

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N591638616

FACILITY: Kinder Morgan Cochin, LLC		SRN / ID: N5916
LOCATION: 10743 Stone Quarry Road, RIGA		DISTRICT: Jackson
CITY: RIGA		COUNTY: LENAWEE
CONTACT: Danny Cochran , Area Manager		ACTIVITY DATE: 02/09/2017
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Compliance inspection. No findings.		
RESOLVED COMPLAINTS:		

Minor Source

Facility Contacts

Danny Cochran: Operations Manager for Kinder Morgan

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Doug Miller Sr. ROW Specialist for Kinder Morgan

Brian Koval: Operations Supervisor for Plains All American

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Websites:

http://www.kindermorgan.com/business/products_pipelines/cochin.aspx

<https://www.plainsallamerican.com/>

Purpose

On February 9, 2017, I conducted an unannounced compliance inspection of Kinder Morgan Cochin LLC (Company) located in Riga, Michigan in Monroe County. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules and their Permit to Install (PTI) # 116-96D.

Facility Location

The facility is located in a rural area near the town Riga. See aerial photos dated April, 2016.

Facility Background

The Company was issued PTI #116-96D on March 8, 2013 for a pump station that handles liquefied propane or propane blends. The pump station has a flare that burns off the product during maintenance and emergency events. The flare is both an emission unit and control device. It is the only source of air emissions at the facility.

The Company operates a pipeline that carries liquefied propane. (See attached map of pipeline.) It only moves liquid through the pipeline occasionally with the last time back in September of 2016.

A separate company called Plains All American has a second pipeline that operates at the same location that carries a similar liquid product. (See attached pipeline map.) It moves product through the facility on a much more frequent basis.

Both companies have separate equipment/offices etc. at the site but they share the same flare.

Plains All American reports their emission information to the Company who compiles a joint monthly permit for the entire facility.

Regulatory Applicability

PTI 116-96D is applicable to the entire facility. The flare is the only emission point. Other process equipment at the facility is powered by electricity. There is no permit exempt equipment. Fugitive emissions are minimal as the equipment at the facility is well maintained, inspected on a regular basis, and exists in a liquid form inside the pipes/process equipment. It appears there are no additional applicable federal air regulations.

Arrival & Facility Contact

Visible emissions or odors were not observed upon my approach to the Company's facility. I arrived at approximately 10:45 AM, proceeded to the facility office to request access for an inspection, provided my identification, and met with Doug Miller (DM) who conducts surveillance and maintenance work at the facility. He decided to call/tie in by phone Danny Cochran (DC) who typically handles environmental issues at the plant. A pre-inspection conference was held with DM & DC. I informed both of them of my intent to conduct a facility inspection and to review the various records as necessary. DM extended his full cooperation during the inspection, accompanied me during the full duration of the inspection, and fully addressed my questions.

Pre-Inspection Meeting

DM outlined that the Kinder Morgan office is now staffed by 1 to 3 individuals during regular business hours which is change from previous years when the facility was unoccupied most of the time. Plains All American has staff there on a less frequent basis but one was there during the inspection.

I briefly discussed with DC the need to get a copy of the required PTI records for the facility for the last 12 months. He promised to forward them to me later in the day.

Both gentlemen explained to me the various pipeline functions that are performed at the facility and the overall very minimal emissions that are generated. The only emission point is the flare.

The pump station is equipped with a John Zink Flare model Linear Relief Gas Oxidizer. It has been there since at least 2007. Although the flare is designed to allow for daily use, it is used infrequently. The flare is 51 feet tall and consists of three separate burner heads. Product that is sent to the flare is first sent to a flash tank. The flash tank provides a decrease in working pressure. The decrease in pressure allows the product to flash, or become a vapor. From the flash drum the product is piped to the flare. The flare is equipped with an in-line differential pressure switch. When the pressure switch detects a differential pressure above the set-point, an igniter is activated at the top of the flare. The pressure switch eliminates the need to run a continuous pilot flame, thus allowing flaring only when necessary.

