

**Caerus Oil and Gas – Ouray Compressor Station
Full Compliance Evaluation (FCE)
On-Site Clean Air Act (CAA) Inspection**

Inspection Date: March 21, 2023

Inspection Report Date: May 18, 2023

EPA Representatives: Michael Stovern, Colin Lecortz, Christine Tokarz

Tribal Representatives: Mike Natchees, Lonnie Favel, Mariko Blackbird, Alverna Nelson

Company Representatives: Jerry Dismukes, Jim Gress, Kelly Jensen, Grizz Oleen

Inspection Report Prepared By: Michael Stovern

Inspection Report Reviewed By: Scott Patefield  Digitally signed by SCOTT PATEFIELD
Date: 2023.06.26 15:01:51 -06'00'

Last CAA Inspection: May 11, 2021

Applicable Rules: 40 C.F.R. Part 63, Subpart ZZZZ (MACT ZZZZ)
Synthetic Minor Permit: SMNR-OU-000008-2020.002
Consent Decree Case 1:07-cv-01034 (CD)

Permit History: Synthetic Minor Permit: SMNSR-UO-000008-2020.002
Issue Date: October 7, 2020
Effective Date: October 7, 2020

General Source Information

Parent Company name: Caerus Oil and Gas

Facility Name: Ouray Compressor Station

Facility Location: Latitude 40.070968, Longitude -109.491993

EPA Region: 8

County, State: Uintah County, Utah

Reservation: Uintah Ouray Reservation

Tribe: Ute Indian Tribe

Responsible Official: Jerry Dismukes

NAICS Code: 211111

ICIS-AIR ID Number: 080000004904700109

Overall Inspection Findings

Synthetic Minor Permit

1. The source does not appear to collect semi-annual extended laboratory analysis of the natural gas condensate as required per D.5.c.

MACT ZZZZ

1. The EPA did not identify any areas of concern.

Previous Compliance Status

The previous full compliance evaluation of this facility occurred in 2021 and the inspection report did not identify any compliance concerns.

General Inspection Observations and Commentary

Opening meeting:

The EPA, Tribal representatives and facility staff arrived at the facility at 5:12 pm. Introductions were made, and the inspectors presented their credentials and stated that the purpose for the inspection is to complete a full compliance evaluation (FCE) of the Ouray compressor station. Following introductions everyone participated in a safety briefing prior to beginning a facility walkthrough.

Walk Through Inspection Observations:

Facility personnel guided the inspectors around the facility and provided the operating specifics listed below in Table 1.

Table 1: Operating Specifics

Plant Capacity (MMscf/day)	7
Low Pressure Inlet (psig)	45
From	Gas gathering wells
Outlet Gas to	IP gathering system to Natural Buttes
Outlet Pressure (psig)	310
Dehydration Requirement	Dehydrator has been removed

The inspectors asked if any equipment had been added or removed since the previous inspection and the facility operators stated that no equipment had been added and that Ouray 6 compressor engine had been removed and East Junior engine unit #1 was swapped with Ouray engine unit #1.

During the walkthrough, the inspector asked about the NGL extraction refrigeration process and the intermediate pressure inlet to the dehydration unit. The company representative stated that the refrigeration process has been shutdown and removed about 15 years prior and the dehydration unit has been shutdown and removed about 10 years prior.

Inspectors identified two engines on site. One Caterpillar 3416 LE identified as Ouray engine 1 and one Caterpillar 3412 generator engine identified as Gen engine.

Inspectors identified that the pneumatic controllers were run on instrument air.

A total of Seven full size tanks (i.e. >300 BBL) were identified at the facility. Four tanks contained condensate and scrubber liquids and were connected to a closed vent system and controlled with a flare. Three tanks were used to hold methanol. Multiple small tanks (i.e. <1,000 gallon) were identified on site included engine oil, antifreeze and generator diesel fuel. The site formerly had 10 400 BBL tanks that were used for water disposal that had been removed at the time of the inspection.

Closing Meeting:

The closing meeting began at 6:05 pm after the facility walkthrough was completed. During the closing meeting, the inspector discussed the process to complete the inspection report within 60 days including requesting additional information via email. The company representatives agreed to provide the inspector with any needed additional information requested by the inspectors. The inspectors left the facility at 6:15 pm.

Synthetic Minor Requirements

C. Requirements for the Low-Emission Dehydrator

1. Construction and Operational Limits

- (a) The Permittee shall install, operate and maintain no more than one TEG Low-Emission Dehydration unit that meets the specifications in Appendix A of this permit and:
 - (i) Incorporates an integral vapor recovery function such that the dehydrator cannot operate independent of the vapor recovery function;
 - (ii) Either returns the captured vapors to the inlet of the facility where the dehydrator is located or routes the captured vapors to the facility's fuel gas supply header; and
 - (iii) Is designed and operated to emit less than 1.0 ton of VOC in any consecutive 12-month period, inclusive of VOC emissions from the reboiler burner.
- (b) Only the dehydration unit that is designed and operated as specified in this permit is approved for installation and operation under this permit.

