BEFORE THE ENVIRONMENTAL REVIEW APPEALS COMMISSION

Protecting Air for Waterville c/o Cheryl Bourland 105 N. 4th Street Waterville, Ohio 43566	)	Docket No. 16-6984 Facility ID: 0448002148 Permit Number: #P0119251
and	)	October 7, 2016
Neighbors Against NEXUS 1045 County Road B Swanton, Ohio 43558.	)	16-6985
Appellantx,	)	
-vs-	)	
Craig Butler, Director Ohio Environmental Protection Agency P.O. Box 1049 Columbus, Ohio 43216-1049,	)	
Appellee.	)	

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NOTICE OF APPEAL OF PROTECTING AIR FOR WATERVILLE (PAW) AND NEIGHBORS AGAINST NEXUS (NAN) OF ISSUANCE OF PERMIT-TO-INSTALL AND OPERATE #P0119251 FOR WATERVILLE COMPRESSOR STATION

Notice is hereby given that the Appellants in this appeal, Protecting Air for Waterville ("PAW") and Neighbors Against NEXUS ("NAN"), both unincorporated associations, on behalf of their adversely affected and aggrieved members, including but not limited to Cheryl Bourland, David Bourland, Teri Bersee, James Bersee and Darlene Bell, hereby appeal to the Ohio

Environmental Review Appeals Commission from the issuance of Final Air Pollution Permit to Install and Operate ("PTIO") #P0119251 to "Reagan Mayces/Waterville Compressor Station" on September 9, 2016. The PTIO was issued for the installation and operation of the Waterville Compressor Station near Waterville Ohio essor Station, upon information and belief, may actually be installed and operated by NEXUS Gas Transmission, LLC as part of the NEXUS Gas Transmission Project, a 250-mile-long natural gas pipeline.

Appellants hereby request an adjudication hearing.

Cheryl Bourland, David Bourland, Teri Bersee, James Bersee and Darlene Bell are designated members of NAN and/orPAW for purposes of establishing organizational standing for PAW and NAN to proceed on their behalves. If for any reason PAW and/or NAN are not recognized as proper organizational entities with authority to represent their members, then alternatively, Cheryl Bourland, David Bourland, Teri Bersee, James Bersee and Darlene Bell bring this appeal on their individual behalves and request that their bases for standing as well as the substance of their appeal be considered on their and its merits.

A copy of Permit to Install and Operate #P0119251 is annexed hereto as "Exhibit A" and is incorporated fully herein by reference as though rewritten.

I. CONTACT INFORMATION FOR COMMUNICATIONS AND SERVICE

All communications, pleadings, and orders with respect to this proceeding should be sent to the following counsel of record for PAW, NAN and the individual members:

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II. BACKGROUND AND PROCEDURAL HISTORY

Reagan Mayces/Waterville Compressor Station, presumably on behalf of NEXUS Gas Transmission, LLC, has obtained an Ohio Administrative Code (OAC) Chapter 3745-31 Final Air Pollution Permit-to-Install and Operate (PTIO) for the Waterville Compressor Station, to be located in Waterville Township, Lucas County, Ohio.

The NEXUS Gas Transmission Project is a proposed greenfield commercial pipeline which will utilize new pipeline construction and the capacity of third-party pipelines to provide for the transportation of 1.5 million dekatherms per day ("th/d") of Appalachian Basin shale gas, including Utica and Marcellus shale gas production, to the Dawn Hub in Ontario, Canada. Through interconnections with existing pipelines, the sponsors of the pipeline assert that gas supply from the NEXUS Project will also be transported to the Chicago Hub in Illinois, and other Midwestern markets.

The United States portion of the NEXUS Project includes new greenfield pipeline in Ohio and Michigan and capacity leased from others in Pennsylvania, West Virginia, Ohio and Michigan, terminating at the United States/Canada international boundary between Michigan and Ontario. The Canadian portion of the Project will extend from the U.S./Canada international boundary to the Dawn Hub.

Sometime in 2015, Reagan Mayces/Waterville Compressor Station applied to the Ohio Environmental Protection Agency ("OEPA") for a Permit to Install and Operate the Waterville Compressor Station, proposed to be built approximately one mile west of Waterville, Lucas County, Ohio. There are residences located within one-quarter mile from the compressor station site.

A public hearing was convened by OEPA on March 16, 2016 in the midst of a public comment period. The PTIO was issued by the Director of OEPA on September 9, 2016 and this timely appeal is taken from that issuance.

There will be air emissions from a number of sources at the Waterville Compressor Station, including a 29,517 horsepower turbine compressor pump; an emergency generator with a natural gas-fired fuel gas heater; fugitive releases from piping components, such as valves and fittings; gas releases, working, breathing, and flashing losses from storage vessels; vapor losses from liquid loading operations; non-routine activities, such as maintenance activities, will require ventings/blowdowns of sections of pipe between valves located along the pipeline.

Besides emitting a toxic stew of volatile organic chemicals (VOCs) and polynuclear aromatic hydrocarbons (PAHs) which are endemic to the process of hydraulic fracturing for oil and gas, the NEXUS Project also will routinely, intentionally and unintentionally, leak fine particulate and radon gas. Radon is a naturally-occurring odorless and tasteless radioactive gas which is produced by the radioactive decay of Radium-226 and is found in uranium ores and shales. Radon is the second-largest cause of lung cancer in the United States, behind smoking. NEXUS Gas Transmission, LLC expects an average concentration of radon of 37 picocuries per liter (pCi/L) at normal atmospheric pressure in the air near the compressor station. That is more than nine (9) times levels of radon deemed relatively harmless by the U.S. Environmental Protection Agency.

NEXUS Gas Transmission, LLC plans to install the following emissions sources at the Waterville Compressor Station:

> a natural gas-fired catalytic heater;

> a remote reservoir parts washer;

> roadways from which trucks will emit fugitive particulate emissions;

> loading facilities on which there will be periodic transfer of condensate liquids, used lubricating oil, and oily water to tanker trucks for shipment off-site;

> a 29,517 HP (196.51 MMBtu/hr) natural gas-fired Solar Turbine;

> an 880 hp natural gas-fired emergency electrical generator;

> gas releases due to periodic maintenance, compressor blowdowns, routine operations (startup and shutdown and reduced pressure demand events) and other miscellaneous releases;

> five (5) separator vessels;

> pipeline pigging Gas releases associated with periodic pipeline pigging (maintenance) activities;

> compressor equipment components from which fugitive emissions will be leaked;

> three (3) vertical fixed roof storage tanks used to store condensate liquids collected from the pipeline and from station equipment, lubricating oils for the turbine, and to store oily water.

III. IDENTITIES AND INTERESTS OF APPELLANTS AND REPRESENTATIVE MEMBERS

A. Protecting Air for Waterville

Protecting Air for Waterville ("PAW") is an unincorporated association of persons who are residents from the Waterville, Ohio region with an internet site of www.facebook.com/pawcharter. Members of PAW advocate for local, direct democratic control and oppose the NEXUS natural gas pipeline project as being opposed to the public interest.

B. Neighbors Against NEXUS (NAN)

Neighbors Against NEXUS (hereinafter "NAN") is an unincorporated association of persons who are residents of northern Wood County, Ohio, southwestern Lucas County, Ohio, and southeastern Fulton County, Ohio, near the proposed NEXUS pipeline route. The group's permanent address is 1045 County Road B, Swanton, Fulton County, Ohio 43558. Members of NAN advocate for local, direct democratic control over energy policy and projects taking place within Wood, Lucas and Fulton counties. NAN's members oppose NEXUS project as being opposed to the public interest.

C. NAN Members Teri and James Bersee

NAN members James and Teri Bersee live at 9220 Noward Road, Waterville, Lucas County, OH 43566. The Bersees are married and own and operate the Bersée & Utz Heirloom Farm, which is an organic vegetable, meat and produce farm that produces food for a list of annual subscribers. The farm's website is www.locallygrowngoodness.com,

The Bersees live at the farm, which is located about 1.1 miles south of the proposed site of the Waterville Compressor Station on Moosman Road in Waterville Township, Lucas County, Ohio. If the proposed compressor station is allowed to operate, the Bersees and their farmland and animals will in the course of normal day-to-day operations of the compressor station be exposed to land and air contamination from station operations. The station's emissions will consist of volatile organic chemicals (VOCs), polyaromatic hydrocarbons (PAHs), and radon gas at levels above the threshold set by the U.S. Environmental Protection Agency for individual health. The Bersees oppose the permit for the compressor station because its operation and emissions may damage their personal health and the physical environment within the vicinity of their residence. Moreover, the constant barrage of industrial chemicals emanating from the

station will contaminate their food crops and animals and directly harm and damage their commercial organic farm and food sales business.

D. PAW/NAN Member Darlene Bell

Darlene Bell resides at 7940 Noward Road, Waterville, Ohio 43566, which is located in an unincorporated area of Waterville Township. Her home is approximately .21 mile from the Moosman Road site. She lives at the address with two of her adult children. She is a member of both PAW and NAN.

Ms. Bell opposes OEPA permitting of the compressor station because of the potential health effects to herself and her family; diminution of the economic value of her residence; and the potential for an explosion or incendiary accident at the compressor station. If the proposed compressor station is constructed and operates, Ms. Bell will be residing within a recognized "blast zone" radius from the compressor, and in the course of normal day-to-day operations of the compressor station would be constantly exposed to land and air contamination from station operations. The station's emissions will consist of volatile organic chemicals (VOCs), polyaromatic hydrocarbons (PAHs), greenhouse gases, particulate matter and radon gas.

Ms. Bell opposes the permit for the compressor station because its operation and emissions may damage her and her family's personal health and the physical environment within the vicinity of their residence.

E. PAW Members Cheryl Bourland and David Bourland

PAW members Cheryl Bourland and David Bourland reside at 105 North Fourth St., Waterville, Ohio 43566. Their home is approximately 2.6 miles from the Moosman Road site. The Bourlands are married and live at the address with two adult children.

If the proposed compressor station is allowed to operate, the Bourlands and their children will in the course of normal day-to-day operations of the compressor station be exposed to land and air contamination from station operations. The station's emissions will consist of volatile organic chemicals (VOCs), polyaromatic hydrocarbons (PAHs), particulate matter, greenhouse gases and radon gas. The Bourlands oppose the permit for the compressor station because its operation and emissions may damage their and their family members' personal health and the physical environment within the vicinity of their residence.

IV. GROUNDS/CONTENTIONS ON APPEAL

A. The PTIO has been issued to a nonexistent entity or person outside of Ohio; there is no legal party being regulated

Despite the fact that the PTIO was apparently sought for the convenience of NEXUS Gas Transmission, LLC., so that the compressor station would be a functioning part of the pipeline project, the PTIO was not issued to a legal entity over which the Ohio EPA has control or which might be answerable for violations of statutes and regulations.

The PTIO was sent to "Reagan Mayces, Waterville Compressor Station, P.O. Box 1642, Houston, TX 77251-1642," and not to a person identified as working for NEXUS Gas Transmission, LLC. In the "Authorization" section of the PTIO, OEPA states:

> This document constitutes issuance to:
>
> Waterville Compressor Station
> Moosman Dr
> Waterville, OH 43566
>
> of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

O.R.C. §3745.017(A)(1) defines "environmental law" as "a law that is administered by

the environmental protection agency." A "regulated entity" means "an entity that is regulated under an environmental law." O.R.C. §3745.017(A)(2). There is no "regulated entity" denominated in the PTIO. The Waterville Compressor Station is not a "person" within the definition used by the OEPA.[1] The station is not a legal, "regulated entity." There is no accountable owner or operator of the compressor station. Were there civil or criminal operations violations, "Waterville Compressor Station" would not be an entity which could be charged or cited, fined or sent to jail. The PTIO was issued to a legally nonexistent entity and consequently, it is a legal nullity. The Commission has no choice but to annul or revoke it.

B. The draft permit approves CO, NO2 and VOC emissions which exceed limits established by OEPA

The permit allows emissions of, among other chemicals, up to 7.81 tons per year of carbon monoxide, 31.2 tons per year of nitrogen oxides, and 29.3 tons per year of volatile organic compounds. But in a table dubbed "Preliminary Emissions Estimates" from a NEXUS slide show entitled "Proposed Air Permitting Strategy" which was presented to the Ohio EPA (April 2015) (slide 21/24 of .pdf), NEXUS stated that the Waterville Compressor Station would emit 33 tons of nitrogen oxides, 10 tons of carbon monoxide, and 32 tons of volatile organic compounds.

Regarding this seeming discrepancy, in the "Response to Comments" section of the compressor station PTIO, Ohio EPA staff stated as follows:

> Due to their low levels of emissions, there are a number of air contaminant

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[1]O.R.C. § 3745.04(A) states: "As used in this section, 'any person' means any individual, any partnership, corporation, association, or other legal entity, or any political subdivision, instrumentality, or agency of a state, whether or not the individual or legal entity is an applicant for or holder of a license, permit, or variance from the environmental protection agency, and includes any department, agency, or instrumentality of the federal government that is an applicant for or holder of a license, permit, or variance from the environmental protection agency."

> sources that are exempt from being included in the air permit. Those sources include: a process heater; roadways; a parts washer; an emergency electrical generator; and two storage tanks. In the draft permit, the total "Permit Allowable Emissions Summary"found at the end of the permit strategy write-up does not include emissions from the exempt air contaminant sources. The summary of emissions contained in NEXUS' Gas Transmission application to FERC are higher because the application includes emissions from all air contaminant sources, even those that are exempt in Ohio EPA's air permit.

PTIO at p. 10/98 of .pdf.

The Ohio EPA claims that it permissibly excluded from the total of emissions from the compressor station the emissions from so-called *"de minimis"* sources which are parts of the compressor station apparatus.

However, OEPA improperly invoked and applied the *de minimis* rule, O.A.C. § 3745-15-05. The *de minimis* sources may not be subtracted from the emissions total of the compressor station total as claimed by OEPA, and the PTIO must be canceled or revoked because the projected emissions exceed the levels permitted.

In granting the PTIO by excluding the pollution contributions from *de minimis* sources, the Ohio EPA further violated OAC § 3745-15-08, which states that "No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate Chapter 3704., 3714., 3734., 3745., 6109., or 6111. of the Revised Code or any rule adopted thereunder."

The PTIO must be canceled or revoked by the Commission.

C. Projected Formaldehyde Emissions Portend Allergy and Cancer Risks

Formaldehyde inevitably will be discharged during regular operations of the compressor station. Persons living within a quarter mile of the compressor station, such as Darlene Bell and

her family, may experience nasal and eye irritations and increased risk of asthma and allergy. Residents at one-quarter mile also have an elevated cancer risk from continuous exposure to formaldehyde emissions.

In the "Response to Comments" section of the PTIO, the Ohio EPA stated that it "did perform basic modeling for . . . formaldehyde. . . . using worst-case scenario stack and emission characteristics for each pollutant using a model called AERSCREEN. . . . The modeling results showed that formaldehyde . . . are well below our health thresholds." But the OEPA has not provided the actual numerical projected results; it did not include them in the comment responses. Further, the OEPA has not disclosed the assumptions that went into the modeling, such as whether the enormously high, admitted estimate of 260 compressor blowdown events per year was weighted or assumed. The occurrence of 260 blowdowns considerably exceeds the industry average and will cause the emission of considerably more formaldehyde during such events than other compressor stations which do not operate so unstably. According to the OEPA, "NEXUS did not provide emissions figures for a single blowdown event." PTIO, Response to Comments, p. 17/98 of .pdf.

OEPA noted that "[t]he turbine manufacturer has guaranteed the exhaust concentrations across all load conditions." However, OEPA also states that "Startup and shutdown events are the only circumstances for which the turbine manufacturer has not guaranteed the exhaust concentrations." PTIO, Response to Comments, p. 5/98 of .pdf. So the 260 blowdown events do not fall within the manufacturer's guaranteed air pollution volumes emanating from the station.

OAC § 3745-15-07(A) makes unlawful the "emission or escape into the open air from any source or sources whatsoever, of . . . fumes, gases, vapors, or any other substances or

combinations of substances, in such manner or in such amounts as to endanger the health, safety or welfare of the public, or cause unreasonable injury or damage to property." Such is "found and declared to be a public nuisance." And "It shall be unlawful for any person to cause, permit or maintain any such public nuisance."

Moreover, OAC § 3745-15-08 requires that "No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate Chapter 3704., 3714., 3734., 3745., 6109., or 6111. of the Revised Code or any rule adopted thereunder."

The Waterville Compressor Station operations will cause unknown but undisputed formaldehyde pollution and poisoning of surrounding residents. The PTIO should be canceled or revoked in light of this unquantified threat to public health.

D. Unknown toxic levels of benzene will be routinely emitted during normal compressor operations

The draft PTIO contains almost no data or description of the emissions or quantities of chemical toxins which will constantly be released from the compressor station. Benzene will be routinely released from the Waterville station. Benzene is a "known human carcinogen," and studies of benzene levels around condensate tanks and compressor equipment at other sites show constant levels of 1.6 parts per billions (ppb) or more, which is four (4) times the U.S. Environmental Protection Agency-identified allowable level of 0.4 ppb that over a lifetime carries a cancer risk of 1/100,000. There is no "safe" level of benzene contamination.

While the OEPA admits benzene will be routinely emitted from compressor activities, see

PTIO, Response to Comments, p. 34/98 of .pdf, and estimated that some 1,200 pounds of benzene will be leaked annually just during blowdowns, PTIO, Response to Comments, p. 18/98 of .pdf. Yet without citing a number, projection or model, OEPA concluded that it "does not expect this facility to significantly increase benzene air concentrations." The OEPA noted that "The turbine manufacturer has guaranteed the exhaust concentrations across all load conditions. Startup and shutdown events are the only circumstances for which the turbine manufacturer has not guaranteed the exhaust concentrations." PTIO, Response to Comments, p. 5/98 of .pdf. OEPA does not discuss nor attribute significance to the 260 "startup and shutdown" events - also called "blowdowns" - which will involve exhausting large quantities of greenhouse gases into the atmosphere at mostly unpredictable intervals.

According to OAC § 3745-15-02, "the purpose of all air pollution rules adopted under Chapter 3704. or Chapter 3745. of the Revised Code or any rule adopted thereunder is to set forth such requirements as shall be necessary to secure and maintain those levels of air quality which are consistent with the protection of health and the prevention of injury to plant, animal life, and property in the state of Ohio, and to provide for the comfortable enjoyment of the natural attractions of the state to the greatest extent practical." Consequently, "[a]ll regulations of the director shall be construed in such manner as to effectuate this purpose."

According to OAC § 3745-15-08, "No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate Chapter 3704., 3714., 3734., 3745., 6109., or 6111. of the Revised Code or any rule adopted thereunder." By providing no calculations, it is not readily conceivable that there will be

no health-threatening benzene emissions and contaminations. The PTIO does not suffice to protect the public nor to disclose the threat from the molecular family of benzene compounds.

Since the Director of the Ohio EPA has provided unsupported conclusory assurances that the PTIO protects health and prevents injury to plant, animal life and property, as required by OAC § 3745-15-02, the PTIO should be canceled or revoked by this Commission.

E. Significant Quantities of Particulate Matter Will Be Routinely Emitted During Compressor Operations

The draft PTIO contains almost no data or description of the emissions or quantities of fine particulates which will constantly be released from the compressor station. There is a maximum limitation of 6.24 tpy, but the permit contains no showing of how that limitation will be enforced.

Some of the hazardous air pollutants may adsorb - *i.e.,* adhere - to the surface of the particulates, increasing their concentration in the lungs of the residents who inhale the particulates and thus increasing the potential for toxicity of the chemicals. OEPA neither acknowledged this potential double whammy when it was raised in public comments, nor is the phenomenon acknowledged in any part of the PTIO.

