

MEMO

TO: Robert G. Vornlocker, Franklin Township Manager

COPY: Senators Bob Smith & Christopher Bateman; Assemblymen Joe Danielsen, Joseph Egan, Andrew Zwicker & Roy Freiman

FROM: Franklin Township Task Force on Compressor Station 206 & NESE

DATE: August 28, 2018

SUBJECT: Urge Franklin Township to officially request that the New Jersey Department of Environmental Protection (NJDEP):

- (1) withdraw the Air Pollution Control Preconstruction Permit and Certificate to Operate Construction of a New Source (Activity No. PCP170001) after September 7, 2018;
- (2) require that Williams/Transco submit a new air pollution permit application under the updated air quality permit requirements that were operative on February 12, 2018;
- (3) require that Williams/Transco provide data of actual air emissions from an existing Solar MARS 100 turbine; and
- (4) require that Williams/Transco measure existing air quality emissions at the site of the proposed Compressor Station 206 (CS206)

REFERENCE: Transcontinental Gas Pipe Line Company, LLC - Northeast Supply Enhancement Project

- (1) Nearly one year has transpired since the approval of Williams/Transco's Air Pollution Control Preconstruction Permit and Certificate to Operate Construction of a New Source Air Permit Activity No. PCP170001 was issued.
- (2) N.J.A.C. 7:27-8.16 states that NJDEP can withdraw permit if no activity has begun within a year for an approved permit application.
- (3) Williams/Transco's submission in its FERC application on 3/27/2017 provided 2 sets of Solar MARS 100 test run emissions that indicate significant change in emissions associated with temperature. This test indicates that Solar MARS 100 is highly susceptible to temperature and undefined dependencies on elevation and air quality. If MARS 100 is so transient in efficiency response to temperature, how do other environmental factors impact the Solar MARS 100 performance and efficiency?
- (4) Data does not account for existing air quality of the proposed location for CS206.
- (5) From submitted information, there cannot be relevant or meaningful potential to emit estimations for CS206.

NJDEP PERMIT: Air Pollution Control Preconstruction Permit and Certificate to Operate Construction of a New Source

Permit Activity Number: PCP170001

Program Interest No. / Facility ID No.: 36396 **Approval Date:** 09/07/2017

Facility Name: TRANSCO COMPRESSOR STATION 206

Street Address: RT 518 **City:** Franklin Twp **State / Zip:** NJ 08853

Basis for Request:

N.J.A.C. 7:27-8, "Permits and Certificates for Minor Facilities"

- **Section 8.16 – Revocation:**

(b) The Department may withdraw its approval of a preconstruction permit or permit revision if the permittee:

 1. Does not begin the activities authorized by the permit or permit revision within one year from the date of its approval

- **Section 8.13 - Conditions of approval:**

(b) The Department may change the conditions of approval of a certificate:

 3. At any time during the period a certificate is in effect, if the Department determines that such change is necessary to protect human health or welfare or the environment.

Permit issued by NJDEP on 9/7/17 – General Provisions and Authorities - No. 32:

- In accordance with N.J.A.C. 7:27-21, facilities are required to submit annual emission statements of their actual emissions if the Potential-to-emit for the entire facility exceeds the following thresholds (including all emissions from the facility, both permitted and unpermitted).

Reasons for withdrawing the permit after September 7, 2018:

- There is no anticipation that there will be any activity that was authorized in this permit by September 7, 2018.
- The revised thresholds were enacted to protect human health, and the anticipated emissions from one compressor unit for the NESE Project exceed all of them. At this facility, there will be two compressor units. (see Attachment B)
- The expected emissions provided by Williams/Transco in their air permit application to NJDEP, published in their 3/27/2017 FERC application, indicate a high variance of emissions that does not account for the location of the proposed Compressor Station 206, actual air quality at the proposed site next to another polluting industrial facility (Trap Rock Quarry), the elevation of the proposed CS206, or actual emissions from existing nearby MARS 100 compressors.