The facility has not operated its dehydration system since approximately 2014. The system has since been blind flanged and parts have been physically removed from location.

2. Recordkeeping Requirements

Records shall be kept of the manufacturer specifications for the TEG Low-Emission Dehydration unit, and a certification that it meets the specifications in this permit for a Low-Emission Dehydration unit. Records shall be kept of all required inspections, including repairs made in response to leaks detected in the closed-vent system. The certification shall be signed by the person the Permittee has designated as primarily responsible for CAA compliance for the source and shall include the following: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete."

- 3. Requirements under **Section C. Requirements for the Low-Emission Dehydrator** shall be effective upon termination of the March 27, 2008, federal CD between the United States of America (Plaintiff), and the State of Colorado, the Rocky Mountain Clean Air

Action and the Natural Resources Defense Council (Plaintiff-Intervenors), and Kerr-McGee Corporation (Civil Action No. 07-CV-01034-EWN-KMT).

The facility has not operated its dehydration system since approximately 2014. The system has since been blind flanged and parts have been physically removed from location.

D. Requirements for Storage Tanks

1. Construction, Control and Operational Requirements

- (a) The Permittee shall install, operate and maintain no more than five tanks used to store natural gas condensate and produced water, limited to a maximum storage capacity of 450 bbl each.
- (b) The Permittee shall, at a minimum, route all-natural gas condensate and produced water storage tank emissions from working, standing, breathing and flashing losses through a closed-vent system to a flare designed and operated as specified in this permit.
- (c) Only the storage tanks that are operated and controlled as specified in this permit are approved for installation under this permit.

The facility currently has 4 tanks located on-site and each tank has a capacity of 300 BBLs. It was observed that the tanks were connected via a closed-vent system with emissions routed to a flare.

2. Closed-Vent Systems

- (a) The closed-vent system shall route all gases, vapors and fumes emitted from the natural gas condensate and produced water storage tanks to the flare.
- (b) All vent lines, connections, fittings, valves, relief valves or any other appurtenance employed to contain and collect gases, vapors and fumes and transport them to the flare shall be maintained and operated during any time the device is operating.
- (c) The closed-vent system shall be designed to operate with no detectable emissions.
- (d) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors or fumes from entering the flare, the Permittee shall meet one of following requirements for each bypass device:
 - (i) At the inlet to the bypass device that could divert the stream away from the flare and into the atmosphere, properly install, calibrate, maintain and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is

- being, or could be, diverted away from the flare and into the atmosphere;
or
- (ii) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
- (e) The Permittee shall minimize leaks of hydrocarbon emissions from all vent lines, connections, fittings, valves, relief valves or any other appurtenance employed to contain, collect and transport gases, vapors and fumes to the flare.

During the inspection, it was noted that the tanks located on site were connected via a closed-vent system that meet the requirements of this section. In March 2021 this facility switched from using the VRU as the primary control device to a flare. No emissions were detected using an IR camera during the inspection.

3. Flare

- (a) The Permittee shall design, install, continuously operate and maintain a flare such that the mass content of the uncontrolled VOC emissions from the natural gas condensate and produced water storage tanks are reduced by at least 95.0% by weight.
- (b) The Permittee shall ensure that the flare has sufficient capacity to achieve at least a 95.0% VOC emission control efficiency for the minimum and maximum hydrocarbon volumetric flow rate and British thermal unit (BTU) content routed to the device.
- (c) The Permittee shall ensure that the flare is designed and operated in accordance with the requirements of 40 CFR 60.18(c) through (e).
- (d) The Permittee shall ensure that the flare is:
 - (i) Operated properly at all times that natural gas condensate and produced water storage tank emissions are routed to it;
 - (ii) Equipped and operated with a liquid knock-out system to collect any condensable vapors (to prevent liquids from going through the device);
 - (iii) Equipped with a flash-back flame arrestor;
 - (iv) Equipped with one of the following:
 - (A) A continuous burning pilot flame, a thermocouple and a malfunction alarm and notification system if the pilot flame fails;
or
 - (B) An electronically controlled auto-ignition system with a malfunction alarm and notification system if the pilot flame fails while natural gas condensate and produced water storage tank emissions are routed to it; and

- (v) Maintained in a leak-free condition;
 - (vi) Operated with no visible smoke emissions; and
 - (vii) Equipped with a monitoring system for continuous measuring and recording of the parameters that indicate proper operation of the enclosed combustor and the continuous burning pilot flame or automatically controlled automatic ignition system (such as a chart recorder, data logger or similar device).
- (e) The Permittee shall follow the manufacturer's recommended maintenance schedule and operational procedures, or recommended maintenance schedule and operational procedures developed by the vendor or Permittee to ensure optimum performance of the closed-vent systems and flare.