According to OAC § 3745-15-02, "the purpose of all air pollution rules adopted under Chapter 3704. or Chapter 3745. of the Revised Code or any rule adopted thereunder to set forth such requirements as shall be necessary to secure and maintain those levels of air quality which are consistent with the protection of health and the prevention of injury to plant, animal life, and property in the state of Ohio, and to provide for the comfortable enjoyment of the natural attractions of the state to the greatest extent practical." Consequently, "[a]ll regulations of the

director shall be construed in such manner as to effectuate this purpose."

Particulate matter is extremely irritating and harmful to pulmonary functioning, but additionally, it can carry chemical toxins expelled from the compressor facility's routine operations. By its failure to investigate this possibility in the case of the Waterville Compressor Station, the Director of the Ohio EPA cannot protect health and prevent injury to plant, animal life and property, as required by OAC § 3745-15-02, and the PTIO must be canceled or revoked.

F. Undisclosed Radon Gas Emissions and Possible Radioactive Particulate Matter

According to NEXUS Gas Transmission LLC, the NEXUS Project will leak radon gas. Radon is a naturally-occurring odorless and tasteless radioactive gas which is produced by the radioactive decay of Radium-226 and is found in uranium ores and shales. NEXUS Gas Transmission Project, Resource Report 9, "Air and Noise Quality," November 2015, p. 9-22. The Gogolak/USDOE study looked at the radon concentration in natural gas from eight wells in West Virginia and Kentucky and found an average radon concentration of 151 picocuries per liter ("pCi/L"). *Id.* p. 9-23. The Johnson/USEPA study found an average concentration of radon in natural gas of 37 pCi/L from over 2,000 wells nationwide. *Id.* The Anspaugh study focused on gas samples taken at eight locations on the Texas Eastern pipeline system in West Virginia, Pennsylvania and New Jersey and found an average radon concentration of 29 pCi/L.

In addition to these studies, the U.S. Geological Survey ("USGS") released a report in 2012 regarding radon activities in natural gas from certain wells. The USGS found an average concentration of radon of 37 pCi/L based on gas samples from eleven wells in Pennsylvania. *Id.* The Marcellus sample activities studied by the USGS ranged from 1 to 79 pCi/L. Rowan and

Kraemer, "Radon-222 Content of Natural Gas Samples from Upper and Middle Devonian Sandstone and Shale Reservoirs in Pennsylvania: Preliminary Data" (USGS 2012) p. 4.

The NEXUS Gas Transmission, LLC prediction of an average radon concentration of 37 pCi/L is more than nine (9) times levels of radon deemed relatively harmless by the U.S. Environmental Protection Agency.[2]

In the Draft Environmental Impact Statement ("DEIS") for the NEXUS pipeline project, the Federal Energy Regulatory Commission ("FERC") also recognized but minimized the potential for any health threat from radon in Marcellus shale gas.[3]

Despite the pipeline company and the federal regulatory agency acknowledging that gas piped through NEXUS will be radioactive, the Ohio EPA insisted, "There is no indication the proposed compressor station would emit radon gas or radioactive particulate matter. The natural gas carried in the NEXUS pipeline is residential quality natural gas that meets the natural gas quality specifications of downstream customers." PTIO, Response to Comments, p. 27/98 of .pdf. Appellants can identify no residential gas specifications which even mention radon or radium as a matter of concern. Although the OEPA provides assurances that "NEXUS will monitor all incoming gas into the pipeline through metering, regulation and filtering," (p. 27/98 of .pdf) nowhere in the Final PTIO is NEXUS required to monitor radiation.

There is no acknowledgment of the presence of radon gas in any of the publicly-available

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[2]The U.S. Environmental Protection Agency (EPA) threshold for remediation of radon in indoor air is 4 pCi/L. http://www.epa.gov/radon/aboutus.html.

[3]"Past studies demonstrate that indoor radon concentrations from Marcellus Shale sourced gas would remain below the EPA action level and the Indoor Radon Abatement Act long-term goal. Therefore, we find that the risk of exposure to radon in natural gas is not significant." DEIS p. 4-221.

documents for the Waterville draft PTIO. There is no analysis nor data as to whether the 6.24 tons of particulate matter anticipated to be emitted annually from the compressor station will contain particles of uranium, radium, thorium or other radioisotopes associated with the slow decay of uranium found throughout petroleum-bearing shale. There are no means of measurement, monitoring, or assessment of whether radioactive natural gas can safely be transported through the populous location in Lucas County where the compressor will be situated.

OAC § 3745-15-07(A) prohibits as unlawful the "emission or escape into the open air from any source or sources whatsoever, of . . . fumes, gases, vapors, or any other substances or combinations of substances, in such manner or in such amounts as to endanger the health, safety or welfare of the public, or cause unreasonable injury or damage to property." Given the many unknown and unexamined aspects of the radon and radioactive pollution that may be leaked from the Waterville Compressor Station, and OEPA's rank and contradictory denial of the existence of radon and the potential for particulate bearing radiation, the PTIO must be canceled or revoked. The Direct of OEPA cannot fulfill his responsibility to protect health and prevent injury to plant, animal life and property, as required by OAC § 3745-15-02.

G. Appellants Reserve the Right to Amend Its Appellate Grounds

Appellants PAW and NAN explicitly reserve the right to amend these Objections upon the discovery and disclosure of new information, as allowed by OAC § 3745-47-03(B)(1).

WHEREFORE, Appellants Protecting Air for Waterville and Neighbors Against NEXUS pray the Commission revoke, cancel and hold for naught Permit to Install and Operate #P0119251 issued by the Director of the Environmental Protection Agency to Reagan Mayces,

Waterville Compressor Station.

Respectfully,

October 7, 2016

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David Bourland, Darlene Bell and
Neighbors Against NEXUS

CERTIFICATE OF SERVICE

I hereby certify that on October 7, 2016, I sent via Federal Express overnight delivery a copy of the foregoing Notice of Appeal and its accompanying Exhibit A to Craig Butler, Director, Ohio Environmental Protection Agency, P.O. Box 1049, Columbus, Ohio 43216-1049; and to Dale Vitale, Esq., Section Chief, Environmental Enforcement, Ohio Attorney-General, 30 East Broad Street, 26th Floor, Columbus, Ohio 43215.

Terry J. Lodge, Esq. (0029271)
Counsel for Protecting Air for Waterville,
Teri Bersee, James Bersee, Cheryl Bourland,
David Bourland, Darlene Bell and
Neighbors Against NEXUS

Exhibit A
(Waterville)

Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

9/9/2016

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Reagan Mayces
Waterville Compressor Station
PO Box 1642
Houston, TX 77251-1642

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0448002148
Permit Number: P0119251
Permit Type: Initial Installation
County: Lucas

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: TDES

Response to Comments

Facility ID:	0448002148
Facility Name:	Waterville Compressor Station
Facility Description:	Natural Gas Compressor Station
Facility Address:	Moosman Dr. Waterville, OH 43566 Lucas County
Permit:	P0119251, Permit-To-Install and Operate - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 01/15/2016. The comment period ended on 03/21/2016.	
Hearing date (if held)	03/16/2016
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: Permitting/Permitting Status

a. **Comment:** The Waterville Compressor Station should not be permitted as a minor source. Ohio EPA should aggregate all of the NEXUS pipeline compressor stations that are proposed to be installed in Ohio (i.e., Waterville Compressor Station, Wadsworth Compressor Station, Clyde Compressor Station, and Hanoverton Compressor Station). All the compressor stations should be reviewed as a single project since the combined emissions of all of the compressor stations would exceed major source thresholds and; therefore, will require a Title V air permit. Permitting each compressor station separately may be a violation of OAC § 3745-15-08: "No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate Chapter 3704., 3714., 3734., 3745., 6109., or 6111. of the Revised Code or any rule adopted thereunder."

Response: The Waterville Compressor Station is permitted as a minor source because it does not meet the definition of a major source under OAC rule 3745-77-01(X). This definition specifies three criteria necessary for sources to be considered as a major facility for Title V permitting purposes, and all three criteria must be met in order for the compressor station to be permitted as a major facility:

"Major source means any stationary source or any group of stationary sources that are [1] locatedon one or more contiguous or adjacent properties; and [2] under common control of the same person (or persons under common control), and [3] belong to a single major industry grouping..."

Ohio EPA Engineering Guide #58 further qualifies criterion 1 requirements for contiguous or adjacent properties, stating that entities located in different counties with property boundaries more than five miles apart are not considered adjacent based on geographic distance and logistics. Since none of the NEXUS compressor stations in Ohio are located on contiguous or adjacent properties, air contaminant emissions cannot be combined to trigger Title V major source regulations.

Please note that on August 7, 2012, the Sixth Circuit Court issued a seminal decision in Summit Petroleum v. EPA holding that the United States Environmental Protection Agency (U.S. EPA) should only determine whether sources are "contiguous" or "adjacent" based on physical proximity and not based on functional interrelatedness. This means that the compressor stations' emissions cannot be aggregated (considered a single facility) for purposes of determining permitting requirements based on their functions (which in this case is the same and that is to push natural gas through a pipeline). The facilities would have to be adjacent per the dictionary definition.

The court vacated U.S. EPA's determination that Summit Petroleum Corporation's natural gas sweetening plant and sour gas production wells spread over 43 square miles constituted a single stationary source for Clean Air Act (CAA) permitting purposes. Whether New Source Review (NSR) air permitting requirements apply to a particular project sometimes depends on whether multiple emission sources must be combined or "aggregated" and treated as a single source.

b. **Comment:** Numerous comments were received requesting that the permit for the proposed Waterville Compressor Station be denied.

Response: Ohio EPA has a legal obligation to evaluate proposed sources and determine whether or not they are able to comply with all applicable state and federal air pollution control regulations. The Waterville Compressor Station air permit documents what the proposed sources must do in order to comply with these regulations. As long as the emission sources meet the permit terms and conditions, the potential emissions are not expected to cause adverse health and welfare effects. Pursuant to ORC 3704.03(F)(2)(a): "No installation permit shall be issued except in accordance with all requirements of this chapter and rules adopted thereunder. No application shall be denied or permit revoked or modified without a written order stating the findings upon which denial, revocation, or modification is based." Ohio EPA has no findings to support a denial of the permit application for the Waterville Compressor Station. The potential air contaminants from this facility are within the emissions thresholds allowed under state and federal air pollution control regulations; therefore, the Agency is legally obligated to issue the permit.

c. **Comment**:Ohio EPA should deny issuing this permit until such time that it is approved by the Federal Energy Regulatory Commission (FERC)or until FERC's Environmental Impact Statement (EIS) shows no risk to human, animal, water supply and/or agricultural health.

Response: Ohio EPA is required by law to approve an air permit once the Agency determines that the source will meet all applicable air pollution laws and regulations. There is no

applicable air pollution law or regulation that requires or allows Ohio EPA to deny or delay the issuance of an air permit pending FERC approval.

d. **Comment**:In one of the handouts, Ohio EPA claims that emissions from the Waterville Compressor Station can be compared to emissions from a gas station. Is Ohio EPA suggesting that a gas station releases the same pollutants as a compressor station and at the same levels?

Response: Ohio EPA categorizes facilities as a major or minor facility based on the level of individual pollutant emissions. The table contained in the handout was intended to show the relative size of the Waterville Compressor Station compared to other regulated facility types based on the level of individual pollutant emissions. The table placed the Waterville Compressor Station and gas stations in the 5-50 tons per year category.

The air permit issued for the Waterville Compressor Station limits emissions of volatile organic compounds (VOCs) to 30.8 tons per year. The typical gas dispensing facility in Lucas County is permitted to emit approximately 25 tons per year of VOCs.

e. **Comment**:What is the difference between major and minor permits? Are there any local industries or entities that have amajor permit?

Response: U.S. EPA has two programs under which a source can be considered major or minor: The New Source Review (NSR) permitting program and the Title V permitting program. Under NSR, the trigger level is either 100 tons per year or 250 tons per year emissions of a criteria pollutant. Under the Title V permitting program, the trigger level is 100 tons per year of a criteria pollutant, 10 tons per year of a single hazardous air pollutant, or 25 tons per year of all hazardous air pollutants combined.

Several Waterville businesses are permitted as major sources including Johns Manville Plant 1 on River Road; Johns Manville Plant 7 on Dutch Road; and Ardagh Metal Beverage USA Inc (formerly Rexam Beverage Can Company) on Waterville Swanton Road.

f. **Comment**:When demand is low, the combustion turbine operates at low loads which results in higher emissions. Could this problem be resolved by installing three smaller capacity compressors rather than one larger size compressor?

Response: The company is in the best position to determine the size of the turbine needed to address facility operations.

Ohio EPA cannot require a specific type of source be installed or a specific type of fuel be used. The Agency does require thatinstalled sources meet specific emissions limitations and/or control techniques/measures.

The turbine manufacturer has guaranteed the exhaust concentrations across all load conditions. Startup and shutdown events are the only circumstances for which the turbine manufacturer has not guaranteed the exhaust concentrations.

Extensive dispersion modeling was conducted for a comparable NEXUS compressor station in Hanoverton (Columbiana County). It included calculations for 50 and 75 percent loads. The modeling showed emissions levels would not exceed any regulatory levels of concern.

g. **Comment**:If the pipeline is running under capacity by a factor of two or three, will pumping stations be shut down soemissions will be reduced? Are the emissions the same as quoted in

the permit at an operating capacity below maximum?

Response: The quantity of gas flowing through a pipeline depends on different factors including customer demand, availability of gas and seasonal needs. During lower flow periods, operators may shut down or reduce the speed of one or more compressors, resulting in reduced emissions.

Ohio EPA recognizes that compressor stations may operate at different loads and takes that information into account when processing permits. The Agency establishes emissions limits taking into account the emissions unit's maximum design capacity, maximum number of hours of operation, maximum hourly emissions rate, etc.The Agency determines if the source will comply with all applicable emissions limits during this maximum capacity operation. If it does, then we know the source will comply when operating at lesser capacities, since the combustion turbine manufacturer has guaranteed the exhaust concentrations provided in the air permit application across all load conditions, except during startup and shutdown periods. The twelve-month rolling emissions limitations in the permit for Waterville Compressor Station take into consideration emissions during startup and shutdown periods.

h. **Comment**:What are the emissions estimates when the turbine is operating at 40, 50, 60 and 75 percent capacity? Are the estimates at different loads still deemed safe? Will the allowable emissions limitations for the combustion turbine be met at lower operating rates?

Response: The NEXUS pipeline is designed to deliver 1.5 billion cubic feet of gas per day. Utilization of the turbine at the Waterville Compressor Station will be dependent on downstream capacity requirements. In the permit application, the turbine manufacturer guaranteed the exhaust concentrations across all load conditions, except for startup and shutdown events. The application also identified higher emissions rates during startup and shutdown periods.NEXUS includedemissions calculations for 260 startup and 260 shutdown events based on uncontrolled emission factors.

Modeling conducted at the Hanoverton site included calculations for 75% load and 50% load. The emission levels did not exceed any regulatory levels of concern as confirmed by extensive dispersion modeling.

2. Permit Review/Requirements/Allowable Emissions Limitations

a. **Comment**: Why doesn't the permit contain short term emissions limitations. It contains only average monthly limitations based on rolling 12-month periods.

Response: The draft air permit for the Waterville Compressor Station was written in accordance with Ohio EPA's guidance memo, dated February 7, 2014, which redefines the procedures for establishing BAT requirements pursuant to the amendment of Ohio Revised Code (ORC) 3704.03(F) that became effective on August 3, 2006 as a result of Senate Bill 265 of the 126th General Assembly. The amended statute impacted the way Ohio EPA regulates smaller emitting air contaminant sources, one of them being how short-term best available control technology (BAT) emissions limitations are determined and implemented.

For any air contaminant sources installed or modified on or after August 3, 2009, Best Available Technology (BAT) requirements can be expressed in only <u>one</u> of the following ways that is most appropriate for the applicable source or source categories: 1) work practices; 2) source design characteristics or design efficiency of applicable air contaminant control devices; 3) raw material specifications or throughput limitations averaged over a 12month rolling period; or 4) monthly

allowable emissions averaged over a 12-month rolling period. The last option (4) was used throughout the permit.

While short-term limits were not established in the permit for some pollutants, the dispersion modeling conducted for emissions from the combustion turbine used the maximum short-term emissions levels in order to calculate the expected maximum downwind concentrations. Based on this modeling, the maximum expected downwind concentrations of these pollutants are not expected to cause adverse health or welfare effects.

The combustion turbine, however, does have voluntary short-term emission limitations for carbon monoxide (CO) and VOC emissions specified in the permit.

b. **Comment**: Page 29 of the draft permit states "The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM, SO2, CO and VOC emissions from this air contaminant source, since the potential to emit is less than 10 tons per year." That statement contradicts an April 2015 NEXUS presentation that claimed the Waterville Compressor Station would emit 32 tons of VOCs. It also contradicts another part of the draft permit that limits compressor station emissions to 29.3 tons per year of VOCs. Therefore, OAC § 3745-31-05(A)(3) will be violated if Ohio EPA fails to require the best available technology, which should be the installation of cleaner electric motor-driven compressors instead of gas-fired compressor turbines.

Response: The page number referenced in this comment does not align with the draft permit that was issued; however, the referenced term was included on page16 in the permit terms [C.2.b) (1) b. of the draft permit for the combustion turbine.

BAT requirements are determined based on the emissions from an individual emissions unit, and are not based on the total facility-wide emissions from all emissions units combined. The potential emissions from the combustion turbine (a single emissions unit) are: 6.25 tons per yearof particulate matter (PM10), 3.22 tons per yearof sulfur dioxide (SO2), 7.81 tons per year of carbon monoxide(CO) and 3.32 tons per year of VOCs. There are no individual pollutants from the combustion turbine having a potential to emit of 10 tons or more per year.

For additional information, also see the response to comment 2.c below.

c. **Comment**: In order to reduce emissions, electric motors should be considered rather than natural gas combustion turbines. Power lines are available near the compressor station that contain sufficient voltage. Using an electric motor to power a compressor might be somewhat more expensive than a combustion turbine, but there would be a reduced health hazard to the population.

Response: Ohio EPA agrees that an electric-powered compressor would result in lower emissions than a natural gas-fired combustion turbine. The Agency encourages companies to adopt such measures in order to minimize or eliminate air emissions.However, BAT does not require installation of an electric-powered compressor. Ohio EPA cannot require a specific type of source be installed or a specific type of fuel be used.The Agency can only require that the source meet specific emissions limitations and/or control techniques/measures. Ohio EPA does not have authority to require the installation of an electric-powered compressor.

Additionally, the permittee evaluated the use of electric-powered turbines (see NEXUS's November 2015 application to FERC for a Certificate of Convenience and Public Necessity). This evaluation concluded that the use of gas-powered turbines over electric-powered turbines

is preferred from both a reliability standpoint and an environmental impact standpoint. (This discussion is found in section 10.7.1.5 of Resource Report 10 submitted with the FERC certificate application. NEXUS also provided additional information regarding the use of electric-power in its March 18, 2016 Response to Data Request submittal to FERC [Docket No. CP16-22-000] (FERC filing date 3/21/2016).

To view the information contained in Resource Report 10, do the following.

- Go to https://www.ferc.gov/docs-filing/elibrary.asp
- Select "General Search"
- At Date Range, Select Filed Date, From 3/21/2016 to 3/21/2016
- At Docket Number, enter CP16-22
- Click on Submit at the bottom of the page.
- Go to the following Description, "Response to Data Request of NEXUS Gas Transmission, LLC under CP16-22."
- Click on "More Files – See List" on the right side of the screen below the list of PDF files.
- Then click on the file titled "NEXUS_FERC-Data-Responses_March-2016-1_OF_3.PDF"

The discussion begins on page 93 of the document.

d. **Comment**:Ohio EPA should restrict the compressor station to zero emissions by mandating that the company use baghouses or wet or hydraulic filters.

