

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Algonquin Incremental Market Project:

Application ID: 3-9903-00099/00002 – Freshwater Wetlands

Application ID: 3-9903-00099/00003 – Part 401 Water Quality Certification

Application ID: 3-9903-00099/00004 – Protection of Waters (Stream Disturbance)

Application ID: 3-3730-00060/00013 – Air Title V – Southeast Compressor Station

Application ID: 3-3928-00001/00027 – Air Title V – Stony Point Compressor Station

The following serves as the New York State Department of Environmental Conservation's ("NYSDEC" or "Department") Response to Comments (RTC) pertaining to the above-referenced draft Title V permit modifications proposed by Department staff and the Notice of Complete Applications (NOCA) issued for the Water Quality Certification (WQC), Freshwater Wetlands (FWW) and Stream Disturbance (SD) filed by Algonquin Gas Transmission, LLC ("Algonquin") for the Algonquin Incremental Market Project (the "AIM Project" or "Project"). The draft Title V permits and NOCA's were published in the Department's Environmental Notice Bulletin (ENB) on December 31, 2014 and included an extended public comment period through February 27, 2015.

This RTC document includes responses to comments that were provided to the Department in writing and by email, as well as the oral comments provided at the two legislative public hearings held on January 21, 2015 in Brewster, New York and on January 22, 2015 in Stony Point, New York. Due to the large number of comments received, comments which were similar in content were consolidated and categorized as identified below. A list of all commenters is provided as Exhibit 1, which also identifies the response(s) to comments number(s) for each commenter.

I. AIR COMMENTS

Comment 1. NYSDEC, another regulatory agency, or a nonprofit like Southwest Pennsylvania Environmental Health Project, should conduct an independent air emissions baseline assessment and health impact study consistent with the resolutions adopted by many municipalities within the New York portion of the AIM Project.

Response: Neither an independent air emissions baseline assessment nor a health impact assessment is required in order for the NYSDEC to issue the Title V air permit modifications because the AIM Project complies with all applicable federal and state regulations, which have been established to protect public health and safety. All applicable requirements are included in the Title V permits for the Southeast and Stony Point compressor stations.

As part of its review of Algonquin's applications seeking to modify the existing Title V permits for each compressor station, NYSDEC required that Algonquin conduct air quality modeling. The modeling analysis for each compressor station included ambient concentrations from representative air quality monitors, impacts from the existing emission sources at the compressor

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

station that will remain in operation following the Project, and impacts from proposed new emission sources at the compressor station. The ambient data was taken from transparent and independent data published by the U.S. Environmental Protection Agency (“EPA”). The ambient monitors selected are managed by regulatory agencies; the data is quality-assured by the EPA, and the data from the selected ambient monitors were approved for use in the modeling analyses by NYSDEC. The results of the air modeling were reviewed by NYSDEC prior to commencement of the public comment period on the draft Title V permit modifications for the Southeast and Stony Point compressor stations.

The air quality modeling demonstrates that the AIM Project at each compressor station will meet both National and State Ambient Air Quality Standards, standards which were specifically established to protect human health. The EPA has also established standards for Hazardous Air Pollutant emissions for specific source categories under Section 112 of the Clean Air Act that the Project must comply with as provided in the Title V permits. Additionally, NYSDEC’s Policy DAR-1 provides guidance for the control of toxic ambient air contaminants. In accordance with this guidance, Algonquin conducted a screening analysis and provided the results in its air permit application for each compressor station. The results show that the conservative model-predicted output concentrations from proposed new emission sources at the two compressor stations are below New York’s health effect-based annual and short-term (one hour) guideline concentrations (“AGCs” and “SGCs”). As these standards, regulations and policies have been promulgated for the purpose of protecting public health, an air emissions baseline assessment or health impact assessment is not required in order for NYSDEC to issue the final Title V permit modifications.

Comment 2. NYSDEC should require emissions assessments (or other remote measurement technologies) close to Algonquin’s aboveground facilities, including at the fence line of Algonquin’s facilities and at the homes of nearby residents, and such monitors should measure volatile organic compounds, hazardous air pollutants, xylene, ethane, isobutene, methane, propane, nitrogen oxides, carbon monoxides, and sulfur dioxide.

Response: The air quality modeling conducted for the two compressor stations demonstrates that the proposed modifications will not result in any violations of National or State Ambient Air Quality Standards. The Title V permits include requirements that meet all federal and state Clean Air Act requirements. The two compressor stations have existed in the region for over 50 years and there have been no recorded incidents regarding public health impacts from the two stations. Algonquin files annual compliance certifications as part of the Title V permit program and has been in compliance with all permit requirements. Algonquin also submits annual emission statements documenting actual emissions from the two compressor stations. There is no requirement that an existing stationary source install monitoring stations at or outside the fence line as requested by the commenters. EPA-approved ambient monitoring stations are located throughout the region and provide real-time ambient conditions to ensure air quality meets public health-based standards.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 3. Continuous stack monitoring of nitrogen oxides and sulfur oxides should be required at each compressor station and Algonquin should report the emissions to NYSDEC quarterly.

Response: Continuous emissions monitoring is not required by any applicable federal or state regulation for the type of stationary source subject to the Title V permit modifications. Periodic monitoring required by the Title V permits include periodic stack testing as required by federal New Source Performance Standards using EPA-approved stack testing methods, as well as monitoring of specific emissions on a monthly basis based on formulas contained in each Title V permit.

Comment 4. NYSDEC should keep in mind that Putnam, Westchester, and Rockland County are non-attainment for ground level ozone and particulate matter, and that the region in general suffers from poor air quality.

Response: The compressor stations are located in a non-attainment area for ozone. The area has been re-designated as “attainment” for particulate matter sized 2.5 microns or less (“PM2.5”). Since the compressor stations are located in a non-attainment area for ozone, nitrogen oxides (“NOx”) and VOCs are addressed as non-attainment pollutants in the air permit applications. Algonquin has demonstrated to the satisfaction of NYSDEC that the proposed projects at both the Stony Point and the Southeast compressor stations meet the requirements of all applicable federal and state air quality regulations. Further, the potential increase in emissions at each station is below the major source permitting threshold under Prevention of Significant Deterioration (“PSD”) and Non-attainment New Source Review (“NNSR”) regulations. The PSD and NNSR regulations are designed to ensure that economic growth occurs in harmony with the preservation of existing clean air resources.

Comment 5. NYSDEC should consider a 2013 study by the RAND Corporation which found, based on data from Pennsylvania, that under certain circumstances, emissions from compressor stations can be higher than estimates declared in permits, and that more than half of all air quality damage from shale gas operations in Pennsylvania could be attributed directly to compressor stations.

Response: Emission limits have been established in the draft Title V air permits for the Stony Point and Southeast compressor stations where required by state and federal regulations. These limits are based on conservatively estimated potential emissions. Federal New Source Performance Standards require that the new turbines undergo stack testing periodically and the compressor stations are required by their Title V permits to track actual emissions to ensure that these emission limits are not exceeded. The stations are required to submit reports of actual emissions annually to the NYSDEC.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

The RAND Study¹ recommended that the natural gas industry utilize “Best Available Technologies” (“BAT”), including “lean-burn engines” for compressors, to address air pollutants, including emissions of NO_x. The AIM Project will use Solar natural gas turbines equipped with state-of-the-art dry low NO_x combustion technology as well as oxidation catalysts to reduce air pollutant emissions, meeting the BAT recommendations of the RAND Study.

The RAND Study also reported that air pollutant emissions from natural gas-related activities was a small fraction of overall air pollutant emissions from other industrial sectors in Pennsylvania. The RAND Study found that “[c]ompared to total emissions from all industries reporting, the shale extraction industry in 2011 was producing relatively little conventional air pollution. Only NO_x emissions are equivalent to more than 1% of statewide emissions across the entire estimated range,” and NO_x emissions were still below 5% of statewide emissions. Furthermore, after the RAND Study was published, the Pennsylvania Department of Environmental Protection issued a fact sheet that reported that air pollutant emissions from the natural gas industry decreased from 2008 to 2011.

It is also important to note that the RAND Study did not involve natural gas transmission compressor stations, such as those being modified by the AIM Project; rather the RAND Study addressed compressor stations located at unconventional oil and gas (“UOG”) production sites or midstream (gathering) stations. The AIM Project compressor stations are not UOG facilities. Transmission compressor stations are downstream from production facilities and generally do not include any of the activities that the study claims contributes to air pollution emissions (e.g., flaring of production gas, use of diesel engines, storing of produced water in pits, drilling, well completions, etc.). Higher concentrations of compounds such as hydrogen sulfide and certain organic hazardous air pollutants would be expected to be found at a UOG production site where the natural gas is in an untreated state, or undergoing treatment. The compressor stations for the AIM Project, however, would be handling natural gas that was already treated. Finally, the RAND Study noted that air pollutant emissions are subject to “regional and site-specific variations in technology and processes,” thus the findings in Pennsylvania might not translate to findings elsewhere.

Comment 6. NYSDEC must require Algonquin, when technically feasible, to implement the applicable EPA Natural Gas STAR guidelines, in particular: (1) the guidance on PRO Fact Sheet No. 401, “Inject Blowdown Gas into Low Pressure Mains or Fuel Gas System” and (2) the guidance on PRO Fact Sheet No. 403, “Use Inert Gases and Pigs to Perform Pipeline Purges.”

Response: The Natural Gas STAR Program is not a regulation. It is a voluntary program which encourages companies to adopt practices that reduce methane emissions. The NYSDEC has no jurisdiction in this program.

¹ Aviva Litovitz, et al., Estimation of Regional Air-Quality Damages from Marcellus Shale Natural Gas Extraction in Pennsylvania, 8 *Envtl. Res. Letters*, no. 1, 2013, available at http://iopscience.iop.org/1748-9326/8/1/014017/pdf/1748-9326_8_1_014017.pdf.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 7. Algonquin has made public statements giving the impression that compressor station emissions will decrease with new technology, but the stations will actually emit more pollutants than they used to.

Response: The proposed modifications at each of the New York compressor stations will cause a *decrease* in facility-wide potential emissions of most air pollutants. This is due to the installation of state-of-the-art, low emission turbine and air pollution control technology and proposed upgrades and/or shutdowns of existing equipment. In fact, the reduction in potential emissions at the Stony Point station will result in its regulatory reclassification from a “major source” to a “minor source” of hazardous air pollutants. See Response to Comment 8 below. The Title V permit applications and statements made to the public also explained that the projected increase in emissions due to the modifications at each compressor station would be below the Net Emissions Increase thresholds established at 6 NYCRR Part 231 and accordingly, the modifications do not trigger Prevention of Significant Deterioration or Non-attainment New Source Review.

In the PSD and NNSR analysis provided in the air permit applications, the project emissions potential is first compared to the regulatory “significant project threshold” for each pollutant subject to review. If this threshold is exceeded, then a net emissions increase is calculated. The net emissions increase is the sum of the following: 1) potential project emissions; plus 2) any emissions increases that occurred over the past five years due to other projects at the site; minus 3) any emission reduction credits or internal offsets that have occurred over that same five year period. It should be noted that per regulation, the five year period called the “contemporaneous” period, ends with the scheduled date that the project commences operation. In this way, the regulations encourage projects that result in emissions reductions. As a result of shutting down equipment at each station, Algonquin is generating emission reduction credits, a portion of which are used in the calculation of the net emissions increase for some pollutants per the NYSDEC’s PSD/NNSR regulations. Finally, this net emissions increase is compared to the “significant net emission increase threshold.” Based on this regulatory analysis, Algonquin has demonstrated that the proposed modifications at each compressor station do not result in a significant increase in emissions.

