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COMMONWEALTH OF PENNSYLVANIA **MEMO**
Department of Environmental Protection
Southwest Regional Office

TO: Air Quality Case File OP-32-00157

FROM: Nicholas J. Waryanka, P.E.
Air Quality Engineer
Air Quality

THROUGH: Barbara Hatch, P.E.
Environmental Engineer Manager
Air Quality

Mark A. Wayner, P.E.
Regional Manager
Air Quality

for 6/26/14

DATE: May 12, 2014

RE: Title V Operating Permit Renewal Application OP-32-00157
Peoples TWP LLC (Peoples TWP)
Kinter Compressor Station
Rayne Township, Indiana County
APS 709374 AUTH 817137 PF 280029

BACKGROUND

On November 23, 2009 the Department received a renewal Title V operating permit application from TW Phillips Gas and Oil Company (TW Phillips) for the Kinter Compressor Station (Kinter). The station receives natural gas from local shallow wells (no Marcellus) or from storage where it is compressed and sent downstream via four pipelines, all to Peoples TWP. No other gas production operations are conducted at this facility. Operation of the equipment at Kinter results in the emission of various air contaminants. As a result of the levels of NOx emitted, Kinter is a major stationary source as defined in Title I, Part D of the Clean Air Act Amendments. As such, the facility is subject to the Title V permitting requirements adopted at 25 Pa. Code, Chapter 127, Subchapter G.

On July 29, 2011 the Department received notification that TW Phillips was acquired by LDC Holdings II, LLC, an indirect subsidiary of SteelRiver Infrastructure Fund North America LP and was merged into Peoples TWP LLC.

The main sources of emissions at the facility include four 150 bhp Ingersoll-Rand model #XVG-4 compressor engines and two 225 bhp Ingersoll-Rand model #XVG-6 compressor engines. These are sources #101 - 106 in the permit and all are four-stroke, rich burn (4SRB) units. The station also operates a natural gas-fired emergency electric generator (Source #107) rated at 75 kW and 140 bhp and also accounts for facility fugitive emissions (Source #108).

Girty's previous renewal Title V permit expired on June 13, 2010. The application was considered timely pursuant to Section B, Condition #004 of the Title V permit which requires a renewal application be submitted at least six months prior to permit expiration. Receipt of the renewal application was published in the *PA Bulletin* on January 9, 2010. The application was deemed administratively complete on March 24, 2010.

REGULATORY ANALYSIS

There are several recent federal regulatory requirements which could potentially apply to this facility, both National Emission Standards for Hazardous Air Pollutants (NESHAPs) and New Source Performance Standards (NSPS). These will be discussed below:

NSPS

NSPS require new, modified, or reconstructed sources to control emissions to the level achievable by the best demonstrated technology as specified in the applicable provisions. Any source subject to an NSPS is also subject to the general provisions of NSPS Subpart A except where expressly noted. There are three NSPS that need to be evaluated for applicability to Kinter.

40 CFR Subpart LLL – NSPS For Onshore Natural Gas Processing SO2 Emissions applies to each sweetening unit (SU) and each SU followed by a sulfur recover unit at a natural gas processing plant. Kinter does not meet the definition of a *natural gas processing plant*, nor does the station include a sweetening unit. Therefore the requirements of Subpart LLL do not apply.

40 CFR Subpart KKK—Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants applies to affected facilities in onshore natural gas processing plants. Kinter does not meet the definition of *natural gas processing plant* and thus these requirements are not applicable.

40 CFR Subpart JJJJ – NSPS For Stationary Spark Ignition Internal Combustion Engines applies to manufacturers, owners, and operators of new stationary spark ignition internal combustion engines manufactured after July 1, 2007. Emergency generator engines are subject to NSPS Subpart JJJJ if manufactured on January 1, 2009 or later. Since the engines at this facility were made before July 1, 2007, this regulation is not applicable.

NESHAPs

NESHAPs are applicable to both major and area sources of hazardous air pollutants (HAPs). Part 63 NESHAPs apply to sources in specifically regulated industrial source categories (CAA Section 112(d)) or on a case-by-case basis (Section 112(g)) for facilities not regulated as a specific industrial source type.

Three NESHAPs standards have been recently promulgated which potentially could impact Kinter. These include: 1) Subpart HHH, Natural Gas Transmission and Storage, 2) Subpart HH, Oil & Natural Gas Production and 3) Subpart ZZZZ, Reciprocating Internal Combustion Engines.