Reasons for reconsidering the issued permit and changing the conditions of approval:

- NJDEP found that the original water quality applications (submitted in June & July 2017) were incomplete, and Williams/Transco withdrew & resubmitted them in June 2018. NYSDEC also rejected them for incompleteness in April 2018.

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Reasons for reconsidering the issued permit and changing the conditions of approval (cont.)

- NJDEP's initial review of the June 2018 applications for water permits again found them to be "deficient" (July 18, 2018).
- NJDEP did not request actual data of emissions from another Solar Mars 100 turbine compressor unit.
- NJDEP did not seem to review test runs of MARS 100 turbines, as provided in the FERC 3/27/2017 application, demonstrating high variance of emissions output.
- Solar provided data from two (2) test runs on Solar Mar 100 units in the application for the Air Pollution Control Permit, and some data was missing. (*See Appendix A*) Additionally, this did not take into account the difference between the location where test runs were performed versus target location where the Compressor Station 206 is proposed to be installed.
- If Volatile Organic Compounds (VOCs) are higher, or other contaminants such as Particulate Matter (PM_{2.5} and PM₁₀) are higher in New Jersey than where the testing occurred, the efficiency of combustion conversion to energy is reduced, i.e., more pollutants and unburned fuel would be released.
- Inconsistencies reported in data and Vendor Performance Specifications indicate a dependency on outside temperatures. This indicates that the turbines are highly susceptible to outside air quality, temperature and elevation.
- Data and Specification Sheets show that both RPM and HP are lower at higher (average: 59°F) temperatures which suggests that combustion is converting less fuel to energy. Here, there is the possibility that increased unburned fuel would be released as exhaust.
- Humidity and ambient air quality directly impact combustion, yet data was only provided for 60% humidity, and the ambient air quality measures were not taken at the immediate site that is next to an air polluting facility (Trap Rock Quarry).
- Solar does not warranty emissions for SO₂, PM₁₀, PM_{2.5}, VOC and formaldehyde according to their Predicted Emission Performance pages.
- Monitors used for the ambient air quality readings were not all at the closest ones to the proposed Compressor Station 206 site, and wind direction is a relevant factor. For example there are monitoring stations at Edison's EPA building and at the Rutgers station at Cook College which are closer than Elizabeth, NJ or Philadelphia, PA.
- NJDEP has now adopted more protective air quality standards for reviewing permit applications that are submitted after February 2018. Referencing these, the estimated emissions of Hazardous Air Pollutants from the proposed Compressor Station 206 exceed the limits. (*See Appendix B*)
- FERC recognized the need to look at the newly adopted thresholds standards of NJDEP in their request for more information from Williams/Transco on July 10, 2018. (*See Appendix C*)

Request that NJDEP do the following:

(1) Withdraw the Air Pollution Control Preconstruction Permit and Certificate to Operate Construction of a New Source after September 7, 2018

- a. Do not grant any requested extension of the permit if one is requested by Williams/Transco before September 7, 2018.
- b. Withdraw the permit (Permit Activity Number: PCP170001; Program Interest No. / Facility ID No.: 36396) after September 7, 2018.
- c. Formally document NJDEP's withdrawing of the September 7, 2017 permit to Williams/Transco on the FERC docket for CP17-101.
- d. Require Williams/Transco to submit a new application that will then need to comply with the new threshold standards that were adopted on December 14, 2017 and operative on February 12, 2018.

(2) Review the Air Pollution Control Permit issued on September 7, 2017 for Compressor Station 206 to change the conditions of approval

- a. Review FERC's 7/10/18 request, Williams/Transco's response (7/25/18), and FERC's Meeting Minutes (7/30/18) pertaining to HAPs. (*See Appendix C*)
- b. Identify, in writing to Williams/Transco, that there is a need to change the conditions of approval based on the need to protect human health, welfare and the environment.
- c. Add conditions of approval to the issued permit and certificate to protect human health, welfare and the environment that include:
 - Ask Williams/Transco to voluntarily make adjustments to their plans so that the potential emissions from Compressor Station 206 will comply with the newly adopted thresholds that have been deemed to be protective of human health, welfare and the environment.
 - Require that Williams/Transco fund a Health Impact Assessment to be performed by an organization that is approved by both NJDEP and Williams/Transco that will gather baseline data (before construction) from cooperating residents in the vicinity of the proposed Compressor Station 206 site, and that will continue for five (5) years after Compressor Station 206 is operational if it is approved and constructed.
- d. Require installation of NJ/EPA-approved air quality monitors at the proposed Compressor Station 206 site that will measure all NAAQS, HAPs and VOCs in real time and make the results available online to the public in real time.
- e. Complete a Health Risk Assessment according to Department guidelines that accounts for the current HAPS thresholds.