This facility has operated a VRU on the tanks since 2007. During this time, the flare was defined as a back-up control device with the primary being the VRU. Since March 2021, the VRU has been deemed to be the backup control device to the flare. The inspectors confirmed that the flare is equipped with a liquid knockout, flame arrestor and a continuously operating pilot flame with a thermocouple monitoring system that alarms if the pilot flame fails. The source also provided the manufacturers operation procedures and maintenance recommendations.

4. Testing and Monitoring Requirements

- (a) The Permittee shall measure the barrels of natural gas condensate and produced water stored in the tanks each time the liquids are unloaded from the storage tanks using process flow meters and/or sales records. At the end of each calendar month, the total barrels of natural gas condensate and produced water stored in the tanks shall be divided by the number of days in that month to calculate a daily average.

The facility provided condensate and produced water liquids throughput for May 2021 through March 2023.

- (b) The Permittee shall perform weekly auditory, visual, olfactory (AVO) inspections of tank thief hatches, covers, seals, pressure relief valves and the closed vent system, to ensure proper condition and functioning. The weekly inspections shall be performed while the natural gas condensate and produced water storage tanks are being filled. If any of the components are not in good working condition, they must be repaired within 15 days of identification of the deficient condition.

The facility provided the daily operating reports from May 2021 through March 2023 which include daily AVO inspections.

- (c) The Permittee shall perform monthly inspections of the peak pressure and vacuum values in each tank and the closed-vent system to ensure that the pressure and vacuum relief set points are not being exceeded in a way that has resulted, or

might result, in venting of emissions and possible damage to equipment, and to ensure that the closed-vent system operates with no detectable emissions. Monthly inspections shall be conducted as follows:

- (i) The monthly inspections shall be performed using an optical gas imaging instrument, while the natural gas condensate and produced water storage tanks are being filled;
- (ii) If any VOC emissions are detected using the optical gas imaging instrument, the Permittee shall take the following actions, as applicable:
 - (A) The Permittee shall demonstrate that the natural gas condensate and produced water storage tanks and the closed-vent system operate with no detectable emissions using the procedures specified in EPA Method 21 at 40 CFR part 60, appendix A. A potential leak is determined to operate with no detectable emissions if the VOC concentration value measured by the Method 21 detection instrument is less than 500 parts per million volume (ppmv);
 - (B) If the tanks or closed-vent system fail the detectable emissions test, the Permittee shall follow the manufacturer's, vendor's or Permittee's repair instructions to return the emissions source to compliant operation. All repairs and maintenance activities shall be recorded in a maintenance and repair log and shall be made available for inspection;
 - (C) Upon return to operation from any repair and maintenance activity, the closed-vent system or flare shall pass a Method 21 test; and
 - (D) If the tanks or closed-vent system fail a follow up Method 21 test, the Permittee shall repeat the procedures in paragraphs (A) through (C) of this section, as applicable, until the closed-vent system or flare passes a follow up test.

The facility provided the monthly AVO records.

- (d) The Permittee shall monitor the operation of the flare to confirm proper operation and demonstrate compliance with the VOC control efficiency requirements of this permit as follows:
 - (i) Continuously monitor the flare operation using a malfunction alarm and remote notification system for failures, and checking the system for proper operation whenever an operator is on site at least weekly;
 - (ii) Continuously monitor all variable operational parameters specified in the manufacturer's written operating instructions and procedures;

- (iii) Respond to any observation of improper monitoring equipment operation or any alarm of pilot flame failure and ensure that monitoring equipment is returned to proper operation and/or the pilot flame is relit as soon as practically and safely possible after an observation or an alarm sounds;
- (iv) Perform monthly visual inspections of the flare to ensure it operates with no visible smoke emissions. Monthly visual inspections shall be conducted as follows:
 - (A) The monthly inspections shall be performed while the natural gas condensate and produced water storage tanks are being filled;
 - (B) If any visible smoke emissions are detected, the Permittee shall take the following actions:
 - (I) The Permittee shall demonstrate that the flare operates with no visible emissions, except for periods not to exceed a total of 2 minutes during any hour using the procedures specified in EPA Method 22 at 40 CFR part 60, appendix A. The observation period shall be 1 hour;
 - (II) If the flare fails the visual emissions test, the Permittee shall follow the manufacturer's, vendor's or Permittee's repair instructions to return the flare to compliant operation. All repairs and maintenance activities shall be recorded in a maintenance and repair log and shall be made available for inspection;
 - (III) Upon return to operation from any repair and maintenance activity, the flare shall pass a Method 22 test; and
 - (IV) If the flare fails a follow up Method 22 test, the Permittee shall repeat the procedures in paragraphs (I) through (III) of this section until the flare passes a follow up test.

This facility has operated a VRU on the tanks since 2007. During this time, the flare was defined as a back-up control device with the primary being the VRU. Since March 2021, the VRU has been deemed to be the backup control device to the combustor. The source provided the flare pilot monitoring data from April 1st through May 31, 2021. The sources inspection records include an assessment of smoking flare. None of the regular inspection records identified a smoking flare.

