

PAXTON

Responsible Energy Development

RECEIVED
MDEQ - JACKSON

MAY 14 2018

AIR QUALITY DIVISION

May 10, 2018

Mr. Zach Durham
MDEQ Air Quality Division
State Office Building, 4th Floor
101 E. Louis Glick Highway
Jackson, MI 49201-1556

Dear Mr. Durham:

Please accept the following discussion and response to Paxton Resource's Koshy A1-15 HD1 (SRN: P0901, Washtenaw Co.) Violation Notice sent on April 20, 2018.

The Violation Notice indicated that during an unannounced and self-initiated inspection of the Koshy A1-15 HD1 facility on April 2, 2018, Mr. Durham observed the facility's open flare to be continuously emitting black smoke and violated Michigan Rule 301(1)(b) and New Source Performance Standards (NSPS) OOOO.

As discussed in the inspection report provided with the Violation Notice, the Koshy A1-15 HD1 facility contains 5 oil tanks, 1 water tank, 4 heater treaters and 1 open flare. The Koshy A1-15 HD1 facility serves as a central tank battery for 4 producing wells with each well assigned to a single heater treater. Crude oil and water produced from the 4 wells are collected and temporarily stored in the facility's central tank battery. Based on the annually reported VOC Potential to Emit (PTE) calculations, the facility's tanks, heater treaters and open flare meet the exemptions from permitting requirements outlined in MDEQ-AQD Rule 282(2)(b)(i), Rule 284(2)(e) and Rule 288(2)(c), respectively.

The Koshy A1-15 HD1 facility maintains a closed-loop central tank battery system for the collection and control of working, standing and flashing emissions associated with the collection and temporary storage of crude oil production. Commensurate with NSPS OOOO regulations for facilities constructed, modified or reconstructed between August 23, 2011 and September 15, 2015, the Koshy A1-15 HD1 facility utilizes an open flare to control Volatile Organic Carbons (VOCs) emissions from the closed-loop central tank battery.



In response to specific questions included within the Koshy A1-15 HD1 Violation Notice, Paxton Resources has provided the following replies:

Question #1: *Dates the Violation Occurred.*

Response #1: Paxton Resources had recently become aware of the changing dynamic of the oil producing environment flowing to the Koshy A1-15 HD1 facility. The diagnosed cause of the incomplete combustion at the open flare is likely paraffin consolidation on the flame arrestor located on the tank and natural gas flow line to the facility's open flare. Excess paraffin consolidation can aggregate over time resulting in a variable time and operating condition-based degradation of flow of tank and natural gas vapors to the open flare. As paraffin consolidation occurs, a titration point is achieved when the continuously burning open flare pilot receives inconsistent tank and natural gas vapor flow and prevents the ability to achieve complete combustion. For this reason, the specific observed flare condition observed during the inspection likely was limited to 2 or 3 days. Specific dates would likely include April 1 and April 2, 2018.

Question #2: *Provide an explanation of causes and the duration of violation.*

Response #2: Paxton Resources had recently noticed an increase in residual natural gas production and paraffin production at the Koshy A1-15 HD1 facility. Paraffin production can fluctuate over time and is likely the cause of the incomplete combustion at the Koshy A1-15 HD1. Excess paraffin production can consolidate on the fins of the flame arrestors located along the flow lines to the open flare and restrict the continuous flow of tank and natural gas vapors to the open flare. The onset of excess paraffin production recently began, and the duration of the violation was limited to the isolated culmination of sufficient paraffin consolidation on the flame arrestor fins to prevent incomplete combustion at the open flare.

Question #3: *Discuss whether the violation is ongoing.*

Response #3: Paxton Resources has made all efforts to correct, remedy and prevent the violation, which include more frequent inspection, including monthly EPA Method 22 inspections and the cleaning of paraffin from the flame arrestors. However, the rate of paraffin consolidation can vary based on fluctuating ambient temperature and the production environment, which can expedite the degradation of flow to the open flare. To provide a more efficient and consistent solution, Paxton Resources is currently planning to install a more efficient open flare system to prevent future issues with incomplete combustion.

Question #4: *Provide a summary of the actions that have been taken and are proposed to be taken to correct the violation and the dates by which these actions will take place.*

Response #4: Paxton Resources has taken proactive measures to prevent the violation from continuing. The proactive measures include frequent inspection and cleaning of the flame arrestors, in addition to monthly EPA Method 22 inspection at all 8 NSPS OOOO subject facilities. The increased inspections and cleaning of the flame arrestor commenced during the same time frame as the unannounced inspection and prior to receiving the Violation Notice on April 25, 2018. The EPA Method 22 inspections began on April 25, 2018 and will continue on a monthly basis for all 8 NSPS subject facilities with a minimum of 14 days separating inspection dates. In response to the changing production environment at the Koshy A1-15 HD1 facility, Paxton Resources is currently preparing to install a more efficient open flare system as a preventative measure and adjustment to the current operation environment. The installation of the new flare will likely be completed within 15 days of this response.

Question #5: *What steps are being taken to prevent a reoccurrence?*

Response #5: Paxton Resources is preparing to install a more efficient open flare system to provide a long-term solution to facility the changing production environment. Paxton Resources is also committed to conducting monthly EPA Method 22 inspections at all 8 NSPS subject facilities to assess the operational efficiency of the open flare system at each facility.

Paxton Resources maintains the highest operational standards and commitment to regulatory requirements. Paxton Resources wishes to resolve this matter with the highest integrity to ensure future violations are minimized to the greatest extent possible.

Please contact me with any questions or comments regarding this response.

Thank you for your time and understanding.

Sincerely,

PAXTON RESOURCES



Mark Bailey
Operations Manager