The flare is generally only used during maintenance operations. A section of pipeline/equipment is isolated and then they do a blowdown of the product inside to the flash tank such as when they are doing maintenance on a gas meter. They also

receive “traps” or “pigs” at the facility that generate some minor product that is sent to the flare. Traps are solid cylindrical devices with diameters slightly less than that of the pipeline. When introduced into the trap launcher, the trap is propelled down the pipeline by the natural flow of the liquid until it reaches a trap receiver. Traps are used to clean debris from the inner surface of the pipe and to inspect the interior. During large scale pipeline reactivation events or new products being introduced can produce somewhat larger amounts of waste product that needs to be flared. One such event may occur in 2018 when a new product comes on line in Ohio.

The flare is manually operated and so any activity requiring the use of the flare only occurs with facility personnel is present on-site.

DM explained a situation on when product could be released at the flare when the flare is not operating. It would be an emergency situation due to some type of overpressure event. If nobody was present on site, facility personnel would be automatically paged to report to the facility to start the flare within a few hours at the latest. DM further explained that this situation has not occurred in the last seven years at least. They do have an integrated alarm system that will flash a red light at the entrance in front of the gate in case of a release.

When product is released to the flash point, it typically is completed in something like 15 minutes or less. Once in the flash tank, the temperature determines how long it will take for the vapor to be burned off in the flare. On cold days, it takes much longer for vapor to form and be released to the flare.

DM explained when the flare does burn product; it burns clean with little or no smoke. However, at the very end of the flare cycle, when only a little product is left in the flash tank, he says small quantities of a darker color smoke are observed. I informed DM about the State opacity requirement for smoke was applicable to this situation.

DM indicated that the product in both pipelines is clean and meets spec for residential customers. It contains very little if any sulfur. It does not even contain mercaptans which are added further downstream.

Onsite Inspection

DM then conducted a brief tour of the facility. Attached photos show a picture of the flare, the base of the flare, the strainer used to remove iron oxides from product that is being sent to the flare, the flash tank, and an electric powered 200-HP pump.

The strainer was last cleaned about a year ago. If they failed to clean it, it would eventually plug up the product pipe that comes out of the flash tank. (Note: There is another underground flash tank that performs a similar function to the above ground flash tank.)

The flare, the flash tank, and the electric pump were not operation during the inspection. Plains All American was conducting maintenance of a meter that would require some small amounts of product to be sent to the flash tank/flare at some point later in the tank. The 200HP positive displacement pump with an electric motor is very rarely used due to the current product and current operations setup.

Overall, the facility was well maintained. No odors of any kind were noted. A new warehouse building had been added in the last year by Plains All American but no new pipeline related equipment.

Recordkeeping/Permit requirements Review

DC sent an email to me with the required records. See Attachment (1).

The spreadsheets show the number of blow downs that occur each month for each type of maintenance process. Each process has a predefined amount of product that is produced. It is reported in barrels. (Note: Each barrel contains 42 US gallons.)

The total amount sent to the flare over the last 12 months works out to be 2462 gallons.

The PTI has 4 substantive conditions.

- 1) Limit of 35,316 gallons of product flared off per 12 month period.
- 2) Flare must be installed and operated in a satisfactory manner.
- 3) General Condition #11 for opacity.
- 4) Flare must be at least 51 feet tall.

The Company is in compliance with all 4 conditions. 2462 gallons is well under the 35,316 gallon limit.

The Company estimated 12 month emissions at 0.0144 tons of NO_x, 0.038 tons of CO, and 0.00699 tons of VOC.

Their permit application describes how emissions are calculated:

“Emission factors for VOC, NO_x, and CO were taken from EPA AP-42 Section 13.5, Emission Factors for Flare Operations.” Inputs into the emission factors were as reported in Attachment (1).

Post-Inspection Meeting

I held a brief post-inspection meeting with DM. I indicated that I had basically no compliance concerns but noted that the facility needs to be in compliance with Rule 301 for opacity when the flare is in use. DM appeared to understand the 20% opacity requirement for smoke. I thanked DM for his time and cooperation, and I departed the facility at approximately 11:30 AM.