Comment 8. A recent peer reviewed study by Carpenter et al found levels of benzene and formaldehyde, which are carcinogens, near compressor stations that frequently exceeded health standards.

Response: This comment is a general comment and not specific to the Stony Point or Southeast compressor stations. However, proceeding with the Title V permit modifications as proposed for the AIM Project will substantially reduce the total potential emissions of hazardous air pollutants at the Stony Point Station. In particular, currently the potential to emit all hazardous air pollutants (“HAPs”) at the Stony Point compressor station is 89 tons per year (“tpy”) whereas the post-AIM Project potential to emit HAPs, after the modifications are implemented, would be reduced to 9 tpy, making the Stony Point compressor station a minor source under Section 112 of the Clean Air Act. The existing potential to emit formaldehyde at the Stony Point compressor

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

station is 56 tpy; however, under the AIM Project, the potential to emit formaldehyde post-AIM Project would be 1 tpy, after the modifications are implemented. The Southeast compressor station is already an area source² under Section 112 of the Clean Air Act and will remain an area source following the Project. The potential to emit formaldehyde remains at about 4 tons per year at Southeast post-Project.

The Carpenter study³ referred to by the commenter also did not concern natural gas transmission compressor stations such as the Stony Point and Southeast compressor stations. Instead, the study focused on unconventional oil and gas production sites, including gathering compressor stations, involved with upstream natural gas production. The AIM Project compressor stations are not UOG production facilities. See Response to Comment 5 above. Furthermore, none of the states where sampling occurred for this study are states where facilities related to the AIM Project are sited or to be sited.⁴

Comment 9. The NYSDEC has used its discretion to dismiss the increased greenhouse gas emissions that will result from compressor stations, thus allowing the operator to avoid requirements for best available emission control technology. NYSDEC should clarify the basis for its decision.

Response: On June 23, 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA*, concerning the regulation of greenhouse gas emissions (“GHGs”) under the Clean Air Act by the EPA. Essentially, the Court held that EPA may not treat GHGs as an air pollutant for purposes of determining whether a stationary source is a major source required to obtain a Prevention of Significant Deterioration permit or a Title V operating permit. The Court also stated that EPA could continue to require that PSD permits, otherwise required based on emission of conventional pollutants (i.e., criteria pollutants), contain limitations on GHGs based on the application of Best Available Control Technology (“BACT”). In response to the Supreme Court decision, EPA issued guidance on July 24, 2014, entitled *Next Steps and Preliminary Views of the Application of Clean Air Act Permitting Programs to Greenhouse*

² An area source is any stationary source of HAPs that is not a major stationary source. A major source is any stationary source that emits or has the potential to emit, in the aggregate, 10 tpy or more of any HAP or 25 tpy or more of any combination of such HAPs.

³ Gregg P. Macey, et al., *Air Concentrations of Volatile Compounds Near Oil and Gas Production: a Community-Based Exploratory Study*, 13 *Envtl. Health*, Oct. 30, 2014, available at <http://www.ehjournal.net/content/13/1/82>.

⁴ In a subsequent letter, this commenter cited to additional publications concerning alleged health impacts of “gas infrastructure.” None of the publications, however, specifically address natural gas transportation, but rather activities related to natural gas extraction. Furthermore, seven of the eight publications cited in the letter are not original studies. Rather, the letter cites to six advisories and reports from public interest groups that purport to summarize other reports and studies. The only original study cited in this letter was David Brown, et al., *Understanding Exposure from Natural Gas Drilling Puts Current Air Standards to the Test*, 29 *Revs. on Env'tl. Health*, no. 4, 2014, at 277–92 (the “Brown Study”) available at <http://www.degruyter.com/view/j/reveh.2014.29.issue-4/reveh-2014-0002/reveh-2014-0002.xml?format=INT>. The Brown Study, however, addressed natural gas extraction, and not natural gas transportation. The eighth publication cited in the letter was a newspaper article about the Brown Study.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Gases Following the Supreme Court's Decision in Utility Air Regulatory Group v. Environmental Protection Agency. This guidance states that EPA would no longer require a stationary source to obtain a PSD or Title V permit if GHGs are the only pollutant the source emits or has the potential to emit above the major source thresholds or for which there is a significant emissions increase and a significant net emissions increase from a modification.

The NYSDEC issued a policy statement on October 15, 2014 stating that the Department will no longer apply or enforce provisions of the State's PSD permitting regulations that required a source to obtain a PSD permit based solely on its GHGs.⁵ Accordingly, NYSDEC has decided to abide by the guidance issued by EPA.

Comment 10. The NYSDEC should consider the cumulative impacts of the two compressor stations, the meter and regulatory ("M&R") stations, and the proposed MLR⁶ station on public health.

Response: The modeling that was conducted for each compressor station relied on ambient data from ambient monitoring stations published on EPA's website; to that extent, the modeling already accounts for existing emissions from other stationary and mobile sources in the region. Moreover, the detailed modeling was reviewed by NYSDEC Division of Air Resources staff, and the data identifies potential ambient concentrations at receptor points located near and far from each station. The data reveals that the Stony Point and Southeast compressor stations are located too far apart to result in any significant cumulative air quality impacts. Because the air quality modeling, which included background emissions sources, demonstrated that no National or State Ambient Air Quality Standard would be exceeded, no additional cumulative impact study is required under EPA and NYSDEC regulations, nor is such study necessary.

Emissions from the M&R stations and pigging operations are very small. Therefore, including them in a cumulative impact study is not required or necessary under EPA and NYSDEC regulations. As an example, post-AIM Project, the Peekskill M&R station would have maximum potential facility-wide emissions (pursuant to a worst-case scenario) of VOCs of 3.2 tpy, including 0.72 tpy for maintenance-related gas releases.

Comment 11. NYSDEC must require Algonquin to develop a notification system for blowdowns or other large emissions and/or noise events to local municipalities and to residents.

Response: Blowdowns are the venting of natural gas from pipeline and related facilities usually in preparation for pipeline maintenance activities. Planned maintenance blowdowns occur on average around eight to ten times per year. An unplanned blowdown occurs at a compressor station when an automated station operating system detects an abnormal condition and engages

⁵ The Part 201 and 231 Discretionary Enforcement Letter is available on the NYSDEC website at <http://www.dec.ny.gov/chemical/99156.html>.

⁶ Mainline Line Regulators

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

the designed safety features of the facility. Unplanned blowdowns are necessary for safety purposes and are rare.

For all blowdowns at the Southeast compressor station, Algonquin notifies the Putnam County NY Non-Emergency number, the Southeast Police and Fire Departments, and the New York State Police. For all blowdowns at the Stony Point compressor station, Algonquin notifies the Stony Point Police and Fire Departments and the Rockland County Fire & HAZMAT Control. Notification for planned blowdowns occurs in advance, and for unplanned blowdowns after the event. Also, annual actual emissions from equipment blowdowns are reported to the NYSDEC in the Stony Point and Southeast compressor stations' annual emissions inventories.

Department Staff has revised the draft Title V air permits for both the Southeast and Stony Point Compressor Stations and has incorporated additional language in both permits which requires notification of both planned and unplanned gas releases.

The facilities will be required to notify the Department of the release of natural gas greater than or equal to 1.0 MMscf associated with a single metering, purging and/or maintenance activities. For plan gas releases, the facility must notify the Department at least seven (7) days prior and for unplanned gas releases within seven (7) days after the event. The following information will be required to be submitted to the Department Regional Office using an appropriate form acceptable to the Department:

- 1) The approximate date(s) and duration of the activity;
- 2) The type of, and reason for, the activity;
- 3) The physical location including description of the processes and equipment involved; and
- 4) An estimate of natural gas release.

Comment 12. NYSDEC was correct to consider the planned Atlantic Bridge project when analyzing the capacity and emissions of the Southeast compressor station. The proposed compressor station changes for the AIM Project and Atlantic Bridge Project should not be separated.

Response: Comment noted. As requested by NYSDEC, on December 22, 2014, Algonquin filed a letter with the Department clarifying that, while the Atlantic Bridge project is still preliminary and must first undergo the Federal Energy Regulatory Commission ("FERC") Pre-filing process before any permit applications will be prepared and filed with any agency, based on the volume of natural gas needed in northern New England, no additional modification is expected at either the Stony Point or Southeast compressor stations, beyond the modifications for the AIM Project, should the Atlantic Bridge project move forward in the future.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 13. Algonquin’s gas composition analysis should be assumed to be inaccurate because it was not based on analysis of the gas composition from gas extracted from the Marcellus Shale. Concerned Health Professionals of New York describe that unsafe levels of radon and its decay products in natural gas produced from the Marcellus Shale, known to have a particularly high radon content, may also contaminate pipelines and compressor stations and pose risks to end-users when allowed to travel into homes.

Response: In air permit applications, the emission factors used to estimate potential emissions are typically very conservative in order to provide a comfortable compliance margin. The quantification of hazardous air pollutants (“HAP”) from fugitive sources in the AIM Project applications is based on data from the gas chromatographs (“GC”) in place along Algonquin’s pipeline network. However, GC data only provides component speciation up to C6⁷. In order to speciate the C6+ components, many of which are HAPs, Algonquin has conservatively elected to use composition data from Thomaston, Texas which is known to have higher concentrations of the C6+ components, because it is located near some “wet” gas wells which produce natural gas high in liquid and C6+ content.

Algonquin does not own the natural gas that is sent to local distribution companies but rather provides transportation services of pipeline quality natural gas in an open market to local distribution companies, power plant companies, and other users of natural gas. However, it is expected that the natural gas transported through the Stony Point and Southeast compressor stations will have lower concentrations of VOC and HAP components than what is provided in the Texas gas analysis described above.

To the extent that the commenters are raising concerns about radon levels in natural gas from the Marcellus shale, a study by the U.S. Geologic Service found that concentrations of radon in natural gas samples from the Marcellus shale and overlapping Devonian sandstones were not higher than natural gas extracted from other parts of the United States. In July 2012, Texas Eastern Transmission, LP (“Texas Eastern”) collected natural gas samples on Texas Eastern and Algonquin pipelines from the Marcellus shale gas fields which showed that the resulting in-home predicted concentrations would be significantly less than average indoor and outdoor radon levels and thus does not pose a health hazard to end users. See the discussion of radon provided by FERC in the Algonquin Incremental Market Project Final Environmental Impact Statement (“FEIS”) § 4.11.1.3 at pages 4-243 to 4-245.

Further, as explained by FERC, the radioactive levels of radon decay products found in the natural gas stream within pipeline facilities are low and are reduced due to upstream processing, natural decay, and dilution with the atmosphere. The half-lives of radioactive decay products in the pipeline are relatively short (under one hour combined) and, over time, these products would decay to non-radioactive lead. Ultimately, only a limited amount of radioactive decay material would be in the pipeline at any given time because any material that is within the pipeline for a

⁷ hydrocarbons compounds with 6 carbon atoms

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

prolonged period would become non-radioactive. See FEIS § 4.11.1.3 at page 4-244. See also Response to Comment 15 below.

Comment 14. NYSDEC must impose stricter requirements on Algonquin's compressor stations than is required under the Clean Air Act. NYSDEC has discretion to do so under 6 NYCRR 211.1.

Response: The Title V permit modifications as proposed do include standards that are more stringent than regulations adopted by the EPA and NYSDEC. For instance, each new turbine to be installed at the Southeast and Stony Point compressor stations must meet a limit of 9 parts per million ("ppm") for nitrogen oxide, a standard that is far less than the applicable EPA New Source Performance Standards at 40 CFR Part 60, Subpart KKKK of 25 ppm.

