam generating units for which construction, modification, or reconstruction is commenced after June 9, 1989, and that have a maximum design heat input capacity of greater than or equal to 10 MMBTUH. **The boilers at Facility are not affected units under these subparts because they have heat input ratings of 6.28 MMBTUH each.**

Subparts K, Ka, and Kb (VOL Storage Vessels)
These subparts apply to volatile organic liquid storage vessels with a major threshold capacity of 19,813 gallons or more and that commenced construction or modification after June 11, 1973. **The carbon black oil tanks at the Facility have capacities of 21,000 gallons or more, however, all of the tanks were constructed in 1954 except one tank which was constructed in 1966, so they are not subject to these subparts because they were constructed prior to the applicability date.**

Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)

This subpart affects all stationary SI ICE that commenced construction (date the engine is ordered by the owner or operator), modified, or reconstructed after June 12, 2006, and those SI ICE manufactured on or after July 1, 2007. **Three of the natural gas-fired emergency generators at the Facility were constructed prior to the applicability date; therefore, they are not subject to this subpart. The emergency generator ("Pond 1") at the Facility commenced construction after June 12, 2006, but it was manufactured on September 1, 2007, which is prior to the manufacture applicability date of on or after January 1, 2009 (per §60.4230(a)(4)(iv)); therefore, it is not subject to this subpart as well.**

National Emission Standards for Hazardous Air Pollutants ("NESHAP"), 40 C.F.R. Part 63 Maximum Achievable Control Technology ("MACT")

Subpart SS (National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process)

This subpart applies to closed vent systems, control devices and routing of air emissions to a fuel gas system or process when another subpart references the use of this subpart for such air emission control. The process vents of the Facility are subject to MACT Subpart YY, which references Subpart SS in Table 8 to §63.1103(f). **The Facility has opted to reduce total HAP emissions (by 98 wt%) by venting emissions through a closed vent system to any combination of control devices meeting the requirements of MACT Subpart SS, §63.982(a)(2). The Facility uses thermal oxidizers and waste gas combustors to control HAP emissions from the four carbon black reactors. Compliance with the applicable requirements of this subpart is determined, as follows.**

§63.982 Requirements.

According to §63.982(a)(2), the process vents at the Facility shall comply with the provisions in paragraph (c)(2) because they control emissions through a closed vent system and nonflare control devices. According to the §§63.982(c) and (c)(2), the Facility shall meet the applicable requirements in §§63.983, 63.988, 63.998, and 63.999, which are discussed, as follows.

§63.983 Closed vent systems.

The Facility's closed vent systems are designed and operated to collect the regulated material vapors from the carbon reactors, and to route the collected vapors to control devices (waste heat boiler, waste gas combustors, and thermal oxidizers), which is in compliance with §63.983(a)(1). The Facility's closed vent system is composed on hard-piping is operated at all times when emissions are vented to, or collected by, them, which is in compliance with §63.983(a)(2). The Facility's closed vent systems do not contain bypass lines; therefore, §63.983(a)(3)(i) or (ii), does not apply to them.

Based on information provided during the FCE conducted on June 25, 2018 at the Facility, CCC conducts annual inspections every January for visible, audible, or olfactory indications of leaks of their closed vent systems, which is defined as Leak Detection and Repair ("LDAR") inspections in this report. The last reviewed LDAR records were for January 2018 in the prior FCE. LDAR inspection records were requested to be provided for 2019 and 2020

by January 21, 2021, but the records were not provided. DEQ was unable to determine if the LDAR inspections were conducted in 2019 and 2020 as required, so this is a noncompliance issue for failing to comply with §63.983(b)(1)(i)(B). This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

In June 2005, the Facility conducted an initial inspection of their closed vent system as specified in §63.983(c), which was discussed in a prior FCE.

The 2019 and 2020 LDAR records were requested to be provided to DEQ by January 22, 2021 but were not provided. So, DEQ was unable to determine if there were any leaks and if there were, if the procedures specified in § 63.983(d) were followed.

§63.988 Incinerators, boilers, and process heaters.

The Facility uses three thermal oxidizers and six waste gas combustors to meet the 98 wt% HAP reduction specified in MACT Subpart YY, which shows compliance with §63.988(a)(1). According to §63.988(a)(2), these control devices must be operated at all times when emissions are vented to them. The control devices are operated at all times except during startup, shutdown, and malfunction events, which are reported to DEQ in their MACT Subpart YY Startup, Shutdown, and Malfunction ("SSM") reports semiannually (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629). The Facility appears to be in compliance with §63.988(a)(2) as well. The Facility conducted initial performance tests of the control devices in 2004 that showed the required 98 wt% reduction in HAP emissions, which is in compliance with §63.988(b). The thermal oxidizers and waste gas combustors at the Facility are equipped with temperature measuring devices called thermocouples (Type B and K), which provide continuous temperature data records except during SSM events. Based on this information, the Facility appears to be in compliance with §63.988(c) for being properly equipped to record temperature data.

§63.998 Recordkeeping requirements.

CCC representatives verified that the temperature of the thermal oxidizers and waste gas combustors are monitored and recorded continuously using thermocouples. The temperature data for the thermal oxidizers and waste gas combustors provided in the Facility's SARs was reviewed for the reporting period of February 1, 2018 through January 31, 2019 and August 1, 2019 through July 31, 2020, which showed that the temperatures were recorded every 15 minutes showing compliance with §63.988(b)(i).

LDAR inspection records for the Facility's closed vent system were not provided to DEQ as requested for 2019 and 2020, so the Facility failed to provide proof that the records are maintained as required, which is a failure to comply with §63.998(d). This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

The Facility submits a MACT Subpart YY SSM report semiannually to DEQ that includes the occurrence and duration of each startup, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions occur. These reports include if the SSM plan was followed for each of the events. These reports are reviewed in more detail under Specific Condition 13(j) of the

Off-site Evaluation **section of this report. The Facility appears to be in compliance with §63.998(d)(3) regarding these records.**

§63.999 Notification and other reports.

The Facility has submitted MACT periodic reports for the reporting period of February 1, 2018 through July 31, 2020, that includes the reporting dates, the total source operating time for the reporting period, and information specified in this section and in MACT Subpart YY. The reports also included periods when temperatures were outside the established range. These reports were reviewed in greater detail under Specific Condition 13(j) of the *Off-site Evaluation* section of this report. The Facility appears to be in compliance with §63.999(c)(1) regarding their MACT periodic reports.

According to §63.999(c)(2)(i), the Facility is required to submit LDAR inspection records with the MACT Subpart SS and YY SSM semiannual reports, if leaks were detected during the semiannual period. No LDAR inspection records were provided to DEQ in the MACT periodic reports for the reporting period of February 1, 2018 through July 31, 2020 (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629). This may be due to fact that no leaks occurred, which is the case for the 2018 LDAR inspection records that were provided in the prior FCE, but DEQ was unable to determine if that is the case regarding the 2019 and 2020 LDAR Inspection records, since they were not provided as requested. The Facility does not have any bypass lines, so there were no periods of time that the vent stream of the closed vent systems were diverted from the control devices through a bypass line. Thus, §63.999(c)(2)(ii) does not apply to the Facility at this time.

CCC stated in the Facility's periodic reports for the reporting period of February 1, 2018 through July 31, 2020 that the main process filter vents are routed to waste gas combustors that use the streams as primary fuel (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629). §63.988(c) states that process vent streams that are used as primary fuel are exempt from monitoring; therefore, the requirements of §63.999(c)(6) currently do not apply to the Facility. According to CCC, the SSM events of the waste gas combustors are managed in accordance with the Facility's SSM plan.

<u>Subpart YY (Generic MACT Standards – Source Category: Carbon Black Production)</u>
This subpart applies to new and existing carbon black production units located at a major source of HAP emissions listed in Table 1 of 40 C.F.R. § 63.1100(a). **The Facility is a carbon black production facility and is a major source of HAP emissions; therefore, it is subject to the applicable requirements of this subpart. The Facility's applicability to this subpart was also confirmed in AD No. 98-176-AD (M-5) by DEQ. Refer to Specific Condition 13 under the *Off-site Evaluation* section of this report for a compliance determination.**

<u>Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines)</u>
This subpart applies to reciprocating internal combustion engines ("RICE") located at major and area sources of HAP emissions. **The Facility has four SI RICE located on-site that are applicable to this subpart. Refer to Specific Condition 14 under the *Off-site Evaluation* section of this report for a compliance determination.**

Subpart DDDDD (Industrial Boilers and Process Heaters)
This subpart affects industrial, commercial, and institutional boilers and process heaters that are operating at a major source of HAP emissions. **The two 6.28-MMBTUH boilers ("Boiler #1 and Boiler #2) at the Facility are defined by this subpart as industrial boilers. They were constructed (in 2015) after the date of June 4, 2010 and are located at a major source of HAP emissions; therefore, they are subject to the applicable requirements of this subpart as new affected sources. Refer to Specific Condition 15 under the *Off-site Evaluation* section of this report for a compliance determination.**

Subpart CCCCCC (Gasoline Dispensing Facilities)
This subpart establishes emission limitations and management practices for HAP emitted from the loading of gasoline storage tanks at gasoline dispensing facilities located at an area source of HAPs. **The Facility has a 300-gallon gasoline tank on-site; however, the Facility is a major source of HAP emissions, and therefore, not subject to the requirements of this subpart.**

Subpart JJJJJJ (Industrial, Commercial, and Institutional Boilers at Area Sources)
This subpart applies to industrial, commercial, or institutional boilers as defined in § 63.11237 at an area source of HAP emissions. **The Facility is classified as a major source of HAP emissions; therefore, it is not subject to the requirements of this subpart.**

