DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

B721928632

FACILITY: ANR Pipeline Co. South Chester Compressor Station		**SRN / ID:** B7219
LOCATION: 6327 Old State Rd., JOHANNESBURG		**DISTRICT:** Gaylord
CITY: JOHANNESBURG		**COUNTY:** OTSEGO
CONTACT: Barry Fisher ,		**ACTIVITY DATE:** 02/25/2015
STAFF: Bill Rogers	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: LDAR inspection observation and site inspection		
RESOLVED COMPLAINTS:		

On February 25, 2015, I went to ANR Pipeline South Chester Station to observe a Leak Detection and Repair (LDAR) Inspection. While there I conducted a self-initiated site inspection. I did not find any violations.

The facility is operating under Renewable Operating Permit MI-ROP-B7219-2012.

LDAR INSPECTION

Barry Fisher met me and got me signed in. Mr. Bruce Bendes, who handles environmental matters for facilities including South Chester, came on site to observe the test; he showed me through the facility during my inspection as well. Jeremy Howe of AQD also attended. The test was run by Bureau Veritas personnel Tom Schmelter and Nick Tokach.

Mr. Fisher mentioned the plant was letting gas flow out at something around 800 or 900 PSI. Mr. Bendes said they plan to shut in this field soon, perhaps as soon as the day after the test.

The various items, such as valves, elbows, flanges, caps, sampling ports, and instrument probes, which ANR needs to check under their LDAR Plan are marked with numbered metal tags. Each facility has its own range of 50 tags or so, numbered from a unique starting point so that no two facilities have the same numbers. The tags at South Chester start at 400. Tags which are for points designated "difficult to reach" or "dangerous to reach" are red, the rest are yellow. I agree that the red-tagged points I saw were difficult or dangerous to reach, under the Federal definitions as I understand them.

A leak is defined as detecting 500 ppm above background. The highest value detected during the check was 110 ppm, so there were no official leaks.

Mr. Schmelter tested the hand held Flame Ionization Detector for accuracy and response time. He used two gasses, a zero gas and a span gas at 493.5 ppm. The instrument would respond to either of these and indicate approximately the correct value within 5 seconds. Values recorded were all within the 10% tolerance allowed in the test method:

Pre-test check at 9:45: Zero gas, instrument reading 1.2 ppm, 493.5 ppm span gas, instrument reading 491 ppm. Second try readings 1.1 ppm and 487 ppm, third try 1.3 ppm and 473 ppm

Post check at 10:14, the "zero" reading was 1.7 ppm and the span reading was 469 ppm. Mr. Schmelter observed that the instrument had been drifting lower through the test, but was still within the allowed 10% tolerance.

I noted a few points as Mr. Schmelter called them out and Mr. Tokach recorded them:

Point 400, large flange above reboiler, background 7 ppm, highest 16.3 ppm

Flange 401 background 4 high 4.3, nearby points 402, pressure transducer 2.4, pipe fittings 403 2.5, 404 2.3, and 405 2.5

406 top flange 29.0, 407 union 2.7, 408 background 6, test reading 35.0

409, outside on condenser, condenser end cap, 10, 410 plug 24, 411 valve 54, 412 end cap 3.3, 413 plug 3.0, 414 flange 16, 415 valve 3.8.

At south end of condenser 416 plug background 3, high 2.7, 417 flange 4.3, 418 flange 4.3, 419 flange 3.7

INSPECTION

Glycol Dehydrator, emission unit EUSCGD006

The dehydrator was operating. There were no odors near it. It had no opacity.

Condition III.1 states the dehy should not operate unless the exhaust temperature is 160 degrees f or less. The condenser is outdoors and operates at ambient temperature, which this day was -5 degrees f. I saw a thermometer in one of the condenser pipes which indicated 5 degrees above zero.

Condition III.2 states that sweet natural gas shall be the only fuel used in the dehy burner. The facility stores pipeline quality natural gas, which is sweet. There were no tanks for other liquid or gaseous fuels.

Condition III.3 limits glycol circulation to 6 gallons per minute. In previous inspections Mr. Fisher told me that the glycol pumps are designed to run at this rate. The dehy pumps appeared not to have been changed when I saw them in this inspection.

Conditon IV.1 requires a properly operating condenser. The condenser was certainly cold enough this day. It was properly installed and appeared to be in good condition.

Conditon IV.2 requires a temperature monitor on the condenser. The plant computer control screen shows a readout for this temperature, and I confirmed there was a temperature monitor attached to the condenser at the proper point on the base of the exhaust stack.

Condition VI.1 requires logging alarm events from the condenser temperature monitor. Some days before my inspection, Mr. Bendes sent me a properly certified copy of the station alarm log, which demonstrates this is being done.

Condition VI.2 requires recording hours of operation per calendar month and 12 month rolling time period. Condition VI.6 requires recording VOC and benzene emissions per month and per 12 month rolling time period. These records are being kept. Attached records say the condenser operated 359 hours in February 2015. It processed 2613.3 MMCF. VOC emissions were estimated to be 0.125 tons and benzene 23.5 pounds.

Conditions VIII.1 and 2 set stack dimensions as, for the still column, maximum diameter 2 inches, minimum height 24 feet; for the reboiler, no diameter specified, minimum height 22 feet. The stacks for the dehydrator appeared to meet these specifications.

Two reciprocating natural-gas fired engines, flexible group FGSCENG:

Condition III.1 requires using only sweet natural gas as fuel. The facility stores pipeline quality natural gas, which is sweet. I didn't see any tanks large enough to contain any other liquid or gaseous fuel for the engines.

Note the company is reporting three engine emission units. One is EUSCGEN001, the emergency generator. The other two are the compressor engines EUSCENG002 and EUSCENG003. This is why the compressor engine emission unit IDs end in "2" and "3" even though there are only two of them.

Condition VIII.1 and 2 require the stacks for the engines to have a maximum diameter of 24 inches and minimum height of 49 feet. The stacks appeared to meet these specifications.

Neither engine was operating today.

Emergency generator EUSCGEN001:

Condition IV.1 requires a non-resettable hour meter. This is present.

The facility also includes a boiler for building heat, rated 1.674 MMBTU/hr heat input and four natural gas fired withdrawl heaters rated at 10 MMBTU/hr heat input each. Maintenance of the facility appears good. I did not notice any odors onsite. I did not see any opacity. The dehy was operating but no other major equipment onsite was operating at the time of my inspection.

NAME William J Rogers Jr. DATE 2/27/15 SUPERVISOR