Response: A baghouse is a device that is commonly used for the control of particulate emissions from an air contaminant source. A hydraulic filter is used to filter particles out of oil used in the hydraulic system of machinery, and is not a form of air pollution control equipment.

The only permitted emissions unit that would emit particulate matter is the combustion turbine. Installing a baghouse to control PM10 emissionsis not technically feasible. Control devices could be installed on the turbine's inlet air duct (to protect the turbine), but Ohio EPA is not aware of commercially-available control devices -for the exhaustfrom a large natural gas-fired combustion turbine.

e. **Comment**: How does the proposed NEXUS compressor station technology compare to compressor stations that received EPA minor permits in the past 10 or 20 years?

Response: Perhaps the most significant difference is the advancement in combustion turbine technology.

Listed below is a comparison of emissions from the Waterville Compressor Station to U.S. EPA's emission factor contained in AP-42, 5th Edition, Tables 3.1-1 and 3.1-2 dated April 2000. Because U.S. EPA's emission factors are listed on a pound per million Btu (lb/mmBtu) of actual heat input basis, the Waterville Compressor Station emissions are also listed that way for comparison purposes.

Combustion Turbine Emission Factors

	Waterville Compressor Station	4/2000 AP-42
CO	0.003 lb/mmBtu	0.015 lb/mmBtu
NOx	0.03 lb/mmBtu	0.099 lb/mmBtu
PM10	0.0066 lb/mmBtu	0.0066 lb/mmBtu

SO2	0.0034 lb/mmBtu	0.0034 lb/mmBtu
VOC	0.0034 lb/mmBtu	0.0021 lb/mmBtu

Copies of previously issued air permits by Ohio EPA are available at:http://www.epa.ohio.gov/dapc/newpermits/issued.aspx.

f. **Comment**:What happens when air regulations are updated (e.g., to more stringent requirements)? Will the facility's permit be revised or will the facilitybe grandfathered under the initial permit requirements? What kind of policies are in place regarding new best technology updates for facilities?

Response: The permittee must comply with any new applicable air regulations or updates/revisions to existing regulations. It must comply by the date identified in the applicable rule or standard, regardless of whether or not the requirements are contained in the facility's permit. Rule changes are typically addressed during permit renewal, but may be initiated at any time through a permit modification.

Once BAT has been established in a permit, Ohio EPA can require an existing facility to upgrade to newer control technology only if one of the following occurs: 1) there is a change to an applicable state or federal regulation that requires control technology upgrades; or 2) the facility makes a change that qualifies as a modification under OAC rule 3745-31-01(SSS) and the changes are significant enough to require upgraded control technology through a permit modification.

g. **Comment:** Is Ohio EPA requiring NEXUS to employ BACT (Best Available Control Technology)? Will this compressor station employ the top control technology/measures?

Response: Ohio EPA is requiring that the Waterville Compressor Station meet Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3) and as defined under Ohio EPA Engineering Guide #42 (http://epa.ohio.gov/Portals/27/engineer/eguides/guide42.pdf). Compliance with Best Available Control Technology (BACT) is not an Ohio requirement, but a federal requirement, whereas BAT is an Ohio rule. The emissions from the Waterville Compressor Station are below the threshold for applicability of BACT, which would be triggered if a NSR pollutant [not including greenhouse gases (GHGs)] exceeded 250 tons per year. Since all NSR pollutant emissions (not including GHGs) from the Waterville Compressor Station are less than 250 tons per year, BACT does not apply.

h. **Comment**:Does the permit account for the large quantities of emissions from the 1400 PSI pipeline, including emissions from all fittings, etc.? Have those emissions been accounted for in Ohio EPA's emissions/permitting assessment?

Response: The air permit is issued for a proposed compressor station, not the natural gas pipeline (the pipeline does not require an air permit). The compressor station's permit limits emissions from equipment leaks, including leaks from fittings.

With regard to the pipeline, most of it is welded and does not contain fittings to hold it together. Fittings are used where the pipeline intersects with metering and compressor stations. NEXUS has applied for the air permits needed for those stations.

i. **Comment**:There seems to be a discrepancy between the emissions limitations established in

Ohio EPA's draft permit and NEXUS' preliminary emissions estimates found in its FERC application dated November 20, 2015. Ohio EPA's draft permit established maximum allowable emissions as follows: 7.81 tons per year of CO2, 31.08 tons per year of NOx, 6.24 tons per year of PM, 3.24 tons per year of SO2, and 30.8 tons per year of VOCs. In the FERC application, NEXUS stated that the maximum potential emissions would be 10.2 tons per year of CO2, 32.8 tons per year of NOx, 6.3 tons per year of PM, 3.2 tons per year of SO2, and 32.2 tons per year of VOCs. NEXUS-estimated emissions will clearly exceed Ohio EPA's emissions standards.

Response: Due to their low levels of emissions, there are a number of air contaminant sources that are exempt from being included in the air permit. Those sources include: a process heater; roadways; a parts washer; an emergency electrical generator; and two storage tanks. In the draft permit, the total "Permit Allowable Emissions Summary"found at the end of the permit strategy write-up does not include emissions from the exempt air contaminant sources. The summary of emissions contained in NEXUS' Gas Transmission application to FERC are higher because the application includes emissions from all air contaminant sources, even those that are exempt in Ohio EPA's air permit.

j. **Comment**:There is no way to verify that NEXUS is meeting its regulatory and permit obligations.The consequences of exceeding the air emissions standards and the Agency's ability to ensure compliance with the permit requirements are not clear. Also, the applicant's history of compliance should be taken into consideration, as well as the number of other nearby companies that pollute.

Response: The air permit contains emissions testing, monitoring and record keeping, and reporting requirements to verify that the company is meeting its regulatory obligations and to ensure ongoing compliance. The company is obligated, by law, to comply with all the requirements contained in the air permit.

The "Testing Requirements" section of each emissions unit cites the applicable methods that will be used to determine compliance with each allowable emissions limitation. The compliance methods vary by pollutant/source and include: emissions testing, visible emissions observations, record keeping requirements and/or emissions calculations. In addition, the facility must submit periodic reports to Ohio EPA documenting any deviations or exceedances from the permit requirements.

Ohio EPA and/or the Toledo Division of Environmental Services also will perform periodic facility inspections (or inspections as a result of complaints received).

When reviewing a permit application, Ohio EPA does not have the authority to consider the applicant's environmental compliance history.

k. **Comment**:Should a catastrophic failure occur at the compressor station; will it be shut down?

Response: A decision on whether the facility will be shutdown would depend on the circumstances that led to the catastrophic failure and the consequences of such failure.

A failure or breakdown of station operations, for example, that results in a violation of OAC rule 3745-15-07 (Air pollution nuisances prohibited) would be a public nuisance and could require the shutdown of the station.

l. **Comment**:Will the compressor station be subject to any additional requirements during ozone action dayssimilar to what citizens are required to do (no barbecuing, no running lawnmowers,

etc.)?

Response: Ohio EPA's air permits do not require permittees to modify operations during ozone action days.

Lucas County's Ozone Action Program is a voluntary program that encourages residents and organizations to take steps to reduce pollutants that cause the formation of ozone.

m. **Comment:** Did Ohio EPA take into account equipment leaks and intermittent gas releases (i.e., blowdowns) in calculating the potential to emit for the facility? Will Ohio EPA submit further inquiries regarding the frequency and effect of blowdown events?

Response: The permitted emissions do account for the periodic blowdown events that are expected to occur. To verify compliance with VOC emissions limits, the permit requires NEXUS to monitor the amount of natural gas released and maintain records of the calculated emissions from those releases.

The potential emissions identified in the air permit for Emissions Unit P801takes into consideration fugitive emissions from equipment leaks.

n. **Comment:** Ohio EPA should evaluate emissions from compressor stations located in Southeast Ohio and take those emissions evaluations into account when establishing limits for the Waterville Compressor Station.

Response: When reviewing permit applications, Ohio EPA considers a variety of emissions-related information including U.S. EPA's AP-42 Compilation of Emission Factors; emissions factors from similar sources; manufacturer's data; and material balances. Ohio EPA determined that the emissions information contained in the permit application was adequate and no additional testing is required at other, similar facilities.Should new information become availablethat indicate an emission factor may not be representative, the Agency can re-evaluate the emissions limitations.

o. **Comment**:There is real concern with global warming.Allowing greenhouse gases (GHGs) to be emitted in large quantities (i.e., 111,925 tons per year) from the Waterville compressor station is counterproductive and a violation of the Clean Air Act. In addition, these GHG emissions would be considered a public nuisance per OAC rule 3745-15-07 since GHGs emissions will contribute to the worsening of global climate.

Response: Methane (which is a GHG) is not considered a criteria air pollutant. The facility is a minor source; therefore, it is not subject to major New Source Review / Prevention of Significant Deterioration (NSR/PSD) for GHGs and no evaluation of GHGs is required.

GHGs are not considered a regulated pollutant for which a national ambient air quality standard (NAAQS) has been established. Furthermore, on June 23, 2014, the United States Supreme Court issued its decision in Utility Air Regulatory Group v. EPA concerning U.S. EPA's regulation of GHGs from stationary sources. The Supreme Court ruled U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a Prevention of Significant Deterioration (PSD) or Title V permit. The Supreme Court further clarified that U.S. EPA could continue to require that PSD permits, otherwise required based on emissions of conventional pollutants, contain limitations on GHG emissions based on BACT.

In response to the court's decision, on July 24, 2014, U.S. EPA issued preliminary guidance, which Ohio EPA adopted under Engineering Guide #85, titled July 2014 GHG Air Pollution Permitting Changes. In accordance with OAC rule 3745-31-34(C)(2), permit to install requirements for major stationary sources, and major modifications of sources emitting GHGs shall cease to be effective upon the issuance of any opinion, ruling, judgment, order, or decree by a federal court depriving the administrator of authority, limiting the administrator's authority, or requiring the administrator to delay the exercise of authority, to regulate GHGs under the Clean Air Act. Since the Waterville Compressor station is not a major source of criteria air pollutants, it cannot be permitted as a major source of GHG emissions and no evaluation of greenhouse gas is required by law for this permitting action.

p. **Comment:** Liquid truck loading emissions don't seem to include transfer hose emissions. Additionally, it is not obvious if there would be a vapor balance system employed. There seems to be an omission or under representation of air pollution emissions.

Response: There will not be a vapor balance system installed for the storage tanks. Liquid truck loading loss and Transfer hose emissions are expected to be less than 0.01 ton of VOC per year. The main reason the emissions are so small is because most of the liquid is water, not VOCs. Ohio EPA does not believe there has been a significant omission or underrepresentation of air pollution emissions from liquid truck loading.

q. **Comment**:Did the permit account for fugitive particulate emissions?

Response: The air permit contains restrictions on particulate emissions from the combustion turbine stack resulting from the combustion of natural gas. The air permit does not contain any fugitive particulate emissions sources.The only fugitive particulate emission source proposed to be installed is a roadway which qualifies for a permit exemption due to the low level of emissions.

r. **Comment**:How does the proposed compressor station's allowable emissions limitations compare to those at Johns Manville in Waterville?

Response: Here is a comparison:

Pollutant	**Potential Emissions (listed in tons per year)**		
	Waterville Compressor Station*	Johns Manville Plant 1 (River Road)	Johns Manville Plant 7 (Dutch Road)
CO	10.18	40	5144
NOx	32.76	189	204
PM10	6.30	196	334
SO2	3.22	157	1.9
VOC	32.4	111	202

*The emissions figures for the compressor station include emissions from permit exempt sources.

s. **Comment**:How would Ohio EPA compare the emissions of the proposed NEXUS compressor station with other emissions-producing engines or motors in this city (i.e. a diesel truck; a school bus; a heating and air conditioning unit)?

Response: Please see Table below and AP-42 emissions factors comparing natural gas vs. diesel combustion for turbines and engines:

<5	very small	no permit needed
5-50	small	drycleaners, gas stations, small paint shops, compressors
50-100	medium	printing facilities, high volume paint & body shops
100-500	medium-large	glass plants, can manufacturer
500-1,000	large	small steel mills, automobile assembly
1,000-10,000	extra-large	large steel mills, refineries
10,000+	largest	coal-fired utility facilities

	Uncontrolled (lb/mmBtu)						
Pollutant	Natural Gas-Fired turbine (used in power generation, gas transmission, etc.)	Distilled Oil-Fired Turbine (used in power generation, gas transmission, etc.)	Diesel Industrial Engines (used in industrial applications such as mobile refrigeration units, fork lifts, generators, pumps, portable well drilling, etc.)	Diesel Industrial Engines (>600 hp and used in oil/gas exploration and production)	Natural Gas-fired Reciprocating Engines (used in natural gas industry at pipeline compressor, storage and processing plants)		
					2-Stoke Lean	4-Stroke Lean	4-Stroke Rich
NOx	3.2E-01	8.8E-01	4.41	3.2	3.17	4.08	2.27
SO2	0.94S*	1.01S*	0.29	1.01S*	5.88E-04	5.88E-04	5.88E-04
VOC	2.1E-03	4.1E-04	-	-	1.2E-01	1.18E-01	2.96E-02
TOC	1.1E-02	4.0E-03	0.36	-	1.64	1.47	3.58E-01
PM	6.6E-03	1.2E-02		0.1			
PM10			0.31	0.0573	3.84E-02	7.71E-05	9.5E-03

CO	8.2E-02	3.3E-03	0.95	0.85	3.86E-01	5.57E-01	3.72
Benzene	1.2E-05	5.5E-05	9.33E-04	7.76E-04	1.94E-03	4.40E-04	1.58E-03
Formaldehyde	7.1E-04	2.8E-04	1.18E-03	7.89E-03	5.52E-02	5.28E-02	2.05E-02

* All sulfur in the fuel is assumed to be converted to SO2. S = percent sulfur in fuel. Example, if sulfur content in the fuel is 3.4 percent, then S = 3.4. If S is not available, use 3.4 E-03 lb/MMBtu for natural gas turbines, and 3.3 E-02 lb/MMBtu for distillate oil turbines (the equations are more accurate). To convert from lb/mmBtu to lb/hp-hr, use 7000 Btu/hp-hr.

For example, diesel engines powering refrigerated trucks or trailers range in size from approximately 8-38 horsepower (hp). See below and estimate of emissions for a 15-hp engine.

Emissions from a diesel engine powering an air conditioner will be estimated using AP-42 Table 3.3-1.

CO = 6.68E-03 lb/hp-hr X (15 hp) = 0.10 lb/hr

NOx = 0.031 lb/hp-hr X (15 hp) = 0.46 lb/hr

PM10 = 2.20E-03 lb/hp-hr X (15 hp) = 0.03 lb/hr

VOC = 2.47E-03 lb/hp-hr X (15 hp) = 0.04 lb/hr

Also, for comparison purposes, the 2011 mobile emissions estimate (in tons per year) for Lucas County are as follows:

Diesel Vehicle	**CO**	**NOx**	**PM2.5**	**SO2**	**VOC**
Intercity Bus	24.7	91.3	5.4	0.1	5.5
Transit Bus	7.0	17.7	0.9	0.02	1.3
School Bus	24.8	42.2	3.0	0.05	6.8
Combination Short Haul Truck	601.8	1998.1	125.3	2.7	126.7
Combination Long Haul Truck	425.6	1375.3	71.1	1.5	116.5

t. **Comment**:Can Ohio EPA identify a compressor station currently in operation that is comparable to the proposed Waterville Compressor Stationon Moosman Drive? Has Ohio EPA reviewed other facilities to further validate the reasonableness and certainty of the emissions standards as established in the draft permit?

Response: Ohio EPA has permitted numerous natural gas compressor stations. Listed below are a few examples of natural gas compressor stations that use combustion turbines to power the natural gas compressors.

- Texas Eastern Transmission L.P., Five Points C.S., Ohio EPA Facility ID 0165000113, located at 19909 Five Points Pike, Williamsport, Ohio. The permit allowable VOC emissions from gas releases are 37.08 tons per year based on an annual gas release weight of 2,823,662 pounds.

- Texas Eastern Transmission LP – Athens Compressor Station, Ohio EPA Facility ID 0605000008, located at 9375 Harner Rd, Athens, OH. The permit allowable VOC emissions from gas releases are 34.92 tons per year based on an annual gas release volume of

47,582,843 standard cubic feet.

- Texas Eastern Transmission LP – Glen Karn, Ohio EPA Facility ID 0819780231, located at 180 Mikesell Rd, Hollansburg, OH. The permit allowable VOC emissions from gas releases are 34.92 tons per year based on an annual gas release weight of 1,350,276 pounds.

For purposes of comparison, the Waterville Compressor Station allowable VOC emissions from gas releases are 19.79 tons per year based on an annual gas release volume of 29.45 million standard cubic feet (1,365,152 pounds).

u. **Comment**: Is Spectra Energy aware of a compressor station similar to the Waterville Compressor station that uses a combustion turbine(s) and is currently in operation?

Response: Yes, Spectra Energy currently operates four combustion turbine compressor stations in Ohio and numerous other pipeline operators maintain similar facilities throughout the state (see above examples).

v. **Comment**: Will Ohio EPA, as part of the permit review process for the Waterville Compressor station, conduct a detailed review of complaints at similar existing facilities?

Response: No, the review of complaints at similar existing facilities is not part of Ohio EPA's air permit review process for a new facility.

w. **Comment**: What are the standards that are applicable to this facility? When were they first developed and last reviewed?

Response: U.S. EPA recently reviewed emissions standards applicable to compressor stations and, on May 12, 2016, finalized new requirements for natural gas compressor stations under 40 CFR Part 60, Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015. The new requirements contained in 40 CFR Part 60, Subpart OOOOa apply to equipment leaks at the proposed Waterville Compressor Station. Other U.S. EPA air requirements that apply to the proposed Waterville Compressor Station include 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines. 40 CFR Part 60, Subpart KKKK was published as a final rule on July 8, 2004, and the rule was last revised on 7/6/2006.

Ohio EPA air regulations that apply to the proposed compressor stations include: OAC rule 3745-31-05(A)(3) and ORC 3704.03(T), which are requirements to employ BAT; OAC rule 3745-17-07(A)(1), visible emissions limitations on the combustion turbine; and OAC rule 3745-17-11(B)(4), particulate emissions limitations for the combustion turbine.

Interstate natural gas pipelines are also regulated by FERC, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), and the Public Utilities Commission of Ohio (PUCO). There also may be other government agencies with regulations that would apply to the proposed compressor station.

x. **Comment**: The estimated emissions submitted by NEXUS and Ohio EPA's established levels for those emissions are similar. Is this a coincidence?

Response: The emissions estimated by an applicant and the allowable emissions specified in an air permit are often very similar. A lot of this depends on how familiar the applicant is with

Ohio EPA's air permitting process and with estimating air emissions. The air permit application that was submitted demonstrates that the individual(s) preparing the application had a good understanding of the environmental regulations that apply to compressor stations, as well as how to calculate the potential emissions from the facility. In cases like this, where the application covers all applicable regulations and has detailed calculations on how emissions were estimated, it is not surprising that the allowable emissions would be similar to the emissions contained in the application.

y. **Comment**:If air permitting regulations and standards are revised, based on new science or technology,what percentage of the existing regulations would be grandfathered in?How would new, more stringent regulations that may apply to this type of operation affect this permit and the operation of this facility?

Response: New regulations are periodically developed by U.S. EPA and Ohio EPA.Sometimes, new rules are written to cover both existing and new air contaminant sources.Other times, the new rules apply only to air contaminant sources installed or modified on or after a certain date.

z. **Comment:** Ohio EPA should conduct air pollution modeling for the compressor station for steady-state operation, venting events, blowdown events, shutdowns, startups, and other miscellaneous releases.