Comment 15. Certain pollutants like radon, PCBs, and lead (which radon decays into) are not adequately safeguarded against in the draft permit. NYSDEC should set emissions limits for radon, taking into account short-term spikes in planned and fugitive pipeline gas emissions, and lead based on the lead NAAQS. Radon releases and lead emissions are not required to be reported in the current draft of the Title V permits.

Response: Radon is not addressed in the Title V permit because it is not a regulated pollutant under the Clean Air Act. Lead and PCBs are not addressed because they are considered to be negligible from the air emissions sources involved in the AIM Project. See also Response to Comment 13 above.

Comment 16. Annual emissions in tons per year do not consider exposures or serious spikes in concentrations.

Response: Both short-term and long-term exposures are addressed in the NAAQS modeling conducted for criteria pollutants and in the DAR-1 modeling conducted for toxic air pollutants. The modeling analyses predict the ambient impacts due to the facilities' operations. These impacts are compared to the concentrations or limits established by the EPA and the NYSDEC which were specifically established to protect human health. Spikes in concentrations would be considered in the short-term modeling conducted, in which maximum, worst-case 1-hour impacts were modeled for comparison to short-term NAAQS and New York's short-term guidance concentrations (SGCs).

Comment 17. Algonquin is exceeding EPA thresholds by buying credits in other areas where emission are under the threshold.

Response: Contrary to the commenters' statement, Algonquin is not purchasing emission reduction credits in order to add the additional compression at the Southeast and Stony Point compressor stations. The AIM Project itself generates emission reduction credits through the proposed shutdown of existing emission units at each compressor station. Algonquin submitted

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

NYSDEC Emission Reduction Credit quantification forms with the Title V permit application to apply for Emission Reduction Credits for the emission unit shutdowns. The Title V permit applications also include NYSDEC Use of Emission Reduction Credits Forms to use the credits generated by the AIM Project in the project emissions netting analysis.

Comment 18. Mitigation equipment must be installed on all emission-releasing equipment to reduce toxins including methane.

Response: Algonquin has a program in place for minimizing methane emissions. Measures include replacing wet seals with dry seals at compressors, replacing older infrastructure to reduce blowdowns, installing leak detection monitoring systems, and participating in the EPA's Natural Gas Star Program to implement best practices for reducing methane emissions where feasible. These measures are described by FERC in the FEIS § 4.11.1.3 at page 4-241.

Comment 19. There is no way of knowing the volume, frequency and content of blowdown, fugitive emissions, and emissions from pigging stations to determine their safety. Are pigging stations a “major source of release” as defined by NYSDEC Title V permitting requirements?

Response: Blowdowns are the venting of natural gas from pipeline and related facilities usually in preparation for pipeline maintenance activities. Such venting can occur at compressor stations, M&R⁸ stations, and launcher/receiver facilities.

Planned maintenance blowdowns at compressor stations average around eight to ten occurrences per year. Algonquin minimizes the volume and pressure of the gas to be released prior to a planned maintenance blowdown, when practicable, in order to reduce emissions. An unplanned blowdown occurs at a compressor station when an automated station operating system detects an abnormal condition and engages the designed safety features of the facility. Unplanned blowdowns are rare but necessary for safely operating the facility. All blowdown emissions that occur at the two compressor stations are reported to NYSDEC as part of the annual emissions inventory and will continue to be reported after the AIM Project is completed.

A conservative estimate of maximum blowdown emissions has been included with the NYSDEC Title V permit applications for the Southeast and Stony Point compressor stations. However, historically, actual emissions from blowdowns and other sources have been a fraction of the estimated level provided in permit application filings. For example, from 2007 – 2012, total annual VOC emissions due to natural gas releases from the Stony Point compressor station, including all scheduled blowdown events and other gas releases, ranged from 1.8 tpy to 17 tpy (average 8.2 tpy), far below the maximum potential emissions estimated for blowdowns and gas releases at the existing station. Total actual VOC emissions from the Southeast compressor station have been even lower, ranging from 0.6 tpy to 6 tpy over the last 6 years, also far below

⁸ Metering and Regulating

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

the estimated maximum potential emissions for blowdowns and gas releases at the existing station.

Planned maintenance resulting in gas releases typically occurs one to two times per year at a M&R station. Potential emissions estimates for the AIM Project conservatively assume up to five releases. For example, post-AIM Project, the Peekskill M&R station would have maximum potential facility-wide emissions (pursuant to a worst-case scenario) of VOCs of 3.2 tpy, including 0.72 tpy for maintenance-related gas releases. These potential emissions levels are well below Title V permitting thresholds.

Finally, a launcher/receiver facility would have potential maximum emissions (again, pursuant to a worst-case scenario, assuming five releases per year) of 0.25 tpy of VOCs per site. Again, such potential emissions are far below permitting thresholds.

Comment 20. Shale gas production in New York State is currently prohibited due to public health and environmental concerns. NYSDEC should weigh similar considerations in its evaluation of the proposed Title V air permits for modifications to the compressor stations at Southeast and Stony Point.

Response: NYSDEC conducted a thorough analysis of the proposed Title V air permit modifications in order to ensure that the Title V permits would meet all federal and state Clean Air Act requirements. NYSDEC also required air quality modeling to ensure the modifications proposed at each compressor station would not result in violations of National and State Ambient Air Quality Standards.

Commenters refer to the New York State Department of Health (“DOH”) Report entitled *A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development* that was issued in December 2014 and resulted in New York State’s decision to continue to ban the natural gas extraction method known as high volume hydraulic fracturing (“HVHF”) (hereafter, the “DOH Report”). The DOH Report does not address natural gas transportation or consumer use of natural gas. The DOH Report does not suggest that transporting natural gas produced via hydraulic fracturing increases the potential risk to public health or the environment compared to transporting natural gas produced via other extraction methods.

⁹ See also Response to Comment 13.

⁹ A commenter also referred to a report by Brown et al “Human exposure to unconventional natural gas development: A public health demonstration of periodic high exposure to chemical mixtures in ambient air”, *Journal of Environmental Science and Health*, March 2015. This study also addresses natural gas extraction, not natural gas transportation.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 21. Global warming, particularly from the methane content in the pipeline is a concern; methane is about 86 times more potent a greenhouse gas than carbon dioxide over 20 years, 34 times more potent over 100 years.

Response: The statement that methane is 86 times more potent a greenhouse gas than carbon dioxide over a 20-year period appears to be an overstatement of the scientific research on the subject. Recent research papers indicate that the global warming potential for methane is a variable that changes with time and have postulated a band of factors ranging from 7.6 to 105.¹⁰ Those authors use 25 as the appropriate global warming potential factor for methane, consistent with the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.¹¹

Comment 22. The FEIS states that the mainline valve station may be constructed in Yorktown. However, the FEIS contains no information about the facility and thus makes it impossible to assess what the air emissions might be and whether they should be quantified and monitored.

Response: This comment is directed at the location of pipeline facilities that are within the jurisdiction of FERC under the Natural Gas Act. Nonetheless, the alignment sheets provided as part of the FERC certification show the above-ground launcher and receiver to be located on Algonquin's existing right of way within Granite Knolls Park West near Stoney Street in the Town of Yorktown. See also FERC, Order Issuing Certificate and Approving Abandonment, Algonquin Gas Transmission, LLC, Docket No. CP14-96-000, March 3, 2015 ("FERC Certificate Order") at ¶ 87 (explaining launcher/receiver and pressure regulating facility would be constructed and operated within the existing right-of-way at about Mile Post 12.3 on a parcel within Granite Knolls West). Emissions information from a launcher/receiver facility is provided in Response to Comment 19 above.

Comment 23. The draft permit should not be allowed to rely on self-regulation and a system of best practices.

Response: The Title V permits for the Stony Point and Southeast compressor stations have been developed in accordance with state and federal requirements. The final permits will undergo a 45-day EPA review in accordance with Title V of the Clean Air Act. The Title V permits require stack testing of pollutants using EPA-approved methods. Any stack testing can be observed by a NYSDEC inspector. The Title V permits also require Algonquin to file semi-annual periodic monitoring reports and annual compliance certifications. Each year, Algonquin also files an emissions statement of actual emissions from each compressor station. These submissions are reviewed by the NYSDEC and are available for review by the general public. Moreover, both

¹⁰ Life Cycle Greenhouse Gas Emissions of Marcellus Shale Gas, Carnegie Mellon University, August 5, 2011.

¹¹ See, e.g., The Greenhouse Impact of Unconventional Gas for Electricity Generation, University of Maryland, October 25, 2011.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

NYSDEC and EPA have authority to inspect Title V facilities such as the Stony Point and Southeast compressor stations.

Comment 24. Many pollutants emitted by the AIM Project are not included in the NAAQS—e.g., benzene, toluene, formaldehyde, etc.—and NYSDEC must identify the potential emissions of these pollutants, rate them, and determine acceptable emissions levels based on air modeling. NYSDEC must identify any potential HTAC and conduct a Toxic Impact Analysis.

Response: The EPA has established standards for Hazardous Air Pollutant emissions for specific source categories under Section 112 of the Clean Air Act that the Project must comply with as provided for in the Title V permits. Additionally, NYSDEC's Policy DAR-1 provides guidance for the control of toxic ambient air contaminants. In accordance with this guidance, Algonquin conducted a screening analysis and provided the results in its air permit application for each compressor station, which shows that the conservative model-predicted output concentrations from proposed new emission sources at the two compressor stations are below New York's health effect-based annual and short-term (one hour) guideline concentrations. See also Response to Comment 8 above.

Comment 25. Approval of Title V air permit directly violates 6 NYCRR 211.1 because the AIM Project will emit air contaminants to the atmosphere “of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.” The emissions from other infrastructure along the pipeline, such as the M&R stations, should be included in the Title V permits.

Response: The Title V permits as proposed include all applicable state and federal requirements and thus do not violate 6 NYCRR 211.1. The two compressor stations and the M&R stations are each separate facilities as far as air permitting is concerned. Under 6 NYCRR 200.1, a facility is defined as “all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control.” Projected emissions from the Yorktown, Peekskill and Cortlandt M&R stations are far below levels that trigger NYSDEC permitting under Title V, even as minor sources. See Response to Comment 19 above regarding estimated emissions at M&R stations.

Comment 26. The permit condition for startup and shutdown in each of the draft Title V permits is flawed because it leaves self-reporting of excessive emissions in the hands of the permittee.

Response: By statute, the basis for demonstrating compliance with all Title V permits is self-reporting and certification. The Title V permits for Southeast and Stony Point require that in the event that emissions of air contaminants in excess of any emission standard occur due to malfunction, the facility owner or operator shall compile and maintain records of the malfunction

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

and notify the department as soon as possible during normal working hours, but no later than two working days after becoming aware that the malfunction occurred. The requirement is in accordance with state and federal regulations.

Comment 27. NYSDEC must ensure that, if the Title V permits are issued, operations will not have negative health impacts on area residents, particularly those in environmental justice communities (in particular the city of Peekskill). Algonquin should be required to perform an exposure assessment of potential health impacts on environmental justice communities.

Response: The Stony Point and Southeast compressor stations are not located in an environmental justice area. With regard to the portion of replacement pipeline that will be constructed through the City of Peekskill, FERC conducted an environmental justice analysis utilizing the criteria established in EPA Region 2's Interim Environmental Justice Policy and NYSDEC's policy for conducting environmental justice analyses for projects undergoing environmental review under the New York State Environmental Quality Review Act ("SEQRA"). FERC concluded that the AIM Project would not result in any disproportionately high or adverse environmental or human health impacts on minority or low-income communities. EPA concurred with this conclusion. See FERC FEIS § 4.9.10.2.

