



March 14, 2018

Ona Papageorgiou  
NYS Dept of Environmental Conservation  
625 Broadway  
Albany, NY 12233-3251

Commissioner Basil Seggos  
NYS Dept of Environmental Conservation  
625 Broadway  
Albany, NY 12233-1011

**RE: DEC Regulations for Oil and Gas Sector Emissions, 6 NYCRR Part 203**

Dear Ms. Papageorgiou and Commissioner Seggos,

We are pleased to learn that the Department of Environmental Conservation (DEC) is planning to update and improve its regulations on emissions from the oil and gas sector. This is necessary to protect public health, safety, and the environment. It is also critical to ensure that the state exercises its full authority to limit air pollution and greenhouse gas emissions—including methane leakage—as it increases investments in renewable energy. To that end, we fully support the enclosed set of recommendations submitted to you on February 27, 2018 by the non-profit organization, SAPE. In our view, such regulations could have benefited residents impacted by Dominion's New Market Project, which was commented on by our organization and permitted by the DEC a year ago.

It is commonly known that many of New York's regulations fall far short of those in other states. Today's rules also do not reflect significant advancements in emission control technology and monitoring that have occurred in recent decades. We call upon the DEC to hold industry to the strongest possible standards by requiring state-of-the-art emission control technology, continuous air quality monitoring, and a robust program of reporting and inspection. In particular, we wish to emphasize the value of technology-based regulatory requirements. For example, catalytic converters have been a required emission control on every automobile sold in the United States since the 1970's. Similarly, the use oxidation catalysts should be a required emission control on the exhaust stacks of compressor stations and other natural gas combustion facilities, providing a necessary floor of protection regardless of the facility. Requirements pertaining to the use of selective catalytic reduction, vapor recovery, and other technology features to reduce greenhouse gas emissions and maximize protection of air quality should be incorporated into DEC's revised regulations as well.

Thank you for this opportunity to comment.

Sincerely,

Handwritten signature of Nicole A. Dillingham in black ink.

Nicole A. Dillingham, Esq.  
President, Otsego 2000  
Board of Directors

Handwritten signature of Keith W. Schue in black ink.

Keith W. Schue  
Technical advisor, Otsego 2000  
Environmental Stewardship Committee

cc: The Honorable Governor Andrew M. Cuomo  
DEC Deputy Commissioner Jared Snyder  
DOH Commissioner Howard Zucker



## **STOP THE ALGONQUIN PIPELINE EXPANSION!**

www.sape2016.org

February 27, 2018

Dear Ms. Papageorgiou and Commissioner Seggos,

We strongly urge the NYS Department of Environmental Conservation (DEC) to include the following recommendations in its revision of state oil and gas regulations and to work with the NYS Department of Health (DOH) accordingly.

### **Current situation:**

The people and environment of New York have been increasingly subjected to a build-out of natural gas infrastructure, including but not limited to pipelines and distribution networks, compressor stations, power plants, combustion heating systems, metering and regulation stations, and pigging stations.

Peer-reviewed scientific studies<sup>1 2</sup> link exposure between air pollutants emitted from natural gas infrastructure facilities and neurological, cardiovascular and respiratory disease, cancer, birth defects, and other adverse health impacts. Acute health impacts from these toxic exposures can cause burning eyes, headaches, breathing difficulty and nausea for nearby populations and can exacerbate health problems. Chronic health impacts can include certain types of cancer as well as damage to lungs, liver, kidneys, reproductive, nervous and cardiovascular systems.

The American Medical Association and the Medical Society of the State of New York acknowledge the hazards of natural gas infrastructure and associated adverse health impacts and passed resolutions in 2015 calling for Health Impact Assessments (HIAs).

The National Ambient Air Quality Standards (NAAQS) are based on average population risks across a large area over a long period of time but do not adequately address human toxicity for residents living in close proximity to natural gas infrastructure or where they are subject to episodic high exposures during events such as blowdowns.

Current protocols used for assessing compliance with ambient air quality standards do not adequately determine intensity, frequency or durations of actual human exposures to pollutants and mixtures of pollutants emitted from natural gas infrastructure, noting that periodic 24-hour average measures can underestimate actual exposures by an order of magnitude.

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<sup>1</sup> PSR/CHPNY Compendium 4th Edition (Nov, 2016): [http://concernedhealthny.org/wp-content/uploads/2016/12/COMPENDIUM-4.0\\_FINAL\\_11\\_16\\_16Corrected.pdf](http://concernedhealthny.org/wp-content/uploads/2016/12/COMPENDIUM-4.0_FINAL_11_16_16Corrected.pdf)

<sup>2</sup> PSE for Healthy Energy Repository for Oil and Gas Energy Research: <https://www.psehealthyenergy.org/our-work/shale-gas-research-library/>

Gas infrastructure facilities can emit into the air annually hundreds of tons of pollutants including toxic chemicals and criteria pollutants, some of which are known carcinogens like benzene and formaldehyde, and can also be sources of radioactive contamination.<sup>3</sup>

People who live or work in close proximity to natural gas infrastructure facilities such as compressor stations are most at risk—particularly developing fetuses, children, the elderly, and those with cardiovascular, lung or respiratory problems and other vulnerable subpopulations, although under certain weather and terrain conditions, these pollutants can have a wider impact.