Compliance Summary

Based upon the facility inspection, review of the records, and review of applicable requirements, the Company is in full compliance with their PTI. A future scheduled inspection that observed an actual flaring event should be considered to ensure the facility is in compliance with the opacity requirement during flaring events.



Image 1(Aerial Photo-distant) : Aerial photo of the facility; distant view.



Image 2(aerial photo-zoom) : Aerial photo of the facility; zoomed in view.



Image 3(Flare) : Flare

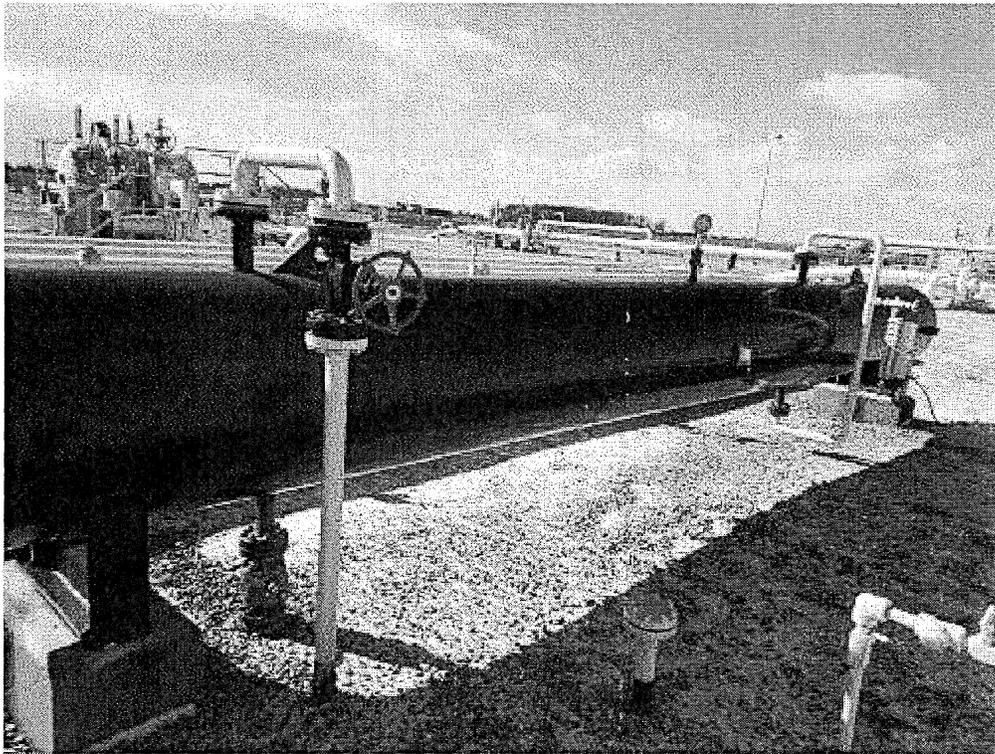


Image 4(Flash Tank) : Above ground flash tank

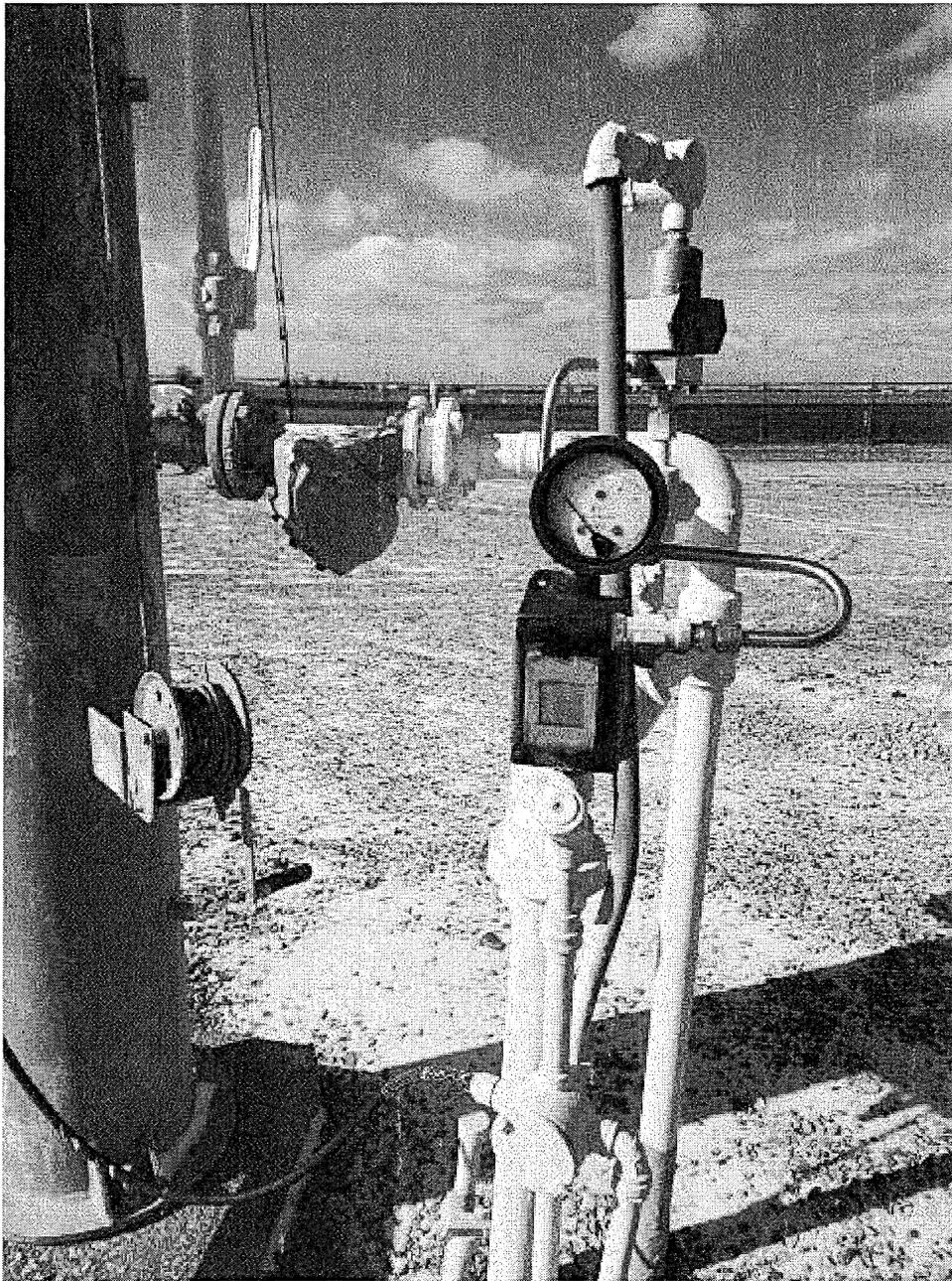


Image 5(Base of flare) : Base of flare.