Comment 28. A family living near the Peekskill M&R station notices noxious odors, fumes and the smell of gas in violation of 6 NYCRR 211.1.

Response: Minimal changes are required at the Peekskill M&R Station as part of the AIM Project, and these changes do not require any permits from NYSDEC. No incidents or complaints of odors or fumes or smells have been reported to NYSDEC and there have been no violations issued by NYSDEC under 6 NYCRR 211.1 for the Peekskill M&R station.

Comment 29. State officials must investigate reports of health complaints (such as Minisink compressor station) before allowing pipeline infrastructure to expand.

Response: NYSDEC inspects all facilities as air quality complaints are reported to its regional offices.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

II. WATER QUALITY

Comment 30. Algonquin’s Storm Water Pollution Prevention Plan (“SWPPP”) for the AIM Project is deficient and incomplete. A copy of the SWPPP has not been provided to all entities entitled to review and approve it. It also is not clear if the SWPPP will comply with the new Stormwater Construction Permit (GP-0-15-002), which became effective on 01/29/2015.

Response: Algonquin has provided NYSDEC with a Stormwater Pollution Prevention Plan based on the requirements of NYSDEC’s SPDES General Permit for Stormwater Discharges from Construction Activity (the “General Permit”). The SWPPP has also been sent to municipalities that are not located in the Croton Watershed for review pursuant to the SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (referred to as “MS4’s”). With regard to construction within the Croton Watershed, Algonquin has received specific comments from the New York Attorney General’s Office and New York City Department of Environmental Protection (“NYCDEP”) requesting additional information and changes to the SWPPP. Algonquin has been working directly with both agencies to make the requested changes. All MS4’s located in the Croton Watershed, including the Towns of Cortlandt, Yorktown and Southeast, and any other entity requested by NYCDEP as required by the NYCDEP Watershed regulations will receive a copy of the SWPPP for review pursuant to the procedures contained in the NYCDEP Watershed regulations.

Additionally, the SWPPP has been developed based on the General Permit issued in 2010 that was incorporated into the NYCDEP Watershed regulations as well as the recently renewed General Permit issued by NYSDEC in January 2015.

Comment 31. Algonquin has not provided any pollutant-loading analysis or evidence that the AIM Project complies with the Clean Water Act’s anti-degradation requirements or will maintain state water quality standards.

Response: As part of its 401 Water Quality Certificate (“WQC”) application, Algonquin provided detailed site plans that depict the locations of all wetlands and water bodies. The limits of construction were clearly demarcated on the drawings which also demonstrate that Algonquin is utilizing its existing right-of-way (“ROW”) to the maximum extent to limit the amount of impact in areas not already subject to periodic maintenance. Algonquin’s application provided a detailed discussion of the construction sequencing and the locations of erosion and sedimentation control measures, including the commitment to utilize dry crossing techniques at all water bodies crossed, except the Hudson River that will be crossed using the horizontal directional drill (“HDD”) construction method. Algonquin also discussed the comprehensive inspection program that will be used during construction, including the use of environmental inspectors. These combined measures clearly demonstrate how anti-degradation requirements and state water quality standards will be maintained. In its FEIS, FERC concluded that:

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

”construction activities would be temporary in nature and consist primarily of shallow excavation for pipeline installation. Waterbody crossings that do not require blasting would be completed within 24 to 48 hours and stream bed and bank contours would be restored and stabilized following construction activities. With these protective measures in place, and our additional recommendations, we conclude that construction and operation of the Project would not result in significant impacts on surface water resources.”

See FEIS § 4.3.2.6 at page 4-59.

Comment 32. The construction, post-construction and operation of the AIM Project will adversely impact the water quality in New York State.

Response: Construction activities will be conducted in accordance with Algonquin’s Erosion and Sediment Control Plan (“E&SCP”), Spill Prevention Control and Countermeasure Plan, Unexpected Contamination Encounters Procedures, Rock Removal Plan, Best Drilling Practices Plan, and construction stormwater plans and permits. With these protection measures in place, construction and operation of the AIM Project would not result in significant impacts to surface water resources, including the Croton, Catskill, and Delaware water supply systems or groundwater resources. Detailed plans are also included in the SWPPP that is undergoing review by the NYCDEP and New York Attorney General’s Office.

Construction activities would be temporary in nature and consist primarily of shallow excavation for pipeline installation. For example, stream crossings are expected to be completed in two to four days or less. Areas cleared for construction will be revegetated so as to restore pre-construction overland flow and recharge to groundwater. Impacts to the Hudson River have been minimized through the selection of an alternative route that facilitates the use of horizontal directional drilling. See Response to Comment 31 above.

Moreover, impacts to public and private water supply wells within 150 feet of the AIM Project that could be impacted by construction activities, including areas where blasting of bedrock would be required, would be monitored, and would be minimized by following the procedures outlined in Algonquin’s Rock Removal Plan. Additional special procedures are in place to protect wells within 150 feet of the Project.

Comment 33. Blasting may result in unstable soils resulting in erosion with damage to watercourses and the reservoir system. How much rock will be blasted/removed (cubic yards)? No maps have been provided showing blasting/rock removal areas in the Town of Yorktown.

Response: Algonquin is proposing to replace the existing 26-inch diameter pipeline along the pipeline segments in New York. As a result, Algonquin will engage in limited blasting within the existing trench, when necessary, to increase the size of the existing trench and install the

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

proposed 42-inch diameter pipeline. Specifically in Yorktown, available depth to bedrock data does not indicate the need for blasting. If rock is encountered during construction, Algonquin will use the procedures developed in its Rock Removal Plan. This plan is included in Appendix E of the FEIS. The potential for limited blasting will not cause unstable soils because the blasting activities will be controlled and will be confined to specific locations identified during construction. Algonquin will make a reasonable effort to first mechanically remove the rock in congested or densely residential areas and in wetlands and water bodies. If the mechanical methods of removal fail to properly fragment the rock, then blasting will be used (where allowed by Algonquin and applicable regulations). For all other areas, Algonquin will ultimately select a rock removal method from the methods in its Rock Removal Plan and applicable regulations.

Comment 34. Due to the industrial nature of the action, should a NYSDEC Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-12-001) be required?

Response: The AIM Project is not an industrial activity and is not subject to the NYSDEC Multi-Source General Permit. In fact, the AIM Project would not be eligible for the Multi-Sector General Permit, as it specifically provides coverage to “facilities with stormwater discharges to surface waters of the State from a point source or outlet that conduct industrial activities identified within 40 CFR Part 122.26(b)(14)(i) through (ix) and (xi).” See Part 1.A. The Multi-Sector General Permit’s citation to 40 CFR Part 122.26(b)(14) expressly excludes subsection (x), which relates to construction activity.

Comment 35. NYSDEC must clarify if a SPDES permit is required for the discharge of hydrostatic test water.

Response: A SPDES permit is not required for the discharge of hydrostatic test water for the AIM Project which proposes to use clean water and test only the new internally-coated pipe.

Comment 36. No information has been provided as to how, during construction, the old pipes and trench materials will be tested, handled, removed and transported to ensure that there is no contamination into the water. Will water testing be conducted and remediated as required? If dewatering is required, what are the locations, and what testing will be undertaken to ensure discharge water from operation is free of contaminants?

Response: Approximately 26.3 miles of the Project will involve replacing existing pipeline with a larger diameter pipeline using the take-up and relay method. This generally involves excavating a trench to remove the existing pipe. All pipe and pipe components excavated for removal will be wrapped with black UV 120 gauge stretch wrap, shrink wrap or equivalent to protect the pipe coating during transportation and storage. Wrapping of the pipe and/or pipe components will occur once the pipe is excavated and cut into < 40-foot joints but prior to loading on trucks to transport to the designated Project pipe yard in Dansville, New York where the pipe will be properly disposed of or recycled.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 37. Radioactive decayed products will become embedded in waste products which will be filtered out of the pipeline. The community does not want these materials released into the water.

Response: No radioactive decayed product will be released into surface or groundwater during pipeline maintenance and pigging activities. Algonquin conducts internal inspections and regular cleaning along segments of its operational pipelines. The pig receivers have a collection basin or trap that catches any liquids and solids that may be removed from the pipe during the pig run. Any liquids or solids removed during these cleanings would be collected and handled initially as hazardous material (whether or not the substances are hazardous) and would be disposed of at a licensed facility in accordance with federal, state, and local regulations. See also FERC Certificate Order ¶ 103 and Response to Comment 36 above regarding the procedures used to remove the existing 26-inch diameter pipeline.

Comment 38. Filing the notice of intent to be covered under the General Permit for Stormwater Discharges during Construction Activities should be a condition of the water quality certification.

Response: Filing the notice of intent to be covered under the General Permit is an independent and separate requirement from the other permitting actions, including the issuance of the Section 401 water quality certificate. Generally, the Section 401 Water Quality Certificate, Freshwater Wetlands and Article 15 Protection of Waters permits are issued after the completion of the public comment period while the SPDES Stormwater General Permit is typically not applied for until just prior to the commencement of construction activities.

Comment 39. SWPPP site plans should be revised to remove pump-out discharge locations from steep slopes, minimize the clearing to the extent practicable, and avoid placement of silt fence perpendicular to the contour.

Response: The Comment is referring to the site-specific waterbody crossing plans that were developed as required by the NYSDEC and filed with the 401 water quality certificate application. Algonquin has been working with NYCDEP staff to address the items noted in the latter's comment letter for specific waterbody/wetland locations identified within the Croton Watershed. The drawings as filed with the NYSDEC acknowledged that some flexibility in the placement of erosion controls and dewatering locations was necessary to account for site-specific conditions that may be encountered during construction. Updated site-specific plans have been provided to the NYSDEC. No material changes will be made to the overall dry crossing procedure as discussed with the NYSDEC.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 40. The AIM Project water quality certificate application fails to demonstrate that it will comply with New York State water quality standards, as it contains insufficient information regarding stormwater runoff. First, stormwater runoff from the AIM Project is likely to increase turbidity. Nutrients and toxic materials, including pesticides, industrial wastes, and metals, can bind to silt and clay particles. Second, increase turbidity also affects dissolved oxygen levels in waterbodies. Third, stormwater runoff from the AIM Project may also increase phosphorous in violation of water quality standards. All these may lead to a hindering of best usages for all classes of waterbodies affected by the AIM Project, a violation of the narrative water quality standard for turbidity (“a substantial visible contrast to natural conditions”) applicable to all classes of waterbodies affected by the AIM Project, and a violation of NYSDEC’s Antidegradation Policy.

Response: See Response to Comment 31 above.

Comment 41. The AIM Project’s potential for discharge of contaminants in the hydrostatic test water may result in erosion and channelization at the point of discharge, potentially increasing sediment runoff and turbidity in receiving waters. This could violate narrative standards. Therefore, discharge of hydrostatic test water must occur well outside of wetland and riparian areas, and must not be allowed within construction workspace or 100 feet of wetlands or waterbodies. Additionally, the use of chemical additives during and following hydrostatic testing must be explicitly prohibited and applicable to the entire Project area and not just the NYC watershed.