- (e) The monthly VOC emissions calculations required in this permit shall account for the time periods between each failed detectable emissions test or failed visible emissions test, as applicable, and subsequent compliant tests, assuming the emissions were uncontrolled.

See "VOC Emissions Calculation Requirements" section below.

- (f) Where sufficient to meet the monitoring requirements in this section, the owner or

operator may use a SCADA system to monitor and record the required data in paragraphs (a) through (d).

See Paragraphs (a)-(d) above.

5. VOC Emissions Calculation Requirements

VOC emissions from each natural gas condensate and produced water storage tank at the facility due to working, standing, breathing and flashing losses for each calendar month shall be calculated using a generally accepted simulation model or software (e.g., ProMax) and the following:

- (a) The total measured volume of natural gas condensate and produced water transferred to the storage tanks for the month;
- (b) The VOC emissions control efficiency of the flare; and
- (c) The actual physical and chemical properties of the natural gas condensate and its associated vapors from the most recent semiannual extended laboratory analysis of the natural gas condensate received at the facility.

The facility provided the monthly tank VOC emissions from May 2021 through March 2023. The source provided a copy of the most recent liquid analysis that was completed in June 2021. The source does not appear to collect semi-annual extended laboratory analysis of the natural gas condensate as required above.

6. Recordkeeping Requirements

The Permittee shall document and maintain the following records:

- (a) The monthly and average daily barrels of condensate and produced water processed through the storage tanks;
- (b) All natural gas condensate and produced water storage tank, closed-vent system and flare inspections. All natural gas condensate and produced water storage tank, closed-vent system and flare inspection records shall include, at a minimum, the following information:
 - (i) The date of the inspection;
 - (ii) All documentation and/or images produced in the inspection;
 - (iii) The findings of the inspection;
 - (iv) Any corrective action taken; and
 - (v) The inspector's name and signature.

- (c) The monthly VOC emissions, in tons, from each natural gas condensate and produced water storage tank and the emission calculations.

The Facility provided the monthly liquid throughput, inspection records and monthly VOC emissions.

- 7. Requirements under **Section D. Requirements for Storage Tanks** shall be effective upon termination of the March 27, 2008, Federal Consent Decree between the United States of America (Plaintiff), and the State of Colorado, the Rocky Mountain Clean Air Action and the Natural Resources Defense Council (Plaintiff-Intervenors), and Kerr-McGee Corporation (Civil Action No. 07-CV-01034-EWN-KMT).

A petition to terminate the consent decree has been lodged with the court and the consent decree was officially terminated as of June 24, 2021.

E. Requirements for Pneumatic Controllers

- 1. The Permittee shall not operate any high-bleed pneumatic controllers. High-bleed controllers are defined as any controller with the capacity to bleed in excess of 6 standard cubic feet of gas (scf) per hour (50,000 scf per year) in normal operation. The Permittee is not required to install low or no-bleed pneumatic controllers if the use of low or no-bleed pneumatic devices is not technically or operationally feasible.
- 2. Records shall be kept of manufacturer's and/or vendor's specifications for each pneumatic controller that is not operated using instrument air.
- 3. Records shall be kept of the determination for each high-bleed pneumatic controller that is installed and operated if the use of low or no-bleed pneumatic devices is not technically or operationally feasible.

The facility stated that all pneumatic controllers at this facility run off instrument air and do not utilize natural gas.

- 4. Requirements under **Section E. Requirements for Pneumatic Controllers** shall be effective upon termination of the March 27, 2008, federal CD between the United States of America (Plaintiff), and the State of Colorado, the Rocky Mountain Clean Air Action and the Natural Resources Defense Council (Plaintiff-Intervenors), and Kerr-McGee Corporation (Civil Action No. 07-CV-01034-EWN-KMT).

A petition to terminate the consent decree has been lodged with the court and the consent decree was officially terminated as of June 24, 2021.

F. Requirements for Records Retention

- 1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

2. Records shall be kept in the vicinity of the facility, such as at the facility, the location that has day-to-day operational control over the facility or the location that has day-to-day responsibility for compliance of the facility.

The facility provided all requested information.

G. Requirements for Reporting

1. Annual Reports

- (a) The Permittee shall submit a written annual report of all required monitoring and testing conducted on emission units at the facility covered under this permit each year no later than March 1st. The annual report shall cover the period for the previous calendar year.
All reports shall be certified to truth and accuracy by the person designated by the Permittee as responsible for CAA compliance for the facility.
- (b) The report shall include:
 - (i) A summary of the results of each required performance test; and
 - (ii) A summary of all deviations of permit conditions and corrective actions taken, per paragraph I.G.3. of this permit.

The first annual report was submitted on 2/22/2022 and the second annual report was submitted on 2/27/2023.

2. All documents required to be submitted under this permit shall be submitted to:

Branch Chief, Air and Toxics Enforcement Branch, 8ENF-AT
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129

Documents may be submitted via electronic mail to r8airreportenforcement@epa.gov.

