



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE: JUN 07 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Ascent Resources -- Ace Well Pad, Cadiz, Ohio

FROM: Constantinos Loukeris, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Chief
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Ascent Resources -- Ace Well Pad

Facility Location: 40.280324, -81.06844, Cadiz, Ohio

Date of Inspection: April 16, 2019

EPA Inspectors:

1. Constantinos Loukeris, Environmental Engineer
2. Victoria Nelson, Environmental Engineer
3. Natalie Topinka, Environmental Scientist

Other Attendees

1. Jon Hickman, EH&S Supervisor -- Environmental, Ascent
2. Dustin Daugherty, FLIR[®] technician, Ascent
3. Laine Crawford, Ascent
4. Mike Neptune, Ascent

Contact Email Address: jon.hickman@ascentresources.com

Purpose of Inspection: to assess compliance with requirements of NSPS Subpart OOOO and facility PTIO

Facility Type: oil and natural gas well pad

Regulations Central to Inspection: New Source Performance Standards (NSPS) Subpart
OOOO

Arrival Time: 2:08 pm

Departure Time: 2:46 pm

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Ascent representatives unless otherwise noted.

Company Ownership: Ascent Resources acquired this well pad from Hess Corporation in approximately November 2018.

Process Description:

At the well pad, an oil/gas/water emulsion is extracted from the formation through wells on-site. The emulsion from each well goes to a separator, from which the gas is sent to the sales line and the oil and water are piped to separate 400-barrel, atmospheric pressure, fixed-roof tanks on-site. The vapors from the tank headspaces are piped together and to a combustor for destruction. Each tank has a "thief" hatch on top for gaining access to the liquid when necessary. The thief hatches are set to relieve pressure should the pressure due to flashing, working, or breathing emissions from the liquids contained within the tanks get too high for the piping of the vapor capture system and combustor to accommodate

Staff Interview: The Ace well pad has three wells and four tanks: one produced water tank and three condensate tanks. Each well pad produces about ten barrels per day.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

We climbed the tank battery and viewed the thief hatches and pressure relief devices with the FLIR® GF-320 camera (FLIR® camera). We did not detect emissions via olfactory, visual, or auditory methods. We observed emissions with the FLIR® camera from the emergency pressure relief hatch (EPRV) on the water tank and confirmed the presence of volatile organic compounds (VOC) in the emissions plume using the Photo Ionization Detector (PID).

We also observed emissions with the FLIR® camera from the BTEX condenser vent in the dehydration area. Ascent personnel indicated that it was a pressure relief valve that was venting/leaking to atmosphere.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

Requested documents:

We requested the following documents, and summarized via e-mail on April 23, 2019:

- Ascent's flow chart for its LDAR program (i.e. chain of responsibility and procedures/tasks).
- Records of LDAR/FLIR® surveys, repairs, and follow-up verifications conducted at Ascent's Foxtrot well pad since its acquisition from Hess.
- A repair log (date/FLIR® verification) for the items (i.e. weighted hatches, conservation vents, vacuum breakers, and threaded connections) EPA noted to be emitting during our inspections on April 16-17, 2019.
- A copy of the spec sheet for the combustor installed at the Grywalski well pad.

We also requested feedback on the following additional topics we discussed for consideration:

- Explore using existing pressure gauges on tank vapor space to inform operators of what sort of conditions the tanks undergo throughout dump cycles and in a variety of temperature conditions. The pressure data could be used to inform operators of what kinds of stress the pressure/vacuum relief devices experience, and potential options for alleviating that stress to prevent emissions/leaks. Would Ascent consider installing pressure gauges on existing tank batteries, or include them in the design of new well pads pending construction?
- Assess the gasket material on every tank hatch that was acquired from Hess and switch out to known higher-performing material if not done so yet.
- How are VOC emissions that occur from BTEX condenser vents on dehydration equipment (e.g. what was observed on the Ace pad) tracked and accounted for?

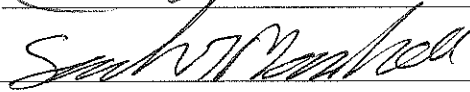
Ascent responded via e-mail on May 9, 2019.

Compliance Assistance: We discussed the items listed above as ways to inform continuous improvement of Ascent's operations and LDAR program.

Concerns: Where we detected emissions with the FLIR® camera, we shared our observations with Ascent personnel, so the leak point could be tagged for repair.

SIGNATURES

Report Author:  Date: 6/5/2019

Section Chief:  Date: 6/7/19

Facility Name: Ascent Resources – Ace Well Pad
Facility Location: 40.280324, -81.06844, Cadiz, Ohio
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APPENDICES AND ATTACHMENTS

1. Digital image/video log
2. Digital images and videos on CD

Facility Name: Ascent Resources – Ace Well Pad

Facility Location: 40.280324, -81.06844, Cadiz, Ohio

Date of Inspection: April 16, 2019

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Constantinos Loukeris	2. Date(s) of Inspection: April 16, 2019
3. Company/Facility Name: Ascent Resources – Ace Well Pad	4. Street Address, City, State: 40.280324, -81.06844, Cadiz, Ohio
5. Number of Images: 5	6. Archival Record Location: CD-R labeled “Ascent Resources – Ace Well Pad – Inspection photos/video 4/16/2019”

Image Number	File Name	Date	Description of Image
1	MOV_2264.mp4	4/16/19	VOC emissions imaged from the Model 2008 weighted thief hatch on the Condensate tank furthest away from the Produced Water tank.
2	MOV_2265.mp4	4/16/19	VOC emissions imaged from the Model 2008 weighted thief hatch on the Condensate tank next to the Produced Water tank.
3	MOV_2266.mp4	4/16/19	VOC emissions imaged from the Model 2008 weighted thief hatch on the Produced Water tank.
4	MOV_2267.mp4	4/16/19	VOC emissions imaged from the vacuum breaker on the Produced Water tank.
5	MOV_2268.mp4	4/16/19	VOC emissions imaged from the BTEX condenser vent. The pressure relief valve was leaking/venting.