Response: Algonquin has committed to the following measures:

- ◆ Locate hydrostatic test manifolds outside of wetlands and riparian areas;
- ◆ Comply with all appropriate permit requirements;
- ◆ No discharge into state-designated special waters, waterbodies that provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless the relevant federal, state, and local permitting agencies grant written permission;
- ◆ Discharge test water to a well-vegetated and stabilized area and maintain at least a 50-foot vegetated buffer from adjacent waterbody/wetland areas. If an adequate buffer is not available, sediment barriers or similar erosion control measures must be installed; and
- ◆ Regulate discharge rate, use energy dissipation device(s), and install sediment barriers, as necessary, to prevent sedimentation and streambed scour.

Algonquin does not anticipate using chemicals to test or dry the pipeline following hydrostatic testing. Upon the completion of hydrostatic testing, the test water will be discharged into dewatering structures located in upland areas and within the construction work area in accordance with the AIM Project E&SCP and all applicable permits.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 42. There is a possibility that the AIM Project's discharged trench water, that is not infiltrated, will be carried back into receiving waters and increase turbidity. Trench dewatering must occur well outside of wetland and riparian areas, and must not be allowed within construction workspace or 100 feet of wetlands or waterbodies.

Response: Algonquin has provided details regarding its trench dewatering procedures in the 401 Water Quality Certificate application as well as in the AIM Project E&SCP. If trench dewatering is necessary in or near a wetland or waterbody, the removed trench water will be discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag or straw bale structure located away from the resource area if feasible to prevent heavily silt-laden water from flowing into the wetland or waterbody. Because wetland areas can be extensive in size, dewatering is sometimes necessary in wetlands. The same process applies and strict procedures are maintained to ensure that the trench water is filtered prior to discharge to the surrounding wetland areas. Algonquin's environmental inspectors will monitor all dewatering activities.

Comment 43. Algonquin has indicated that it plans to locate additional temporary workspace at distances as little as zero feet from the waterbody at 10 of the crossing locations in New York State. Two of these locations are within the NYC watershed and ultimately drain to the New Croton Reservoir. This is likely to result in discharge of sediment and increases in downstream turbidity.

Response: Algonquin has attempted to locate all additional temporary workspace areas as far from wetlands and waterbodies as is feasible while still allowing construction to proceed safely and in compliance with all permit conditions. In the FEIS, FERC evaluated each location where Algonquin could not locate additional temporary workspace greater than 50-foot from wetlands. FERC considered each location and found each one to be justified. See FEIS § 4.4.4 at page 4-68.

Comment 44. The application must meet all of the requirements of the New York State Stormwater Management Design Manual (the "Bluebook") and NYSDEC must also require environmental monitors for stormwater General Permit and SWPPP compliance.

Response: This project requires coverage under the SPDES General Permit for Stormwater Discharges for Construction Activity (GP-0-15-002), which requires compliance with the NYS Standards and Specifications for Erosion and sedimentation Control (i.e. the "Bluebook") and the NYS Stormwater Management Design Manual. The final SWPPP will need to meet the requirements of these technical standards in order for the project to be authorized under the General Permit. See Response to Comment 72 below on the environmental monitor.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 45. Pursuant to NYSDEC's Policy DEE-16 – the Record of Compliance Enforcement Policy, the Order on Consent issued to Algonquin in 2008 for violations at the Mahwah River relocation for the Ramapo Pipeline Expansion Project, which occurred in the past ten years, shows a pattern of noncompliance that requires a Record of Compliance form to be submitted as part of a complete application.

Response: The Consent Order referred to involved runoff after a storm event causing turbidity into the Mahwah River during three days in August 2008. The Consent Order affirmatively states that Algonquin used good faith efforts to employ best management practices in constructing its Ramapo Expansion Project. Construction of the Ramapo project was completed without further incident. Since there is no indication that the isolated violations in August 2008 were part of a pattern of non-compliance under NYSDEC Policy DEE-16, a Record of Compliance form is not required. The SWPPP prepared for the AIM Project contains measures to ensure such an incident will not be repeated, including a more robust environmental inspection/monitoring program and a focused training session directed at dewatering procedures and effective use of filter bags. Each environmental inspector has stop work authority and will ensure the proper placement of dewatering structures.

Comment 46. The surface waters tributary to the East-of-Hudson portion of the City's water supply watershed was designated as Critical Resource Waters by the U.S. Army Corps of Engineers, and therefore requires more stringent conditions for wetland permits there.

Response: While the AIM Project will result in temporary and permanent impacts to freshwater wetland functions and values, there is no permanent wetland fill proposed and no wetland area will be lost due to the Project. When evaluating projects that will have impacts to wetlands, NYSDEC takes into account the sensitivity of the impacted wetlands through its classification system. In the Towns of Cortlandt and Yorktown, NYSDEC has identified Class I and Class II wetlands that would be affected by the AIM Project, with Class I the most valuable. Accordingly, NYSDEC subjected the AIM Project to the stringent standards that apply to review of activities proposed for Class I and Class II wetlands, including requiring Algonquin to conduct an alternatives analysis. To the extent the AIM Project would impact the Croton Watershed, Algonquin cannot commence construction within the Croton watershed until NYCDEP determines that the SWPPP is sufficiently protective of the watershed.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

III. WETLANDS

Comment 48. Wetlands crossed by the AIM pipeline would be filled in or otherwise harmed, reducing their ability to filter and clear water, especially the wetlands at the Blue Mountain Reservation.

Response: Algonquin has acknowledged that the AIM Project will result in both temporary and permanent impacts to some wetland functions. There is no permanent wetland loss proposed for the AIM project, however there will be temporary impacts to the wetlands including a small percentage of the wetlands that will have a permanent change in the wetland cover type. A wetland with a permanent cover type change, may result in a change in function of the wetland. Algonquin has proposed wetland mitigation to offset the change in cover type.

Comment 49. FERC’s Draft Environmental Impact Statement (“DEIS”) failed to delineate or under-delineated seven watershed wetlands. Moreover, inaccuracies in spelling found in the DEIS suggest that it might contain incorrect plant identifications or other errors. Independent delineation of wetlands needs to occur. Delineation cannot be done by Algonquin or NYSDEC.

Response: Wetland and waterbody field surveys for the AIM Project commenced in May 2013 and were completed in December 2013. Comprehensive wetland delineations in all New York Project areas were conducted by wetland scientists from TRC (a publicly traded engineering and environmental consulting firm) in accordance with the methodology described in the U.S. Army Corps of Engineers (“USACE”) *Wetlands Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2)*. A wetland delineation report was submitted to FERC, USACE and NYSDEC for review.

Prior to conducting the wetland delineation, TRC reviewed a number of resources to gain a preliminary understanding of the characteristics of the sites, including:

- United States Geographic Survey (“USGS”) 7.5-minute series topographic quadrangles;
- Aerial photographs;
- NWI maps; and
- United States Department of Agriculture, Natural Resources Conservation Service (“USDA, NRCS”) Web Soil Surveys.

Each potential wetland was evaluated with a three-factor approach, as set forth by the 1987 Manual and more recent supplements. This three-factor approach involves indicators of hydrophytic vegetation, hydric soil, and wetland hydrology which when combined are used to define a wetland. Wetlands are defined by the USACE as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and bottomlands. Any of the potential wetlands that met all three criteria were delineated and had their boundaries surveyed using civil survey methodology utilizing total stations, tripods and survey poles. Algonquin met with the NYSDEC on December 5, 2013, and conducted a site walk of several of the AIM Project facilities in New York. During that site visit, the NYSDEC reviewed the boundaries of state wetlands and determined which of the New York wetlands were to be considered NYSDEC jurisdictional. Algonquin also participated in a site walk with the USACE New York District on January 14, 2015 to review wetland boundaries for the New York portion of the AIM Project. Both agencies found that the wetland delineations conformed to state and federal standards and regulations.

Comment 50. Based on FEIS, Appendix K, eight wetlands in Yorktown will be crossed, but a map has not been provided and the area of buffer has not been indicated. Approximately 0.43 acres will be crossed that is outside the existing ROW.

Response: As part of its 401 Water Quality Certificate (“WQC”) application, Algonquin provided detailed site plans that depict the locations of all wetlands and water bodies. The limits of construction were clearly demarcated on the drawings, demonstrating that Algonquin is utilizing its existing right-of-way to the maximum extent to limit the amount of impact in areas not already subject to periodic maintenance.

Comment 51. In the FEIS, Appendix M, the total area and boundaries of wetland and NYCDEP jurisdictional watercourses have not been identified. Nor have crossing, stabilization, and mitigation details been provided, either. The total area of wetland and wetland buffer disturbance has not been quantified and wetland functional values have not been identified.

Response: As part of its 401 Water Quality Certificate (“WQC”) application filed with NYSDEC and Section 404 permit application filed with USACE, Algonquin provided detailed site plans that depict the locations of all wetlands and water bodies. Additionally, details regarding crossing procedures, stabilization methods and mitigation measures were all included with those application filings. Further, FERC discussed these procedures in the FEIS at Section 4.4.3. The total area of wetland and wetland adjacent areas was quantified and included in the NYSDEC’s Notice of Complete Application and Notice of Legislative Public Comment Hearing issued on December 31, 2014 (notice was published in the NYSDEC Environmental Notice Bulletin and the Journal News - Rockland County and Westchester/Putnam Counties editions).

Comment 52. Wetland mitigation explanations needs to be more specific.

Response: The AIM Project will result in impacts, both temporary and permanent, to freshwater wetland functions and values in New York; however, there will be no permanent wetland filled and there will be no net loss of wetland acreage resulting from the Project. As part of its review

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

under Section 404 of the Clean Water Act, and due to a lack of mitigation banks or in-lieu-fee mitigation programs in the vicinity of the AIM Project, the USACE New York District has required a mitigation plan specific to the portion of the Project in New York. Under the plan, onsite, temporary impacts to wetlands due to construction will be mitigated through avoidance, minimization of impacts, and restoration to pre-construction conditions. For permanent conversion of forested wetlands to non-forested conditions for maintenance of new pipeline right-of-way, the USACE is requesting offsite mitigation pursuant to the USACE and EPA's 2008 document "*Compensatory Mitigation for Losses of Aquatic Resources*" (33 CFR Parts 325 and 332 and 40 CFR Part 230, "Mitigation Rule"). Per the Mitigation Rule: "Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular DA (Department of Army) permit. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts" (§ 332.3).

Algonquin filed a Final Wetland Mitigation Plan in December 2014. The Final Mitigation Plan was included in Appendix M of the FERC FEIS. The Plan provides detailed information on wetland mitigation procedures and planting details as requested by FERC, USACE and NYSDEC. Moreover, Algonquin's environmental consultant, TRC, is working with the Yorktown Parks and Recreation Commission on the final designs for the compensatory wetland mitigation plan for the Junior Lake property.

Comment 53. Excavation will release and suspend significant amounts of phosphorous in the new Croton Reservoir. However, Algonquin has neither provided an analysis of the nutrients to be released as a result of these excavation activities nor discussed the existing nutrient levels of the receiving water(s). Isolating wetland spoils in a pile and surrounding it with filter fabric is not enough. Additionally, alternatives are available to avoid wetland impacts, but Algonquin has offered no alternative that avoids the Reservoir by either moving the Stoney Street terminus west or varying the pressure per square inch.

Response: See Response to Comments 31, 61, and 72.

Comment 54. The Invasive Plant Species Control Plan should be amended to include Japanese stiltgrass (*Microstegium vimineum*) because this species is present in several wetland areas, and the Plan should require all equipment to be cleaned prior to entering or leaving any wetland.