Nothing to evaluate with this general permit condition.

3. The Permittee shall promptly submit to the EPA a written report of any deviations of control or operational limits specified in this permit and a description of any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via electronic mail to r8airreportenforcement@epa.gov as follows:
 - (a) Within 30 days from the discovery of a deviation that would cause the Permittee to exceed the control or operational limits in this permit if left uncorrected for

more than 5 days after discovering the deviation; and

- (b) By March 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee's ability to meet the control or operational limits, included as part of the Annual Reports required in this permit.

No deviations were noted in the annual reports submitted on 2/22/2022 and 2/27/2023.

- 4. The Permittee shall submit any record or report required by this permit upon EPA request.

The facility provided all requested information.

MACT ZZZZ Requirements

The facility currently has two engines located on-site and are listed in the Table 2 below as OUR-1 and OUR-GEN. Both OUR-1 and OUR-GEN are non-emergency engines and are “remote” as defined under MACT ZZZZ.

Table 2: Engine details

<i>Engine ID</i>	<i>Make</i>	<i>Model</i>	<i>HP</i>	<i>Serial Number</i>	<i>Manufacture Date</i>	<i>Stroke & Burn</i>	<i>Controls</i>
<i>OUR-1</i>	<i>Caterpillar</i>	<i>3516 LE</i>	<i>1340</i>	<i>4EK00363</i>	<i>u12/9/1994</i>	<i>4SLB</i>	<i>Ox Cat</i>
<i>OUR-Gen</i>	<i>Caterpillar</i>	<i>3412</i>	<i>637</i>	<i>CTP02709</i>	<i>3/5/2007</i>	<i>4SLB</i>	<i>Ox Cat</i>

Non-Emergency Engine Rule Applicability (63.6585 & 63.6590(a)(2)(i))

Engines OUR-Gen is non-emergency, stationary RICE, located at an area source of HAPs, greater than 500 hp, spark ignition, 4-stroke lean burn and constructed on or after 6/12/2006. Per MACT ZZZZ, these are “new” engines and subject to emission limitations, operating limitations, monitoring requirements, testing requirements and reporting requirements.

Because OUR-GEN is a “new” engines at an area source it complies with MACT ZZZZ by meeting the requirements of NSPS JJJJ. Nothing to evaluate for MACT ZZZZ for this engine. NSPS JJJJ applicability only applies to engines >500 hp 4SLB built after 7/1/2008 so no NSPS JJJJ requirements exist for OUR-GEN.

Because OUR-1 is “existing” engine at an area source so they are subject to Table 2d Row 8 - Change oil and filter, inspect spark plugs, hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary. Based on the submitted maintenance information the engine appears to meet the requirements of MACT ZZZZ Table 2d – Row 8.

Appendix A: Satellite Imagery of Facility



NPDES Inspection Report – Industrial User

Name of industry and location:	Control authority / Permit No. / Facility ID:	
Capco LLC 640 S 12 th Street Grand Junction, Colorado 81505	City of Grand Junction Permit No. Class I No. 003 NPDES ID: COPU00169 Inspection ID: 202204_COPU00169 NAICS Code: 332994, small arms, ordnance, and ordnance accessories manufacturing; 332999, all other fabricated metal product manufacturing Latitude: 39.060556°N, Longitude: -108.551389°W	
Date of visit:	Time of visit:	
April 12, 2022	1:00 – 3:35 pm	
Name(s) / Affiliation of inspector(s):		
Kristin Ratajczak / U.S. Environmental Protection Agency, Region 8 (lead) Emilio Llamozas / U.S. Environmental Protection Agency, Region 8 Edward Simas / U.S. Environmental Protection Agency, Region 3 Stephen Stortz / City of Grand Junction Steve Morales / City of Grand Junction Jack Beach / City of Grand Junction		
Name / Title / Affiliation:		
Tino Dennis / EHS Manager / Capco LLC Jeff Purdy / EHS Supervisor / Capco LLC Dan Weisz / EHS Technician / Capco LLC Bill Lovell / Chief Executive Officer / Capco LLC / present for closing conference only Diana Thomas / Chief Financial Officer / Capco LLC / present for closing conference only Jennifer Cleerdin / Vice President of Operations / Capco LLC / present for closing conference only		
Report Review and Signature		
Drafter Name	Address/Phone Number	Date
Kristin Ratajczak	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	6/2/2022
	303-312-6310	
Reviewer Name	Address/Phone Number	Date
Emilio Llamozas	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	6/2/2022
	303-312-6407	
Supervisor Signature/Name	Address/Phone Number	Date
Boeglin, Michael  Digitally signed by Boeglin, Michael Date: 2022.06.03 10:47:12 -06'00'	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	6/3/2022
	Michael Boeglin	

Inspection Description:

On April 12, 2022, U.S. Environmental Protection Agency (EPA) inspectors Kristin Ratajczak, Emilio Llamozas, and Edward Simas (jointly referred to as inspectors) and the City of Grand Junction (City) inspectors Stephen Stortz, Steve Morales and Jack Beach conducted an industrial user inspection of Capco LLC (Capco or facility) in Grand Junction, Colorado as part of a pretreatment compliance inspection (PCI) of the City. The City had identified Capco as a Categorical Industrial User (CIU), permitted to discharge to the City's sanitary sewer system under Permit Class I No. 003 (permit). The inspection was announced to Capco the morning of the inspection.