Compliance Assurance Monitoring ("CAM"), 40 C.F.R. Part 64
This Part applies to Title V permitted sources that have any pollutant specific emission unit that is subject to the following criteria: emission limit or standard for an applicable regulated air pollutant; equipped with a control device to achieve compliance with the applicable emission limit or standard; and has potential emissions of 100 TPY of the applicable regulated air pollutant without the control device. **The Facility meets the previous criteria for each thermal oxidizer, because the potential to emit, prior to any control device, is greater than 100 TPY for CO, PM, and VOC emissions. Refer to Specific Condition 21 under the *Off-site Evaluation* section of this report for a compliance determination.**

Evaluation/Enforcement History
DEQ has conducted two FCEs and no on-site partial compliance evaluations in the last five years at the Facility. FCEs (IDs 7401 and 8348) were conducted on April 7, 2016 and June 25, 2018, which resulted in the identification of noncompliance issues that are being addressed in enforcement case IDs 8456 and 9894, respectively. The following enforcement cases are ongoing or were opened within the last three years regarding the Facility:

Enforcement ID	Date Referred	Date Closed	Enforcement Case Details
7877	5/15/2015	Open	Federal Consent Decree Case No. 5:15-cv-00290F executed on May 5, 2015. Case opened to track the progress of this decree and continues to stay open until all decree requirements are fulfilled.
8456	9/16/2016	Open	Case opened to address the following noncompliance issues that were identified in FCE ID 7401: no MACT Subpart 5D initial notification of startup or notification of compliance status was submitted to DEQ for Boiler #1 and

			Boiler #2, TOx Unit 1 and TOx Unit 4 failed the 2015 stack tests by exceeding their PM_{10} emission limits, and excess emission reports were not submitted to DEQ for the 2015 failed stack tests. Compliance Plan submitted to DEQ on May 30, 2017, which addressed the noncompliance issues, but DEQ is still waiting on the installation of PM control equipment pursuant to the consent decree to completely resolve the failed stack tests and will allow for the closure of this case.
8637	2/2/2017	Open	CCC self-disclosed that the stack test of the TOx Unit 1 exceeded the PM_{10} limit on October 11, 2016. This case is also remaining open while waiting on the installation of PM control equipment pursuant to consent decree to completely resolve the failed stack test and will allow for the closure of this case.
9894	7/31/2020	Open	Case opened to address the following noncompliance issues that were identified in FCE ID 8348: TOx Unit 4 failed the stack test conducted on November 14, 2017 by exceeding its PM_{10} emission limit, and failed to submit DEQ Form 100-925 for the semiannual reports ("SARs") submitted to DEQ for the reporting periods of August 1, 2016 through January 31, 2017 and August 1, 2017 through January 31, 2018. The noncompliance issues for this case will be included in the alternative enforcement letter that will be sent for this report, so the issues will be addressed together.

Semiannual Reports/Annual Compliance Certifications

The Facility's initial Title V permit was issued on April 21, 2000, which would normally necessitate SAR reporting periods of April 21 – November 20 and November 21 – April 20, and an annual compliance certification ("ACC") reporting period of April 21 – April 20, but the Facility requested and was granted alternative reporting periods for these reports. Specific Conditions 18 and 19 of Permit Nos. 2004-302-TVR (M-2) and 2017-0914-TVR2, respectively, allows for the following alternative SAR reporting periods of August 1 – January 31 and February 1 – July 31, and an alternative ACC reporting period of August 1 – July 31. Since the FCE conducted on June 25, 2018, the Facility has submitted the following SARs to DEQ, which are summarized and reviewed in the table below.

Semiannual Reports				
Permit Nos.	**Date Submitted**	**Submission Deadline**	**Semiannual Monitoring Period**	**SAR Review Details**
2004-302-TVR (M-2)	8/29/2018	8/30/2018	2/1/2018 – 7/31/2018	No deviations reported for this reporting period (Edoctus ID 2052320). The Facility's previously submitted confidential SAR records were reviewed in January 2021 and all appear to be submitted to DEQ except thermal oxidizer maintenance records required by Specific Condition 16(c). This noncompliance issue is listed in the *Exit*

				Interview/Summary section of this report.
2004-302-TVR (M-2) 2017-0914-TVR2	2/27/2019	3/4/2019	8/1/2018 – 1/31/2019	No deviations reported for this reporting period (Edoctus IDs 2107819 and 2107846). The Facility's SAR confidential records for this reporting period were reviewed in December 2020 and all appear to be submitted to DEQ except thermal oxidizer maintenance records required by Specific Condition 16(c). This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.
2017-0914-TVR2	8/27/2019	8/30/2019	2/1/2019 – 7/31/2019	No deviations reported for this reporting period (Edoctus IDs 2207329 and 2201284). The Facility's previously submitted confidential SAR records were reviewed in December 2020 and all appear to be submitted to DEQ except the temperature data for the thermal oxidizers and waste gas combustors required by Specific Conditions 16(a) and (d), and the thermal oxidizer maintenance records required by Specific Condition 16(c). These noncompliance issues are listed in the *Exit Interview/Summary* section of this report.
2017-0914-TVR2	2/28/2020	3/2/2020	8/1/2019 – 1/31/2020	No deviations reported for this reporting period (Edoctus ID 2286883). The Facility's previously submitted confidential SAR records were reviewed in January 2021 and all appear to be submitted to DEQ except thermal oxidizer maintenance records required by Specific Condition 16(c). This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.
2017-0914-TVR2	8/17/2020	8/30/2020	2/1/2020 – 7/31/2020	No deviations reported for this reporting period (Edoctus IDs 2358629 and 2358630). The Facility's previously submitted confidential SAR records were reviewed in January 2021 and all appear to be submitted to DEQ except thermal oxidizer maintenance records required by Specific Condition 16(c), natural gas usage (in units of SCF) required by Specific Condition 16(g), MACT Subpart ZZZZ maintenance records required by

				Specific Condition 16(j), and emergency generator operating hours required by Specific Condition 16(j). These noncompliance issues are listed in the *Exit Interview/Summary* section of this report.

Since the last FCE conducted on June 25, 2018, the Facility has submitted the following ACCs to DEQ, which are summarized and reviewed in the table below.

Annual Compliance Certifications

Permit No.	Date Submitted	Submission Deadline	Certification Period	Deviations
2004-302-TVR (M-2)	8/29/2018	8/30/2018	8/1/2017 – 7/31/2018	Deviation reported for this certification period regarding failing the stack test on 11/14/17 for PM emissions, this noncompliance issue is addressed in FCE ID 8348 (Edoctus ID 2052319).
2004-302-TVR (M-2) 2017-0914-TVR2	8/27/2019	8/30/2019	8/1/2018 – 7/31/2019	No deviations reported for this certification period (Edoctus IDs 2207328 and 2201292).
2017-0914-TVR2	8/17/2020	8/30/2020	8/1/2019 – 7/31/2020	No deviations reported for this certification period (Edoctus IDs 2358628 and 2358631). Additional information regarding this ACC is discussed below.

The ACC for the reporting period of August 1, 2019 through July 31, 2020 was submitted on DEQ Form 100-925 on August 17, 2020, which is actually for SARs. An area of concern is noted for submitting the ACC on the incorrect form, it should have been submitted on DEQ Form 100-924, please ensure that all future ACCs are submitted on the correct DEQ form. This area of concern is listed in the *Exit Interview/Summary* section of this report.

The Facility did not certify their compliance status throughout the ACC certification period as continuous or intermittent and did not certify their current compliance status as continuous or intermittent with each specific condition and each standard condition of Permit No. 2017-0914-TVR2 in the ACC submitted on August 17, 2020, which is a failure to comply with Specific Condition 18, and Standard Conditions IV(A) and (B) of Permit No. 2017-0914-TVR2. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

Excess Emissions

No excess emissions have been reported by CCC for the Facility and none were identified as a result of this FCE.

Off-site Evaluation

The FCE commenced at approximately 1030 hours with an inventory of the Facility's equipment that is currently on-site and a review of the Facility's current Air Quality operating permit, Permit No. 2017-0914-TVR2 with Mr. Adhikary, Mr. Araiza, Mr. Bennett, and Ms. McClinton via a teleconference call. CCC representatives were emailed the questions regarding the FCE on the day of the Off-site FCE.

The following are the Specific Conditions of Permit No. 2017-0914-TVR2 that were evaluated for compliance based on records previously provided in the Facility's SARs and other documentation archived at DEQ. Permit No. 2004-302-C (M-4) is referenced throughout the specific conditions of the aforementioned permit because the construction authorized in this permit has been delayed due to COVID-19 travel restrictions and some of emission points differ between permits as well as specific conditions that apply to the new equipment that has not been constructed at the Facility.

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

EUG 1: Emission units (EU) Boiler #1 and Boiler #2.

The boilers shall only be fueled with commercial grade natural gas.

EU	Point	Manufacturer	MMBTUH	Serial #	Const. Date
Boiler #1	EPN #1	Superior	6.28	18066	2015
Boiler #2	EPN #2	Superior	6.28	17817	2015

EU	NOx		CO		VOC		$PM_{10}/PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Boiler #1	0.63	2.76	0.53	2.32	0.03	0.13	0.05	0.22
Boiler #2	0.63	2.76	0.53	2.32	0.03	0.13	0.05	0.22

CCC representatives confirmed that the boilers are only fueled with commercial grade natural gas. They also confirmed that the boilers are the same as listed in the table above.