Response: Algonquin has addressed this comment in an Invasive Species Addendum that was requested by USACE and filed in January 2015. A copy of this Addendum report has been provided to NYSDEC and NYCDEP.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 55. All disturbed wetland areas should be seeded with a native wetland seed mix mixed 2:1 with winter or annual rye.

Response: Algonquin has committed to seeding all disturbed wetlands with a native wetland seed mix mixed with winter or annual rye, as appropriate.

Comment 56. Plans should be included that show proposed construction activities and associated erosion and sediment controls in the 2.11 acres adjacent to Fresh Water Wetland (“FWW”) BR-36 that will be temporarily impacted due to improvements at the Southeast compressor station. Additionally, Table D1 indicates that AIM wetland B13-SPLR-W21 is within the regulated adjacent area of FWW A-36, but impacts to the regulated adjacent area cannot be ascertained from the provided plans. The extent of the regulated adjacent area should be included on all maps and plans.

Response: As part of its 401 Water Quality Certificate (“WQC”) application, Algonquin provided detailed site plans that depict the locations of all wetlands, water bodies and adjacent areas. Regrettably, Table D1 has caused some confusion in the way the adjacent areas were presented. Algonquin filed a revised Table D1 with the NYSDEC. The total area of wetland and wetland adjacent areas was quantified and included in the NYSDEC’s Notice of Complete Application and Notice of Legislative Public Comment Hearing issued on December 31, 2014.

Comment 57. Performance standards should be provided in the Mitigation Plan for AIM Project Facilities in New York for restoration of wetlands within the construction right of way. Performance standards and monitoring requirements in Section 3.1.1 and the Appendix F should be detailed in the actual wetland mitigation plan. Moreover, page 5 of Mitigation Plan for AIM Project Facilities in New York should be corrected to indicate that the 0.83 acres of permanent forested wetland conversion are located east, not west, of the Hudson River.

Response: Algonquin filed a Final Wetland Mitigation Plan in December 2014. See Response to Comment 52 above. The Final Mitigation Plan was included in Appendix M of the FERC FEIS. The Plan provides detailed information on wetland mitigation procedures and planting details as requested by the FERC, USACE and NYSDEC. Sufficient performance standards are also provided in the Plan. Algonquin acknowledged the correction on page 5: the permanent forested wetland conversion occurs on the east side of the Hudson River.

Comment 58. FEIS, Appendix A, Figure 2: Mitigation Plan for Facilities in New York and Junior Lake Enhancement Project, Yorktown, New York. Map does not indicate specific tree planting areas. A planting plan depicting the location of all plant material to be installed should be prepared.

Response: See Response to Comment 52 above.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 59. NYSDEC has identified no mapped wetlands at the Indian Point Site, including as recently reported in Entergy's Environmental Report and the NRC Environmental Impact Statement. Entergy cannot reasonably assess Algonquin's statements regarding potential wetland indicators at the Indian Point Site. Entergy reserves its rights with respect to any claims of vegetation or other conditions indicative of potential wetlands at the Indian Point Site.

Response: Comment noted.

Comment 60. Since winter rye is an upland species not suited for establishment under inundated conditions, Algonquin's Final Wetland Mitigation Plan should be revised to allow its use in specific circumstances – winter rye should only be planted as a wetland soil stabilizer in the absence of stand-alone water.

Response: Algonquin's E&SCP specifies the following in Section 6.2.4:

Revegetate the ROW with annual ryegrass at 40 lbs/acre PLS or with the recommended Wetland Seed Mix in Appendix B, unless standing water is present.

Accordingly, as a matter of course, seeding will not occur where standing water is present. See also Response to Comment 55 above regarding proposed seed mixes.

Comment 61. Algonquin has not established that the Pipeline must go through the wetlands of Reynolds Hills and Blue Mountain Reservation, in violation of 6 NYCRR 663.5(e) and (f).

Response: The FEIS presents a range of alternative routes for the AIM Project and concludes that the pipeline route as proposed, including through Reynolds Hills and the Blue Mountain Reservation is the practicable alternative because there is less environmental impact siting the replacement pipeline along the existing maintained right-of-way as opposed to constructing in a new greenfield site. Based on the crossing techniques and mitigation measures to be implemented by Algonquin, and the fact that there would be no loss of wetlands as a result of the AIM Project, the AIM Project would be compatible with preservation, protection and conservation of wetlands and their benefits, and would result in no more than insubstantial degradation to wetlands during the construction, with no loss of wetlands after construction is completed.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 62. Based on the Record of Compliance Enforcement Policy, Algonquin's record of violations, the sensitivity of the freshwater wetlands impacted by the proposal, and the significant scope of work, NYSDEC must require a permit provision for an environmental monitor for all Clean Water Act-related actions.

Response: See Response to Comment 72 regarding the independent third party environmental monitor.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

IV. STREAM DISTURBANCE

Comment 63. Stabilization and mitigation procedures in the FEIS, Appendix M are not specific. There is an issue of siltation into the Hunter Brook system and the new Croton Reservoir. In addition to being a water supply problem, this is a biological issue that will affect fish, such as the brook trout, and other organisms in the stream system and the reservoir.

Response: Algonquin has committed to using dry crossing procedures at all water bodies (other than the Hudson River that involves the HDD construction method). In addition, the Algonquin E&SCP provides detailed procedures that will be used in establishing sedimentation control devices and restoring stream banks.

Specific measures that would be implemented include:

- locating additional temporary workspace (“ATWS”) at least 50 feet from wetland boundaries except where site-specific conditions warrant otherwise and FERC approval has been obtained;
- cutting vegetation above ground level, leaving existing root systems in place, and limiting stump removal to directly over the trench line except where these activities are required outside the trench line area for safety reasons;
- returning wetland contours and drainage patterns to their preconstruction configurations;
- installing sediment barriers immediately after initial ground disturbance within the right-of-way at the edge of the boundary between wetlands and uplands, across the entire right-of-way immediately upslope of the wetland boundary, and along the edge of the right-of-way as necessary to contain spoil within the right-of-way and to protect adjacent off right-of-way wetland areas;
- segregating the top 12 inches of topsoil from the trench line in wetlands, except in areas where standing water is present or soils are saturated or frozen. Immediately after backfilling is completed, the segregated topsoil would be restored to its original location to expedite revegetation;
- prohibiting the use of rock, soil imported from outside the wetland, tree stumps, or brush riprap to stabilize the right-of-way;
- using low ground weight equipment and operating equipment on timber riprap, prefabricated equipment mats, or terra mats on saturated soils or where standing water is present;
- installing trench plugs as necessary to maintain the original wetland hydrology;
- prohibiting the use of lime, or fertilizer during the restoration of wetlands; and
- seeding freshwater wetlands with a wetland seed mix specified by local municipalities and NYCDEP.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 64. Potential adverse impacts from the proposed project include increases in stormwater runoff and long term changes in drainage patterns, degradation of wetlands and buffer areas and damage to water bodies, stream beds and stream banks during trench crossing and blasting.

Response: Construction of the AIM Project facilities will not result in long term changes in drainage patterns, degradation of wetland or water bodies. Construction is a short-term activity and is completed using industry-tested construction procedures designed to minimize impacts. Replacement of the proposed pipeline will not cause changes to drainage patterns because the topography is restored upon completion of construction. Algonquin has proposed extensive sediment control and inspection procedures to ensure compliance with all permits.

Comment 65. Silt fences protecting our streams and waterbodies break easily and special measures need to be taken.

Response: Algonquin's comprehensive E&SCP outlines the procedures that will be implemented to control sedimentation during construction. Algonquin will use more than just silt fences as necessary. Algonquin also has incorporated a comprehensive environmental inspection program to ensure compliance with all permits. FERC will have its own inspection staff overseeing construction compliance as well. See Response to Comment 72 below.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

V. OTHER NATURAL RESOURCES (BIOTA/SPECIES/CULTURAL)

Comment 66. The construction, post-construction and operation of the AIM Project will negatively impact the natural resources of New York. The loss of trees will affect forests and wetlands. The runoff from the Project's operations and waste will pollute the waters, streams and soil. Replacing cut-down trees with grass will not restore our natural resources, like the Blue Mountain Reserve, back to its original state.

Response: As part of its review under the National Environmental Policy Act ("NEPA"), FERC considered all of these impacts. FERC recognized that construction and operation of the AIM Project would result in adverse environmental impacts, but such impacts would generally be temporary or short-term. FERC also recognized that there could be long-term and potentially permanent environmental impacts on vegetation and individual wildlife species as part of the AIM Project. FERC concluded that, with the mitigation measures proposed by Algonquin and the additional mitigation measures proposed by FERC Staff and adopted as part of the FERC Certificate Order, most of the adverse impacts would be reduced to less than significant levels. See FEIS § 5.1 at page 5-1. See also FERC Certificate Order ¶ 150 (finding that the AIM Project, if constructed and operated as described in the FEIS, is an environmentally acceptable action).

Comment 67. Algonquin's SWPPP is deficient because it is missing information, such as the required Phase II archeological evaluation for the Kiln Site at Sylvan Glen, the NYSDEC Threatened and Endangered Species Program, topographic maps, soil maps and information on the limits of disturbance.

Response: As discussed in response to comments provided in the Water Quality Section above, Algonquin has made revisions to the SWPPP to address NYCDEP and the New York Attorney General comments related to construction within the Croton Watershed. Consultation under Section 106 of the National Historic Preservation Act has been ongoing. With regard to the Kiln Site, The Public Archaeology Laboratory, Inc. (PAL) has completed the Phase II archaeological evaluation as required by the New York State Historic Preservation Officer (SHPO). The Kiln Site was recommended by PAL as meeting the eligibility criteria for listing in the National Register of Historic Places. Algonquin subsequently adjusted the proposed workspace to avoid impacting the Kiln Site. PAL submitted the Phase II evaluation report to FERC and SHPO and a copy has also been sent to the Town of Yorktown. On March 17, 2015, SHPO commented on the Phase II report, concurring with the recommendations outlined in the report. FERC's FEIS also addressed impacts to soils, see FEIS § 4.2, and special status species, see FEIS § 4.7.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 68. Section 4.7.2 of the FEIS indicates 72.6 acres of tree clearing in the Stony Point to Yorktown segment. How many acres will be cleared in Yorktown? Will there be specific tree replanting/mitigation to stabilize these areas?

Response: Approximately eight acres of temporary work space will be needed for construction of the pipeline in the Sylvan Glen Park Preserve and Granite Knolls Park West (together, the “Yorktown Park”). Algonquin intends to negotiate a license with the Town of Yorktown for the temporary use of this additional work space within the Yorktown Park and to conduct a tree count within the additional temporary work space. Algonquin is also aware that the Town of Yorktown has a “Yorktown Forest Management Fund” of \$100 for the removal of every protected tree (diameter at breast height of at least 6 inches, and at least 25 feet tall) and \$300 for every 5000 square feet of woodland to be removed. Thus compensation for the removal of trees can be addressed through the negotiation of a license between Algonquin and the Town of Yorktown.

Comment 69. The distance of the pigging station to the Granite Knolls battlefields, park facilities, walking trails and residences has not been identified.

Response: The alignment sheets filed with FERC, a copy of which has been provided to the Town of Yorktown, show that the proposed launcher and receiver facility would be located within Algonquin’s existing easement within Granite Knolls Park West near Stoney Street. Algonquin is also committed to meeting with the Town of Yorktown to further discuss the launcher and receiver facility at that location.