Subpart HHH applies only to major sources of HAPs that transport or store natural gas prior to entering the transmission pipeline to end users as defined in 40 CFR §63.1271. Kinter is not a major source of HAPs. In addition, 40 CFR §63.1270(c) states that "The owner or operator of a facility that does not contain an affected source, as specified in paragraph (b) of this section, is not subject to the requirements of this subpart." The affected facilities that this regulation applies to are triethylene glycol (TEG) dehydration units which do not exist at this station. Thus, Subpart HHH is not applicable.

Subpart HH applies to both major and area sources but only to plants which meet the definition of Oil and Natural Gas Production Facilities. Kinter is a storage/production facility, however the only affected facilities that this regulation applies to for area sources are TEG dehydration units. Therefore, Subpart HH requirements are not applicable since there are no TEG dehydration units at Kinter.

Subpart ZZZZ applies to the owners/operators of new, reconstructed, and existing stationary reciprocating internal combustion engines (SRICE) at both major sources of HAPs and area sources of HAPs such as Kinter. On August 10, 2010 the US EPA revised Subpart ZZZZ to establish requirements for existing stationary RICE. It was amended again on January 30, 2013. The applicable requirements depend on numerous factors including engine type (rich burn or lean burn), stroke (2 or 4), rated horsepower, fuel type, age (new, existing, or reconstructed), and purpose (emergency or non-emergency).

Existing engines must comply with the applicable emission and operating limitations of Subpart ZZZZ no later than October 19, 2013. 40 CFR §63.6603 requires area sources to comply with the applicable requirements in Table 2d to this subpart and the applicable operating limitations in Table 2b. For these particular engines which are 150 bhp and 225 bhp 4SRB units only Table 2d applies. It requires these engines to undergo oil and filter changes, spark plug inspection/replacement when necessary, and inspection/replacement when necessary of hoses and belts every 1,440 hours of operation or annually, whichever comes first.

40 CFR §63.6605 requires compliance with emission limitations, operating limitations, and operation in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. 40 CFR §63.6625(e) requires operation and maintenance of the SRICE according to manufacturer's emission-related written instructions or development of specific engine maintenance plans which provide for operation in a manner consistent with good air pollution control practice for minimizing emissions. 40 CFR §63.6625(f) instructs the permittee to install a non-resettable hour meter on the unit if one is not already installed. 40 CFR §63.6625(h) states that an engine's time spent at idle during startup be minimized to a period needed for appropriate and

safe loading of the engine not to exceed 30 minutes after which all applicable emission standards apply.

40 CFR §63.6645 covers notifications for affected sources while 40 CFR §63.6655 contains recordkeeping provisions for conducted maintenance. Table 8 lists all of the General Provisions of Part 63.1 through 63.15 which are applicable. All applicable requirements from 40 CFR Part 63, Subpart ZZZZ have been added to the proposed SOOP renewal.

Additional Federal Requirements

40 CFR Part 64: Compliance Assurance Monitoring
The Compliance Assurance Monitoring (CAM) requirements of 40 CFR §§ 64.1-64.10 have been evaluated for applicability to Kinter. The CAM rule was promulgated by EPA in 1997 and it is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act (CAA). In accordance with 40 CFR 64.2(a), CAM applies to each pollutant-specific emission unit (PSEU) that:

- Is located at a major source that is required to obtain a Title V permit,
- Is subject to an emission limitation,
- Uses a control device to meet that limit, and
- Has pre-controlled emissions greater than the major source threshold.

At the Kinter Station, control devices are not used to achieve compliance with emission limitations. Therefore, CAM is not applicable to this facility.

40 CFR Part 68 Chemical Accident Prevention Provisions: This part sets forth the list of regulated substances and thresholds and the requirements for owners or operators of stationary sources concerning the prevention of accidental releases. The substances and threshold quantity that are considered a regulated substance under this part are listed in Tables 1, 2, 3, and 4 to 40 § 68.130. Peoples TWP does not store any of the listed compounds at the Kinter Station; therefore the requirements of this subpart do not apply.

40 CFR Part 98 Mandatory Greenhouse Gas Reporting: This part was promulgated on October 30, 2009. In accordance with 40 CFR § 98.2(a), the Greenhouse Gas (GHG) reporting requirements and related monitoring, recordkeeping, and reporting requirements of this part apply to the owners and operators of any facility that is located in the United States and that meets the requirements of either paragraph 40 CFR § 98.2 (a)(1), (a)(2), or (a)(3) of this section.

However, public comments to the Greenhouse Gas Mandatory Reporting Rule (GHG MRR) questioned the requirements of this rule to meet current definitions of ''applicable requirement'' at 40 CFR §§ 70.2 and 71.2. The commentators requested that USEPA confirm their interpretation of the regulations. The EPA provided the following response: "As currently written, the definition of ''applicable requirement'' in 40 CFR §§ 70.2 and 71.2 does not include

a monitoring rule such as today's action, which is promulgated under CAA sections 114(a)(1) and 208." The preamble of the final version of the GHG MRR, located at 74 Fed Reg 209, pp. 56287-56288, states that the GHG MRR is not considered an "applicable requirement" under the Title V Operating Permit program. Therefore, this Subpart, while it may be an obligation for this facility, is not considered an applicable condition for this Title V Operating Permit.