EUG 2: Main Bag Filters (MBF), **EUG 3:** Exhaust Bag Filters (EBF), **EUG 6:** Dryers, **EUG 8:** Reactors, and **EUG 9:** Waste Gas Combustors (WGC) as identified below are all exhausted through **EUG 5:** Thermal Oxidizers. Estimated emissions from the thermal oxidizers are listed below.

Summary of Emission Sources

EUG 2 Main Bag Filters (MBF)

EU	Point	Name
MBF #1	EPN #3 (N/C)	Unit No. 1
MBF #2	EPN #7 (N/C)	Unit No. 2
MBF #3	EPN #11 (N/C)	Unit No. 3
MBF #4	EPN #20 (N/C)	Unit No. 4

N/C – Normally Closed

EUG 5 Thermal Oxidizers (TO)

EU	Point	Name	MMBTUH	Const. Date
TO #1	EPN #25	Thermal Oxidizer No. 1	147	1997
TO #2	EPN #26	Thermal Oxidizer No. 2	87	1997
TO #4	EPN #22	Unit No. 4 Thermal Oxidizer	93	1990

EUG 8 Reactors

EU	Point	Unit No.	Const. Date
RX #11	EPN #3, 25	Unit No. 1 - Reactor #11	1955
RX #12	EPN #3, 25	Unit No. 1 - Reactor #12	1955
RX #21	EPN #7, 25	Unit No. 2 - Reactor #21	1955
RX #31	EPN #11, 26	Unit No. 3 - Reactor #31	1959
RX #32	EPN #11, 26	Unit No. 3 - Reactor #32	1959
RX #4	EPN #22	Unit No. 4 - Reactor #4	1991

EUG 9 Waste Gas Combustors (WGC)

EU	Points	Unit No.	MMBTUH	Const. Date
WGC #11	EPN # 25	Unit No. 1	19.3	1954
WGC #12	EPN #25	Unit No. 1	19.3	1954
WGC #22	EPN # 25	Unit No. 2	19.3	1954
WGC #31	EPN #12, 26	Unit No. 3	19.3	1959
WGC #32	EPN #12, 26	Unit No. 3	19.3	1959
WGC #41	EPN #20, 22	Unit No. 4	24.75	1991

Emission Limitations

Emission Unit	Permitted Emissions						
		NO_X	CO	VOC	PM	$PM_{10}/PM_{2.5}$	SO_2
TO #1	lb/hr	270	475	17	45.40	40.97	2,568
(Unit #1 & Unit #2)	TPY	1,135	1,995	69	190.68	172.07	8,089
TO #2	lb/hr	142	311	14	44.47	41.96	1,195
(Unit #3)	TPY	597	1,308	58	186.77	176.23	3,763
TO #4	lb/hr	178	389	18	54.34	37.60	1,494
(Unit #4)	TPY	746	1,634	73	228.23	157.92	4,704

Emission Unit	Permitted Emissions				
		TRS	H_2S	CS_2	COS
TO #1	lb/hr	20.30	14.39	5.41	0.05
Unit #1 & Unit #2	TPY	63.96	45.30	17.05	0.16
TO #2	lb/hr	9.93	6.31	3.55	0.07
Unit #3	TPY	31.28	19.86	11.18	0.24
TO #4	lb/hr	12.41	7.88	4.44	0.09
	TPY	39.09	24.83	13.97	0.29

EUG 4: Cleanup Bag Filters (CUBF) Emission limitations for EUs CBF #1, CBF #2, CBF #3, CBF #4, CBF #5.

EU	Point	Name
CBF #1	EPN #10	Unit No. 1
CBF #2	EPN #6	Unit No. 2
CBF #3	EPN #14	Unit No. 3
CBF #4	EPN #24	Unit No. 4
CBF #5	EPN #23	Shipping Dock
CBF #6	EPN #34	Shipping Dock
CBF #7	EPN #35	Shipping Dept. #2

Emission Unit	Permitted Emissions	
	Units	**PM/PM_{10}/$PM_{2.5}$**
CBF #1	**lb/hr**	1.00
	TPY	1.75
CBF #2	**lb/hr**	1.00
	TPY	1.75
CBF #3	**lb/hr**	1.00
	TPY	1.75
CBF #4	**lb/hr**	1.00
	TPY	1.75
CBF #5	**lb/hr**	1.00
	TPY	4.20
CBF #6	**lb/hr**	1.00
	TPY	4.20
CBF #7	**lb/hr**	1.00
	TPY	4.20

EUG 7: Feedstock Oil Tanks are grandfathered. There is no lb/hr or TPY emission limits applied to these units under Title V but they are limited to the existing equipment as they are.

EU	Point	Contents	Barrels	Gallons
FS Tanks	EPN #18a	Carbon Black Oil	5,000	210,000
	EPN #18b	Carbon Black Oil	5,000	210,000
	EPN #18c	Carbon Black Oil	5,000	210,000
	EPN #18d	Carbon Black Oil	65,000	2,730,000
	EPN #18e	Carbon Black Oil	500	21,000
	EPN #18f	Carbon Black Oil	500	21,000

EUG 10: Carbon Black Tanks emissions are considered insignificant based on existing equipment items and do not have a specific limitation.

EU	Point	Contents
CB Tanks	TK 11	Carbon Black
	TK 12	Carbon Black
	TK 13	Carbon Black
	TK 14-15	Carbon Black
	TK 16-17	Carbon Black
	TK 21-22	Carbon Black
	TK 23	Carbon Black
	TK 31	Carbon Black

	TK 32	Carbon Black
	TK 33-36	Carbon Black
	TK 41-44, OQ4	Carbon Black
	TK 45-49	Carbon Black
	TK OQ1	Carbon Black
	TK OQ2	Carbon Black
	TK OQ3	Carbon Black
	SB Tanks	Carbon Black

CCC representatives confirmed that the Main Bag Filters (EUG 2), Thermal Oxidizers (EUG 5), Reactors (EUG 8), Waste Gas Combustors (EUG 9), Cleanup Bag Filters (EUG 4), Carbon Black Feedstock Oil Tanks (EUG 7), Carbon Black Tanks (EUG 10) are still all the same at the Facility with the exception of one additional piece of equipment. They stated that one 48,000-barrel Carbon Black Feedstock Oil Tank was added at the Facility. The equipment listed in Permit No. 2004-302-C (M-4) has not been added to the Facility yet.

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

The Facility operates continuously as permitted.

3. Each boiler in EUG 1 shall have a permanent identification plate attached which shows the make, model number, and serial number. [OAC 252:100-45]

CCC representatives confirmed that Boiler #1 and Boiler #2 have permit identification plates attached which shows the make, model number, and serial number as shown in the table under Specific Condition 1 (EUG 1) above. This was visually confirmed by DEQ during the prior on-site FCE conducted on June 25, 2018. This specific condition is also Specific Condition 3 in Permit No. 2004-302-C (M-4), so the Facility shows compliance with it as well.

4. The sulfur content of carbon black feedstock oils processed at the facility shall not exceed 3.0% by weight on an annual average basis. No carbon black feedstock oil shall be processed which exceeds 4.0% sulfur content by weight. [OAC 252:100-8-6(a)(1)]

CCC representatives confirmed that the carbon feedstock oils processed at the Facility have not exceeded 3.0% by weight sulfur content on an annual average basis or the 4.0% sulfur content by weight limit. The Facility's confidential SAR records were reviewed in December 2020 and January 2021 for the reporting period of February 1, 2018 through July 31, 2020, which further confirmed that the annual average sulfur content limit was not exceeded during this time period. These records also verified that the carbon black feedstock oil 4.0% sulfur content limit was not exceeded during the previously listed reporting period.

5. At least once during every operating day, the permittee shall take a sample of the sulfur content of feedstock oils being processed and the resulting carbon black product to determine a weekly average sulfur content. The composite results from these measurements shall be used in conjunction with reactor feed rates to calculate an average hourly sulfur dioxide emissions rate. [OAC 252:100-8-6(a)(1)]

CCC representatives confirmed that once daily, a sample of the sulfur content of the Facility's processed feedstock oils and resulting carbon black product are taken to determine a weekly average sulfur content. CCC representatives also verified that the composite results from these measurements were used in conjunction with reactor feed rates to calculate an average hourly SO_2 emission rate. Confidential records were previously provided to DEQ in the Facility's SARs for the reporting period of February 1, 2018 through July 31, 2020, and these records were reviewed in December 2020 and January 2021, which validated that the above information was calculated and maintained for the Facility as required.

6. The carbon black reactors associated with Units No. 1, 2, and 3 shall be fired with pipeline grade natural gas or feedstock oil meeting the conditions of Specific Condition 4. The section of the carbon black reactor, associated with Unit No. 4, which is used to provide heat to the reactor to convert the feedstock into carbon black, shall be fired with pipeline-grade natural gas. All supplemental fuel supplied to the waste gas combustors and thermal oxidizers shall also be pipeline-grade natural gas. [OAC 252:100-31]

CCC representatives confirmed that all of the above listed equipment is fired with pipeline grade natural gas that is purchased from Oklahoma Natural Gas, which was confirmed with the natural gas bill submitted during the prior FCE. This specific condition is Specific Condition 4 in Permit No. 2004-302-C (M-4), so the Facility shows compliance with it as well.

7. The bypass stacks on the MBF's and the Drying Drums shall be utilized only during start-up, shut-down, and malfunction of the facility. [OAC 252:100-8-6(a)(1)]

CCC representatives confirmed that the bypass stacks on the Main Bag Filters and Drying Drums are utilized only during start-up, shut-down, and malfunction of the Facility. This specific condition is Specific Condition 5 in Permit No. 2004-302-C (M-4), so the Facility shows compliance with it as well.