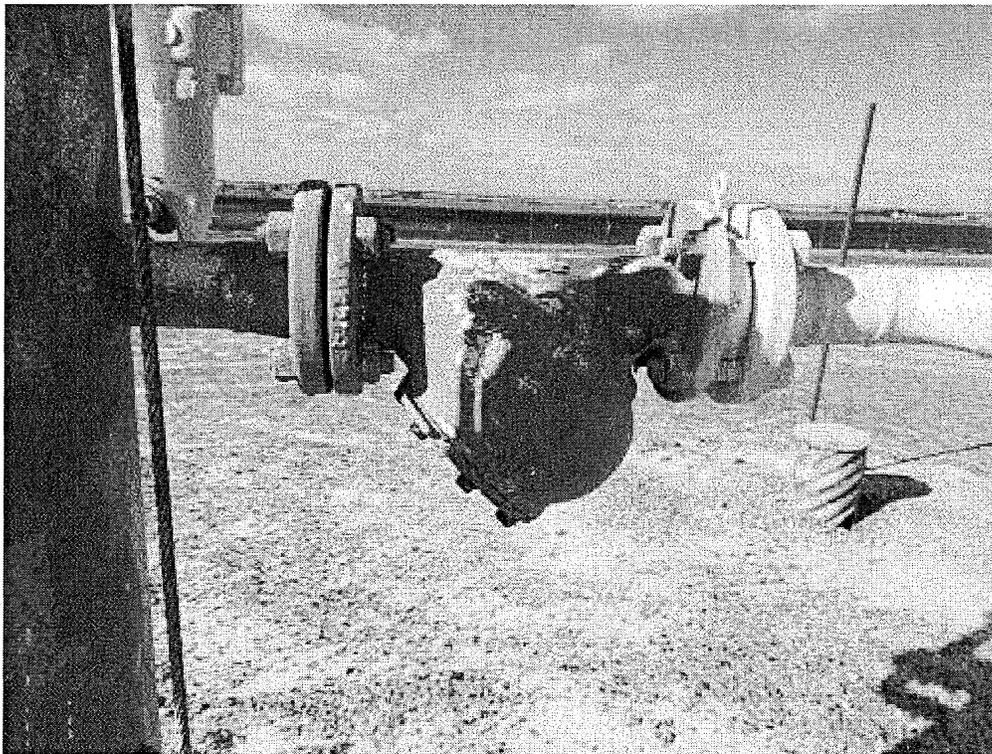


Image 6(Strainer) : Strainer used to trap iron oxides prior to entering the flare.

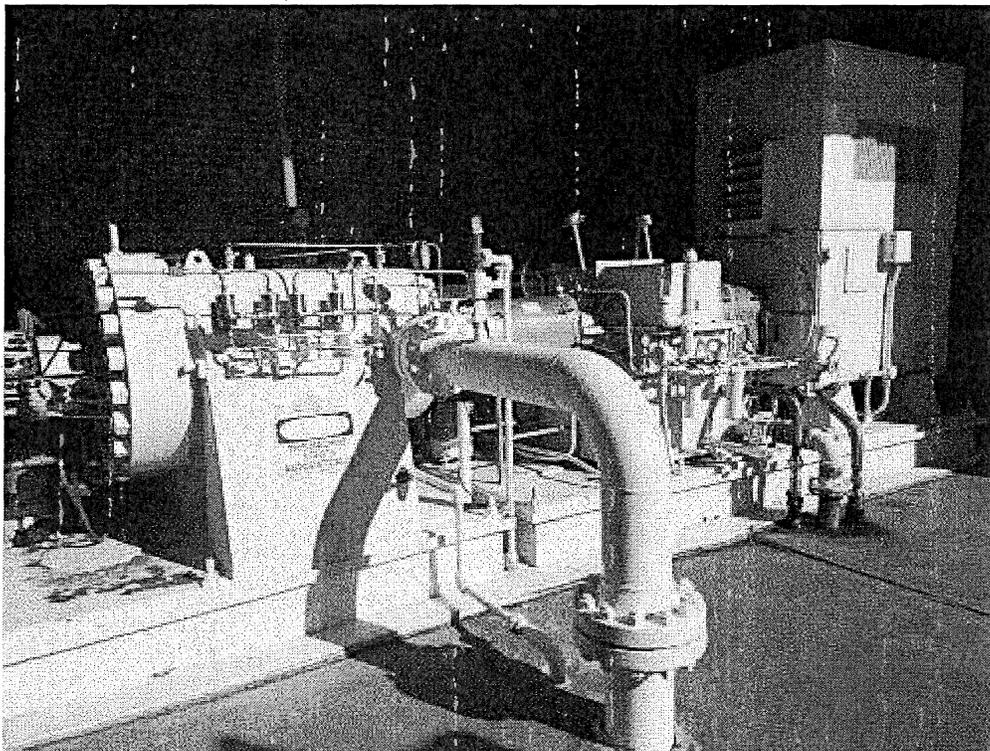


Image 7(Pump) : 200 HP Positive displacement pump power by an electric motor.