Response: The rules require that every emissions unit with one ton per year or more of anyair toxic emissions be modeled, unless an acceptable alternative demonstration is made. An evaluation is made to ensure that air toxic emissions do not cause significant human health or environmental impacts.

The evaluation can be done using a number of methods. These methods include the use of a risk assessment analysis; compliance with appropriate Maximum Achievable Control Technology (MACT) federal standards; limiting the emissions to less than 1.0 ton per year;or methods approved by Ohio EPA on a case-by-case basis.

According to NEXUS' application, the proposed compressor station would not have the potential to emit one ton per year or more of any one air toxic; therefore, modeling was not required.

However, Ohio EPA did perform basic modeling for nitrogen oxides (NOx), formaldehyde, and particulate matter (PM2.5) emissions from the combustion turbine. It was completed using worst-case scenario stack and emission characteristics for each pollutant using a model called AERSCREEN, which is conservative and over predicts the actual concentrations in order to maximize the protection of public health. The modeling results showed that formaldehyde and PM2.5 are well below our health thresholds. The modeled NOx concentrations are slightly above health-based screening thresholds; however, our modelers concluded that if they were to use a more refined model (one that would be more precise, such as AERMOD) results would show NOx concentrations lower than any level of concern. Based on the modeling performed, maximum concentrations of all the projected pollutants are expected to comply with air quality standards.

Furthermore, we cannot require the applicant to meet emissions limitations that are more stringent than what is allowed under state and federal rules and regulations.

aa. **Comment**:If the compressor station releases chemicals over the standards within a short period

of time, is there some form of automatic shutdown feature that will stop compressor station operations?

Response: An emissions exceedance does not trigger an automatic shutdown of the facility. However, should the natural gas and flame sensors detect a problem, that will trigger an emergency shutdown.

In addition to complying with Ohio air pollution control standards, NEXUS' compressor stations must meet FERC's siting, safety and environmental standards. The compressor stations will integrate a variety of safety systems and practices designed to protect employees, the public, and the environment, including the ability to shut down the facility.

bb. **Comment**:What is a blowdown event? How long does it last? How often and what time of the day (if regulated) does it occur? Are blowdown events monitored? Will residents be notified of blowdown events, shutdowns and startups?

Response: Blowdowns are periodic releases of natural gas to the air.Most compressor station blowdowns are planned and take place as part of preventive maintenance checks or to complete needed maintenance on the pipeline system. Some blowdowns are not plannedand occur when automated safety devices detect an abnormal operating condition. The frequency of turbine blowdowns is dependent upon factors such as maintenance requirements and gas control. Each one usually lasts less than a few minutes. Station blowdowns can occur a few times per year and usually last 5-6 minutes each. Blowdowns are monitored on site at the compressor station and remotely by centralized Supervisory Control and Data Acquisition (SCADA) personnel. SCADA is a system of remote monitoring and control that operates via coded signals over communication channels.

In the event of a station emergency shutdown,NEXUS is developing notification guidelines that include contacting the following:

- state permitting agencies;
- appropriate law enforcement agencies within a 10-mile radius; or as required by state agencies
- county/local emergency management coordinators located within a 10-mile radius;
- local fire officials;
- other public officials (mayors of towns, etc.) as appropriate;
- residents and businesses located in close proximity (minimum of 660 feet);and
- Federal Aviation Administration, if the blowdown is to take place in a known air traffic corridor.

cc. **Comment**:What are the peak emissions estimates from each blowdown event, standard operation, and venting events? Is there a danger to residents from the harmful compounds and gases released during these events? What will the VOC emissions levels be at the beginning, the peak, and the end of a blowdown event?

Response: Per Ohio EPA's air permitting requirements, NEXUS's application stated the maximum volume of natural gas released during blowdowns will not exceed 6.635-million standard cubic feet per hour and 29.45 million standard cubic feet per year. NEXUS did not provide emissions figuresfor a single blowdown event.

NEXUS provided the following emissions rates from a full station blowdown (the pounds per hour values represent the maximumemissions rates):

Pollutant	Pounds Per Hour	Tons Per Year
Greenhouse Gases	7.0181 million	15,401
Methane	280,556	616
Ethane	14,065	31
Volatile Organic Compounds	13,431	19.8
Benzene	391.7	0.58
Ethylbenzene	9.6	0.01
Hexane	390.8	0.58
Toluene	250.7	0.37
Xylenes	67.4	0.1

To minimize emissions during planned releases (for operations and maintenance)NEXUS will follow its standard operating procedures (SOPs). The SOPs include:

- conducting required annual emergency shutdown (ESD) system tests while the blowdown vents are capped, thus allowing verification of all ESD components without releasing gas (i.e., YALE closures);
- utilizing pump-down techniques to lower gas line pressure before maintenance (lowering the pressure in the compressor station, pipeline, or in targeted equipment will be accomplished by use of compression and/or a "line transfer" where feasible);
- executing pressurized holds on turbines;
- scheduling multiple maintenance activities concurrently to reduce the number of independently required blowdowns;
- performing routine inspections and testing of blowdown systems electronically (i.e., no blowdown occurs);
- conducting in-service repairs rather than replacing sections of pipe, and using steel or composite sleeves for anomaly repairs whenever possible (i.e., clock spring or other types of permanent sleeves to avoid the need for blowdowns); and/or
- utilizing "hot taps" when making new connections to the pipeline system whenever possible (this technique will allow for welding to occur on pipe that contains high pressure gas and will avoid the need for blowdowns).

dd. **Comment:** Is there a pressure release valve that will automatically vent into the air?

Response: Yes, automatic pressure release valves are critical for maintaining the safety and integrity of natural gas compressor stations.

3. Air Pollution Control Requirements

a. **Comment:** It does not appear that the Waterville permit control requirements for the emissions units are similar to what most other manufacturing facilities employ (for example, filtration systems for construction operations)?

Response: While Ohio EPA has not done a review of all permitted facilities to determine whether most permitted emissions units employ filtration systems to reduce air contaminant emissions,most permitted emissions units do not employ air pollution control equipment. Many permitted facilities comply with the applicable air pollution regulations without adding air pollution control equipment to emissions units.

There are a number of ways air pollution emissions can be reduced that do not involve installation of add-on air pollution control equipment.

The following permitted emissions units proposed for the compressor station emit low levels of emissions and have no requirements to reduce the uncontrolled emissions:

i. condensate and oily water/used oil truck loading; separator vessels; and pipeline pigging. Equipment such as valves, fittings, and pump seals that can result in fugitive VOC emissions will be monitored for the presence of leaks. Leaks that are found are required to be repaired;

ii. Furthermore, the volume of natural gas released from blowdowns will be reduced by the following measures:

1. annual emergency shutdown system tests will be conducted while blowdown vents are capped to allow for verification of safety devices without the release of gas;

2. pump-down techniques will be utilized to lower gas line pressure prior to maintenance;

3. pressurized holds will be executed when the combustion turbine is shutdown;

4. multiple maintenance activities will be scheduled concurrently to reduce the number of independent blowdowns required;

5. performing routine inspection and testing of blowdown systems electronically so that no blowdown occurs;

6. conducting in-service repairs, rather than replacing sections of pipe;

iii. For the combustion turbine, carbon monoxide and VOC emissions are reduced by an oxidation catalyst installed on the exhaust from the turbine;

iv. Nitrogen oxides from the combustion turbine are reduced by the combustion turbine manufacturer's combustion technology called SoLoNOx (add-on NOx control equipment is not required by Ohio EPA since the NOx emissions are reduced as part of the combustion technology used in the model of the combustion turbine proposed to be installed); and

v. The amount of particulate and SO2 emissions from natural gas combustion are inherently low when compared to other fuels, so the addition of air pollution controls to reduce particulate and SO2 would be ineffective and cost prohibitive.

b. **Comment**:Once the compressor station is operating, are there special air filters that can be used in homes, schools and businesses to help clean indoor air Who would cover the cost of an air filtration system and the periodic replacement of the filters?

Response: The compressor station's emissions should have no impact on indoor air quality; therefore, no special filtering equipment is needed in homes, schools and businesses.

More information concerning indoor air quality is available on U.S. EPA's website at: https://www.epa.gov/indoor-air-quality-iaq.

c. **Comment:** Blowdown emissions should be captured, stored and returned to the pipeline or burned in a flare.

Response: State and federal regulations do not require blowdown emissions be captured and controlled. [Please refer to Ohio EPA's February 2014 guidance memo regarding BAT requirements for air contaminant sources at: http://epa.ohio.gov/Portals/27/sb265/Final20140207Post090803BATv11.pdf.]

Also, the use of a flare or combustion device would generate secondary emissions of combustion pollutants. Flares are not included in the typical design for natural gas transmission stations given the inherently low VOC content of the gas. The main component of natural gas is methane, and methane is not regulated as a VOC.

Capture and storage would require temporary compression that would be necessary to divert the blowdown gases to a storage vessel during each event. These temporary compressors would generate additional secondary emissions. Also, the compressors necessary to route intermittent gas releases to a receiving vessel would often require shutdown as part of the same maintenance event that necessitated the gas release.

While capture and storage is not required, the permit has been revised to require the permittee to implement the following work practices for purposes of minimizing blowdowns and emissions released:

- Annual emergency shutdown (ESD) system tests required by existing DOT regulations shall be conducted to the extent practical as "capped" tests (i.e. with a minimal discharge of natural gas to the atmosphere.);
- Manage station equipment during periods of system maintenance to minimize the quantity of natural gas vented to the extent practical;
- Develop and follow a standby pressurized hold plan for gas compressor shutdowns in order to minimize standby gas releases and maintain safe operation; and
- Schedule multiple maintenance activities concurrently to the extent possible to minimize blowdowns.

d. **Comment:** It is unclear what best available technology (BAT) NEXUS is committed to employing or what type of emissions control technologies are being proposed. Also, what will

happen if NEXUS changes equipment after Ohio EPA approves and issues the permit?

Response: The air permit specifies BAT requirements, which are identified in the permit under OAC rule 3745-31-05(A)(3) for all emissions units, and also under Ohio Revised Code (ORC) 3704.03(T) for the combustion turbine and gas releases. Ohio EPA's BAT requirements may be in the form of an emissions limitation, control requirement, work practice requirement or other forms acceptable to Ohio EPA.

Ohio EPA issued the permit based on information contained in air permit application #A0053876 (submitted on 7/15/15) and amended application #A0054486 (submitted on 10/9/15). If NEXUS installs and uses equipment that was not proposed in the applications, then the companyis required to apply for and obtain a modification to the air permit, if warranted by rule.

Once BAT is established in an air permit, Ohio EPA does not have the authority to require the permittee to upgrade to newer control technology unless one of the following occurs: 1) there is a change to an applicable state or federal regulation that requires control technology upgrades; or 2) the facility makes a change that qualifies as a modification under OAC rule 3745-31-01(SSS) and the change is significant enough to require upgrading control technology through a permit modification.

4. Environmental and Public Health Effects and Concerns

a. **Comment**:Ohio EPA should not allow such a facility to be constructed because emissions from the facility would contribute to the degradation of air quality (e.g., ozone) and impact the lives of more than 11,000 residents. This is happening even as Ohio EPA imposes numerous regulations on businesses and residents.

Response: Ohio EPA is required by law to evaluate proposed sources and determine if they are able to comply with all applicable state and federal air pollution control regulations. The proposed compressor station's emissions sources meet the permit terms and conditions, and the potential emissions are not expected to cause adverse health and welfare effects.

Pursuant to ORC 3704.03(F)(2)(a): *"No installation permit shall be issued except in accordance with all requirements of this chapter and rules adopted thereunder. No application shall be denied or permit revoked or modified without a written order stating the findings upon which denial, revocation, or modification is based."*

Ohio EPA has no findings to support a permit denial.The potential air contaminants from this facility are within the emissions thresholds; therefore, the Agency is legally obligated to issue the permit.

b. **Comment:** What impact will air emissions from the Waterville Compressor Station have on air quality and the water system? Who will monitor the solid material that will land on crops, homes, lawns, and water? Who do we contact concerns about air quality and water contamination? Will there be a way for local citizens to file claims to get items replaced at no cost? If so, do we file claims with the Ohio EPA? Who pays for the extra cleaning if this were to happen?

Response: There is no indication that the operation of the facility will result in adverse effects to human health or the environment. Ohio EPA is not aware of impacts tothe water system (wetlands, surface and ground waters), soil or crops as a result of normal compressor station

operations.VOC emissions are expected to preferentially dissipate into the atmosphere, rather than be transported to water, soil and crops.

The permit complies with all state and federal rules and regulations, which are developed and promulgated for the purpose of attaining and maintaining National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The standards are designed to be protective of public health and the environment.

Under the Clean Air Act, before establishingNAAQS, U.S. EPA – the agency entrusted by Congress to perform the evaluation – must conduct a detailed, thorough and public evaluation of the health and environmental impacts associated with various ambient levels of the air pollutant in question. U.S. EPA's analysis must include all available scientific data, which is compiled, peer-reviewed and provided for public review and comment. The NAAQS are then reviewed and updated as necessary every five years.

In addition, states must develop individual State Implementation Plans (SIPs) to further regulate specific areas and sources to ensure compliance with federal NAAQS.

Compliance with the applicable permit limitations means that emissions from the Waterville Compressor Station would not create a significant impact to human health and the environment within the specific area in which the permitted facility is located.

If you have an air quality complaint, telephone the Toledo Division of Environmental Services at 419-936-3015 during normal business hours (Monday – Friday, 8AM – 4:45PM) or at 419-936-2020 outside of normal business hours.

If you have a water quality complaint, contact the Ohio EPA Northwest District Office (Bowling Green, OH) at 1-800-686-6930.

Please also note that Ohio EPA does not have the regulatory authority to address or be involved with citizen's damage claims. However, all affected citizens are encouraged to report nuisance complaints to Ohio EPA.

c. **Comment**:There will be up to 260 startup and 260 shutdown events per year in association with the operation of the compressor turbine. These startup or shutdown events will occur 71% of the days each year. There will also be five pigging events per year. The air emissions from these events will degrade air quality and inhalation of the toxic chemicals released into the air will result in negative health impacts. Why is itnecessary to request 260 startups and shutdowns per year?

Response: The majority of emissions from gas release events are associated with routine planned operations such as startups and shutdowns, reduced pressure demand events or maintenance activities. The permit requirements/emission limitations were established based on a maximum number of 260 startups and shutdowns per year.

Turbine start and stop events are usually minor events. They are not associated with full station yard or pipeline blowdowns and are not synonymous with gas releases. NEXUS may startup or shutdown a turbine without conducting a gas release.

The number of startup and shutdown events and the number of blowdown events listed in the application represent a theoretical "worst-case" scenario used to satisfy the regulatory definition of Potential to Emit (PTE). Realistically, the compressor station is not expected to have that

many startups and shutdowns. The startup and shutdown emissions have a different emissions profile and are estimated separately from normal operations to ensure complete PTE calculations.

The amount of compression capacity depends on the demand from downstream customers. If demand decreases, NEXUS may shutdown the turbine. If demand increases, NEXUS may startup the turbine. The air permit application describes 260 startup events and 260 shutdown events as a conservative estimate that will not be exceeded.

d. **Comment:** As residents of Waterville, we are concerned about the quality of the ambient air and want to know what we might be breathing in when walking around the neighborhood or when children are playing in their backyards.

Response: Ohio maintains an expansive network of ambient air monitors that are used to ensure compliance with air quality standards.Those monitors provide real-time monitoring of air pollution episodes; data for trend analyses, regulation evaluation and planning; and daily information to the public concerning air qualityin both populated and rural areas, and near major emission sources.All of Ohio is in attainment for CO and PM_{10}, and most counties are in attainment for ozone (O_3), SO_2 and $PM_{2.5}$.

Ohio EPA's air monitors in Lucas County monitor for PM_{10}, SO_2, O_3, and $PM_{2.5}$ chemical speciation. The closest monitor to the proposed Waterville Compressor Station is an ozone monitor located at the Waterville maintenance garage located at 200 S River Road in Waterville.

Ohio air monitoring data can be viewed athttp://epa.ohio.gov/dapc/airohio/index.aspx.

More information about Ohio EPA's air monitoring network can also be found athttp://epa.ohio.gov/dapc/ams/amsmain.aspx.

e. **Comment:** How can Ohio EPA approve a permit that will clearly have a negative impact on air quality in the community. We are concerned that the proposed compressor station will not operate and be maintained in a way that will prevent or minimize adverse effects to the environment. We want proof that if the permit is approved and the compressor station becomes operational, the air quality in the communities surrounding the compressor station will not be adversely affected. [The commenter referenced the fourth paragraph of a December 8, 2015 letter from Mr. Sheridan, Director of State and Governmental Affairs for NEXUS Gas Transmission LLC, which stated: "The project will provide transportation services through facilities that are safe, efficient, and capable of being operated and maintained with effects on the environment that can be adequately mitigated."]

Response: The permit requires NEXUS to comply with all state and federal rules and regulations, which are developed for the purpose of attaining and maintaining NAAQS for all criteria pollutants. Those standards are designed to be protective of human health and the environment. Ohio EPA believes the permit is protective of human health and the environment. Should the permittee fail to comply with any of the permit requirements, it will be addressed though our enforcement program.

f. **Comment**:Given the amount of pollutants already in the air, how will the compressor station's emissions affect regional air quality?

Response: Modeling indicated that emissions from the proposed facility will be within National Ambient Air Quality Standards (NAAQS) and Ohio's Air Toxics Policy. These standards are set

to be protective of public health and the environment. The permit includes restrictive emissions limits for the pollutants this facility will emit. Provided the facility complies with the permit, public health will be protected.

The Clean Air Act (CAA), last amended in 1990, requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants that are common in outdoor air and considered harmful to public health and the environment. The CAA identifies two types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The EPA has set NAQQS for six principal pollutants, which are called "criteria" pollutants (carbon monoxide, lead, ozone, nitrogen dioxide, sulfur dioxide and particulate matter equal to or less 2.5 microns in size and particulate matter equal to or less than 10 microns in size). Furthermore, these standards must "accurately reflect the latest scientific knowledge." The CAA states that NAAQS must be set based on the "judgment of the Administrator" to allow "an adequate margin of safety" and to be "requisite to protect the public health." The term "margin of safety" has been interpreted (by EPA and federal courts) to be intended to address uncertainties and to provide a reasonable degree of protection, but not necessarily provide zero risk to all individuals.

g. **Comment**:This permit will allow the proposed facility to add more toxic air pollutants into the air we breathe, foods we eat and water we drink. Will it be safe to eat food grown in our garden once the compressor station is built? Are there studies on the cumulative short term and long term effects of inhaling or ingesting these compounds? What are the effects of these emissions? What side effects are you aware of that result from exposure to these toxic gases? Will the Ohio EPA issue the equivalent of MSDS's for each of these compounds?There is a school and daycare in close proximity to the proposed compressor station. Those children are going to be at a great risk if this facility is allowed to be built.

Response: Human exposure health risk assessments conducted by FERC and Ohio EPA take into account the potential for chemicals to be deposited in soil and other media. These studies have shown that exposure to chemicals via the consumption (ingestion) of garden foods yields little or no health consequence. Inhalation remains the primary route of exposure from these types of sources, and this is why Ohio EPA reviews that exposure pathway in such detail.Provided the compressor station operates in compliance with all the permit requirements, there should be no adverse health impacts to residents, children, or any sensitive sub-populations.

The primary NAAQS standards are set at a level intended to protect public health, including the health of at-risk populations, with an adequate margin of safety. In selecting a margin of safety, U.S. EPA considers such factors as the strengths and limitations of the evidence and related uncertainties, the nature and severity of the health effects, the size of the at-risk populations, and whether discernible thresholds have been identified below which health effects do not occur.