8. All off-gases from the carbon black reactors at the facility shall be oxidized in either the thermal oxidizers and/or the waste gas combustors. The waste gas combustors may be taken off-line during normal operation, however, waste gas shall be routed to the thermal oxidizers during these times. [OAC 252:100-8-6(a)(1)]

CCC representatives verified that all off-gasses from the carbon black reactors at the Facility are oxidized in either the thermal oxidizers and/or the waste gas combustors. If the waste gas combustors are taken off-line, then the waste gas is routed to the thermal oxidizers during these times, according to CCC representatives. During the 2018 on-site FCE, Mr. Bennett stated that the thermal oxidizers are the primary combustors.

9. Except for periods of start-up, shut-down, or malfunction of air pollution control equipment, the permittee shall operate and maintain the thermal oxidizers and waste gas combustors as follows: [OAC 252:100-8-6(a)(3)(A)]

a. Operate at a temperature of 1,500 °F or greater when waste gas is being injected into the equipment as detailed by the control circuitry.

CCC representatives confirmed that the thermal oxidizers and waste gas combustors are operated at a temperature of 1,500°F or greater when waste gas is being injected into the equipment as detailed by the control circuitry. Temperature data of the thermal oxidizers and waste gas combustors was submitted in the Facility's SARs, which was reviewed in December 2020 and January 2021 for the reporting period of February 1, 2018 through January 31, 2019 and August 1, 2019 through July 31, 2020 and further confirmed that the above minimum temperature was maintained except during periods of SSM of the thermal oxidizers and waste combustors. These SSM events are reported semiannually as required in the Facility's MACT Subpart YY SSM reports (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629). Temperature data of the thermal oxidizers and waste gas combustors for the reporting period of February 1, 2019 through July 31, 2019 was not submitted in the Facility's SAR submitted on August 27, 2019, which is discussed further in the *Semiannual Reports/Annual Compliance Certifications* section and the *Exit Interview/Summary* section of this report.

b. The temperature shall be monitored and recorded continuously using a thermocouple (at least four times an hour and averaged over the hour with a minimum data availability of 90 percent).

CCC representatives verified that the temperature of the thermal oxidizers and waste gas combustors are monitored and recorded continuously using thermocouples. During the 2018 on-site FCE, Mr. Bennett explained that the temperatures are recorded every minute and averaged over the hour.

c. The residence time of the stack gases shall be at least 1 (one) second.

CCC representatives confirmed that the residence time of the stack gases of the thermal oxidizers and waste gas combustors are at least 1 second. In the 2016 FCE, it was stated that the stack gas velocity is 100 feet per second and the stack height is 150 feet; therefore, the residence time is 1.5 seconds, which is in compliance with this requirement.

d. Proper operation of the thermocouple shall be verified annually by an instrument which is calibrated annually.

CCC representatives confirmed that the proper operation of the thermocouples on the thermal oxidizers and waste gas combustors is verified annually by an instrument which is calibrated annually. Calibration records for the reporting period of February 1, 2018 through July 31, 2020 were provided in the Facility's SARs, which were reviewed in December 2020 and January 2021 and confirmed that the thermocouples are calibrated annually as required.

e. The thermal oxidizers shall be operated in conjunction with the reactors while the reactors are producing carbon black. This requires oil to be injected into the reactors.

According to CCC representatives, the thermal oxidizers are operated in conjunction with reactors while the reactors are producing carbon black except during periods of startup, shutdown, or malfunction of the air pollution control equipment. Feedstock oil is injected into the reactors during the production of the carbon black. During the prior two FCEs, it was stated that when the thermal oxidizers are not operated during carbon black production, these periods are reported as deviations and/or excess emissions, which would also be included in the Facility's MACT Subpart YY SSM reports (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629).

f. The thermal oxidizers shall only be fueled with pipeline quality natural gas.

CCC representatives confirmed that the thermal oxidizers are only fueled with pipeline quality natural gas. A natural gas bill was provided during the prior FCE that confirmed that pipeline quality natural gas is used.

10. All air discharges from the dryer, bagging operation, screening operation, and associated conveying equipment shall be processed by a baghouse or an equivalent PM emissions control device with a design efficiency of 98% or more. The permittee shall maintain accessible monitoring equipment to verify the pressure drop across the baghouse.

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

CCC representatives confirmed that all discharges from the dryer, bagging operation, screening operation, and associated conveying equipment are processed with a baghouse with a design efficiency of 98% or more. The Facility uses a pressure drop monitor to ensure that the baghouse functions properly. CCC representatives explained that the pressure drop across the baghouse are monitored with digital controls through the control room and there is a red alarm to alert personnel if there is an issue with the baghouse due to fluctuations in the pressure.

11. The permittee shall maintain and operate the particulate monitoring/sensing devices installed on the exhaust stream associated with each of the facility's main bag filter identified below:

EUG 2 Main Bag Filters (MBF)

EU	Point	Name
MBF #1	EPN #3 (N/C)	Unit No. 1
MBF #2	EPN #7 (N/C)	Unit No. 2
MBF #3	EPN #11 (N/C)	Unit No. 3
MBF #4	EPN #20 (N/C)	Unit No. 4

N/C – Normally Closed

a. The permittee shall operate the particulate monitoring/sensing devices continuously except during periods of device maintenance, calibration, testing, malfunction and/or failure. Individual monitoring/sensing devices shall not be required to be operate during periods when production within the identified unit is ceased (i.e., oil is not injected into the unit reactor). The continuous particulate monitoring/sensing devices shall be operated in the normal operating range recommended by the manufacturer.

According to CCC representatives, the particulate monitoring/sensing devices on the Main Bag Filters at the Facility are operated continuously except during periods of device maintenance, calibration, testing, malfunction, failure, or unit shutdown. They also confirmed that these continuous particulate monitoring/sensing devices are operated in the normal operating range recommended by the manufacturer. These determinations of compliance apply to Specific Condition 9(a) of Permit No. 2004-302-C (M-4) as well.

b. If a continuous particulate monitoring/sensing device signals that there has been an exceedance of a particulate level, immediate action shall be taken to determine and isolate the source until repairs can be made.

According to CCC representatives, the continuous particulate monitoring/sensing device signals if there is an exceedance of a particulate level, and then immediate action is taken to determine and isolate what repairs may need to be made on the units. During the prior FCE, it is stated that the unit is shut down and the filter is replaced. This determination of compliance applies to Specific Condition 9(b) of Permit No. 2004-302-C (M-4) as well.

c. The permittee shall keep particulate monitoring/sensing device replacements on hand for any equipment failures.

CCC representatives confirmed that they keep particulate monitoring/sensing device replacements on hand for any equipment failures. They previously stated that they keep replacement sensors and bags on-site as well. The previous statements verify compliance with Specific Condition 9(c) of Permit No. 2004-302-C (M-4) as well.

d. The permittee shall keep and maintain the Baghouse Recordkeeping Plan for each of the MBFs as set forth in Exhibit 3 of Consent Order 06-365 issued on November 29, 2006.
(1). Identity of the baghouse (by production unit and type),
(2). Type of bagfilters utilized and manufacturer specifications for each type of bagfilter,
(3). Date(s) on which maintenance is performed, type of maintenance, and reason for performing the maintenance, and
(4). General means of disposing of used bagfilters.
Such records shall be recorded in electronic format and/or in hard copy and shall be maintained at the facility for a minimum of two years following the date of recording and shall be provided to regulatory personnel upon request.

CCC representatives confirmed that Baghouse Recordkeeping Plan for each of the Main Bag Filters is kept and maintained as required. A copy of this plan was provided and reviewed in the 2014 FCE for this Facility, which confirmed that they were maintaining

proper documentation. It was explained by Mr. Bennett during the 2018 FCE that bag filters are replaced when they start leaking and the bags are sent to the landfill for disposal. The above confirmations of compliance apply to Specific Condition 9(d) of Permit No. 2004-302-C (M-4) as well.

12. The permittee shall take all reasonable precautions to minimize emissions of fugitive dust and prevent visible fugitive dust emissions from crossing the boundary of the property on which those emissions originated. These actions shall include, but not be limited to: [OAC 252:100-29]

a. Maintain and repair Unit No. 4 Bagfilter System so as to prevent excessive temperatures.

According to CCC representatives, they maintain and repair Unit No. 4 Bagfilter system to prevent excessive temperatures. Also, they explained that the baghouses are cleaned with water and checked for leaks. During the 2016 FCE, it was explained that the Facility uses a feed forward system that can feed water to the system in order to cool it, which also prevents excessive temperatures. CCC representatives stated during the 2018 FCE that temperatures are monitored throughout the process and if an issue occurs, the unit is shut down until the issue is resolved, which is often that there are holes in bags that need to be replaced.

b. Conduct product loading operations in such a manner so as to minimize, to the extent possible, any fugitive emissions of carbon black.

CCC representatives confirmed that they conduct product loading operations at the Facility in such a manner so as to minimize, to the extent possible, any carbon black fugitive emissions. They use Torit clean up (load out) bag filters, check for leaks often, and change out bags as needed. A riding sweeper is utilized to cleanup any spills of carbon black during loading operations. There is also a local exhaust system for clean-up. The above confirmations of compliance apply to Specific Condition 11(b) of Permit No. 2004-302-C (M-4) as well.

c. Promptly clean any and all areas within the facility where carbon black has been spilled, blown, deposited, or accumulated so as to prevent the same from becoming wind-borne and/or air-borne.