Appendix A

Appendix A of Application to NJDEP (January 4, 2017)

Vendor Performance Specifications: Solar Turbines – Predicted Engine Performance for Mars 100-1600S

Date Run	Specified Load %	Driven Equipment Speed RPM	Net Output Power HP	Temperature	Humidity %	NOx tpy	CO tpy	UHC tpy
11/21/16	100	9347	17242	0°F	60	20.28	20.58	19.64
11/21/16	90	9086	15517	0°F	60	?	?	?
11/21/16	80	8796	13794	0°F	60	?	?	?
11/21/16	70	8461	12069	0°F	60	?	?	?
11/28/16	100	9023	15216	59°F	60	18.11	18.37	17.54
11/28/16	90	8692	13694	59°F	60	17.04	17.29	16.51
11/28/16	80	8398	12172	59°F	60	16.30	16.53	15.78
11/28/16	70	8054	10651	59°F	60	15.41	15.63	14.92
11/28/16	60	7650	9130	59°F	60	14.37	14.58	13.92
11/28/16	50	7155	7608	59°F	60	13.27	13.46	12.85

Data = from pages 99 to 105 (of 946) in Williams/Transco's Resource Report 9 part of Application to FEREC: Appendix 9B: Air Permit Application (3/27/17) – Accession No. 20170327-5102(32053902)

Appendix B

Emissions of caustic chemicals predicted by Williams/Transco for two (2) Solar MARS turbines at proposed Compressor Station 206 & NJDEP Reporting Thresholds (old & new)

EMITTED CHEMICAL	POUNDS PER YEAR			
	To be emitted		Reporting Thresholds (NJDEP)	
	from one turbine	from two turbines	<i>new</i>	<i>old</i>
			N.J.A.C. 7:27-17.9 (February 12, 2018)	N.J.A.C. 7:27-8 (February 27, 2015)
Formaldehyde	334	668	3.5	400
Acetaldehyde	44	88	21	1,800
Acrolein	7.02	14.04	1	8
Benzene	13.18	26.36	6	87.6 (0.01 lbs/hour)
Ethylbenzene	35.2	70.4	19	2,000
Naphthalene	1.428	2.856	1.4	2,000
Propylene Oxide	31.8	63.6	12	1,000
Toluene	142.5	285		2,000
Xylenes	70	140		2,000
Ammonia	14,790 *	29,580 *	* No threshold standards	

Appendix C

Relevant document components from the FERC Docket for CP17-101

On July 10, 2018, FERC issued requests for data from Williams/Transco, and their #12 request was:

On February 12, 2018, the New Jersey Department of Environmental Protection's amendment to its Control and Prohibition of Air Pollution by Toxic Substances and Hazardous Air Pollutants regulations at Title 7, chapter 27, subchapter 17 of the New Jersey Administrative Code became effective, lowering the reporting threshold for numerous hazardous air pollutants (HAPs) and establishing operation and recordkeeping requirements for certain emission sources. Provide a table similar to that in Resource Report 9, Attachment B, disclosing estimated HAPs emissions from Compressor Station 206, comparing the HAPs emissions to the new reporting thresholds, and indicating whether each HAP would be reportable. Also identify any other applicable requirements resulting from this rule change (e.g., risk assessment or air dispersion modeling) and how Transco would comply with the requirements.