In all NAAQS reviews, U.S. EPA gives particular attention to exposures and associated health risks for at-risk populations. Standards include consideration of providing protection for a representative sample of persons comprising at-risk populations rather than to the most susceptible single person in such groups. Even in areas that meet the current standards,

individual members of at-risk populations may at times experience health effects related to air pollution.

U.S. EPA periodically conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to the criteria air pollutants. The resulting assessments serve as the basis for making regulatory decisions about whether to retain or revise the NAAQS that specify the allowable concentrations of each of these pollutants in the ambient air.

More information on criteria air pollutants and potential health effects is available online at:https://www.epa.gov/sites/production/files/2015-10/documents/ace3_criteria_air_pollutants.pdf.

Information on the health effects of exposure to hazardous air pollutants is available at:https://www3.epa.gov/airtoxics/hlthef/hapindex.html

Information on greenhouse gases is available at: https://www3.epa.gov/climatechange/science/indicators/ghg/

Material Safety Data Sheets (MSDS)are designed for workers and emergency responders. They document the nature of a chemical, how to work safely with the chemical and what to do if there is an accidental spill. Chemical manufacturers and distributors issue MSDS sheets. Ohio EPA does not issue the equivalent of an MSDS sheet for air emissions.

h. **Comment**:How will you deal with foul odors coming from the compression station?

Response: Nuisance odors are regulated under OAC rule 3745-15-07, which prohibits air pollution nuisances. This rule is cited in draft PTIO P0119251under term A.14. Note, this rule does not require zero odors from an air pollution source. There also may be local township odor regulations applicable to the operation of the compressor station. NEXUS does not plan to add odorant (mercaptan) to the processed gas, so any gas released should not have the "rotten egg" odor often detected in residential natural gas.

i. **Comment:** The current air quality in Ohio is already causing health issues.We should be decreasing air pollution. Instead, Ohio EPA plans to allow the compressor station to emit up to 7.81 tons per year of carbon monoxide, 31.2 tons per year of nitrogen oxides, 6.24 tons per year of particulate, 3.24 tons per year of sulfur dioxide and 29.3 tons per year of volatile organic compounds.

Response: U.S. EPA identifies these emissions as criteria air pollutants.Based on the compressor station's projected emissions, the facility will be considered a minor source of air pollution. Provided the facility complies with the applicable permit limitations,air quality standards will be met and human health and the environment will be protected.

Prior to establishing the National Ambient Air Quality Standards (NAAQS), U.S. EPA conducted a detailed, thorough and highly public evaluation of the health and environmental impacts associated with various ambient levels of the air pollutants in question. U.S. EPA's analysis included all available scientific data, which was compiled, peer-reviewed, and put out for public review and comment. The standards are updated every five years. In addition, each state developed State Implementation Plans (SIPs) to further regulate specific areas and sources, to ensure compliance with federal NAAQS.

j. **Comment**:What will be the long-term health effects on people living by the compressor station?

Response: The air emissions projected to be released from this facility are not expected to cause any adverse health or welfare effects, either on a short-term or long-term basis. Ohio EPA evaluated the projected maximum downwind concentrations and found them to be below health-based standards. Please also refer to responses to comments 4.u and 4.v.

k. **Comment**:Has a human health risk assessment been conducted? It does seem like Ohio EPA has not done enough to assess the potential health risks for residents living in close proximity to the proposed compressor station. Is it true that Ohio EPA considers it acceptable that the statistical results from this station will kill 2.9 people out of 10,000? Please postpone approving a permit until a full human health risk assessment and an air pollution modeling for venting, blowdowns, and shutdowns are completed. Also, the results of the health/risk assessment study need to be published and sent to all residents living within a five-mile radius of this facility.

Response: Based on projected emissions, the compressor station is considered a minor source, not a major source that is subject to New Source Review (NSR) [i.e., Prevention of Significant Deterioration (PSD)]. Therefore, no air quality analysis using modeling is legally required. Also, no additional secondary impact analysis is required to assess the impact of air, ground and water pollution on soils, vegetation and visibility.

While not legally required, a screening air toxics analysis was performed to assess whether any potential health impacts could be expected from thecombustion turbine. This was accomplished by comparing modeled concentrations of air pollutants emitted from the facility to allowable concentrations prescribed by Ohio air pollution law (3745-114-01). U.S. EPA's long-term cancer standards were also used to evaluate certain air toxics emissions.

Ohio EPA does not consider 2.9 x 10-4 to be an acceptable statistical cancer risk. That risk is above anything Ohio EPA would allow for both new and existing sources of air pollution. It is not known where the commentor found that risk number, but it does not apply to this facility. Ohio EPA is confident that the screening health assessment conducted for this facility is protective of public health, including susceptible populations such as the young, elderly and respiratory-challenged individuals. Please also refer to responses to comments 4.u and 4.x.

l. **Comment**:Are meteorological factors such as wind, acid rain taken into consideration with respect to the populated areas?Are the VOCs measured randomly around the site or in the predominant wind stream?

Response: The computer modeling took into account meteorological factors to determine maximum expected downwind concentrations. The modeling also considered the maximum emissions rate emitted; stack's height diameter, temperature and flow rate; building dimensions; expected air flow; and other factors to calculate the maximum concentrations expected at ground level downwind of the facility. Ohio EPA used U.S. EPA's approved modeling protocol to accurately calculate downwind concentrations.

Acid rain is not a factor taken into consideration for review of a project of this type. The U.S. EPA has acid rain regulations that are designed to reduce the formation of the pollutants that contribute to acid rain. The acid rain requirements apply to large electric generating facilities.

m. **Comment**:Concerns were raised about radon emissions from the proposed compressor station since radon is naturally occurring in the ground and in natural gas. One commenter noted that U.S. EPA's threshold for remediation of radon in indoor air is 4 pCi/L. Another commenter asked about radioactive elements in the particulate emissions.

Response: There is no indication the proposed compressor station would emit radon gas or radioactive particulate matter. The natural gas carried in the NEXUS pipeline is residential-quality natural gas that meets the natural gas quality specifications of downstream customers. NEXUS will monitor all incoming gas into the pipeline through metering, regulation and filtering.

U.S. EPA'sradon guidelines are specifically for indoor air exposure (for gas leaking into residential living spaces). Outdoors, radon gas quickly disperses into the atmosphere and poses no risk to the community.

n. **Comment**:When the 30 tons of nitrogen oxides (NOx)emissions are combined with the volatile organic compound (VOC) emissions and exposed to heat and sunlight, it will produce ozone. The ozone will result in respiratory impacts to those living in the area of the compressor station.

Response: The amount of NOx and VOCs released from the proposed compressor station would not significantly add to the overall air pollution load in the area. In 2011, NOx emissions from all sources in Lucas County were 23,624 tons per year. The additional 30 tons of NOx from this facility represents 0.13 percent of the total load, which is not considered significant.

As previously mentioned, compliance with the applicable permit limitations will ensure that the compressor station operates in a manner that is protective of human health and the environment. Please, also see response to comment 4.f on how and why the NAAQs are established.

o. **Comment:** Ohio EPA must protect the community's public health and the environment. There should be no more emissions of any toxics released into the ambient air.

Response: Toxic air contaminants are emitted from many fossil fuel combustion source, such as lawn mowers, home furnaces, wood burning stoves, school buses, farm equipment, and so on. A few other common sources of toxic air contaminant emissions are gas stations and surface coating operations.

All emissions standards established in the compressor station permit will allow the facility to operate in compliance with all applicable state and federal rules and regulations.

p. **Comment**:Some of the compressor station's most toxic emissions include: benzene, hexane, toluene ozone, formaldehyde, sulfuric acid and radon. These toxins will be present in the air we breathe and will settle and accumulate on homes, farmers' fields, playgrounds, pools and ponds, and in the Maumee River.Eventually, these toxins will make their way to ground water and shallow aquifers, and pose a risk to the community

Response: Ohio EPA is not aware of impactsto water systems (surface/drinking/ground waters), crops, soil or wetlands as a result of normal compressor station operations. Emissions of volatile compounds will preferentially dissipate into the atmosphere, rather than be transported to soil and surface/drinking/ground waters.

Emissions limits in the permit complywith all state and federal rules and regulations, which arein place to protect public health and the environment.

If you have an air quality complaint, telephone the Toledo Division of Environmental Services at 419-936-3015 during normal business hours (Monday – Friday, 8AM – 4:45PM) or at 419-936-2020 outside of normal business hours.

If you have a water quality complaint, contact the Ohio EPA Northwest District Office (Bowling Green, OH) at 1-800-686-6930.

Please also refer to responses to comments 4.x, 4.u, and 4.w.

q. **Comment**:Some commenters were concerned that the VOCs will be so pervasive to where they might end up on different surfaces and ultimately ingested by children coming in contact with these surfaces.

Response: Ohio EPA has not seen data suggesting that normal operation of a compressor station result in concerns over deposition of VOC emissions from the air to the ground. In general, while particulate emissions do settle back to Earth at varying distances from the emissions point, VOCs in general, by nature disperse upwards into the atmosphere where they are highly dispersed prior to being photo-chemically degraded.

r. **Comment**:Who is addressing the environmental impacts that would result from construction and operation of the proposed NEXUS gas pipeline?

Response: The Federal Energy Regulatory Commission (FERC) is the lead government agency responsible for evaluating the potential environmental impacts of the proposed NEXUS pipeline project.FERCevaluates impacts toair and water;plants and animals; cultural resources;and socioeconomic concerns. FERC's evaluation results in issuance a draft Environmental Impact Statement (EIS). The draft EIS and related information are found on FERC's website at: https://www.ferc.gov/industries/gas/enviro/eis/2016/07-08-16-eis.asp.

If functioning properly, the pipeline would release no, or minimal, air emissions; therefore, an Ohio EPA air permit is not required. As proposed, the pipeline would run through a number of wetlands and streams; therefore, NEXUS will first need to obtain a permit from the U.S. Army Corps of Engineers and a Section 401 water quality certification (state permit) from Ohio EPA. For more information on that permit, contact Ohio EPA's Public Interest Center at (614) 644-2160.

s. **Comment:** I would like to know the impact on our residents when emissions exceed the acceptable permitted levels? How often would the emissions be allowed to exceed permitted levels?

Response: Ohio EPA's air permitting process does not include a review of the impact of emissions above what is allowed to be emitted by the air permit. Pollutant limits in the air permit are in place to protect human health and the environment.

The permit prohibits excess emissions. If excess emissions occur, Ohio EPA will investigate and, if warranted, pursue enforcement to ensure the facility complies with its permit.

t. **Comment:** Compressor stations emit many toxic air pollutants. What are the effects of these emissions? What side effects are you aware of that result from exposure to these toxic gases? Will the Ohio EPA issue the equivalent of MSDS's for each of these compounds?

Response: The primary NAAQS standards are set at a level intended to protect public health, including the health of at-risk populations, with an adequate margin of safety. In selecting a margin of safety, U.S. EPA considers such factors as the strengths and limitations of the evidence and related uncertainties, the nature and severity of the health effects, the size of the

at-risk populations, and whether discernible thresholds have been identified below which health effects do not occur.

In all NAAQS reviews, U.S. EPA gives particular attention to exposures and associated health risks for at-risk populations. Standards include consideration of providing protection for a representative sample of persons comprising at-risk populations rather than to the most susceptible single person in such groups. Even in areas that meet the current standards, individual members of at-risk populations may at times experience health effects related to air pollution.

U.S. EPA periodically conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to the criteria air pollutants. The resulting assessments serve as the basis for making regulatory decisions about whether to retain or revise the NAAQS that specify the allowable concentrations of each of these pollutants in the ambient air.

More information on criteria air pollutants and potential health effects is available online at:https://www.epa.gov/sites/production/files/2015-10/documents/ace3_criteria_air_pollutants.pdf.

Information on the health effects of exposure to hazardous air pollutants is available at:https://www3.epa.gov/airtoxics/hlthef/hapindex.html

Information on greenhouse gases is available at: https://www3.epa.gov/climatechange/science/indicators/ghg/

Material Safety Data Sheets (MSDS)are designed for workers and emergency responders. They document the nature of a chemical, how to work safely with the chemical and what to do if there is an accidental spill. Chemical manufacturers and distributors issue MSDS sheets. Ohio EPA does not issue the equivalent of an MSDS sheet for air emissions.

u. **Comment**:Exposure to high levels of nitrogen oxides, volatile organic compounds and benzene can cause horrible health effects to adults, children, and even to a developing fetus. Knowing so much about the short and long-term effects of these air emissions, how can Ohio EPA possibly approve this air permit?

Response: It can be overwhelming to hear about potential health effects from chemical exposure. Air pollution can impact health when one is exposed to high concentrations of pollutants for an extended period of time. Knowing that, Ohio EPA considers exposure to specific concentrations of pollutant(s) over time, to be the defining considerations when determining risk to human health. Before Ohio EPA issues an air permit, an applicant must demonstrate that the proposed facility will operate in a manner that will protect human health and the environment. Once a permitted facility is operating, compliance is ensured through regular monitoring, recordkeeping and reporting.

v. **Comment:** The Southwest Pennsylvania Environmental Health Project notes a long and troubling list of health concerns for people living in close proximity to compressor stations, including respiratory problems; throat and nasal irritation; weakness and fatigue; muscle aches and pains; vision and auditory impairment; sleep disturbances; and on and on. Is Ohio EPA aware of these impacts?

Response: We have reviewed this, as well as a variety of other studies concerning potential emissions from compressor stations. While the health effects listed by these studies is

illustrative of potential health effects, various uncertainties in these reports make direct comparison difficult to apply in Ohio. If this facility remains in compliance, we anticipate no adverse health effects being directly caused by the operation of this facility. Please also refer to the response to comment 4.u.

w. **Comment**:I have serious concerns about exposure to formaldehyde and the health effects that may result. According to the Centers for Disease Control, nasal and eye irritation, neurological effects, and an increased risk of asthma and/or allergies have been observed in humans breathing 100-500 parts per billion of formaldehyde. The U.S. Department of Housing and Urban Development (HUD)has set maximum concentrations in manufactured housing of 400 ppb. U.S. EPA considers formaldehyde a probable human carcinogen."

The Waterville Compressor Station will cause unknown, but unmistakable, formaldehyde pollution and poisoning of surrounding residents. NEXUS should not be granted a permit for the station.

Response: Typically, the greatest risk of exposure to high levels of formaldehyde is from carpets, laminates, solvents and other products found in homes, offices and other enclosed environments.

When evaluating risk from formaldehyde exposure in outdoor air, Ohio EPA follows federal protocols and guidelines. Prior to issuing the draft air permit for the proposed compressor station, Ohio EPA conductedformaldehyde emissions modeling. The results showed formaldehyde concentrations were below Ohio EPA and U.S. EPA recommended levels. We do not expect concentrations of formaldehyde near the levels cited by the commenter.

When evaluating risk to human health and the environment, Ohio EPA follows federal protocols and guidelines. A range of "acceptable" health risk values for carcinogens has been historically proposed by U.S. EPA. These health effect evaluation numbers have many safety factors included in the calculations in order to present the most conservative estimate of human health risk and are design to be protective of residents, children or sensitive sub-populations.

x. **Comment**:U.S. EPA considers benzene to be a known human carcinogen.Air studies around compressor stations in Wyoming showed benzene concentrations ranging from 7 – 640 parts per billions (ppb). A similar study in Texas, showed concentrations ranged from 9-93 ppb at one compressor station and 1.6 ppb downwind of another compressor station.

At the lower end of the above concentrations (1.6 ppb), the lifetime cancer risk is 4/100,000 (i.e. four additional cancer cases for every 100,000 exposed persons), while at the higher end (640 ppb), the lifetime cancer risk is very high (2/100), if the concentration is sustained at this high of a level over a lifetime.

Our families and community don't need to be put at this kind of risk.

Response: In any community,the primary sources of exposure to benzene are automobiles, trucks, tractors and other mobile sources that contain combustion. Based on Ohio EPA's and FERC's risk evaluation, if the facility operates in compliance with the permit, there should be no adverse health impacts to residents, children, or any sensitive sub-populations

Ohio EPA does not expect this facility to significantly increase benzene air concentrations.

Please also refer to response to Comment 4.w above.

y. **Comment**:Epidemiological surveys show the closer one lives to shale gas operations, the greater the chance of illness. As proof, one commenter submitted the following study: *Investigating Links Between Shale Gas Development and Health Impacts Through aCommunity Survey Project in Pennsylvania* (http://new.sagepub.com/content/23/1/55.long).

Response: Ohio EPA understands how results from the study can be alarming. However, it is important to note the study did not conclude that the presence of the chemicals detected in the outdoor air were directly related to shale gas activity. Nor did the study conclude that the self-reported health effects were caused by shale gas activity in the community. The authors did not conduct a detailed epidemiology study and were careful to point out that other possible causes were not studied. The study also did not include background samples of chemicals that can typically be detected in the range reported in the study.

z. **Comment**:Fine particulate matter may cause increases in asthma and cardiopulmonary symptoms.

Fine particulates (PM2.5) are particles that are 2.5 um in diameter or smaller. These particulates can be inhaled deep into the lungs. Scientific studies have linked the inhalation of fine particulates to heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, increased respiratory symptoms, and premature death in people with heart or lung disease. The EPA has set particulate concentration limits at 12 ug/m3 for average annual exposure, and 35 ug/m3 for 24 h limit.

In Spectra Energy's permit application for a 7,700 horsepowercompressor station, the company's modeling for PM2.5 predicts a 4.6 ug/m3 particulate concentration, in addition to a background concentration of 16.4 ug/m3 for a total of 21 ug/m3. The background concentration alone exceeds the EPA limit and the compressor station will add another 25 percent. This will increase health risks. Note that the Wadsworth combustion turbine is rated at 26,000 hp (per Nexus' permit application), so it is likely that particulate concentrations will greatly exceed those shown above.

Weather models have calculated average PM2.5 concentrations around compressor stations to be up to (depending on weather conditions) 56 ug/m3 at 1.2 miles, 100 ug/m3 at 0.5-mile, 225 ug/m3 at 0.2-mile, and 1,400 ug/m3 at 100 yards. These high levels far exceed the EPA limit and are likely to cause serious health problems.

Response: AERMOD air dispersion modeling was conducted in Hanoverton, Ohio, at the site of another compressor station to be located along the NEXUS pipeline.The Hanoverton station will have two combustion turbines. The Waterville compressor station will have only one combustion turbine. The modeling at Hanoverton evaluated 12.6 tons per year of PM2.5 emissions from the two combustion turbines and from permit exempt sources,including an 1,175-horsepower emergency generator and two process heaters. The results found no exceedances of the PM2.5 Ohio Generally Acceptable Incremental Impact levels (OAII), which are set at 2 µg/m3 as an annual average and 4.5 µg/m3 as a 24-hour average (these are within health-based standards).With only one combustion turbine and a smaller emergency generator proposed for the Waterville compressor station, the maximum impact of PM2.5 will be lower than found at Hanoverton

As mentioned, Ohio EPA also participates in the national ambient air monitoring network, which monitors air pollutants on a continuous basis. The sampling sites provide real-time monitoring of

air pollution episodes; data for trend analyses, regulation evaluation and planning; and daily air quality information to the public. The annual air quality report is available online at:

http://epa.ohio.gov/dapc/ams/amsmain.aspx#126983979-quality-assurance-data-and-reports

aa. **Comment**:The air emissions from the various units associated with the compressor station, as well as the venting of gases from periodic maintenance; routine operations; equipment leaks; startup and shutdown activities; and pigging operations will have the potential to negatively impact the health of individuals living, working and recreating 2-5 miles from the compressor station.