Upon arriving to the facility at approximately 1:00 pm, Mr. Stortz, Mr. Morales and Mr. Beach introduced the inspectors to Capco representatives, Tino Dennis, EHS Manager; Jeff Purdy, EHS Supervisor, who participated in the inspection remotely; and Dan Weisz, EHS Technician. The inspectors began the opening conference by presenting their credentials and explaining the general purpose and procedures of the inspection. During the opening conference, facility representatives provided an overview of the facility's operations, focusing on the processes that generate wastewater and the wastewater pretreatment system.

Following the opening conference, Mr. Dennis and Mr. Weisz accompanied the group of inspectors on a facility walkthrough, with focus placed on the manufacturing processes, pretreatment system and sampling point. To document and record conversation and inspection observations, the inspectors took notes using bound checklists with questions applicable to permitted industrial users. Photographs taken during the inspection are organized in the attached photo log, which includes photos 101 and 104-107. Photos 102 and 103 were deleted at the request of Mr. Dennis because segments of finished bomb fins were included in the photos. This information was claimed as confidential business information.

EPA inspectors conducted a closing conference with Bill Lovell, Chief Executive Officer; Diana Thomas, Chief Financial Officer; Jennifer Cleardin, Vice President of Operations; Mr. Dennis; Mr. Purdy (remote); and Mr. Weisz and provided general observations and preliminary findings from the inspection. The EPA and City representatives left the facility at approximately 3:35 pm. On April 26, 2022, the EPA inspectors sent an email to Mr. Purdy with preliminary findings from the inspection.

1. What does this industry produce?

The facility produces bomb fins as a contractor for the Department of Defense. The facility operates three shifts with the following hours: Monday through Thursday from 5:00 am to 3:30 pm or 7:00 am to 5:30 pm; Monday through Thursday from 3:15 pm to 1:45 am; and Friday through Sunday from 6:00 am to 6:30 pm.

2. How is the industry classified by the POTW?

The City classified Capco as a CIU because the facility performs phosphating (coating), a core metal finishing operation. Discharges from the coating process and ancillary processes performed onsite are subject to 40 CFR 433.17.

3. Have there been any significant changes in processes or flow?

While the facility has increased the frequency of batch discharges since beginning production in 2018, processes and flow have not changed significantly.

4. What raw materials are used?

Raw materials such as steel, water-based coolants, detergents, zinc phosphate, and wastewater treatment additives are used onsite.

5. What processes are used to make the product(s)? Indicate any wastes generated and destination of wastes.

Steel received at the facility is inspected for quality prior to undergoing computer numerical control (CNC) machining processes such as cutting and forming. Scrap metal is sent to Pacific Steel for recycling. Oil residuals are siphoned to reduce the particle size of filter cake and are stored in 55-gallon drums while awaiting waste pickup for off-site disposal. CNC machined parts are welded prior to the start of the metal finishing processes.

The facility's metal finishing system is an enclosed, six-stage spray-finishing system, in which a zinc phosphate coating is applied to steel parts in preparation for powder coating. Bare steel parts are loaded onto a hanging conveyor system for finishing. In the first stage, an alkaline cleaner is applied to parts, followed by a spray rinse in stage two. In the third stage, a heated activator rinse is applied, followed by application of zinc phosphate in stage four, and a rinse in stage five. In stage six, sealer is applied. Make up water is supplied by the rinse tanks in stages two and five. Overflow from the metal finishing area is captured in a trough that flows to the onsite wastewater treatment system. Following surface preparation, parts are dried in the oven at 250°F, powder coated, and cured at 700°F. After finished parts are cool, they are assembled and prepared for shipping.

6. Where is water used and what is the source of the water (city, well, river, etc.)?

The facility uses City Water that has been deionized onsite in its operations.

7. Describe the processes which discharge wastewater.

Refer to Sections 5 and 9 of this report for a description of the processes that discharge wastewater.

8. Describe the sample location. Are the CA and industry using the same location?

Capco has one outfall permitted to discharge to the City's collection system; Outfall 001, which only includes process wastewater. Outfall 001 is located in a locked cabinet on the east side of the building (photo 101). The City collects samples of Capco's effluent at the same location.