CCC representatives confirmed that the promptly clean any and all areas within the Facility where carbon black has been spilled, blown, deposited, or accumulated so as to prevent the same from becoming wind-borne and/or air-borne. The carbon black areas are cleaned daily and a sweeper runs all day.

d. Conduct removal and replacement of bagfilters in such a manner that the replaced bagfilters, when sufficient space is available within the baghouse compartment, are placed into sealed containers (or wetted down when insufficient space is not available internally of the compartment) prior to removal of the bagfilter from said compartment.

CCC representatives confirmed that the bags are removed within the baghouse compartment, when sufficient space is available, and are placed in sealed containers or trash bags. If sufficient space is not available, the bagfilters are wetted down prior to removal of the bagfilter from the compartment. The sealed containers and trash bags are then disposed of at the landfill.

e. Institute a routine inspection program whereby all high speed processing equipment, including all large blowers, within the facility are inspected and lubricated according to a schedule of inspection.

According to CCC representatives, all high speed processing equipment is inspected weekly and lubricated daily to ensure proper operation. The above confirmation of compliance applies to Specific Condition 11(c) of Permit No. 2004-302-C (M-4) as well.

13. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) Subpart YY including but not limited to: [40 CFR 63.1100 through 63.1114]

The subsequent statements verify compliance with Specific Condition 14 of Permit No. 2004-302-C (M-4) as well as this specific condition.

a. §63.1100 Applicability.

The affected emission points, by source category, are summarized in table 1 of this section as well as the source category MACT requirements. The Facility's source category is carbon back production, so the only affected points are process vents.

TABLE 1 TO §63.1100(a)—SOURCE CATEGORY MACT APPLICABILITY

Source category	Storage vessels	Process vents	Transfer racks	Equipment leaks	Wastewater streams	Other	Source category MACT requirements
Carbon Black Production	No	**Yes**	No	No	No	No	§63.1103(f).

b. §63.1101 Definitions.
c. §63.1102 Compliance schedule.

According to §63.1102(a)(2)(i), existing affected sources shall comply with the requirements of this subpart within 3 years after the effective date. The effective date of carbon back production is shown in Table 1 below. So, the Facility's compliance date was July 12, 2005. Prior FCEs determined that the Facility was in compliance by the required date.

TABLE 1 TO §63.1102—SOURCE CATEGORY PROPOSAL AND EFFECTIVE DATES

Source category	Proposal date	Effective date
(f) Carbon Black Production	December 6, 2000	July 12, 2002

d. §63.1103 Source category-specific applicability, definitions, and requirements.

According to §63.1103(f)(3)(i), the carbon black production standards and applicability for existing sources are specified in Table 8 to this section. This section further states that an affected source is not required to perform applicability tests or other applicability assessment procedures specified in §63.1104 if compliance is shown with the most stringent applicable requirements of this subpart.

TABLE 8 TO §63.1103(f)—WHAT ARE MY REQUIREMENTS IF I OWN OR OPERATE A CARBON BLACK PRODUCTION EXISTING OR NEW AFFECTED SOURCE?

If you own or operate . . .	And if . . .	Then you must . . .
(a) A carbon black production main unit filter process vent	(1) The HAP concentration of the emission stream is equal to or greater than 260 parts per million by volume[a]	(i) Reduce emissions of HAP by using a flare meeting the requirements of subpart SS of this part; or (ii) Reduce emissions of total HAP by 98 weight-percent ("wt%") or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of §63.982(a)(2).

The Facility is currently reducing total HAP emissions by 98 wt% by venting their emissions from their main unit filter process vents through a closed vent system to their seven waste gas combustors or to their three thermal oxidizers, which meets the requirements of §63.982(a)(2), and is the most stringent option.

e. §63.1104 Process vents from continuous unit operations: applicability assessment procedures and methods.

The requirements of §63.1104 are not applicable to the Facility because compliance with the most stringent applicable requirements have been shown, which is discussed in Specific Condition 13(d) above.

f. §63.1107 Equipment leaks: applicability assessment procedures and methods.
g. §63.1108 Compliance with standards and operation and maintenance requirements.

In 2004, performance tests were conducted on all three thermal oxidizers, which showed compliance with the 98 wt% reduction in HAP emissions.

h. §63.1109 Recordkeeping requirements.

CCC representatives confirmed that notifications, records, and reports are maintained for at least five years after the date of recording as required. These notifications, records, and reports are discussed further in Specific Condition 13(i) below.

i. §63.1110 Reporting requirements.

The Initial Notification described in §§63.1110(a)(2) and (c)(2)-(7) and the Notification of Compliance Status described in §§63.1110(a)(4) and (d)(1)-(2) have been submitted to DEQ and these notifications were discussed in greater detail in prior FCEs.

According to §63.1110(e), periodic reports are required for an affected source subject to monitoring requirements of this subpart, or to other requirements of this subpart or subparts referenced by this subpart, where periodic reporting is specified, shall submit a Periodic Report. The only reports specified in this subpart are the SSM reports listed in §§63.1110(a)(7) and 63.1111, which are discussed further in Specific Condition 13(j) below.

j. §63.1111 Startup, shutdown, and malfunction.

According to §63.1111(b)(1), the SSM report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. The report shall include the information specified in paragraphs (b)(1)(i) through (b)(1)(iv) of this section. The Facility submits the reports and covers the same reporting period as their Title V SARs. It is stated in the SSM reports that CCC has prepared a SSM plan for the Facility in accordance with §63.1111(a) and manages SSM occurrences in accordance with the Facility's SSM plan. According to CCC, the Facility's SSM plan minimizes the fuel gas emissions to the atmosphere. CCC also explains the purpose of their SSM plan in the Facility's SSM reports. The following MACT Subpart YY SSM reports have been submitted semiannually since the last FCE conducted at the Facility (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629):

MACT Subpart YY SSM Reports				
Date Submitted	**Submission Deadline**	**Semiannual periods**	**Required Information**	**Followed SSMP**
8/29/18	**8/30/18**	**2/1/18 – 7/31/18**	**Yes, and total duration of periods of malfunction for the thermocouples was less than 5% of operating time.**	**Yes, and no immediate reporting was required**
2/27/19	**3/4/19**	**8/1/18 – 1/31/19**	**Yes, and total duration of periods of malfunction for the thermocouples was less than 5% of operating time.**	**Yes, and no immediate reporting was required**
8/27/19	**8/30/19**	**2/1/19 – 7/31/19**	**Yes, and total duration of periods of malfunction for the thermocouples was less than 5% of operating time.**	**Yes, and no immediate reporting was required**
2/28/20	**3/2/20**	**8/1/19 – 1/31/20**	**Yes, and total duration of periods of malfunction for the thermocouples was less than 5% of operating time.**	**Yes, and no immediate reporting was required.**

8/17/20	**8/30/20**	**2/1/20 – 7/31/20**	**Yes, and total duration of periods of malfunction for the thermocouples was less than 5% of operating time.**	**Yes, and no immediate reporting was required.**

k. §63.1112 Extension of compliance, and performance test, monitoring, recordkeeping and reporting waivers and alternatives.
l. §63.1113 Procedures for approval of alternative means of emission limitation.
m. §63.1114 Implementation and enforcement.

14. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) for Stationary Reciprocating Internal Combustion Engines (RICE), Subpart ZZZZ, for each affected engine, including but not limited to:

[40 CFR 63.6580 through 63.6675]

The subsequent compliance determinations apply to Specific Condition 15 of Permit No. 2004-302-C (M-4) as well as this specific condition.

a. § 63.6580 What is the purpose of subpart ZZZZ?
b. § 63.6585 Am I subject to this subpart?
c. § 63.6590 What parts of my plant does this subpart cover?
d. § 63.6595 When do I have to comply with this subpart?
e. § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
f. § 63.6605 What are my general requirements for complying with this subpart?
g. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
h. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
i. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?
j. § 63.6650 What reports must I submit and when?
k. § 63.6655 What records must I keep?
l. § 63.6660 In what form and how long must I keep my records?
m. § 63.6665 What parts of the General Provisions apply to me?
n. § 63.6670 Who implements and enforces this subpart?
o. § 63.6675 What definitions apply to this subpart?

The following emergency generators at the Facility are SI RICE located at a major source of HAP emissions that must be in compliance with the applicable requirements of this subpart.

Emergency Generator	Make & Model	Serial No.	Rating	Manufactured Date	Existing or New Affected Source	Applicable Requirements
Unit 1 & 2	**4569080100/4.3 L Chevy**	**2079790**	**63-hp**	**10/26/2004**	**Existing (§63.6590(a)(1)(ii))**	**Table 2c to this subpart per §63.6602, §§63.6625(e)(2) and (f), §63.6640(f)(1)-(4), and §§63.6655(e)(2) and (f)**

Unit 3	**Generac 4128990100/4.3 L Chevy**	**2077604**	**63-hp**	**6/10/2004**	**Existing (§63.6590(a)(1)(ii))**	**Table 2c to this subpart per §63.6602, §§63.6625(e)(2) and (f), §63.6640(f)(1)-(4), and §§63.6655(e)(2) and (f)**
Unit 4	**5373280100/7.1 L Ford**	**2083539**	**110-hp**	**7/1/2005**	**Existing (§63.6590(a)(1)(ii))**	**Table 2c to this subpart per §63.6602, §§63.6625(e)(2) and (f), §63.6640(f)(1)-(4), and §§63.6655(e)(2) and (f)**
Pond 1	**QT05554KW SNA/Ford Windsor LVL 351**	**4886956**	**86-hp**	**9/1/2007**	**New (§63.6590(a)(2)(ii))**	**NSPS Subpart JJJJ (§63.6590(c)(6))**

The applicable requirements for the existing affected sources at the Facility are, as follows: change oil and filter, and inspect and replace as necessary all hoses and belts every 500 hours of operation or annually, whichever comes first or use the oil change analysis to extend oil change frequencies; inspect and replace as necessary spark plugs every 1,000 hours or annually, whichever comes first; should be operated and maintained according to manufacturer's emission-related written instructions or according to their own maintenance plan; install a non-resettable hour meter on each existing emergency stationary RICE; limit hours of operation for each RICE to maintain emergency status under this subpart; and maintain records of maintenance and hours of operation.