Expert Wilma Subrapredicts 36 dangerous industrial chemicals will be routinely discharged, potentially causing dozens of maladies.

Siting a compressor station in an area that will negatively impact the health of a number of communities as well as more than half the city of Wadsworth is inappropriate and should be used as a reason to deny the air permit.

OAC § 3745-15-07(A) prohibits as unlawful the *"emission or escape into the open air from any source or sources whatsoever, of . . . fumes, gases, vapors, or any other substances or combinations of substances, in such manner or in such amounts as to endanger the health, safety or welfare of the public, or cause unreasonable injury or damage to property."* Given the many unknown and unexamined aspects of the pollution that will constantly be venting or leaking from the Waterville Compressor Station, the director of Ohio EPA cannot fulfill his responsibility to protect health and prevent injury to plant, animal life and property; therefore, he should deny the permit.

Response: Refer to responses to Comments 4.u, 4.r, 4.x, and 4.z.

bb. **Comment**:According to the CDC andDepartment of Health and Human Services, benzene causes cancer in humans andlong-term exposure to high levels of benzene can cause leukemia. When benzene is released into the air, the CDC recommends leaving the area and moving into one with fresh air. When the compressor station releases benzene into our town's air 24 hours a day, seven days a week, where should we go for fresh air? Should we abandon our homes, our town and our lives?

There are so many young kids in this area who deserve better than to be exposed to carcinogens. As a healthcare professional, cancer clusters are real, and I am confident that this entire area will become one if these plans are carried out. Heart disease used to be the number one killer, and now cancer is more prevalent.

The October 2014 report the Madison County Department of Health submitted to FERC states there are known health risks, including elevated risk of cancer and damage to organs, due to long-term exposure to VOCs.

The compressor station's emissions of VOCs, polyaromatic hydrocarbons (PAHs), and radon gas will exceed standards set by U.S. EPA.

Response: Refer to responses to comments 4.m., 4.u., 4.r., and 4.z.

cc. **Comment**:The Occupational Safety and Health Administration (OSHA) has rules regarding employee exposure to emissions during the work day, but there seems to be much less concern

about residents exposed to these emissions 24 hours/day and 365 days/year.

Response: Ohio EPA is committed to protecting human health and the environment. The Agency's permits include limits on emissions to ensure they are not emitted at levels that could adversely impact the community. Ohio EPA evaluates pollution exposure scenarios based on constant exposure24-hours a day, 365 days a year for a lifetime. The Agency's air toxics assessment takes into account our most susceptible populations including the young, old, and those with respiratory weakness.

OSHA's authority is limited to the workplace and is concerned with workplace safety and the health of the workers. Its mission is to "assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance." The OSHA Act of 1970 requires that every employee have a workplace "free from recognized hazards that are causing or are likely to cause death or serious physical harm." To that end, OSHA issues mandatory safety and health standards and enforces them with inspections and investigations. OSHA standards apply to all businesses that have employees, no matter how small, with a few exceptions.

The EPA concerns itself with pollution that poses a threat to public health beyond the fence line, with a particular focus on air and water pollution. The agency's mission is to ensure that "all Americans are protected from significant risks to human health and the environment where they live, learn and work." Like OSHA, the EPA has issued thousands of regulations, which it enforces with inspections, investigations and, if necessary, legal action. Because of the seriousness of potential threats to human health, EPA pollution regulations generally apply to all businesses, regardless of size.

dd. **Comment**:If and when people in our community begin developing health problems related to the toxic fumes the compressor station releases, who will responsible to cover the medical expenses? How do I get tested if I think I'vebeen exposed to air harmful air pollutants?

Response: Provided the facility operates in compliance with the permit's emissions limits, terms and conditions, then human health and the environment will be protected. However, should you detect nuisance odors or experience a health effect as a result of odors emanating from the compressor station, file a complaint with the Toledo Division of Environmental Services at 419-936-3015. They will investigate the complaint and, if warranted, direct the facility to abate the nuisance. For any health concern or questions about medical tests, you should also contact your physician and the local health department.

ee. **Comment**:You claim the emissions are safe, but, what if we find out in 10 years that the levels of benzene, formaldehyde, radon, etc., were not safe and Waterville ends up with a cancer cluster? How can we truly trust what is proven to be safe today won't be disproved 20 or 30 years from now? With the NEXUS pipeline compressor station potentially being only 2 miles from our homes in Waterville, why should we be exposed to another potential health risk on purpose when we face enough of them through accidents?

Response: Ohio EPA cannot guarantee that something considered safe today will continue to be considered safe 20-30 years from now. When reviewing permit applications, the Agencytakes into account the most up-to-date information, rules and regulations available. As new information becomes available, air standards/regulations are periodically modified. And, as permits come up for renewal, those modified standards/regulations are incorporated.

ff. **Comment**:One commenter stated he suffers from chronic fatigue and fibromyalgia because of formaldehyde emitting from the insulation in his house. He is concerned about formaldehyde emissions in ambient air. Another commenter stated that his/her health was fragile and that his/her 14-year-old twin daughters suffer from asthma. The commenter wanted to understand how emissions from the compressor station would impact their short-term and long-term health?

Response: Please refer to response to Comment 4.u.

gg. **Comment**:Oregon State and the University of Cincinnati tested the air in Carroll County.The scientists sampled for 462 Polycyclic Aromatic Hydrocarbons (PAHs) and found 32 to be absorbed. Our air tested for the full 32 PAH chemicals. According to the air study, 2.9 additional people out of 10,000 will develop cancer as a result of living close to a gas facility.

Response: The authors of the study titled *Impact of Natural Gas Extraction on PAH levels in Ambient Air* recently reported they erred in their calculations and that the correct results showed PAH concentrations were below U.S. EPA's threshold of acceptable risk. As a result, the authors retracted the study. More information is available online at:

http://www.cantonrep.com/news/20160714/carroll-county-air-pollution-study-retracted-revised

and

http://pubs.acs.org/doi/abs/10.1021/acs.est.6b02342.

hh. **Comment**: What types of solid and gaseous emissions will the compressor station release? What are the EPA-approved safe levels for each of these emissions? What does the EPA consider to be a safe level of emissions for these toxins within a 2-mile radius? What is the criteria used to determine whether the emissions levels are acceptable?

Response: Since natural gas contains many trace materials, and there will be emissions of natural gas, there is a long list of air contaminants that could potentially be emitted from the proposed compressor station. These pollutants include carbon monoxide; nitrogen oxides; particulate matter; sulfur dioxide; volatile organic compounds; acetaldehyde; acrolein; benzene; butadiene; ethylbenzene; formaldehyde; naphthalene; polycyclic aromatic hydrocarbons; propylene oxide; toluene; xylenes; tetramethylpentane; carbon dioxide; methane; ethane; propane; butane; cyclopentane; pentane; benzene; cyclohexane; methylcyclopentane; dimethylbutane; hexane; methylpentane; toluene; cycloheptane; dimethylcyclopentane; ethylcyclopentane; methylcyclohexane; dimethylpentane; ethylpentane; heptane; methylhexane; trimethylbutane; ethylbenzene; xylene; dimethylcyclohexane; ethylcyclopentane; trimethylcyclopentane; dimethylhexane; ethylhexane; methylheptane; octane; trimethylpentane; propylbenzene; trimethylbenzene; dimethylheptane; methyloctane; nonane; trimethylhexane; decane; dimethyloctane; methylnonane; undecane; dodecane; 1,3-Butadiene; acetaldehyde; acrolein; and propylene oxide.

All of the particulate matter emissions listed in the draft permit's allowable emissions summary are from the combustion turbine. Since the combustion turbine burns natural gas as fuel, most of the particulate emissions are emitted in the form of condensable particulate matter emissions, rather than as solid particulate matter. Most of the solid particulate matter emitted from combustion consists of carbon.

ii. **Comment**:What effect will these emissions and odors will have on animals and insects, such as honey bees? This permit needs to be denied until such time that it is first approved by FERC

and shows no risk whatsoever to human, animal, water supply or agricultural health.

Response: Please refer to responses to comments 4.u, 4.i and 1.b.

jj. **Comment:** Does Ohio EPA plan to visit the area several times a year for the purpose of measuring and collecting data on cancer clusters or death rates?

Response: The study of health trends, including cancer clusters and death rates, falls under the authority of the Ohio Department of Health and local health departments.

5. Compliance Monitoring

a. **Comment:** Who will be auditing the monitoring, record keeping and reporting requirements that are necessary to make sure the requirements of the permit are being complied with?

Response: Ohio Revised Code (ORC) 3704.03(I) specifies that the director of environmental protection may require the owner or operator of an air contaminant source to maintain records and file periodic reports with the director containing information as to location, size and height of emissions outlets; rate, duration, and composition of emissions; and any other pertinent information the director prescribes. Ohio EPA's air permits incorporate these same monitoring and reporting requirements.

Annual permit evaluation reports (PERs) are required to be submitted to Ohio EPA and will be reviewed by the Toledo Division of Environmental Services.

b. **Comment:** If allowable emissions limitations are exceeded, will Ohio EPA penalize the facility?

Response: An exceedance of a permitted allowable emissions limitation would be handled in accordance with Ohio EPA's enforcement program and may, at minimum, result in the issuance of a Notice of Violation (NOV) to the permittee. Depending on the severity of the exceedance and the facility's corrective action response, the violation could be resolved or escalated to enforcement either through Ohio EPA's legal department or the Ohio Attorney General's Office. Typically, this would result in Ohio EPA's Director issuing Final Findings and Orders, which may include a financial penalty, contributions to a Supplemental Environmental Project (SEP), installation of additional pollution controls, etc. In certain instances, the violation may be escalated to the federal level with the enforcement case managed by U.S. EPA. A shutdown order could be issued to the facility if necessary to protect public health or the environment.

c. **Comment:** Does Ohio EPA have the authority to conduct unannounced inspections of this facility? If yes, how often is this done?

Response: Yes, if warranted,Ohio EPA has the authority to conduct unannounced inspections of permitted facilities.

This facility will be periodically inspected by the Toledo Division of Environmental Services. The frequency of inspections will be determined after the facility is in operation. Once the compressor station is built, there will be an initial inspection. The frequency of future inspections will be based on a number of factors includingcitizen complaints, and reports of malfunctions or non-compliance.

d. **Comment:** A number of commenters asked who will monitor the facility's emissions and who will monitor ambient air quality.

Response: The facility is required to monitor the allowable emissions limitation specified in the permit. This will happen as the emissions are going through the stacks or equipment, and prior to them mixing with ambient air. The frequency of monitoring varies by emissions unit. For the combustion turbine, the permittee is required to maintain monthly records of the ambient temperatures during operation, the number of startups and shutdowns, and the monthly CO, VOC, and NOx emissions. The permittee also is required to conduct an initial stack test at the combustion turbine within 180 days of startup for CO, NOx, and VOC emissions.

The permittee is required to pay for stack testing and monitoring.The permittee selects the contractor who will conduct the stack testing and calibrate the measuring devices. An Ohio EPA representative will be onsite during the stack test to verify it is conducted in accordance with U.S. EPA's approved test methods. After the initial stack test, a stack test for NOx is required annually. If the test results indicate a NOx concentration of less than 75 percent of the allowable NOx concentration, then the NOx emissions testing frequency may be reduced a two-year frequency. Future stack testing requirements for CO and VOC emissions will be based on results of the initial stack test for CO and VOC emissions. A comprehensive written report of the results will be submitted to Ohio EPA within 30 days of the testing.The data contained in the report is reviewed to ensure it complies with approved test methods.

For gas releases and pipeline pigging, the permittee is required to maintain monthly records with the volume and density of natural gas released, and the VOC emissions calculations. The VOC emissions are based on the calculated volume of natural gas released, not on emissions testing. The permittee also will monitor each gas release 24 hours per day, 7 days per week,and report it on a monthly basis. Any deviation from the allowable emissions limitationsis included in an annual report and submitted to Ohio EPA.

On June 3, 2016, U.S. EPA issued a new rule (Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015) regulating equipment leaks from natural gas compressor stations.The final permit for Waterville Compressor Station has been revised to incorporate the requirements of this rule. For equipment leaks, the permittee is required to monitor and, if needed, repair all fugitive emissions components in accordance with the rule.

The permittee also is required to develop an emissions monitoring plan that covers the collection of fugitive emissions components. It includes the following:

i. Frequency for conducting surveys. An initial monitoring survey must be conducted within 60 days of startup of production. After the initial monitoring survey, ongoing monitoring surveys are required to be conducted at least quarterly.

ii. Identifying whether U.S. EPA Method 21 or optical gas imaging will be used to determine fugitive emissions.

iii. Manufacturer and model number of the monitoring equipment used to determine fugitive emissions.

iv. Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected.

v. Procedures and timeframes for verifying fugitive emissions component repairs.

vi. Records that will be kept and the timeframe that records will be kept.

vii. If optical gas imaging is used, the plan must include verification that the equipment meets the specifications for the optical gas imaging equipment contained in NSPS Subpart OOOOa.

viii. If Method 21 is used to determine fugitive emissions, the plan must include verification that the equipment meets the specifications contained in NSPS Subpart OOOOa.

ix. Site map and a defined observation path to ensure fugitive emissions are within sight of the path. If using Method 21, the plan must include a list of equipment to be monitored and the method for determining the location of fugitive emissions.

x. A list of all fugitive emissions components that are difficult to monitor or unsafe-to-monitor. A written plan for difficult or unsafe-to-monitor components must be developed and shall include:

1. The identification and location of each component.

2. An explanation of why a component is difficult to monitor, or designated as unsafe to monitor.

3. Schedule for monitoring these components.

The rules include equipment component repair deadlines and require that a repaired or replaced fugitive emissions component be resurveyed as soon as practicable, but no later than 30 days after being repaired to ensure that there are no fugitive emissions. If a component cannot be repaired during a monitoring survey when the fugitive emissions are found, a digital photograph must be taken of the component or a tag must be affixed to it for identification purposes. The digital photograph must clearly identify the location within the compressor station. Annual reports are required to be submitted to both Ohio EPA and U.S. EPA that contain the following information:

i. Date of the survey.

ii. Beginning and end time of survey.

iii. Name of operator performing the survey.

iv. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

v. Monitoring instrument used.

vi. Any deviations from the above-described monitoring plan.

vii. Number and type of components for which fugitive emissions were detected.

viii. Number and type of fugitive emissions components that were not repaired by the required deadlines.

ix. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emissions components monitored.

x. Date of successful repair of fugitive emissions component

xi. Number and type of fugitive emissions component placed on delay of repair and explanation for each delay of repair.

xii. Type of instrument used to re-survey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

To ensure compliance with the regulations, the facility must submit annual permit evaluation reports (PERs) to Ohio EPA.

The compressor station is classified as a "minor source" similar to gas stations, dry cleaners and other small emissions sources; therefore, ambient air monitoring is not required.However, the facility will have personnel monitoring air emissions on-site (during normal business hours) and from a centralized gas control center (24 hours per day).

e. **Comment**:Since the compressor station will not be manned, how quickly will personnel arrive to correct a malfunction that cannot be corrected remotely?

Response: As stated in the previous response, the compressor station will be manned during business hours. In addition, all the NEXUS compressor stations will be monitored around the clock, and some are controlled remotely, by personnel at a centralized gas control center. Personnel will be dispatched to the scene if operational conditions necessitate an onsite presence.

f. **Comment**: Will this facility be allowed to self-monitor and self-report?

Response: Although Ohio EPA air permits issued state-wide rely on self-monitoring and self-reporting by the permittee, this facility will be periodically inspected by the Toledo Division of Environmental Services. The frequency of inspections conducted at this facility will be determined after the facility is in operation. Once built, an initial inspection will be conducted by Toledo Division of Environmental Services. After the initial inspection, the frequency of future inspections will be determined based on a number of factors which can include, but not be limited to, frequency of malfunctions, complaints, and reporting of non-compliance. Any compliance issues that are found will be handled as discussed in the Compliance topic in this Response to Comments document.

g. **Comment**:Can an interested third party monitor the facility's emissions using acceptable technology?

Response: An interested third party may conduct fence line monitoring of emissions from the Waterville Compressor Station. However, Ohio EPA could not use the results from the interested third party for purposes of enforcement. If an interested third party has a complaint against the facility, and wants to submit results of fence line monitoring to Ohio EPA as part of complaint documentation, that is allowed, and the documentation could be used by Ohio EPA representatives to assist in determining the source of the complaint.

h. **Comment:** Ohio EPA should install continuous monitoring equipment at compressor stations and along the pipelines to ensure that emissions don't reach dangerous levels.

Response: Ohio EPA maintains an air monitoring network that provides for continuous and periodic ambient air monitoring across the state. The closest ambient air monitor to the

proposed Waterville Compressor Station is a continuous ozone monitor located at 200 South River Road in Waterville. Ohio EPA's air monitoring plan details how the monitoring sites are chosen. The Agency does not install ambient air monitoring equipment to specifically monitor compressor stations or pipelines.

While combustible gas monitoring is not required by Ohio EPA, it is required by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). More information on PHMSA's regulations can be found online at: http://www.phmsa.dot.gov/.

i. **Comment:** When the compressor station is operating, will we smell gas? If we do smell strong odors, who do we contact?

Response: Residents should not smell gas or other strong odors from the facility. If nuisance odors are detected and believed to be coming from the compressor station or any other Ohio EPA-permitted facility, you should report it to the Toledo Division of Environmental Services (TES) at 419-936-3015. More information is online at: http://toledo.oh.gov/services/public-utilities/environmental-services/.

When TES receives an air complaint, it is assigned to an employee for review and possible investigation. The amount of time it takes to respond to an air complaint is dependent on availability of a complaint responder and the nature/severity/ of the complaint. TES responds to complaints as soon as possible.

j. **Comment**:Who will be responsible for monitoring the pipeline for potential environmental issues and how often? Who will determine tolerance levels for leaks? Who will determine the frequency of monitoring? How and when will these issues be reported to the community?

Response: The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates the operation and maintenance of interstate pipelines. The Public Utilities Commission of Ohio (PUCO) conducts in-state pipeline safety checks for PHMSA More information on PHMSA and PUCO's responsibilities is online at: http://www.phmsa.dot.gov/

and

http://www.puco.ohio.gov/puco/index.cfm/be-informed/consumer-topics/natural-gas-pipeline-safety-in-ohio/#sthash.7kZqs4fl.laM6B7Ch.dpbs .

6. Public Information

a. **Comment:** Will residents be notified if the emissions are over the standards?

Response: Permitted facilities are required to report emissions exceedances to Ohio EPA. While the Agency does not notify residents about exceedances or other potential permit violations, that information is available to the public. The great majority of Ohio EPA's records are considered public records and are available for review online through a search of the Agency's "eDocs" database or by submitting a public records request. More information on eDocs and public records is available online at: http://epa.ohio.gov/dir/publicrecords.aspx or by contacting the Public Interest Center at 614-644-2160.

b. **Comment:** What time of day will blowdowns occur (when students are at recess, when

children are waiting for the bus stop, etc.)? Is there danger to residents from harmful compounds and gases released during these events?

Response: Ohio EPA does not regulate the timing of blowdown events. They are dependent on facility operations. The types and quantities of estimated facility emissions, including from blowdown events, classify the proposed compressor station as a minor source of air pollutants. Provided it operates in compliance with the permitted emissions limits, terms and conditions, the facility will be protective of human health and the environment.

c. **Comment**: Several questions and comments were received about noise from the proposed compressor station, including, is there noise associated with blowdown venting events?

Response: There is noise associated with blowdowns; however, Ohio EPA does not have the authority to regulate noise and cannot establish noise (decibel) limits in air permits. The Federal Energy Regulatory Commission (FERC) does have noise regulations for compressor stations. More information on FERC's regulatory authority is available online at: www.ferc.gov/industries/gas.asp.

d. **Comment**:How much gas is contracted to flow through the pipeline and how will this affect turbine loads, startups and shutdowns?