9. Describe the treatment system in place.

Capco operates two treatment trains at the facility: continuous treatment for rinse waters and batch treatment for tank change outs and spills. For continuous treatment, process wastewater flows via trough to a 4,000-gallon equalization tank (photo 104). Following equalization, wastewater is routed to one of two chemical treatment tanks where precipitant, coagulant, flocculant, and polymer are added (photo 105). Following chemical treatment, wastewater flows to the final pH adjustment tank, where caustic soda is added to raise the pH (photo 105). After pH adjustment, wastewater flows to the clarifier (photo 106). Resulting solids are routed to the sludge thickening tank, followed by the filter press in preparation for final disposal at the landfill. Wastewater overflows the clarifier weirs to the final discharge tank before flowing through Outfall 001 to the City's sewer system. The treatment process for the batch treatment train is the same as continuous treatment and batch-treated wastewater comingles with the continuous treatment train prior to the clarifier (photo 107).

10. What chemicals are maintained at the facility? How are they stored? Is adequate spill prevention in place?

Wastewater treatment chemicals are stored in drums in the wastewater treatment room (photo 107). Trench drains in the wastewater treatment room route spills to the batch equalization tank.

11. Are any hazardous wastes stored or discharged?

Hazardous waste is not generated onsite.

FINDINGS AND CORRECTIVE ACTIONS

The following findings were identified during the inspection. The EPA has requested the City work directly with Capco to oversee correction of these deficiencies. No response from Capco to the EPA is requested at this time.

Finding 1 – Proper sample preservation requirements were not followed for cyanide, biochemical oxygen demand, total suspended solids, or total dissolved solids.

The chains-of-custody (COC) for cyanide, biochemical oxygen demand (BOD), total suspended solids (TSS), and total dissolved solids (TDS) samples collected in 2020 and 2021 indicated they were not refrigerated following collection. 40 CFR 136.3 requires samples collected for cyanide analysis to be preserved with sodium hydroxide to a pH >10 and refrigerated to ≤6°C. Though records indicate NaOH was used for preservation of cyanide samples, the COC did not document that refrigeration occurred. Additionally, 40 CFR 136.3 requires samples collected for BOD, TSS and TDS to be refrigerated to ≤6°C.

Pretreatment Requirements

Section II.A.1.b of the permit requires sampling and analyses be performed in accordance with techniques prescribed in 40 CFR 136.

40 CFR 136.3 requires samples collected for cyanide analysis to be preserved with sodium hydroxide to a pH >10 and refrigerated to ≤6°C. Additionally, 40 CFR 136.3 requires samples collected for BOD, TSS and TDS to be refrigerated to ≤6°C.

Corrective Action

Ensure sampling and analyses are performed in accordance with the permit requirements and 40 CFR 136, including sample preservation. Provide the City with a description of how this corrective action was accomplished.

Finding 2 – The facility did not document the pH method used for analysis.

Records kept by the facility and reported to the City in 2020 and 2021 did not document the pH method used to perform self-monitoring.

Pretreatment Requirements

Section II.A.1.b of the permit requires sampling and analyses be performed in accordance with techniques prescribed in 40 CFR 136.

Section II.D.6 of the permit requires all documentation required by the permit be kept for at least three (3) years.

Corrective Action

Ensure sampling and analyses are performed in accordance with the permit requirements and 40 CFR 136 and documented in accordance with the permit, including the analysis method used. Provide the City with a description of how this corrective action was accomplished.

Finding 3 – A complete lab report was not submitted with self-monitoring reports.

A complete laboratory report, to include the analysts' name, the analysis time, method detection limits (MDLs), and quality assurance and quality control (QA/QC) was not submitted with self-monitoring reports (SMRs). Capco should communicate the permit requirements with the lab.

Pretreatment Requirements

Section II.A.1.g of the permit states, "The laboratory shall include with the results of each analysis: the date of sampling; the date and time each analysis was performed; the identifier of the person performing the analyses; the U.S. EPA approved method of each analysis, including method detection limits and quality assurance/quality control (QA/QC) sample results; and the date of the laboratory report."

Corrective Action

Ensure a complete laboratory report is submitted to the City with SMRs to include the analysts' name, the analysis time, MDLs, and QA/QC. Provide the City with a description of how this corrective action was accomplished.

Finding 4 – Chains of custody and SMRs in 2020 and 2021 contained inaccurate information.

The deficiencies below were identified by EPA.