40 CFR Parts 51 and 52 Greenhouse Gas Tailoring Rule: This regulation was issued on May 13, 2010. This rule establishes a process for conducting Prevention of Significant Deterioration (PSD) reviews, including Best Available Control Technology (BACT) determinations for control of greenhouse gases (GHG) when a new source or a modification to an existing source results in emissions of GHGs in excess of certain thresholds. The applicability of the Greenhouse Gas Tailoring Rule was evaluated during the review of the Title V application. New industrial facilities that emit the equivalent of 100,000 tons of carbon dioxide per year and modified sources that increase their emissions by 75,000 tons annually are required to get PSD approvals for greenhouse gas emissions. Since May 13, 2010, there have not been any changes at this site, so GHG PSD has not been triggered.

PA Requirements

Title 25 PA Code Section 123.13(c) limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf). Title 25 PA Code Section 123.41 limits visible emissions at up to 3 minutes at up to 20 percent opacity each hour, never to exceed 60 percent.

Additional conditions included in this SOOP are from Title 25 of the PA Code as well as appropriate monitoring, recordkeeping and reporting requirements.

PERMIT CHANGES

There have been several changes made in this renewal operating permit. The latest Department inspection conducted at the facility on March 6, 2014 revealed several small emission sources that were not included in the original 2009 application. These are presented and discussed below:

1. One 55 gallon parts washer manufactured by Environmental Specialists, Inc., Serial #032012. Uses RC142 solvent with a product # of RC-142. This source has been added to the permit along with the applicable requirements from 25 Pa. Code §129.63.

2. Four storage tanks having capacities and containing materials as follows:

    - One (1) 3,000 gallon Produced Fluids above ground tank (outside)
    - One (1) 1,000 gallon Waste Oil above ground tank (outside)
    - One (1) 740 gallon New Engine Oil Tank (inside building in cellar)
    - One (1) 500 gallon New Engine Oil Tank (inside building in cellar)

These tanks have been included in the Title V permit as a grouped source, Miscellaneous Storage Tanks.

3. One (1) Chrysler 318 natural gas-fired emergency generator. This unit has been included in the Title V permit.

4. One (1) diesel-fired emergency generator which has not operated in at least 5 years. According to an April 30, 2014 email from Peoples TWP, this unit will soon be removed from service and the fuel line capped. Therefore, it was not included in the Title V permit.

EMISSION INFORMATION

The compressor engines at Kinter operate almost continually other than for maintenance downtime so that actual emissions at the facility approach its potential to emit. There will be ten emission sources in the renewal operating permit. In addition to the six compressor engines (Source #101-106), facility fugitive emissions (Source #107), emergency generator engine (Source #108), miscellaneous storage tanks (Source #109), and a parts washer (Source #110).

The following tables illustrate Kinter Station's actual emissions for the 2013 calendar year as reported by Peoples TWP in their annual emissions inventory.

Table 1 – Kinter Station 2013 Actual Emissions, Criteria Pollutants

Criteria Pollutant	Emissions in Tons Per Year
Carbon Monoxide	113.9
Nitrogen Oxides	38.8
Particulate Matter < 10 Microns	0.6
Particulate Matter < 2.5 Microns	0.6
Sulfur Oxides	0.02
Volatile Organic Compounds	13.5

Table 2 – Kinter Station 2013 Actual Emissions, Hazardous Air Pollutants (112b HAPs)

112b HAP	Emissions in Tons Per Year
Acetaldehyde	0.09
Acrolein	0.09
Benzene	0.04
Formaldehyde	0.62
1,3-Butadiene	0.01
Toluene	0.01
Methanol	0.10
Total 112b HAPs	0.96

Table 3 – Kinter Station 2013 Actual Emissions, Greenhouse Gases

Greenhouse Gas	Emissions in Tons Per Year
Carbon Dioxide	3,582.0
Methane	628.1
Total Greenhouse Gases	4,210.1

There are no additional sources at the site that are considered trivial or insignificant activities that are not included under one of the emission sources in the operating permit.

CONCLUSIONS AND RECOMMENDATIONS

I have completed my review of Peoples TWP renewal Title V permit application for their Kinter Station. Peoples TWP has met the regulatory requirements associated with this application submittal. The attached proposed permit reflects terms and conditions as described in Peoples TWP permit application. It is my recommendation to issue a Title V permit for this facility.