Response: The NEXUS pipeline is designed to deliver 1.5 billion cubic feet of gas per day. Utilization of turbines is dependent on downstream capacity requirements.

e. **Comment:** Where can one obtain a reliable, scientifically-based, unbiased source of information concerning compressor station operations?

Response: This online link to U.S. EPA contains information about the oil and gas industry, including compressor stations:https://www3.epa.gov/airquality/oilandgas/index.html.

f. **Comment**:In the event that an evacuation is required, who will be responsible for the costs incurred by residents in the area evacuated? Who will organize an evacuation of the area and how do we ensure the safety of children during school hours?

Response: Ohio EPA does not develop emergency evacuation plans, and is not involved with decisions regarding evacuation costs. For questions on emergency evacuations, please contact the Lucas County Emergency Management Agency at 419-213-6506, or the Lucas County Local Emergency Planning Committee at 419-213-6527.

However, NEXUS has indicated that as part of the company's public awareness program, and in accordance with USDOT regulations, it will establish a working relationship early on with emergency responders including local volunteer fire departments, to ensure effective communication, education and training. NEXUS also indicated that employees and local emergency response personnel will meet periodically for emergency drills to test staff readiness and identify improvement opportunities. NEXUS indicated that their focus with these organizations will be to review firefighting methods and techniques for natural gas fires and to conduct periodic emergency drills and exercises.

g. **Comment**:I urge the Ohio EPA to help us stop the pollution to our air, water, and grounds by not approving the entire project.

Response: Ohio EPA legally obligated to evaluate all proposed sources and determine whether or not they are able to comply with all applicable state and federal air pollution control regulations. The Waterville Compressor Station air permit documents what the proposed sources must do in order to comply with these regulations. As long as the emission sources meet the permit terms and conditions, the potential emissions are not expected to cause adverse health and welfare effects. Pursuant to ORC 3704.03(F)(2)(a): "No installation permit shall be issued except in accordance with all requirements of this chapter and rules adopted thereunder. No application shall be denied or permit revoked or modified without a written order stating the findings upon which denial, revocation, or modification is based." Ohio EPA has no findings that support a denial of the permit application for the Waterville Compressor Station, and; therefore, Ohio EPA is legally obligated to issue the air permit to the Waterville Compressor Station because the potential air contaminants from this facility are within the emission thresholds allowed under state and federal air pollution control regulations.

h. **Comment**:How can Ohio EPA approve an air permit for a project that has not even been approved by FERC?

Response: Ohio EPA's review of permit applications and issuance of air permits is independent of other agency reviews and authorizations. The Agency cannot deny a permit for the proposed compressor station on the basis that it has not yet received approval from a different government agency.

i. **Comment:** Who is going to benefit from this permit approval?

Response: Ohio EPA does not take into consideration who benefits from a permit approval.

j. **Comment:** Can you provide us with the materials you reviewed and what criteria was consideredprior to issuing the draft permit?

Response: The following materials were reviewed and relied upon when drafting the permit:

- U.S. EPA AP-42, 5th Edition emission factors;
- 40 CFR Part 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines);
- 40 CFR Part 60, Subparts OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distributionfor which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015));
- 40 CFR Part 60, Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after September 18, 2015);
- 40 CFR Part 63, Subpart HHH (National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities);
- Engineering Guide #69 (Air dispersion modeling guidance Table 3);
- Engineering Guide #70 (Guidance on evaluating emissions of toxic air pollution compounds when processing Permit-to-Install (PTI) applications);
- Engineering Guide 86 (Guidance concerning appropriate 31-05 rule citations);
- Engineering Guide 87 (Guidance concerning rule citations for the <10 tons/year BAT exemption);
- Interoffice memo, dated February 7, 2014, Mike Hopkins (BAT Requirements for Permits Issued After February 7, 2014);
- U.S. EPA's Natural Gas STAR program;

- Compressor station air permits issued across the U.S;
- NEXUS' air permit application;
- Ohio Administrative Code Rules [i.e., OAC rules 3745-17, 3745-18, 3745-21, 3745-31, 3745-110, and 3745-114]; and
- Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017).

As previously stated, Ohio EPA is legally obligated to issue the air permit to the Waterville Compressor Station as long as the potential air contaminants from this facility are within the emission thresholds allowed under state and federal air pollution control regulations.

k. **Comment**: How many compressor stations of this size has Ohio EPA permitted and how many of them are within three miles of two towns and five schools?

Response: There are many permitted compressor stations in Ohio ranging in size from several-hundred horsepower to several-thousand horsepower. The Agency has not done a review to determine what other permitted compressor stations are located within 3 miles of towns and schools. As stated, Ohio EPA will not issue an air permit unless the facility proposes to operate in a manner that is protective of public health. The emissions limits established in the permit ensure that residents will be protected, regardless of their physical proximity to the compressor station.

l. **Comment**: Does Ohio EPA collaborate with other states to collect data from compressor station operations? How does this data affect Ohio EPA's decisions when issuing a permit?

Response: No, Ohio EPA does not collaborate with other states to collect data on compressor station operations.

m. **Comment**: What is Ohio EPA's mission? What is the source of the EPA's funding? Are there any special interest groups involved in this funding?

Response: Ohio EPA's mission is to protect the environment and public health by ensuring compliance with environmental laws and demonstrating leadership in environmental stewardship. Those laws and related rules outline Ohio EPA's authority and what things the Agency can consider when making decisions about regulated activities.

Ohio EPA secures its funding from fees generated through different Agency programs and U.S. EPA grants, and a small portion comes from the State of Ohio's General Revenue Fund. Funding is not provided by any special interest groups.

n. **Comment**: Why would Ohio EPA permit a pipeline from Ohio to Canada while at the same time the federal government wouldn't approve the Keystone pipeline that would extend from Canada to the Gulf of Mexico?

Response: The Federal Energy Regulatory Commission (FERC) regulates the interstate transmission of electricity, natural gas and oil. FERC also reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines. More information is available online at: http://www.ferc.gov/.

Ohio EPA may issue permits for portions of a pipeline that is constructed or operating in-state, including permits for impacts to wetlands and streams and/or for air emissions from compressor stations.

o. **Comment**:Ohio EPA should have public noticed the draft permit at least 90 days in advance and extended the comment period more than five days after the March 16 public meeting. Also, at the public meeting, it was disappointing to find that the information session was canceled.

Response: When a draft air permit is issued and public noticed in the newspaper, interested parties are given 30 days to submit comments and/or request a public hearing. In this case, when the draft air permit for the Waterville Compressor Station was public noticed on January 15, 2016, Ohio EPA began receiving dozens of hearing requests from concerned citizens, environmental groups, elected officials and the administration at Anthony Wayne Local Schools. On February 13, the Agency public noticed news of the March 16 public information session and hearing. Ohio EPA's Public Interest Center (PIC) also mailed a news release to local media and a citizen advisory to the hundreds of people on PIC's interested parties list. The meeting was widely publicized. Based on the large turnout at the public meeting, it appears that ample notice was provided to the community.

Taking into account the volume of comments presented at the March 16 public meeting and the additional comments submitted in the five days following the meeting, Ohio EPA did not feel it was warranted to extend the public comment period beyond the close of business on March 21.

Ohio EPA regrets having to cancel the information session portion of the March 16 public meeting. With approximately 600 people in attendance and the limited time available, the hearing officer determined the best course of action was to move straight into the public hearing, so that everyone wanting to present testimony had the opportunity to do so. Meeting attendees were provided a copy of the PowerPoint presentation that was to be presented during the information session. They also received a fact sheet and other materials that they could take home and review prior to submitting written comments. Contact information also was provided, so those with questions could contact the Agency and submit written comments prior to the close of the public comment period.

p. **Comment**:Some commenters expressed frustration that the March 16 public meeting focused onlyon air emissions,and not on other concerns such as pipeline safety, compressor station noise, etc.

Response: It would not be appropriate for Ohio EPA to comment on issues that fall outside the Agency's regulatory authority. Whenever possible, the Agency has attempted to direct citizens to the proper agencies. In addition, the March 16 public hearing transcript was filed with FERC, so that the lead federal agency is aware of all concerns presented by commenters during the hearing.

q. **Comment**:Public notification of the draft permit was misleading and insufficient. Ohio EPA's legal notice contains no mention of the Waterville Compressor Station being related to the NEXUS pipeline. The Draft permit was sent to "Reagan Mayces, Waterville Compressor Station, P.O. Box 1642, Houston, TX 77251-1642" and not to a person identified as working for Spectra Energy or NEXUS Gas Transmission LLC. In the 61-page draft permit, there is one mention of the word NEXUS, which appears inconspicuously on the 3rd page.

In light of this, the public notice should be re-issued and the public comment period for the proposed permit should be re-noticed and opened for at least an additional 30 days one proper advance notice is published.

Response: Permit application #A0053876 (submitted on 7/15/15) and Amended Application #A0054486 (submitted on 10/9/15) identify Waterville Compressor Station as the legal name and Reagan Mayces as the primary contact. Ohio EPA issues permits to the facility name listed in the permit application and mails the permit to the primary contact listed in the application. The public notice, as published on February 13, 2016, met the Agency's legal obligations. Above and beyond the legal notice, Ohio EPA's Public Interest Center (PIC) issued a reader-friendly news release to local media and a citizen advisory to the scores of people who asked to be included on PIC's interested parties list. The first paragraph of both the release and advisory stated, *"Ohio EPA will hold an information session and public hearing on March 16, 2016, about a draft air permit for a proposed compressor station that would be located off of Moosman Drive (south of Neapolis Waterville Road) and* ***is intended to facilitate delivery of natural gas along the Nexus Gas Transmission (NGT) pipeline."***

r. **Comment**:Will public concerns be weighed prior to a final permitting decision?

Response: Yes, all public comments are reviewed and considered prior to a final permitting action by Ohio EPA's Director. The Agency wants to ensure that its permits comply with all applicable rules and regulations. Therefore, it is important for staff to evaluate any new information presented during the public comment period.

s. **Comment**:Will the response to comments document compiled from the March 16th, 2016 hearing and comments submitted be available to the public?

Response: Yes, when the document is completed, it will be posted on Ohio EPA's Website and made available to all individuals that are on the interested party list.

t. **Comment**:Are there any studies conducted regarding the possible effect of emissions from the proposed facility on algae blooms in Lake Erie?

Response: Ohio EPA is not aware of any such studies. The Agency has no reason to believe that emissions from the Waterville Compressor Station will have an effect on Lake Erie algal blooms.

u. **Comment**:We can't even use the gas that will be flowing through the pipeline. What's the cost benefit analysis on that?

Response: A cost-benefit analysis is not a factor that Ohio EPA can use to determine whether to issue or deny an air permit.

v. **Comment:** There is already infrastructure in place to transport natural gas. There is an interstate rail and truck system that transports natural gas every day. Why do we need this gas pipeline?

Response: The determination on whether or not a project is needed is not part of the Ohio EPA's air permit review process.

w. **Comment**:A list of politicians and NEXUS employees involved with this project should be made available to the public.

Response: These issues are not part of the Ohio EPA's air permit review process. NEXUS' application and related materials on file at Ohio EPA are available for review by contacting Ohio EPA's Public Interest Center at (614) 644-2160.

x. **Comment:** A commenter indicated that water wells are going to be affected and eventually shutdown because of contamination and wanted confirmation that the State of Ohio would offer water to affected residents.

Response: The emissions limits established in the air permit are protective of human health and the environment. The Agency has no reason to believe that compressor station emissions will have an adverse impact to public or private drinking water.

7. Issues Outside Ohio EPA DAPC's Regulatory Authority

a. **Comment**:What emergency plans are in place for the communityand area schools, in the event that there is a rupture or an explosion at the compressor station? How will patients at Browning Masonic Community or the town's 11,000 residents be evacuated? The police and fire departments are not equipped to take on such task. Who is going to be responsible for paying for the extra training, personnel and equipment needed to respond to potential adverse events in the community?

Response: These issues are outside of the scope of the Ohio EPA air permit review process. For questions concerning emergency preparedness, accident response and evacuations, please contact the Lucas County Emergency Management Agency at 419-213-6506 or the Lucas County Local Emergency Planning Committee at 419-213-6527.

b. **Comment**:Citing potential health and economic impacts to the community, numerous commenters asked that the permit be denied based on the proposed compressor station's proximity to Whitehouse and Waterville;the Anthony Wayne Local Schools; nursing homes; daycare centers; parks; subdivisions; organic farms; private property; the Maumee River; the water treatment plant and waterlines, etc.Others said the compressor station poses a safety risk to local communities due to high pressure natural gas pipeline leaks; the explosion risk; and the pipeline's close proximity to the Bowling Green fault line and to the blasting at the Waterville quarry.

Response: Ohio EPA does not have regulatory authority to determine the location for where an air contaminant source is proposed to be located. Provided that the proposed installation can be reasonably expected to comply with all applicable air permitting regulations and policies, Ohio EPA must issue the permit

There are multiple governmental entities that regulate various aspects of compressor stations, and information is exchanged between them as necessary. In accordance with the requirements of OAC rule 3745-31-05(I), Ohio EPA DAPC coordinated the review and issuance of the draft air permit for the Waterville Compressor Station with other relevant Ohio EPA programs including the Division of Materials and Waste Management (DMWM), Division of Surface Water (DSW) and Division of Drinking and Ground Waters (DDAGW). Ohio EPA also filed a preliminary assessment of PTIO application #A0053902 in accordance with FERC regulations under 18 CFR section 385.2013. In addition, copies of the transcripts from the Feb. 16, 2016 public hearing were filed under FERC docket number CP16-22-000.

Many comments pertained to issues that fall outside the Agency's regulatory authority. The table below identifies the appropriate entity to which specific questions or concerns regarding these issues should be addressed.

Issue	Main Regulator

Eminent domain	State of Ohio legislature
Noise	Federal Energy Regulatory Commission Local zoning organizations
Organic farms	U.S. Department of Agriculture
Parks and nature conservation	Ohio Department of Natural Resources Local park districts
Property values	Local zoning organizations
Siting of compressor stations and pipelines	Federal Energy Regulatory Commission Local zoning organizations
Safety	Pipeline and Hazardous Materials Safety Administration Local fire departments and emergency response services
Truck traffic	Ohio Department of Transportation Local zoning organizations
Public and private water supplies	U.S. EPA Office of Water Ohio EPA Division of Drinking and Ground Waters Local health departments
Wetlands and streams	U.S. Army Corps of Engineers U.S. EPA Office of Water Ohio EPA Division of Surface Water
Wildlife	U.S. Fish and Wildlife Service Ohio Department of Natural Resources
Zoning restrictions	Local zoning organizations

Additional contact information:

Federal Energy Regulatory Commission
Office of the Secretary
888 First Street, NE, Room 1A
Washington, DC 20426
(Re: Docket No. CP16-22-000)

Ohio Department of Natural Resources
Division of Natural Areas and Preserves
2045 Morse Road, Bldg. C-4
Columbus, OH 43229
(614) 265-6561

Ohio Department of Natural Resources, District 2
Division of Wildlife
952 Lima Avenue
Findlay, Ohio 45840
(419) 424-5000

Ohio Department of Transportation, District 2
317 East Poe Road
Bowling Green, Ohio 43402
(419) 353-8131

Ohio EPA Northwest District Office
Division of Drinking and Ground Water or Division of Surface Water
347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461

Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety
East Building, 2nd Floor
1200 New Jersey Ave., SE, Mail Stop: E24-455
Washington, DC 20590
(202) 366-4595

U.S. Army Corps of Engineers
Great Lakes & Ohio River Division
Public Affairs Office
550 Main Street, Room 10524
Cincinnati, OH 45202
(513) 684-3010

U.S. Department of Agriculture
Wauseon Service Center
8770 State Route 108
Wauseon, OH 43567
(419) 335-6061

U.S. EPA, Region 5
Water Division
77 W. Jackson Blvd.
Chicago, IL 60604
(312) 353-2000

U.S. Fish and Wildlife Service, Region 3
Ecological Services Field Center
4625 Morse Road, Suite 104
Columbus, OH 43230
(614) 416-8993

END OF RESPONSE TO COMMENTS

Ohio Environmental Protection Agency

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Waterville Compressor Station

Facility ID:	0448002148
Permit Number:	P0119251
Permit Type:	Initial Installation
Issued:	9/9/2016
Effective:	9/9/2016
Expiration:	9/9/2026

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
Waterville Compressor Station

Table of Contents

Authorization

Facility ID:	0448002148
Application Number(s):	A0053876, A0054486
Permit Number:	P0119251
Permit Description:	Installation of a natural gas compressor station powered by a 29,517 hp natural gas-fired combustion turbine.
Permit Type:	Initial Installation
Permit Fee:	$2,750.00
Issue Date:	9/9/2016
Effective Date:	9/9/2016
Expiration Date:	9/9/2026

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Waterville Compressor Station
Moosman Dr
Waterville, OH 43566

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s))listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0119251
Permit Description: Installation of a natural gas compressor station powered by a 29,517 hp natural gas-fired combustion turbine.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID: **J001**
Company Equipment ID: J001
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P001**
Company Equipment ID: Combustion Turbine
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P003**
Company Equipment ID: Gas Releases
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P006**
Company Equipment ID: Separator Vessel #3
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P007**
Company Equipment ID: Separator Vessel #4
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P008**
Company Equipment ID: Separator Vessel #5
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P009**
Company Equipment ID: Pipeline Pigging
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P801**
Company Equipment ID: Equipment Leaks
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Group Name: Separator Vessel Group

Emissions Unit ID:	**P004**
Company Equipment ID:	P004
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

Emissions Unit ID:	**P005**
Company Equipment ID:	Separator Vessel #2
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee.This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee.Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as beingpermanently shut down without first applying for and obtaining a permit pursuantto OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) B.4.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) None.

2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines: P001 and P002. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://www.ecfr.gov or by contacting the Toledo Division of Environmental Services.

3. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities: P801. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://www.ecfr.gov or by contacting the Toledo Division of Environmental Services.

4. Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year for those emissions units subject to this rule. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

5. Air contaminant sources that qualify as de minimis under OAC rule 3745-15-05, or are exempt under OAC rules 3745-31-03(B)(1) or 3745-31-03(C) are not subject to emission standards established within this permit. Although this permit does not apply to de minimis or exempt sources, emissions from de minimis or exempt sources must be included in the total potential to emit (PTE) calculations for this permit.

C. Emissions Unit Terms and Conditions

1. J001, J001

Operations, Property and/or Equipment Description:

Condensate and oily water/used oil truck loading

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.001 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons per year. See b)(2)b. below.

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

(1) Tank Truck Unloading Operations

a. Prior to connecting the condensate transfer line(s) from the condensate tank to the condensate tank truck, the permittee shall inspect all fittings, valves, gaskets and fasteners that will be used during the transfer to ensure they are in proper condition (i.e., not corroded, torn, warn, stripped or otherwise damaged) and will result in vapor tight connections.

b. During the loading of condensate from the condensate to the condensate tank truck, the permittee shall continually monitor the transfer equipment, the condensate tank and the tank truck for any leaks through visual, olfactory, or other observations. If any leak is detected, loading of the condensate shall cease until the leaking component has been repaired.

c. The permittee shall not permit condensate and used oil to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

(2) All condensate loading lines shall be equipped with fittings which are vapor tight.