Comment 70. The biological surveys performed for the AIM Project were inadequate. There was no botanical survey. Two rare subspecies were not included in the biological surveys which were located on the right-of-way in Yorktown. And therefore, it is very likely that there are other rare plants present that need to be addressed in the permitting process. Additionally, potential habitats for several endangered, threatened and special concerned rare animals, such as the Indian bat, the Northern Long Ear bat, Marbled Salamander, Jefferson Salamander and the New England Cottontail, among others, have not been adequately assessed or surveyed.

Response: Algonquin consulted with the appropriate jurisdictional agencies, including the NYSDEC, to identify special status species that may occur within the Project area. Algonquin consulted with the New York Natural Heritage Program regarding the documented occurrences of state protected species in New York, conducted surveys as requested by NYSDEC and in accordance with approved protocols, and developed measures working with NYSDEC to avoid impacts to protected species. Algonquin also consulted with the U.S. Fish and Wildlife Service (“FWS”) on federally protected species and migratory birds, and conducted surveys as recommended by FWS in accordance with approved protocols. See also FERC Certificate Order ¶¶ 139-140 (finding observations by Dr. Kiviat do not necessitate the need for additional surveys as surveys completed in preparing FEIS were done in accordance with approved protocols).

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 71. Dr. Kiviat identified several rare and endangered species of flora and rare animals of conservation concern on the ROW that were not identified by Algonquin. An experienced, independent botanist should identify and record the locations of all the flora and surveys of animals should be conducted so that construction and restoration can be managed with minimal impact.

Response:

See also Response to Comment 70 above.

Comment 72. AIM funds should be put into escrow for a full-time independent environmental monitor administered by the towns or the NYCDEP.

Response: Consistent with guidelines established by FERC, Algonquin will conduct environmental training for its construction personnel, including Environmental Inspectors, contractors, and their employees, regarding proper field implementation of Algonquin's E&SCP, Spill Prevention Control and Countermeasure Plan/Preparedness, Prevention, and Contingency Plan, and other project-specific plans and mitigation measures. The training will be given before the start of construction and throughout the construction process, as needed. The Environmental Inspectors and all other construction personnel will play an important role in maintaining strict compliance with all permit conditions to protect the environment during construction.

In addition to its own Environmental Inspectors, Algonquin will participate in a third-party Environmental Compliance Monitoring Program for sensitive environmental areas of the AIM Project. Under this program, Algonquin will fund a contractor, to be selected and managed by FERC staff, to provide environmental compliance monitoring services. The FERC Third-Party Compliance Monitor will provide daily reports to FERC staff on compliance issues and make recommendations to the FERC Project Manager on how to deal with compliance issues and construction changes, should they arise. FERC staff will also conduct periodic inspections. See FEIS § 2.5 at page 2-41. Additional inspections may also be conducted by other federal and state agencies including the USACE, NYSDEC, and NYCDEP. See also FERC Certificate Order ¶ 143 (explaining that FERC's Environmental Compliance Monitoring Program in which a contractor is managed by FERC staff will provide sufficient oversight of the AIM Project without the need for an additional or separate monitor).

After construction, Algonquin will conduct follow-up inspections of all disturbed upland areas after the first and second growing seasons to determine the success of restoration and monitor the success of wetland revegetation annually for the first 3 years (or as required by permits) after construction, or longer, until wetland revegetation is successful. To ensure the restoration of all areas affected by the Project, FERC will continue to conduct oversight inspection and monitoring following construction. If it is determined that any of the proposed monitoring timeframes are not adequate to assess the success of restoration, Algonquin will be required (by FERC) to extend its post-construction monitoring programs.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

VI. ADMINISTRATIVE COMMENTS

Comment 73. The FERC process has been marred by lack of information, both timely and publicly available, and this must not be repeated in New York.

Response: Algonquin has provided numerous opportunities for the public to learn about and review the AIM Project both during the FERC process and during the NYSDEC application process. Algonquin began conducting outreach activities with governmental stakeholders in the fall of 2012 and landowners in early 2013. In April and May 2013, Algonquin held six landowner informational meetings in New York, as well as 4 public open house meetings in August and September 2013, and has engaged in several municipal meetings. As part of the NEPA process, FERC held public scoping meetings and public hearings on the Draft Environmental Impact Statement for the AIM Project. FERC's notice of its intent to prepare an EIS and to schedule scoping meetings was mailed to 1,800 interested entities, including representatives of federal, state, and local agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners; other interested parties; and local libraries and newspapers. Moreover, NYSDEC held two legislative hearings on its permitting actions in Brewster and Stony Point, New York and provided a two-week extension of the public comment period. Notices were published in the Rockland and Westchester/Putnam Journal News, the NYSDEC Environmental Notice Bulletin, and the AIM Project's website. There have been numerous federal and state agency consultations on the AIM Project. The outreach has been substantial for the AIM Project and Algonquin continues to meet with elected officials, regulatory agencies, landowners and interested groups on the Project.

Comment 74. NYSDEC must make the missing draft permits publicly available and re-notice the public hearing.

Response: NYSDEC's decision to make available to the public the draft Title V air permits and the applications for a water quality certificate, freshwater wetland permit and stream disturbance permit complies with NYSDEC regulations at 6 NYCRR Part 621. See § 621.7(b)(7) (requiring NYSDEC to prepare and issue draft permits as part of its public notification process only for "delegated" permits, which category includes air pollution control permits, but not the other permits and certifications that were the subject of the NYSDEC's legislative public hearings held on January 21 and 22, 2015), Making available for public review the applications for the non-delegated permits complies with NYSDEC uniform procedures.

Comment 75. NYSDEC should hold an issues conference and an adjudicatory hearing regarding the compressor stations and larger AIM Project.

Response: Neither an issues conference nor an adjudicatory hearing is appropriate for this matter because no comment filed with NYSDEC meets the substantive and significant standard set forth in NYSDEC uniform permitting regulation at 6 NYCRR Part 624. For an issue to be deemed substantive, it must raise sufficient doubt about an applicant's ability to meet the

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

applicable statutory or regulatory standards such that a reasonable person would require further inquiry. To be substantive, the issue cannot be based merely on speculation but on facts that can be subject to adjudication. In this case, the Algonquin applications and NYSDEC draft Title V air permits meet all requirements of federal and state law. No commenter has cited to any regulation that is not satisfied by the proposed NYSDEC approvals. Generally, the commenters: raised issues about scientific reports that are not specific or relevant to the Stony Point and Southeast compressor stations; desired that more requirements be imposed on pipeline facilities beyond that required by federal or state law and regulations; raised issues that were not within NYSDEC's jurisdiction, etc.. The applications and draft Title V permits related to the AIM Project satisfy all applicable requirements and no commenter raised an issue that is substantive or significant that would require NYSDEC to schedule an issues conference and adjudicatory hearing.

Comment 76. NYSDEC should inform Algonquin that no construction can commence until the SWPPP is approved by NYSDEC for construction.

Response: Comment noted. Algonquin is aware that no construction can commence until all appropriate approvals have been obtained. As of the April 21, 2015 Supplemental Implementation Plan ("SIP") filed by Algonquin with the FERC, Algonquin stated:

“Algonquin has not received all applicable authorizations required under federal law for the facilities associated with this IP. Prior to receiving written authorization from the Director of OEP to commence construction of any Project facilities, Algonquin will file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof). An updated table outlining the current status of these authorizations is included in Appendix C9 of this Supplemental IP.” (SIP p. 6 re FERC Certificate Condition 9)

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

VII. HAZARDOUS SUBSTANCES COMMENTS

Comment 77. Algonquin should identify materials that will be collected during cleanings and pigging activities. Additionally, quantitative and qualitative data regarding the TENORMs (Technologically Enhanced Naturally Occurring Radioactive Materials) in the pigging residue is needed in order to evaluate whether the pigging operation should be regulated under NYSDEC Part 380 regulations, Disposal of Radioactive Materials.

Response: The purpose of normal pipeline pigging is to clean the inside surface of the pipe. Occasionally, a special type of internal inspection tool known as a smart or instrumented pig is run in the pipeline. The purpose of this type of “smart pig” is to monitor the pipeline’s integrity. The record produced by this type of pig is known as a log and is interpreted by experts to identify possible types of defects or anomalies of the pipeline wall.

Algonquin conducts annual cleaning and regular inspections along segments of its operational pipelines. The pig receivers have a collection basin or trap that catches any liquids and solids that may be removed from the pipe during the pig run. Any liquids or solids removed during these cleanings would be carefully collected in a controlled manner. The liquids or solids are initially handled as hazardous material (whether or not the substances are hazardous) and are disposed of at a licensed facility in accordance with federal and state regulations, including regulations by U.S. Department of Transportation, EPA and NYSDEC. Since the internal cleaning and inspection has been routinely occurring for a number of years, the amount of debris removed is often minimal to none. (see also Responses in Section II. Water Quality)

Comment 78. How will the old pipes and trench materials be tested, handled, removed and transported to ensure that there is no contamination into the air? Removal should be evaluated under NYSDEC Hazardous Waste Management Regulations (6 NYCRR Part 370 Series).

Response: See Responses to Comments 36, 37, & 77 above.

Comment 79. Algonquin has been fined in the past for PCB contamination.

Response: Fire retardant lubricants containing PCBs were first used by pipelines, electric and gas utilities in the late 1950’s. Manufacture and sale of PCBs were banned in the US with the passage of the Toxic Substances Control Act of 1976. Usage was phased out shortly thereafter and the EPA banned the commercial use of PCBs in 1981. Texas Eastern Transmission, LP (a Spectra Energy affiliate) has not used PCB containing lubricants since 1977. Texas Eastern’s fine was part of a 1989 consent decree entered into with the EPA concerning a number of remediation sites along Texas Eastern’s system. The EPA has established PCB rules and regulations (40 CFR 761) for thresholds and specific requirements for monitoring/sampling and disposal of any residual PCBs. Algonquin is downstream from the Texas Eastern system but Algonquin avers that it has never used fire retardant lubricants containing PCBs. Some PCB

New York State Department of Environmental Conservation
Response to Public Comments
Algonquin Incremental Market Project
May 2015

containing liquids may have migrated into the Algonquin system from upstream pipelines. Algonquin's removal of any existing piping or equipment or debris removed from its pipeline system that has been in contact with natural gas, and therefore potentially contaminated with PCBs, would be completed in accordance with the referenced EPA regulations, and other applicable federal and state laws.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

VIII. OTHER COMMENTS: The following comments were filed with NYSDEC but are beyond the jurisdiction of NYSDEC as they relate to issues within the exclusive jurisdiction of FERC or the U.S. Department of Transportation and thus do not relate to the NYSDEC permitting actions. Nonetheless, responses have been provided.

A. SAFETY

Comment 80. The proposed pipeline expansion is close to the Buchanan/Verplanck Elementary School, Entergy transmission lines and St. Patrick’s Church, and Indian Point.

Response: This comment does not relate to the present permitting actions by NYSDEC. Nonetheless, the FEIS examined the potential impacts of the AIM Project to the Buchanan/Verplanck Elementary School, existing transmission lines, St. Patrick’s Church and the Indian Point Energy Center (“IPEC”).

First, Entergy conducted a detailed independent technical review of the proposed AIM Project, including potential impacts on the safe operation of IPEC and important nearby systems and equipment, pursuant to Nuclear Regulatory Commission (“NRC”) requirements and procedures and in coordination with NRC, to ensure that there are no new or increased hazards resulting from the proximity of the AIM Project pipeline to IPEC. Algonquin also agreed to additional pipeline design and installation enhancements for approximately 3,935 feet of the AIM Project pipeline that would lie closest to IPEC.