Based on the 2018 and 2019 hours of operation of the emergency generators of less than 100 hours per year per unit provided in the Facility's SARs, the above listed maintenance should be conducted on the emergency generators annually (every 12-month period). The confidential MACT Subpart ZZZZ maintenance records submitted in the Facility's SARs were reviewed in December 2020 and January 2021 for the time period of February 1, 2018 through July 31, 2020. The maintenance records for the reporting period of February 1, 2019 through July 31, 2020, were not in the Facility's SAR that was submitted to DEQ on August 17, 2020, so these records were requested as part of this FCE, but they were not provided by the requested deadline of January 22, 2021. The maintenance records reviewed showed that the above listed maintenance has been conducted before the last day in the 12th month from the prior maintenance, which is by June 30 each year, except for the maintenance that was required to be conducted on the emergency generators by June 30, 2020. Therefore, the Facility failed to comply with the maintenance requirements on the emergency generators detailed under #5 of Table 2c to Subpart ZZZZ by June 30, 2020. The Facility appears to be in noncompliance with the applicable maintenance required by §63.6602 and Specific Condition 14 of Permit No. 2017-0914-TVR2. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

According to CCC representatives, the emergency generators at the Facility are each equipped with non-resettable hour meters, which is in compliance with §63.6625(f). The Facility previously submitted the 2018 and 2019 hours of operation of the emergency generators in their most recent SARs, which confirmed that they are still considered emergency engines based on the number of hours that they operated each year, which is in compliance with §§63.6640(f)(1)-(4). Emergency generator operating hours were not provided in the Facility's SAR submitted on August 17, 2020 for the reporting period of February 1, 2020 through July 31, 2020, so the records were requested to be provided by

January 22, 2021 but were not provided by the deadline. Thus, the Facility failed to show that they maintained the required records of §63.6655(f)(1) during the aforementioned time period. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report. An area of concern is also noted regarding §§63.6640(f)(1)-(4) and 63.6655(f)(1) because these hours of operation for each emergency generator should be documented as emergency operation or non-emergency operation showing how many hours of each, and if it was an emergency operation, what classified it as an emergency. This area of concern is listed in the *Exit Interview/Summary* section of this report.

CCC representatives confirmed that the emergency generators are operated and maintained according to the manufacturer's instructions that provides for maintenance and operation that is consistent with good air pollution control practices for minimizing emissions, which is in compliance with §63.6625(e)(2).

15. The permittee shall comply with all applicable requirements of the NESHAP (40 CFR Part 63) for Industrial, Commercial and Institutional Boilers and Process Heaters, Subpart DDDDD, for each affected boiler, including but not limited to:

[40 CFR 63.7480 through 63.7575]

The following compliance determinations apply to Specific Condition 16 of Permit No. 2004-302-C (M-4) as well as this specific condition.

a. §63.7480 What is the purpose of this subpart?
b. §63.7485 Am I subject to this subpart?
c. §63.7490 What is the affected source of this subpart?
d. §63.7491 Are any boilers or process heaters not subject to this subpart?
e. §63.7495 When do I have to comply with this subpart?
f. §63.7499 What are the subcategories of boilers and process heaters?
g. §63.7500 What emission limitations, work practice standards, and operating limits must I meet?
h. §63.7501 Affirmative Defense for Violation of Emission Standards During Malfunction.
i. §63.7505 What are my general requirements for complying with this subpart?
j. §63.7510 What are my initial compliance requirements and by what date must I conduct them?
k. §63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?
l. §63.7520 What stack tests and procedures must I use?
m. §63.7521 What fuel analyses, fuel specification, and procedures must I use?
n. §63.7522 Can I use emissions averaging to comply with this subpart?
o. §63.7525 What are my monitoring, installation, operation, and maintenance requirements?
p. §63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?
q. §63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?
r. §63.7535 Is there a minimum amount of monitoring data I must obtain?

s. §63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?
t. §63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?
u. §63.7545 What notifications must I submit and when?
v. §63.7550 What reports must I submit and when?
w. §63.7555 What records must I keep?
x. §63.7560 In what form and how long must I keep my records?
y. §63.7565 What parts of the General Provisions apply to me?
z. §63.7570 Who implements and enforces this subpart?
aa. §63.7575 What definitions apply to this subpart?

Boiler #1 and Boiler #2 are defined by this subpart as industrial boilers and they are designed to burn gas 1 fuels (§63.7499(l)) with a heat input capacity greater than 5 MMBTUH, but less than 10 MMBTUH, so they shall comply with all applicable requirements. Construction of the boilers commenced after June 4, 2010, and they are located at a major source of HAP emissions; therefore, they are subject to this subpart as new affected sources. The Initial Notification of Startup and the Notification of Compliance Status was addressed in the 2016 FCE.

According to §§63.7500(e), 63.7515(d), and 63.7540(a)(11), the Facility is required to perform tune-ups every 2 years (no more than 25 months after the previous tune-up) as specified in § 63.7540(a)(10)(i)-(vi) for boilers with a heat input capacity of greater than 5 MMBTUH and less than 10 MMBTUH and perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Based on confidential records provided in the reviewed SARs, after the initial startups (compliance dates) of Boiler #1 (North) on January 5, 2016, and Boiler #2 (South) on March 30, 2015, tune-ups and burner inspections were conducted yearly from 2016 through 2019 on both boilers. According to the SAR information provided by CCC, the Facility appears to be conducting subsequent tune-ups and burner inspections to demonstrate continuous compliance as specified in §63.7540(a)(10)(i)-(iv).

According to §§63.7550(b)(1)-(2), the Facility is required to submit the first biennial compliance report by no later than January 31 to DEQ covering the period beginning on the compliance date (initial startup) of each boiler and ending on December 31 within 2 years after the compliance date for your source. According to §§63.7550(b)(3)-(4), the Facility is required to submit subsequent compliance reports to DEQ biennially by January 31 covering 24 months with a reporting period of January 1 through December 31. The biennial compliance reports should include the information listed in §§63.7550(c)(5)(i)-(iii), (xiv), and (xvii). The following compliance reports should have been submitted to DEQ by the dates listed below including the information listed in the table:

MACT Subpart 5D Compliance Reports				
Source	**Date Submitted**	**Submission Deadline**	**Biennial Period**	**Each Report Should Include**
Boiler #1	**DEQ has no record of this report.**	**1/31/2018**	**1/5/2016 – 12/31/2017**	**Company and Facility name and address, affected process unit information, date of report and beginning and ending dates of the reporting period, date of most recent tune-up and burner inspection for each unit subject, and statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.**
	DEQ has no record of this report.	**1/31/2020**	**1/1/2018 – 12/31/2019**	
	Not Due Yet	**1/31/2022**	**1/1/2020 – 12/31/2021**	
Boiler # 2	**DEQ has no record of this report.**	**1/31/2017**	**3/30/2015 – 12/31/2016**	**Company and Facility name and address, affected process unit information, date of report and beginning and ending dates of the reporting period, date of most recent tune-up and burner inspection for each unit subject, and statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.**
	DEQ has no record of this report.	**1/31/2019**	**1/1/2017 – 12/31/2018**	
	DEQ has no record of this report.	**1/31/2021**	**1/1/2019 – 12/31/2020**	
	Not Due Yet	**1/31/2023**	**1/1/2021 – 12/31/2022**	

The Facility failed to comply with §§63.7550(b)(1)-(4) by not submitting MACT Subpart 5D biennial compliance reports to DEQ by January 31 in 2018 and 2020 for Boiler #1, and by January 31 in 2017, 2019, and 2021 for Boiler #2. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

16. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6 (a)(3)(B)]

CCC representatives confirmed that the following records are maintained on-site electronically for at least five years after the date of recording. The confidential records were submitted in the Facility's SARs and were reviewed in December 2020 and January 2021 for the reporting period of February 1, 2018 through July 31, 2018 (unless stated otherwise) under the specific conditions referenced below or under this specific condition.

a. Continuously-recorded temperature in the thermal oxidizers and waste gas combustors as required by Specific Condition 9(b). **Refer to Specific Condition 9(b) for a review of these records.**
b. Records of annual calibrations of the thermocouple verification device and annual verification of the thermocouple as required by Specific Condition 9(d). **Refer to Specific Condition 9(d) for a review of these records.**
c. Operation and maintenance of the thermal oxidizers. **Operation and maintenance records include temperature readings, calibration reports, and MACT Subpart YY SSM reports, which are discussed in Specific Conditions 9(a)-(b), (d)-(e), and 21. Additional maintenance records for the thermal oxidizers were not submitted in the Facility's SARs for the reporting period of February 1, 2018 through July**

31, 2020, which is discussed in the *Semiannual Reports/Annual Compliance Certifications* section and listed in the *Exit Interview/Summary* section as a noncompliance issue for failing to submit the records in the Facility's SARs. These records are requested in *Exit Interview/Summary* section to verify if the Facility is in compliance with this recordkeeping specific condition.