(3) The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.001 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

The permittee has demonstrated compliance with this emissions limitation with the calculations submitted as part of the permit application associated with this permit (P0119251, dated 07/15/15). The emissions limitation was derived by multiplying the loading loss factor for each material loaded by the annual throughput of each material loaded to determine the annual emissions of each material loaded in pounds per year. Divide the sum of the annual emissions from all liquids loaded by 2,000 pounds per ton, and divide by 12 months per year to determine the monthly emissions averaged over a twelve-month rolling period. The loading loss factors were derived using AP-42, Section 5.2, "Transportation and Marketing of Petroleum Liquids", Equation 1 (6/08).

L_L = 12.46 SPM/T

Where:

L_L = loading loss, pounds per 1000 gallons loaded;

S = saturation factor, 0.6 for submerged fill and 1.45 for splash;

P = vapor pressure of liquid loaded, in psia;

M = molecular weight of vapor, in lb/mole; and

T = temperature of bulk liquid, in $^{\circ}$R.

g) Miscellaneous Requirements

(1) None.

2. P001, Combustion Turbine

Operations, Property and/or Equipment Description:

29,517 HP (196.51 MMBtu/hr) natural gas-fired Solar Turbines Titan-250-30002S4 Compressor Turbine equipped with SoLoNOx technology and an oxidation catalyst

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Particulate matter 10 microns or less in size (PM_{10}) from shall not exceed 0.52 ton per month averaged over a 12-month rolling period. Sulfur dioxide (SO_2) emissions shall not exceed 0.27 ton per month averaged over a 12-month rolling period. The hourly carbon monoxide (CO) BAT emission limitation established pursuant to this rule is equivalent to the hourly CO limitation established pursuant to OAC rule 3745-31-05(E). The annual CO emissions shall not exceed 7.81 tpy.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The hourly volatile organic compound (VOC) BAT emission limitation established pursuant to this rule is equivalent to the hourly VOC emission limitation established pursuant to OAC rule 3745-31-05(E). The VOC emissions shall not exceed 3.31 tpy. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM_{10}, SO_2, CO and VOC emissions from this air contaminant source since the potential to emit each is less than 10 tons/year. See b)(2)b. below.
c.	ORC 3704.03(T)	NO_x emissions shall not exceed 2.59 tons per month averaged over a twelve month rolling period.
d.	OAC rule 3745-31-05(E) June 30, 2008	CO emissions shall not exceed 0.66 lb/hr during normal operations and 0.65 ton per month averaged over a 12-month rolling period. VOC emissionsshall not exceed 0.82 lb/hr during normal operations and 0.28 ton per month averaged over a 12-month rolling period. See b)(2)c. below.
e.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stacks serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 pound per million Btu of actual heat input.
g.	OAC rule 3745-18-06(F)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
h.	OAC rule 3745-110-03(E)	This emission limitation is less stringent than the limitation listed pursuant to 40 CFR 60, Subpart KKKK.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
i.	40 CFR Part 60, Subpart KKKK (40 CFR Part 60.4300 – 60.4420) [In accordance with 40 CFR 60.4305(a), this emissions unit has a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel.]	NO_x emissions shall not exceed 25 ppm at 15% O_2 or 150 ng/J of useful output (1.2 lb/MWh) when operating at least 75% of peak load. NO_x emissions shall not exceed 96 ppm at 15% O_2 or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75% of peak load or when operating at temperatures less than 0 degrees Fahrenheit (°F). SO_2 emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO_2/J (0.060 lb SO_2/mmBtu). [Table 1 to 40 CFR Part 60 Subpart KKKK and 60.4330(a)(1) and (a)(2)] See b)(2)d. below.
j.	40 CFR Part 60, Subpart GG (40 CFR Part 60.330 – 60.335) [In accordance with 40 CFR 60.330 (a), this emissions unit has a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel.]	Stationary combustion turbines regulated under 40 CFR Part 60, Subpart KKKK are exempt from the requirements of 40 CFR Part 60, Subpart GG.
k.	40 CFR Part 60, Subpart OOOOa (40 CFR Part 60.5360a – 60.5432a)	The compressor associated with this emissions unit does not employ wet seals and; therefore, is exempt from the requirements of 40 CFR Part 60, Subpart OOOOa.
l.	40 CFR Part 60, Subpart A (40 CFR Part 60.1 – 60.19) [General Provisions]	General Provisions. See b)(2)d. below.

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP. It should be noted that the emission limitations established pursuant to OAC rule 3745-31-05(E) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. Permit to Install and Operate (P0119251) for this air contaminant source takes into account the following voluntary emission limitations associated with the use of an oxidation catalyst to minimize emissions, [see c)(3)], as proposed by the permittee for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3).

i. COemissions shall not exceed 0.66 lb/hr (at temperatures above 0 °F during normal operations) and 0.65 ton per month averaged over a twelve month rolling period.

ii. VOC emissions shall not exceed 0.82 lb/hr (at temperatures above 0 °F during normal operations) and 0.28 ton per month averaged over a twelve month rolling period.

iii. "Normal operations" includes all periods of operation, except for startup, shutdown, and operation at temperatures below 0 °F.

d. The permittee shall demonstrate compliance with the applicable provisions of 40 CFR Part 60, Subpart KKKK in accordance with 40 CFR Part 60, Subpart A. Proposed amendments to 40 CFR Part 60, Subpart KKKK were published in the Federal Register on August 29, 2012. If final amendments to 40 CFR Part 60, Subpart KKKK become effective during the term of this PTIO, then the permittee shall comply with the effective version of 40 CFR Part 60, Subpart KKKK on the date that the new requirements go into effect, rather than the 40 CFR Part 60 Subpart KKKK requirements specified in this PTIO.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

(2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4333(a)	Utilize good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction

(3) The permittee shall install and operate the turbine with an oxidation catalyst for the partial control of VOC and CO emissions whenever this emissions unit is in operation excluding startup and shutdown and shall maintain the turbine and oxidation catalyst in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

(2) The permittee shall maintain monthly records of the following information:

a. the total hours of operation, including a breakdown of the following different temperature operating scenarios;

i. Ambient temperatures greater than 0°F;

ii. Ambient temperatures less than or equal to 0°F but greater than -20°F, and

iii. Ambient temperatures less than or equal to -20°F.

b. the number of startups and shutdowns;

c. the monthly emissions of CO, VOC, and NO_x in tons per month;

d. the annual emissions of CO and VOC, in tons per year; and

e. beginning after the first 12 months of operation, the emissions of CO, VOC, and NO_x in the units of tons per month averaged over a 12-month rolling period.

(3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4340	Option to conduct performance testing for NOx in lieu of installing a continuous emissions monitor.
60.4360	Exemption from determining the total sulfur content of the fuel being fired in the turbine as provided in §60.4365
60.4365(a)	Maintain current, valid purchase contract, tariff sheet or transportation contract that specifies the maximum total sulfur content for natural gas in continental areas is 20 grains of sulfur or less per 100 standard cubic feet

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

(3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4375(a)	Excess emissions reporting

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

PM_{10} emissions shall not exceed 0.52 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$\frac{1.4271\ lb}{hr} * \frac{8{,}760\ hr}{yr} * \frac{ton}{2{,}000} * \frac{yr}{12\ m\ rolling} = 0.52 \frac{ton}{m\ rolling\ 12}$$

Where:

1.4271 lbs/hr = PM_{10} emission factor for combined operations (i.e., normal, startup, shutdown, and low temperatures) derived from AP-42, Section 3.1, Table 3.1-2a, revised 4/2000.

If required, compliance shall be demonstrated based upon emission tests performed in accordance with Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Methods 201 and 202 of 40 CFR Part 51, Appendix M to determine a site-specific emission factor

b. Emissions Limitation:

SO_2 from each emissions unit emissions shall not exceed 0.27 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$\frac{0.7352\ lb}{hr} * \frac{8{,}760\ hr}{yr} * \frac{ton}{2{,}000} * \frac{yr}{12\ m\ rolling} = 0.27\ \frac{ton}{m\ rolling\ 12}$$

Where:

0.7352 lb/hr = SO_2 emission factor for combined operations (i.e., normal, startup, shutdown, and low temperatures) derived from AP-42, Section 3.1, Table 3.1-2a, revised 4/2000

If required, compliance shall be demonstrated based upon emission tests performed in accordance with, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A to determine a site-specific emission factor.

c. Emission Limitations:

CO emissions from each emissions unit shall not exceed 7.81 tpy, 0.66 lbs/hr during normal operations and 0.65 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the hourly limitation above shall be based upon the emissions testing requirements specified in f)(2). Compliance with the annual and average monthly emission limitations shall be based on the record keeping requirements specified in d)(2).

If required, subsequent testing to demonstrate compliance with the hourly CO emission limitation shall be conducted in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

d. Emission Limitations:

VOC emissions from each emissions unit shall not exceed 3.31 tpy, 0.82 lbs/hr during normal operations and 0.28 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the hourly limitation shall be based upon the emissions testing requirements specified in f)(2). Compliance with the annual and average monthly emission limitation shall be based on the record keeping requirements specified in d)(2).

If required, subsequent testing to demonstrate compliance with the hourly VOC emission limitation shall be conducted in accordance with Methods 1-4 and 18, 25, or 25a, as appropriate, of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

NO_x emissions shall not exceed 2.59 tons per month averaged over a twelve month rolling period.

Applicable Compliance Method:

Compliance with the average monthly emission limitation shall be based on the record keeping requirements specified in d)(2).

f. Opacity Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance with the above emission limitation shall be determined in accordance with OAC rule 3745-17-03(B)(1).

g. Emission Limitation:

PE shall not exceed 0.040 pound per MMBTU of actual heat input.

Applicable Compliance Method:

Compliance with the above emission limitation shall be demonstrated based on the particulate emissions factor of 0.0066 lb/MMBtu for natural gas-fired turbines (AP-42, Section 3.1, Table 3.1-2a, revised 4/2000).

If required, compliance with the above emission limitation shall be determined in accordance with the methods and procedures as outlined in Methods 1 through 5 of 40 CFR Part 60, Appendix A.

h. Emission Limitations:

NO_x emissions shall not exceed 25 ppm at 15% O_2 or 150 ng/J of useful output (1.2 lb/MWh), when operating at least 75% of peak load.

NO_x emissions shall not exceed 96 ppm at 15% O_2 or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75% of peak load or when operating at temperatures less than 0 °F.

Applicable Compliance Method:

Compliance shall be based upon the results of emissions testing as required in f)(2).

i. Emission Limitation:

SO_2 emissions shall not exceed 110 nanograms per Joule (0.90 pounds per mega-Watt hour) or 26 ng SO_2/J (0.060 lb SO_2/mmBtu)

Applicable Compliance Method:

Compliance shall be demonstrated by record keeping required in d)(3).

(2) Pursuant to 40 CFR 60.8, 60.4340(a), 60.4375(b) and 60.4400, OAC rules 3745-31-05(A)(3) and ORC 3704.03(T), the permittee shall conduct, or have conducted, emission testing for each emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after initial startup of this unit. Any subsequent performance tests for NO_X shall be conducted in accordance with the frequencies specified in 40 CFR Part 60, Subpart KKKK and Ohio EPA Engineering Guide #16.

b. The initial emissions testing shall be conducted to demonstrate compliance with the NO_x, CO, and VOC emissions limitations identified in b)(1)d. and b)(1)i. Subsequent testing shall be conducted to measure NO_X and to demonstrate compliance with 40 CFR 60, Subpart KKKK.

c. The following test methods shall be employed to demonstrate compliance with the allowable limits:

CO: Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A

VOC: Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A

NO_X: Methodology specified in 40 CFR Part 60 Subpart KKKK, and Appendix A.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency, or as required by 40 CFR 60.4400(b). Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval

prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

(3) The permittee shall comply with the applicable testing requirements of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4375(b)	Written report submittal of the performance testing results
60.4400(a)	Initial and subsequent performance tests for NO_X
60.4400(b)	Performance test loading conditions, number of test runs and minimum duration of test runs.
60.4400(b)(4)	Emission limit compliance requirements
60.4400(b)(6)	Performance test minimum ambient temperature requirement
60.4415	Initial and subsequent performance tests for SO_2 (These requirements will not apply if the permittee qualifies for the 40 CFR 60.4365 exemption).

g) Miscellaneous Requirements

(1) None.

3. P003, Gas Releases

Operations, Property and/or Equipment Description:

Gas releases due to periodic maintenance, compressor blowdowns, routine operations (startup and shutdown and reduced pressure demand events) and other miscellaneous releases

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T)	Fugitive volatile organic compound (VOC) emissions shall not exceed 1.65 tons per month averaged over a 12-month rolling period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall minimize the frequency and size of gas releases by conducting routine operation and maintenance activities in a manner consistent with safety and good air pollution control practices.

(2) The permittee shall implement the following operational best management work practices for purposes of minimizing emissions from each gas release:

a. Annual emergency shutdown (ESD) system tests required by existing DOT regulations shall be conducted to the extent practical as "capped" tests (i.e. with a minimal discharge of natural gas to the atmosphere.);

b. Manage station equipment during periods of system maintenance to minimize the quantity of natural gas vented to the extent practical;

c. Develop and follow a standby pressurized hold plan for gas compressor shutdowns in order to minimize standby gas releases and maintain safe operation; and

d. Schedule multiple maintenance activities concurrently to the extent possible to minimize blowdowns.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each year:

a. the number of gas releases;

b. concentration of total VOC in the gas stream using the most recent representative analysis;

c. the volume of gas emitted from all gas releases for each month, in scf;

d. the gas density, using the most recent representative analysis;

e. the rolling, 12-month summation of the volume of gas emitted from all gas releases, in scf; and

f. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of VOC emissions, in tons, and the monthly VOC emissions, in tons, averaged over each rolling, 12-month period.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 1.65 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

b. Compliance with the monthly VOC emissions limitation above shall be based on the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group -Separator Vessel Group: P004, P005

EU ID	Operations, Property and/or Equipment Description
P004	530-gallon separator vessel
P005	530-gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions from each emissions unit shall not exceed 0.01 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from these air contaminant sources since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)pursuant to OAC rule 3745-21-09(L)(2)(b).

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m^3 used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions from each emissions unit shall not exceed 0.01 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software

program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses

g) Miscellaneous Requirements

(1) None.

5. P006, Separator Vessel #3

Operations, Property and/or Equipment Description:

400-gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.009 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)pursuant to OAC rule 3745-21-09(L)(2)(b).

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m^3 used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.009 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software

program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

(1) None.

6. P007, Separator Vessel #4

Operations, Property and/or Equipment Description:

317-gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.05 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L) pursuant to OAC rule 3745-21-09(L)(2)(b).

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m^3 used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.05 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software

program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

(1) None.

7. P008, Separator Vessel #5

Operations, Property and/or Equipment Description:

43-gallon separator vessel

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Volatile organic compound (VOC) emissions shall not exceed 0.001 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	40 CFR Part 60, Subpart Kb	See b)(2)c. below.
d.	OAC Rule 3745-21-09(L)(1)	This emissions unit is exempt from the requirements of OAC rule 3745-21-09(L)pursuant to OAC rule 3745-21-09(L)(2)(b).

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. This emissions unit is exempt from the control requirements of 40 CFR 60, Subpart Kb because it is a vessel with a design capacity less than or equal to 75 m^3 used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.001 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; data from the application, the TANKS software

program, or other process simulation programs such as, but not limited to, TankESP or other proprietary tanks tools, to calculate flash losses.

g) Miscellaneous Requirements

(1) None.

8. P009, Pipeline Pigging

Operations, Property and/or Equipment Description:

Pigging operations

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Fugitive volatile organic compounds (VOC) emissions shall not exceed 0.033 ton per month averaged over a 12-month, rolling period. See b)(2)a. below
b.	OAC Rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A) do not apply to the VOC emissions from this source since the potential to emit is less than 10 tons/year. See b)(2) b. below

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the

less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

(1) The permittee shall minimize the emissions of VOC from the pigging activities to the extent practicable.

(2) Access openings to the receivers shall be kept closed at all times, except when a pig is being placed into or removed from the receiver, or during active maintenance operations.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records on a monthly basis:

a. the date and number of each pigging event;

b. the concentration of total VOC in the gas stream using the most recent representative analysis;

c. the gas density, in lb/scf, using the most recent representative analysis;

d. the total volume of gas emitted from each pigging event, in scf;

e. beginning after the first 12 calendar months of operation following the issuance of this permit, the total volume of gas emitted per month, from all pigging events, in scf, as a 12-month rolling average; and

f. beginning after the first 12 calendar months of operation following the issuance of this permit, the monthly VOC emissions, in tons, averaged over each 12-month rolling period, from all pigging events.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 0.033 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the monthly VOC emissions limitation above shall be based on the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

(1) None.

9. P801, Equipment Leaks

Operations, Property and/or Equipment Description:

Fugitive emissions from components

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.524 ton per month averaged over a 12-month rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b below.
c.	40 CFR Part 60, Subpart OOOOa (40 CFR 60.5360a – 60.5432a) [In accordance with 40 CFR	See b)(2)c. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	60.5365a(j), this emissions unit is the collection of fugitive emissions components at a compressor station for which construction commenced after September 18, 2015 and subject to the applicable provisions of this subpart.]	
d.	40 CFR Part 60, Subpart A (40 CFR 60.1-60.19)	General Provisions See b)(2)c. below.

(2) Additional Terms and Conditions

a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. The permittee shall comply with the following requirements identified in 40 CFR Part 60, Subpart OOOOa:

60.5365a(j)	Affected facility and modifications to a compressor station.
60.5370a(a)	Subpart OOOOa of Part 60 compliance date is no later than August 2, 2016 or upon startup, whichever is later. In accordance with 40 CFR 60.5397a(f)(2), the permittee must conduct the initial monitoring survey within 60 days of startup or by June 3, 2017, whichever is later.
60.5370a(c)	Permit exempt from 40 CFR Parts 70 and 71.
60.5397a(a) through (j)	Fugitive emissions GHG and VOC standards.
60.5398a(a) through (g)	Alternative means of emission limitations for GHG and VOC.
60.35425a	Applicability of General Provisions in Table 3 to Subpart OOOOa of Part 60

c) Operational Restrictions

(1) The permittee shall comply with the applicable monitoring and recordkeeping requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

60.5370a(b)	General duty to minimize emissions with good air pollution control practices, and compliance required at all times.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall comply with the applicable monitoring and recordkeeping requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

60.5410a(j)	Initial compliance demonstration.
60.5415a(h)	Continuous compliance demonstration.
60.5420a(c) and (c)(15)	Recordkeeping requirements.

e) Reporting Requirements

(1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the Appropriate District Office or Local Air Agency.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

(3) The permittee shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart OOOOa, including the following sections:

60.5420a(a)(1)	Notifications in 60.7(a)(1), (3), and (4) are not required
60.5420a(b), (b)(1), (b)(7), and (b)(11)	Annual reporting requirements

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Fugitive VOC emissions shall not exceed 0.524 ton per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the allowable VOC emission limitation identified above shall be demonstrated by multiplying the number of each component type in gas, light oil and heavy oil service by the applicable total organic compound (TOC) emission factor from Table 2-4*, Oil and Gas Production Operations Average Emission Factors, of EPA-453/R-95-017 *Protocol for Equipment Leak Emission Estimates* (dated 11/95). The resulting TOC hourly mass emission rate for each component type is multiplied by the VOC concentration of the applicable service stream as provided in the permittee's application, then added together for a facility-wide component emission total and multiplied by the maximum annual hours of operation (8,760 hrs/year) and conversion factors of 2.205 lb/1 kg, 1 ton/2,000 lbs and 1 yr/12 months.

*Table 2-4 does not contain an emission factor for pump seals in heavy oil service, so the emission factor in Table 2-1, SOCMI Average Emission Factors, of EPA-453/R-95-017 *Protocol for Equipment Leak Emission Estimates* (dated 11/95) for pump seals in heavy liquid service shall be applied.

g) Miscellaneous Requirements

(1) None.