FERC Accession No. 20180710-3015(32994332)

On July 25, 2018, Williams/Transco provided the following response:

The reporting thresholds contained in N.J.A.C. 7:27-17 (Subchapter 17) do not apply to Compressor Station 206. The permit to construct and operate (PCP170001) was issued on September 7, 2017, prior to the effective date of this regulatory amendment. The currently permitted emission sources at Compressor Station 206 would only become subject to these reporting thresholds if an application to modify the emission sources is submitted in the future.

The Subchapter 17 rule decreases the reporting threshold for 106 listed Hazardous Air Pollutants (HAPs) and increases the reporting threshold for another 15 listed HAPs. The rule became effective on January 16, 2018 with an operative date of February 12, 2018, more than 5 months after the permit was issued for Compressor Station 206. The new rules and amendments of this NJDEP rulemaking do not include any new or additional monitoring, recordkeeping, reporting, or testing requirements beyond those already established in the regulations.

Applicability of HAP Reporting Thresholds for New Sources of Emissions

When evaluating air permit applications for new sources of air emissions, NJDEP applies the rules that are operative at the time that the application is submitted. Transco submitted its preconstruction permit application for the Compressor Station 206 turbines in January 2017, approximately 1 year prior to the operative date of the new rule(s). As such, the potential HAP emissions listed in the application were reviewed by the NJDEP under the currently enforceable reporting thresholds, contained in N.J.A.C. 7:27-8, which remain in effect for all other existing permits.

Phase-in of the New N.J.A.C. 7:27-17 Reporting Thresholds

The applicability of the amended HAP reporting thresholds to existing preconstruction permits is discussed in the "Phase-in of the proposed HAP reporting thresholds" section of the NJDEP's notice of proposal Summary (49 N.J.R. at 2381) and in its response to comments to the Rule Adoption (49 N.J.R. 2373(a)).

As noted in the Rule Adoption referenced above:

“The Department will not require updated HAP emission rates for existing preconstruction permits, unless an application for a modification is filed. In an application for a modification to an existing preconstruction permit, the HAP reporting thresholds apply only to those source operations that are being modified, for purposes of determining the source’s potential to emit. This is consistent with adopted N.J.A.C. 7:27-8.4(k)1, which refers only to a source operation’s potential to emit.”

While the N.J.A.C. 7:27-17 reporting thresholds do not apply to the permitted sources at Compressor Station 206, Transco is including Table 2 below to detail the current applicable thresholds against the Department’s new regulation.

Table 2
HAP Reporting Thresholds: N.J.A.C. Subchapter 8 and Subchapter 17

Hazardous Air Pollutant	Maximum Potential Emissions (lb/yr) <i>*One Solar Mars 100 unit</i>	N.J.A.C. 7:27-8 Reporting Threshold (lb/yr) <i>*currently applicable</i>	N.J.A.C. 7:27-17 Reporting Threshold (lb/yr) <i>*not applicable</i>
Formaldehyde	334.30	400	3.5
1,3-Butadiene	0.47	14	1.5
Acetaldehyde	43.92	1800	21
Acrolein	7.03	8	1
Benzene	13.18	87.6	6
Ethylbenzene	35.13	2000	19
Naphthalene	1.43	2000	1.4
PAH	0.26	2	2
Propylene Oxide	31.84	1000	12
Toluene	142.73	2000	2000
Xylenes	70.27	2000	2000

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FERC Accession No. 20180725-5235(33027056) – pages 19-20

FERC submission posted to CP17-101 docket on August 14, 2018
Meeting Minutes – July 30, 2018

Transco confirmed that the hazardous air pollutants estimates provided in its response to EIR request No. 12 from the July 10th issuance were for a single emissions unit at Compressor Station 206, and that those values would need to be doubled to obtain the total site emissions for the station. It should be noted that when combined, the formaldehyde potential to emit (PTE) for both turbines is greater than the applicable N.J.A.C. 7:27-8 reporting threshold. However, HAP reporting thresholds are evaluated at the individual source level and not according to the facility-wide emissions potential. The corresponding HAP emissions should be compared to the individual N.J.A.C. 7:27-8 thresholds.

FERC Accession No. 20180730-4003