d. All occasions when operating temperatures of the thermal oxidizers and waste gas combustors fall outside the established temperature range. **Refer to Specific Conditions 9(a) and 21.**
e. Weekly records of average sulfur content by weight of oils processed. **Refer to Specific Conditions 4 and 5.**
f. Weekly records of oil feed to all units, fuel sulfur content of all feedstock, sulfur content of the products, and daily carbon black production in each unit. These records shall be used to calculate an average hourly SO_2 emission rate for each operating week. **Refer to Specific Condition 5.**
g. Total natural gas usage for each boiler (natural gas consumed is metered and stored on Data Historian, hours are monitored and third-party services the boilers). **Total natural gas usage for each boiler was provided in the Facility SARs for the reporting period of February 1, 2018 through January 31, 2020. Records of the total natural gas usage for each boiler was not provided in the SAR submitted on August 17, 2020 for the reporting period of February 1, 2020 through July 31, 2020, which is discussed in the *Semiannual Reports/Annual Compliance Certifications* section and listed in the *Exit Interview/Summary* section as a noncompliance issue for failing to submit the records in the Facility's SAR. These records are requested in *Exit Interview/Summary* section to verify if the Facility is in compliance with this recordkeeping specific condition.**
h. Total amount of Carbon Black Oil used (monthly and 12 month rolling total). **The total amount of Carbon Black Oil used was provided in the Facility's SARs in monthly and 12-month rolling totals for the reporting period of February 1, 2018 through July 31, 2020. The Facility appears to maintain this record as required.**
i. Operation, maintenance, and inspection logs for the grandfathered emission units in EUG1. **The grandfathered units that were listed in EUG1 have been removed from this Facility. An area of concern is listed so that this specific condition may be removed from the next Title V permit since it no longer applies to the Facility. This area of concern is listed in the *Exit Interview/Summary* section of this report.**
j. Records required by NESHAP Subparts YY, ZZZZ, and DDDDD. **Refer to Specific Conditions 13, 14, and 15.**
k. Records required by Specific Condition No. 11. **Refer to Specific Condition 11(d).**

17. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations which qualify as Trivial Activities.

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

The below specific conditions correspond to Specific Conditions 19(a)-(b) in Permit 2004-302-C (M-4) as well.

a. For fuel storage/dispensing equipment operated solely for facility owned vehicles: Records of the type and amount of fuel dispensed (annual) via purchasing records as dispensing stations do not have flow meters.

The records of the monthly usage of gasoline and diesel were reviewed in December 2020 and January 2021, and were confirmed to be provided in the Facility's SARs for the reporting period of January 2018 through July 2020.

b. 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.

The capacity of tanks at the Facility and their contents are listed in Permit No. 2017-0914-TVR2 (Edoctus ID 2049297).

c. For activities (except for trivial activities) that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: The type of activity and the amount of emissions or a surrogate measure of the activity (annual).

The following activities have emissions of less than 5 TPY of emissions at the Facility: carbon black storage tank emissions, reactor preheat and startup emissions, reactor refractory curing emissions, and bag filter replacement emissions. The carbon black storage tank emissions have been submitted in the Facility's annual EIs and other emissions sources have their annual emission records maintained on-site as required.

18. Notwithstanding the issuance date of the original Title V permit (April 21, 2000), there is hereby established an alternative date of July 31st for Annual Compliance Certification and Semi-annual Reporting submittal purposes. Pursuant to such alternative date, the permittee shall submit to the 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 no later than 30 days after July 31st of each year, except for 2013. For the year of 2013, the permittee shall submit to the 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 no later than 30 days after both April 21st and July 31st to ensure no annual compliance certification is submitted longer than a year.

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

Refer to the *Semiannual Reports/Annual Compliance Certifications* section of this report for a determination of compliance with Specific Condition 18 of the current permit as well as Specific Condition 20 of Permit No. 2004-302-C (M-4).

19. No later than 30 days after each six (6) month period, after the alternative date of July 31st, 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. As in Specific Condition No. 18, permittee shall assure that no semi-annual report is filed longer than 6 months. [OAC 252:100-8-6 (a)(3)(C)(i) and (ii)]

Refer to the *Semiannual Reports/Annual Compliance Certifications* section of this report for a determination of compliance with Specific Condition 19 of the current permit as well as Specific Condition 21 of Permit No. 2004-302-C (M-4).

20. Since emission points TO #1, TO #2, and TO #3 each has NOx, CO, and SO_2 emissions greater than 500 TPY, the permittee shall conduct performance testing for these emissions once a year and submit a written report of the results to the AQD. $PM/PM_{10}/PM_{2.5}$ emissions from these emissions points are greater than 100 TPY and less than 250 TPY, and shall be tested once every 5 years.

A. Performance testing by the permittee shall use the following test methods specified in 40 CFR Part 60.
   - Method 1: Sample and Velocity Traverses for Stationary Sources.
   - Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate.
   - Method 3: Gas Analysis for Carbon Dioxide, Excess Air, and Dry Molecular Weight.
   - Method 4: Determination of Moisture in Stack Gases.
   - Method 5B: Determination of PM Emissions from Stationary Sources.
   - Method 6C: Determination of SO_2 Emissions from Stationary Sources.
   - Method 7E: Determination of NOx Emissions from Stationary Sources.
   - Method 10: Determination of CO Emissions from Stationary Sources.
   - Method 202: Determination of Condensable Particulate Matter.

B. A copy of the test plan shall be provided to AQD at least 30 days prior to each test date.

C. Performance testing shall be conducted while each reactor is operating within 10% of the rate at which operating permit authorization will be sought.

Performance tests were conducted on the thermal oxidizers in November of 2018 and 2019. EPA Methods 1, 2, 3A, 4, 6C, 7E, 10, and 25A were used during these tests. EPA Method 25A was used in addition to the above test methods to sample the total hydrocarbon emissions of the thermal oxidizers as propane. EPA Methods 5B and 202 were not used because PM emissions were not tested because it is only required every 5 years. Performance test results for the thermal oxidizers (Edoctus IDs 2088573 and 2251186) and test plan submission dates (Edoctus ID 2056987) are summarized, as follows.

Source	Test Date	Test Plan Submitted	Test Plan Timely?	Pollutant	Limit (lb/hr)	Results (lb/hr)	Test Methods Used
TOx #1	11/14/18	9/14/18	Yes	NO_2	270	99	7E
				CO	475	0.59	10
				VOC	17	1.2	25A
				SO_2	2,568	329	6C
TOx #2	11/16/18	9/14/18	Yes	NO_2	142	76.93	7E
				CO	311	0.01	10
				VOC	14	0.24	25A
				SO_2	1,195	286.52	6C
TOx #4	11/20 & 22/18	9/14/18	Yes	NO_2	178	92.10	7E
				CO	389	32.86	10
				VOC	18	2.69	25A

				SO_2	1,494	315	6C
TOx #1	11/12/19	DEQ did not receive the test plan	No	NOx	270	101	7E
				CO	475	0.01	10
				VOC	17	0.76	25A
				SO_2	2,568	322	6C
TOx #2	11/13/19	DEQ did not receive the test plan	No	NOx	142	79	7E
				CO	311	0.01	10
				VOC	14	0.01	25A
				SO_2	1,195	229	6C
TOx #4	11/14-15/19	DEQ did not receive the test plan	No	NOx	178	93	7E
				CO	389	4.74	10
				VOC	18	1.01	25A
				SO_2	1,494	351	6C

The Facility failed to comply with Specific Condition 20(B) of Permit No. 2017-0914-TVR2. The Facility did not provide test plans to DEQ 30 days prior to each of the following test dates: November 12, 2019, November 13, 2019, and November 14, 2019. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.

21. The thermal oxidizers (TOx) are subject to Compliance Assurance Monitoring (CAM) and shall comply with all applicable requirements and shall perform monitoring as approved below.

	Indicator No. 1
I. Indicator	Operating temperature of the combustion chamber.
Measurement Approach	Combustion chamber temperature is measured continuously with at minimum a Type K thermocouple. **CCC representatives confirmed that the combustion chamber temperatures of the thermal oxidizers are measured continuously with Type K thermocouples. The Facility's 2018, 2019, and 2020 annual thermocouple calibration records submitted in their SARs confirmed that they use Type K thermocouples and Type B thermocouples as required.**
II. Indicator Range	The indicator range for the combustion chamber temperature is between 1,700 °F and 2,100 °F with a minimum accuracy of ± 3%. **CCC representative confirmed that the indicator range for the combustion chamber temperatures are between 1,700°F and 2,100°F with a minimum accuracy of ± 3%. The thermocouple calibration records submitted for the reporting period of February 1, 2018 through July 31, 2020 supports the aforementioned affirmative statement.**
III. Performance Criteria A.Data Representativeness	The TOx shall consist of at minimum a Type K thermocouple which shall be maintained in accordance with the manufacturer's specifications.
B. Verification of Operational Status	**CCC representatives confirmed that Type K thermocouples on thermal oxidizers are maintained in accordance with the manufacturer's specifications. These thermocouples are calibrated annually to ensure that they are operating properly.**