See FEIS § 4.12.3 at 4-277 to 278. As explained by FERC in the FEIS, NRC issued its findings in a report dated November 7, 2014 confirming the conclusions of Entergy. See also FERC Certificate Order ¶ 107. See also the comment letter filed by Entergy to NYSDEC on February 27, 2015:

“Review of these evaluations was performed by in-house staff supplemented by external personnel familiar with IPEC safety systems and/or pipeline design and installation practices. In addition to Entergy’s internal evaluation of the project, Entergy retained Talisman International, LLC, to perform an independent review of the evaluations from a regulatory perspective. The Talisman team included former NRC senior officials. As a result of its evaluations, Entergy has determined that the construction of the new pipeline along the southern route will not result in any issues affecting the facility’s safe operation.... Finally, Entergy provided both a hazard analysis and a safety evaluation to the NRC for its information. The NRC staff agreed with Entergy’s conclusions.”

The additional design and installation enhancements for construction and operation near the IPEC facility would also apply to the portion of the proposed pipeline located near the Buchanan-Verplanck Elementary School. See FERC Certificate Order ¶ 85 (addressing enhanced measures to the Buchanan-Verplanck Elementary School).

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Algonquin will also design its pipeline and cathodic protection system to ensure there is no interference with or to existing transmission lines, including existing transmission lines controlled by Con Edison or Entergy. Finally, FERC has required Algonquin to implement a construction plan to avoid or mitigate impacts to services held by St. Patrick's Church. See FERC Certificate Order Environmental Condition 23. Thus, all these issues were fully examined by FERC in preparing the FEIS and FERC Certificate Order.

Comment 81. Algonquin's admission in its 10-K that it does not carry adequate insurance coverage for the AIM Project is reason alone to stop the expansion. Taxpayers should not be forced to become the guarantors of a project and left to foot the bill if an explosion or other serious problem arises. Algonquin should have to pay for any citizen that needs medical attention whether or not there was ever a pre-existing health condition because of the great risk the AIM Project poses to residents along the pipeline.

Response: This comment does not relate to the permitting actions by NYSDEC and is not within the Department's jurisdiction, however after reviewing the language in the 10-K statement it does not state that Algonquin does not carry adequate insurance. In fact, the 10-K statement indicates that Algonquin carries insurance coverages either directly or through other captive insurance companies.

Comment 82. The City of Peekskill is concerned because it has not seen an emergency plan from Algonquin.

Response: Algonquin met with Peekskill First Responders on August 18, 2014. Algonquin offers emergency response training with local municipalities and intends to offer additional training prior to operation of the AIM Project pipeline.

Comment 83. Spectra has a history of accidents, with 21 serious accidents involving over 8.5 million dollars in property damage since 2006.

Response: Algonquin indicated that since 1980, there have only been three incidents on the Algonquin Gas Transmission system: (1) November 2012 in Connecticut: a pinhole leak in the circumferential weld of the pipe was discovered and the pipe was replaced; (2) December 1995 in Massachusetts: a third party conducting unauthorized grading struck the pipeline with a dozer equipped with a ripper; and (3) September 1987 in Massachusetts: a contractor struck the pipeline with a front end loader. The incidents resulted in approximately \$420,000 in damage; there were no deaths or injuries. Moreover, there has not been a fatality or serious injury to the public since Algonquin began operating its facilities in the early 1950s.

For the AIM Project, Algonquin has an emergency plan created in accordance with the regulations of the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), the federal agency responsible for administering the national regulatory program to ensure the safe transportation of natural gas, petroleum, and other hazardous materials by pipeline under 49 USC

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Chapter 601. PHMSA's Office of Pipeline Safety ("OPS") develops regulations and other approaches to risk management to ensure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. The OPS is responsible for ensuring that Algonquin's proposed facilities are designed, constructed, and operated in compliance with the safety standards that the agency has established for natural gas pipeline facilities. The AIM Project facilities will meet or exceed these federal safety standards and regulations. See also discussion by FERC on Reliability and Safety of the AIM Project at FEIS § 4.12.

Comment 84. Emergency procedures for the pigging operation have not been provided to the Town of Yorktown.

Response: Algonquin will arrange a meeting with Yorktown First Responders prior to the in-service date of the AIM Project; training of First Responders can include a discussion around pigging operations.

Comment 85. Electromagnetic induction from Indian Point will interfere with cathodic protection and this will induce currents which can accelerate corrosion.

Response: The AIM Project pipeline will be designed to avoid impacts to its cathodic protection systems. Algonquin will design the pipeline to avoid interference with IPEC infrastructure through maximum separation distance, parallel/point mitigation utilizing anodes, potentially controlled impressed current cathodic protection systems and other measures based on sound engineering judgment.

Comment 86. Algonquin has operated the pipeline that runs through the Town of Stony Point for 60 years without incident, which serves as reliable evidence that the AIM Project will be conducted with the same degree of care. The AIM Project will also be built by skilled laborers who take safety very seriously and have the track record to prove it.

Response: Comment noted.

B. PROJECT NEED

Comment 87. New England has some of the highest energy costs in the country, and one of the biggest concerns is that the high cost of electricity is limiting productivity and growth. The importance of a reliable and reasonably priced natural gas supply is critical to our regional economy. We request that NYSDEC consider the importance of bringing a reliable supply of affordable, clean natural gas to the New England regional economy.

Response: Comment noted.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 88. The AIM Project will provide union jobs and will hopefully serve as an example that will lead to renewed economic activity in New York State. The Project will also bring economic benefits to the towns through which it passes.

Response: Comment noted.

Comment 89. The current AIM Project should be denied as proposed. Instead, NYSDEC should approve a smaller pipeline. This would still meet Algonquin's projected need for additional gas and avoid most of the negative impacts currently associated with the current plan.

Response: The size and location of the pipeline is within the exclusive jurisdiction of FERC. As explained in the FEIS, Algonquin has precedent agreements with 10 Project Shippers, including eight local distribution companies and two municipal utilities, for 15-year firm transportation service agreements subscribing the entire 342,000 dekatherms per day of service that will be created by the AIM Project. These service commitments constitute strong evidence that there is market demand for the project,¹² and FERC conditions construction clearance on Algonquin executing final contracts for service at the levels provided for in its precedent agreements.

Comment 90. New York State needs to start promoting more alternative energy.

Response: Comment noted. In the FEIS, FERC addressed renewable alternatives to the AIM Project including wind, hydropower, biomass, solar, and tidal and wave energy. FEIS § 3.2.2 at pages 3-4 to 3-9. The FEIS provided a discussion of the availability of each of these alternatives in the Project area and determined that renewable energy alternatives would not replace the need for the AIM Project; and since the AIM Project is intended to provide additional natural gas supply to New England, increased alternative energy in New York would not replace that need.

It is worth noting, however, that New York State is investing in a number of renewable energy initiatives. For example, the Power Systems Program under the New York State Energy Research and Development Authority ("NYSERDA") emphasizes advances in renewable generation such as wind, solar, hydro and waste heat recovery. The Cleaner, Greener Communities Program, also under NYSERDA, encourages communities to create public and private partnerships to develop regional sustainable growth strategies. Additionally, Governor Cuomo has committed \$5 billion over 10 years to the Clean Energy Fund to support New York State's clean energy market development programs, which includes the NY-Sun Initiative program and the NY Green Bank. Lastly, the New York State Department of Public Service commenced its Reforming the Energy Vision initiative to create regulatory changes that promote more efficient energy use, deeper penetration of renewable energy resources, and wider development of distributed energy sources (e.g., micro grids, on-site power supplies, and storage).

¹² Certificate Policy Statement, 88 FERC at 61,748.

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

Comment 91. Property value will decrease as a result of the project.

Response: As stated in the FEIS issued by FERC, landowners typically have the following concerns regarding potential impacts on property values: devaluation of property if encumbered by a pipeline easement; being the responsible party for property taxes within a pipeline easement; paying potential landowner insurance premiums for Project-related effects; and negative economic effects resulting from changes in land use. As described in FEIS § 4.8.2,

Algonquin would acquire easements for both the temporary (construction) and permanent rights-of-way where applicable. With the exception of the southern Hudson River route, most of the remaining pipeline segments would be installed within Algonquin's existing right-of-way. Algonquin would compensate the landowners for any new easements, the temporary loss of land use, and any damages. In addition, affected landowners who believe that their property values have been negatively impacted could appeal to the local tax agency for reappraisal and potential reduction of taxes.

A report by Allen, Williford & Seale, Inc., prepared in 2001 for the Interstate Natural Gas Association of America Foundation, Inc., evaluated the impact of natural gas pipelines on real estate in four separate and geographically diverse areas, including two suburban areas and two rural areas crossed by one to multiple natural gas pipelines. The study concluded that there was no significant impact on property sales located along natural gas pipelines nor by the pipeline size or the product carried. Other studies have reached similar conclusions: e.g. PGP Valuation Inc. (2008) for Palomar Gas Transmission Inc.; Ecowest (Fruits, 2008) for the Oregon LNG Project; Diskin, Friedman, Peppas, and Peppas (2011); and Hansen et al. (2006). The AIM Project is not likely to negatively impact property values outside of the pipeline rights-of-way or aboveground facility boundaries, once construction is completed.

Regarding the potential for insurance premium adjustments associated with pipeline proximity, insurance advisors consulted on other natural gas projects reviewed by FERC indicated that pipeline infrastructure does not affect homeowner insurance rates (FERC, 2008). Similarly, regarding the potential impacts on mortgage rates associated with pipeline proximity, FERC stated that it was not aware of any practice by mortgage companies to re-categorize properties or of federally-insured mortgages being revoked based on proximity to pipelines.

Comment 92. The purpose of the AIM Project is not to provide New York residents with energy, it is to sell gas to Canada and abroad.

Response: As explained in the FEIS, the purpose of AIM Project does not include the export of natural gas. See FEIS § 1.1 at 1-3. See also FERC Certificate Order ¶ 24 (explaining that FERC has no jurisdiction over the exportation of natural gas).

New York State Department of Environmental Conservation

Response to Public Comments

Algonquin Incremental Market Project

May 2015

C. SEGMENTATION

Comment 93. Algonquin announced its plans for the Atlantic Bridge and Access Northeast projects right after the close of the public comment period for the AIM Project. This is a clear case of segmentation.

Response: This comment relates to the environmental review of the AIM Project that FERC conducted under NEPA and does not relate to the permitting actions by NYSDEC. This issue was addressed by FERC in the FEIS and FERC Certificate Order.

In its review of the AIM Project, FERC determined that, since the Atlantic Bridge Project and Access Northeast Project are not “fully defined ‘proposals’” pursuant to NEPA, there has been no segmentation of environmental review. FERC Certificate Order ¶ 108. FERC further explained in the FEIS that the AIM Project has independent utility and will proceed irrespective of whether the Atlantic Bridge Project, the Access Northeast Project, or any other future system modifications, should occur. See FEIS § 1.2 at page 1-5. Therefore, FERC concluded that the proper scope of the FEIS for the AIM Project is limited to that action. For a more thorough discussion of this issue, see the response to this comment provided by FERC in FERC Certificate Order ¶¶ 108 to 111.

Comment 94. Algonquin has not addressed the cumulative impacts from the Atlantic Bridge Project which proposes to disturb another eight miles of the Croton Watershed and Hunters Brook. New information shows that the Atlantic Bridge Project has gone beyond the planning stages.

Response: This comment relates to the environmental review of the AIM Project that FERC conducted under NEPA and does not relate to the permitting actions by NYSDEC. This issue was addressed by FERC in the FEIS and FERC Certificate Order. (see Response to Comment 93)