KMP Products Pipelines and Facilities

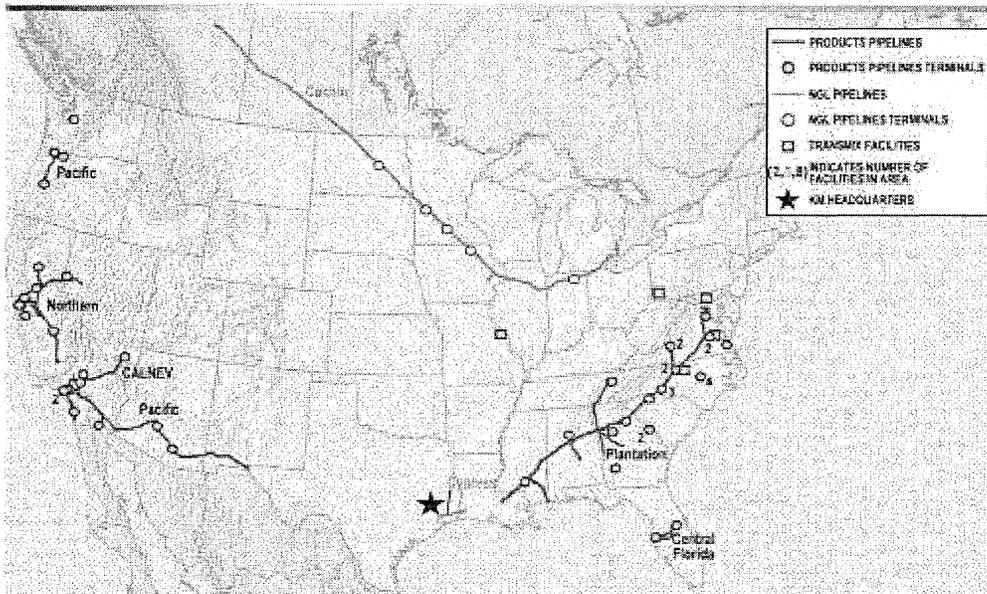


Image 8(Kinder Morgan Map) : Map of the Kinder Morgan pipeline system

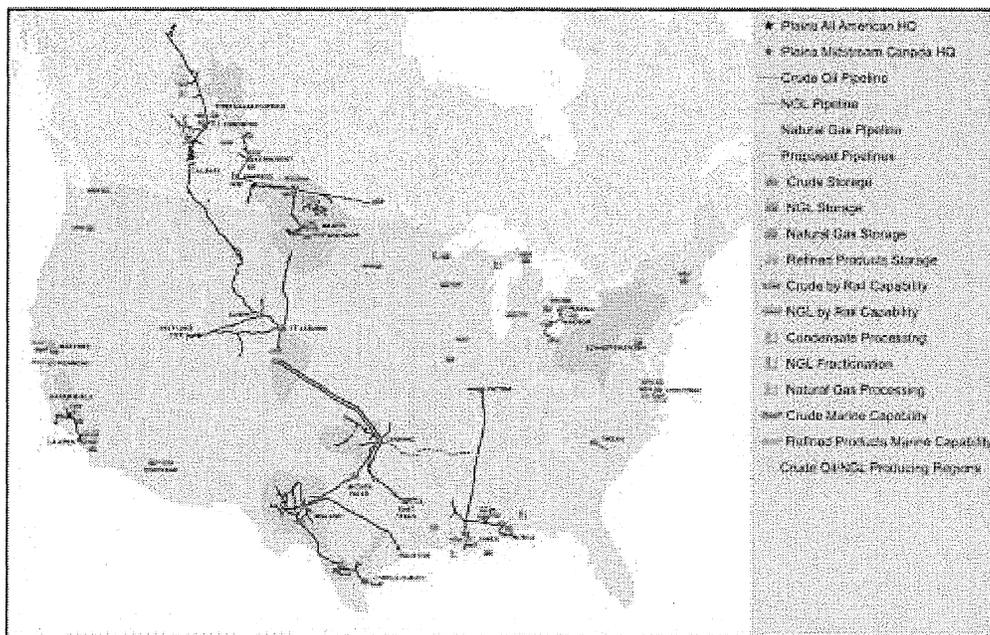


Image 9(Plains All American) : Map of the Plains All American pipeline system.

NAME M. Kovalchik

DATE 2/13/2017

SUPERVISOR _____