C.QA/QC Practices and Criteria	TOx in operation-verified by daily checks. Alarms are also in place to indicate any malfunction in proper operation of the unit. **CCC representatives confirmed that thermal oxidizer operations are checked daily visually and by their control panels. They confirmed that the thermal oxidizers have alarms to notify them if there is any malfunctions of the equipment.**
D. Monitoring Frequency Data Collection Procedures Averaging Period	Checks and maintenance on the TOx will be conducted in accordance with the manufacturer's recommendations. A quality improvement plan (QIP) shall be developed and implemented for each thermal oxidizer if there are six excursions, within a six month period, from the established temperature range in Specific Condition 9 or from the established opacity limitation of 20 percent. Excursions do not include periods of startup or shutdown. The QIP shall comply with the requirements of § 64.8(b) through (e). **CCC representatives confirmed that checks and maintenance on the thermal oxidizers are conducted in accordance with the manufacturer's recommendations. It was stated in the Facility's ACCs for the reporting period of August 1, 2017 through July 31, 2019 that a QIP was not required to be developed and implemented during these certification periods. CCC representatives confirmed that a QIP would be developed if there were six excursions, within a six-month period, from the established temperature range. The Facility does maintain a SSM plan and a record of all the SSM events (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629) as well as a record of all temperatures that fall below 1,500°F.**
	Temperature is measured continuously. **CCC representatives confirmed that the operating temperature of the combustion chambers of the thermal oxidizers is measured continuously. Confidential temperature records submitted in the Facility's SARs for the reporting period of February 1, 2018 through January 31, 2019 and August 1, 2019 through July 31, 2020 appears to support this statement. These records were not provided in the Facility's SAR for the reporting period of February 1, 2019 through July 31, 2019. The Facility is in noncompliance of Specific Condition 21 of Permit No. 2017-0914-TVR2 for failing to record the temperature data of the thermal oxidizers continuously for the reporting period of February 1, 2019 through July 31, 2019. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report.**
	Temperature data are recorded continuously on Data Historian. Excursions trigger alarms up to and including shutdown of all operations. Corrective action, logging and reporting in semiannual report will be triggered if controlled shutdowns fail in the event of an excursion or during a Force Majeure event.

	CCC representatives confirmed that temperature is recorded continuously as required and these records for thermal oxidizer #2 were submitted in the Facility's SARs for the reporting period of February 1, 2018 through January 31, 2019 and August 1, 2019 through July 31, 2020. These records were not provided in the Facility's SAR for the reporting period of February 1, 2019 through July 31, 2019. The Facility is in noncompliance of Specific Condition 21 of Permit No. 2017-0914-TVR2 for failing to record the temperature data of the thermal oxidizers continuously for the reporting period of February 1, 2019 through July 31, 2019. This noncompliance issue is listed in the *Exit Interview/Summary* section of this report. CCC representatives also confirmed that excursions trigger alarms and operations may be shutdown to determine the cause of the excursion. These excursions are logged including the corrective actions taken to resolve the excursion and these events are reported semiannually to DEQ as required (Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629).
	None, not to exceed min. and max.

22. This permit supersedes all previous air quality operating permits, which are now cancelled.

Permit No. 2004-302-TVR (M-2) was cancelled on August 21, 2018, when this permit was issued.

Exit Interview/Summary

Based on the information reviewed during this evaluation, the noncompliance issues identified were, as follows:

1. The Facility failed to comply with §§63.983(b)(1)(i)(B) and 63.998(d) by not providing LDAR inspection records for 2019 and 2020 to DEQ, which would confirm that annual inspections are conducted of their closed vent system and that records are maintained as required.
2. The Facility failed to comply with Standard Condition III(C) and Specific Condition 19 of Permit Nos. 2004-302-TVR (M-2) and 2017-0914-TVR2 by not submitting thermal oxidizer maintenance records for the reporting period of February 1, 2018 through July 31, 2020, in the SARs submitted to DEQ on 8/9/18, 2/27/19, 8/27/19, 2/28/20, and 8/17/20. These records are required to be maintained by Specific Condition 16(c) of Permit Nos. 2004-302-TVR (M-2) and 2017-0914-TVR2, and are required to be submitted to DEQ semiannually according to the above referenced standard and specific conditions.
3. The Facility failed to comply with Standard Condition III(C) and Specific Condition 19 of Permit Nos. 2004-302-TVR (M-2) and 2017-0914-TVR2 by not submitting continuous temperature data for the thermal oxidizers and waste gas combustors and all occasions when operating temperatures of the thermal oxidizers and waste gas combustors fall outside the established temperature range for the reporting period of February 1, 2019 through July 31, 2019, in the SAR submitted to DEQ on 8/27/19.

These records are required to be maintained by Specific Conditions 16(a) and (d) of Permit No. 2017-0914-TVR2 and are required to be submitted to DEQ semiannually according to the above referenced standard and specific conditions. Since the records were not provided in the SAR, it could not be determined that the temperature data of the thermal oxidizers and waste gas combustors, and all occasions when these control devices fell below 1,500°F are maintained as required for the above reporting period. Thus, the Facility is in noncompliance of Specific Conditions 9(b), 16(a), 16(d), and 21 of Permit No. 2017-0914-TVR2, and §63.988(b)(i) as well.

4. The Facility failed to comply with Standard Condition III(C) and Specific Condition 19 of Permit No. 2017-0914-TVR2 by not submitting the total natural gas usage for each boiler in units of SCF for the reporting period of February 1, 2020 through July 31, 2020, in the SAR submitted to DEQ on 8/17/20. These records are required to be maintained by Specific Condition 16(g) of Permit No. 2017-0914-TVR2, and should be submitted to DEQ semiannually according to the above referenced standard and specific conditions. Since the records were not provided in the SAR, it could not be determined that the natural gas usage of each boiler is maintained as required for the above reporting period, so the Facility is in noncompliance of Specific Condition 16(g) of Permit No. 2017-0914-TVR2 as well.
5. The Facility failed to comply with Standard Condition III(C) and Specific Condition 19 of Permit No. 2017-0914-TVR2 by not submitting the MACT Subpart ZZZZ maintenance records and the emergency generator operating hours for the reporting period of February 1, 2020 through July 31, 2020, in the SAR submitted to DEQ on 8/17/20. These records are required to be maintained by Specific Condition 14(k) and 16(j) of Permit No. 2017-0914-TVR2 and §63.6655(f), and should be submitted to DEQ semiannually according to the above referenced standard and specific conditions.
6. The Facility failed to comply with Specific Condition 18, and Standard Conditions IV(A) and (B) of Permit No. 2017-0914-TVR2 by not certifying their compliance status throughout the ACC certification period of August 1, 2019 through July 31, 2020 as continuous or intermittent, and did not certify their current compliance status as continuous or intermittent with each specific condition and each standard condition of Permit No. 2017-0914-TVR2 in the ACC submitted to DEQ on August 17, 2020.
7. The Facility failed to comply with §63.6602 and Specific Condition 14 of Permit No. 2017-0914-TVR2 by not conducting maintenance requirements listed under #5 of Table 2c to Subpart ZZZZ on the emergency generators by June 30, 2020.
8. The Facility failed to comply with §63.6655(f)(1), and Specific Conditions 14(k) and 16(j) by not maintaining emergency generator operating hour records for the reporting period of February 1, 2020 through July 31, 2020.
9. The Facility failed to comply with §§ 63.7550(b)(1)-(4), and Specific Condition 15(v) of Permit Nos. 2004-302-TVR (M-2) and 2017-0914-TVR2 by not submitting MACT Subpart 5D biennial compliance reports to DEQ by January 31 in 2018 and 2020 for Boiler #1 and by January 31 in 2017, 2019, and 2021 for Boiler #2.
10. The Facility failed to comply with Specific Condition 20(B) of Permit No. 2017-0914-TVR2. The Facility did not provide test plans to DEQ 30 days prior to each of the following test dates: November 12, 2019, November 13, 2019, and November 14, 2019.

Based on the information reviewed during this FCE, the following areas of concern were noted:

1. An explanation of the greater than 30% change in CO emissions between 2017 and 2018 was requested of CCC, but was not provided. Please provide this explanation with your Compliance Plan for the above listed noncompliance issues.
2. §§63.6640(f)(1)-(4) and 63.6655(f)(1) requires that the hours of operation for each emergency generator should be documented as emergency operation or non-emergency operation, show how many hours of each, and if it was an emergency operation, what classified it as an emergency. The Facility's operating hour records for their emergency generators are not documented as emergency operation or non-emergency. Please ensure that all future operating hour records are documented as specified in §§63.6640(f)(1)-(4) and 63.6655(f).
3. The grandfathered units that were listed in EUG1 have been removed from this Facility, so the recordkeeping requirement listed as Specific Condition 16(i) of Permit No. 2017-0914-TVR2. Since this specific condition no longer applies to the Facility, CCC may request to remove this specific condition during the Facility's next Title V permit renewal.

Edoctus Referenced Documents

- Permit No. 2017-0914-TVR2, Edoctus ID 2049297
- Permit No. 2004-302-C (M-4), Edoctus ID 2082418
- 2017-2019 Emission Inventories, Edoctus IDs 2002085 (p. 102), 2147407 (p. 102), and 2298740
- MACT Subpart YY SSM Semiannual Reports, Edoctus IDs 2052320, 2107846, 2205490, 2287790, and 2358629
- Semiannual Report, Submitted 8/29/18, Edoctus ID 2052320
- Semiannual Report, Submitted 2/27/19, Edoctus IDs 2107819 and 2107846
- Semiannual Report, Submitted 8/27/19, Edoctus IDs 2207329 and 2201284
- Semiannual Report, Submitted 2/28/20, Edoctus ID 2286883
- Semiannual Report, Submitted 8/17/20, Edoctus IDs 2358629 and 2358630
- Annual Compliance Certification, Submitted 8/29/18, Edoctus ID 2052319
- Annual Compliance Certification, Submitted 8/27/19, Edoctus IDs 2207328 and 2201292
- Annual Compliance Certification, Submitted 8/17/20, Edoctus IDs 2358628 and 2358631
- Performance Test Results for Thermal Oxidizers, Edoctus IDs 2088573 and 2251186
- Test Plans for Thermal Oxidizers, Edoctus ID 2056987