1. Across all SMRs reviewed:
 - A. The end date on the COCs was not the same as the start date for composite samples, however the sampling worksheet indicated that the composites were collected in one day.
 - B. Results below the detection limit were incorrectly reported as zero on the SMR. Alternatively, sample results below detection were reported as the MDL, in some instances. Results that are below the MDL should be reported as < MDL.
2. Quarter 1 (Q1) 2020 SMR
 - A. The COC indicated samples were collected on 2/10/2020 and 2/12/2020, with the composite collected from 12:00-14:45 on 2/12/2020. In conflict with the sample date and time on the COC, the Quarterly Self-Monitoring Report Sample Worksheet (sampling worksheet) indicated the sample was collected on 2/20/2020 from 11:47 to 12:58. In the correspondence provided from the facility, the City clarified the sample date; however, the sample time remains conflicting.
 - B. Craig Freeborn reported to relinquishing the samples to Jeff Purdy at 0650 on 2/12/2020, prior to the time the composite sample was collected.
 - C. In contrast with the sampler's name reported on the COC (Craig Freeborn), Jeff Purdy was reported as the sampler on the sampling worksheet.
3. Q1 2021 SMR
 - A. The facility address provided at the top of the SMR was for Capco 1, which is a different facility.
 - B. The composite sample time on the sampling worksheet was 0800-1355, considering the 10-hour delay reported. However, the time on the COC was 0800-1455.
4. Q3 2021 SMR
 - A. The COC for the composite samples did not indicate a sample start time. Further, the sample start/stop dates were 7/13/2021-7/14/2021. The sampling worksheet indicated the composite sample start time was 1615 on 7/13/2021; however, the sampler was set to have a 12-hour delay. Therefore, the composite sample start time was actually 0415 on 7/14/2021.
5. Q4 2021 SMR
 - A. The COC for the composite samples indicated conflicting start times. In the Collection Info section, the facility reported to collecting the composite sample between 0600 and 1600 on 10/21/2021. In the composite detail section, the facility indicated the sample was collected between 1600 on 10/20/2021 and 1600 on 10/21/2021. The sampling worksheet for this composite indicated the sample start time was 10/20/2021 1600, but the sampler was programmed to start after a 12-hour delay. Therefore, the actual start time was 0400 on 10/21/2021. The composite sample end time on all forms was 1600 on 10/21/2021.

Pretreatment Requirements

Section II.A.1.f of the permit requires, "A completed Chain of Custody (COC) form shall accompany all samples submitted to a lab for analysis. The COC shall include: the date; exact place, method and time of sampling; the name of the person collecting the sample; the number, size and bottle type (plastic or glass) for each analyses; the sample type (composite or grab); the date and time the sample was relinquished to and received by the testing laboratory; and the USEPA-approved analytical method required to be used."

Section II.D.4 of the permit includes the following certification statement that is required to be submitted with SMRs, ensuring that data reported are accurate. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel

properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Corrective Action

Ensure accurate COC information and SMR data are reported to the City. Provide the City with a description of how this corrective action was accomplished.

Finding 5 – pH calibration records were not maintained.

During the inspection, facility representatives indicated the pH meter was calibrated daily with 4, 7, and 10 buffers, but calibration records were not maintained.

Pretreatment Requirements

Section II.A.1.d of the permit requires that, among other things, "equipment maintenance and calibration records shall be kept on site and readily available for inspection."

Section II.D.6 of the permit requires all documentation required by the permit be kept for at least three (3) years.

Corrective Action

Ensure pH calibration records are documented and maintained onsite. Provide the City with a description of how this corrective action was accomplished.

Finding 6 – The facility's slug discharge control plan required revision.

EPA evaluated a document titled, "Capco Spec 12-ZX-48 Rev- Bldg 3 Wastewater and chem spill response Draft 1-7-19," as the facility's slug discharge control plan (SDCP) and identified the following:

1. Version 12-ZX-48 of the SDCP was provided; however, version 12-ZX-49 was referenced in the Q2 2020 SMR. Ensure plan revisions are submitted to the City and evaluated to meet regulatory requirements.
2. Section 3 of the SDCP indicates that pH buffers 4 and 7 are used at the facility; however, facility representatives indicated that pH buffers 4, 7, and 10 were used during the inspection. Ensure the SDCP reflects current practices at the facility.
3. Section 4.8.5.1 of the SDCP states, "If a spill or slug discharge of any chemical or process water enters (or is anticipated to enter) the sanitary sewer, the Emergency Coordinator will notify the Persigo POTW immediately..." Section III.C.3 of the industrial discharge permit states, "the Permittee shall immediately report all spills to the City that occur within the boundaries of the Permittee's facility and property whether or not the spill results in a discharge to the POTW." The notification requirements in the facility's plan should align with the industrial discharge permit.

Pretreatment Requirements

Section III.C of the permit applies requirements to control slug discharges to Capco.

Specifically, section III.C.3 of the permit states, "the Permittee shall immediately report all spills to the City that occur within the boundaries of the Permittee's facility and property whether or not the spill results in a discharge to the POTW."

Section III.C.5 requires the SDCP to "provide, at a minimum, the following:

- a. Detailed plans (schematics) showing facility layout and plumbing representative of operating procedures;
- b. Description of contents and volumes of any process tanks;
- c. Description of discharge practices, including nonroutine batch discharges;
- d. Listing of stored chemicals, including location and volumes;
- e. Procedures for immediately notifying the City of any spill or slug discharge;
- f. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not

limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response; and g. Any other information as required by the City.”

Corrective Action

Ensure the facility’s SDCP is representative of current conditions and meets the requirements in the permit. Provide the City the most current version of the facility’s SDCP. Provide the City with a description of how this corrective action was accomplished.