Developing fetuses and children are uniquely vulnerable to exposures as they receive proportionally greater doses of pollutants than adults and have immature organs and detoxification systems.<sup>4</sup>

Methane is an extremely potent greenhouse gas with a global warming potential that is 34 times that of carbon dioxide over a 100-year timeframe and 86 times that of carbon dioxide over a 20-year timeframe.

Methane is the primary ingredient of natural gas and leaks at every system stage, including extraction, processing, transmission, distribution, and end-use consumption.

The DEC regulations do not currently require Best Available Control Technology (BACT) or Lowest Achievable Emissions Rate (LAER) technology for facilities that are not designated under federal Title V requirements or are not located within non-attainment areas, although such requirements could substantially reduce hazardous air emissions.

The DEC does not require the use of emission control technologies for all gas infrastructure facilities that would provide a floor of protection and could significantly reduce emissions, even when such technology has become standard practice within the industry or is readily available.

The DEC does not require continuous monitoring of pollutants or methane in real time for gas infrastructure facilities, even though the technology to do so is now readily available, nor does DEC require that such data be made available to public.

The DEC determines compliance with regulatory requirements and permit conditions through self-reporting by the industry without independent verification.

The DEC does not require rigorous inspection of gas infrastructure facilities to detect and eliminate natural gas leakage at gas infrastructure facilities.

The DEC lacks requirements for advanced notification of all planned blowdowns or other chemical releases, and for notification immediately following all unplanned blowdowns or other chemical releases in order for residents, public officials and first responders to take prompt emergency action.

The DEC exempts many emission sources that exist at gas infrastructure sites from regulation requirements and lacks adequate regulatory requirements for non-combustion emission sources.

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<sup>3</sup> Environmental Health Project Report, October 2017: Health Effects Associated with Stack Chemical Emissions from NYS Compressor Stations: 2008-2014: <http://www.environmentalhealthproject-ny.org/>

<sup>4</sup> Reducing the staggering costs of environmental disease in children, estimated at \$76.6 billion in 2008, Trasande, L, et al, Health Affairs, May 2011: <https://www.ncbi.nlm.nih.gov/pubmed/21543421>

The DEC does not require a sufficiently protective set of best management practices for gas infrastructure facilities to ensure protection of public health, safety, and the environment.

The DEC does not require the timely replacement or retrofit of technology and the update of site practices for existing gas infrastructure facilities to ensure appropriate consistency with requirements for new projects and adherence to current best management practices.

The U.S. Environmental Protection Agency hosts a voluntary Natural Gas Star program for partner companies to implement technologies and practices for the reduction of methane emissions and document results.

The DEC's State Environmental Quality Review (SEQR) process for gas infrastructure projects does not adequately address greenhouse gases and climate impacts.

The DEC has announced that it intends to rewrite or revise oil and gas regulations, which can be more stringent than federal requirements.

### **Recommendations:**

In the interest of protecting public health, safety and the environment for all New Yorkers, we strongly urge the DEC to adopt the following regulatory requirements:

1. Installation and use of Lowest Achievable Emissions Rate (LAER) technology at all new and existing gas infrastructure facilities that emit pollutants into the environment, including those not designated under federal Title V requirements or not located within non-attainment areas;
2. Inclusion of non-combustion emission sources and emission sources currently considered "exempt" within the DEC regulatory framework;
3. Installation and use of specific emission control technology, identified through the federal National Gas Star Program and elsewhere, including but not limited to:
  - Dry seals on all centrifugal compressors
  - Automatic air to fuel ratio (AFR) controls
  - Oxidation catalysts and selective catalytic reduction (SCR) on exhaust stacks
  - Vapor recovery technology for reciprocating compressors, storage tanks, and other sources of fugitive or vented emissions
  - Static seals on reciprocating compressor rods
  - Dry low-NOx burners (DLNB)
  - Low emission combustion (LEC)
  - SCONOx or equivalent technology
  - Zero-emission dehydrators and similar closed-system technology to avoid venting of gas
  - Electric or compressed air starters
  - Electric or compressed air actuators instead of gas-operated pneumatic actuators
  - Post-combustion particulate matter controls such as electrostatic precipitators, baghouses, and scrubbers
  - Interior and exterior corrosion protection, such as plastic enamel sprays
  - Electric motor compressors where applicable;
4. Implementation of practices, identified through the National Gas Star program and elsewhere, to reduce natural gas leakage and blowdowns, including but not limited to maintaining compressors at pipeline pressure, redirecting blowdown gas to lower-pressure

lines, cap testing, use of inert gases at pigging stations, and more aggressive maintenance of packing rings and compressor rods than required by existing regulations;

5. Installation and use of equipment at the stack, fence line, and within nearby communities to provide continuous monitoring of pollutants including toxic chemicals, criteria pollutants, ultra-fine particulate matter, individual VOCs, as well as methane in real time for all gas infrastructure facilities, with such data made readily available to the public, such as by online access;
6. Onsite verification of compliance with regulatory requirements and permit conditions by independent registered inspectors through scheduled and random visits;
7. Rigorous quarterly inspection by independent registered personnel with regular reports submitted to the DEC and made available to the public to detect and ensure timely elimination of natural gas leaks at gas infrastructure facilities using the comprehensive detection methods such as aerial and ground-level laser methane assessment, organic vapor analyzers (OVAs), toxic vapor analyzers (TVAs), sorbent tubes, SUMMA canisters, infrared cameras, as well as real-time monitoring with Fourier Transform Infrared (FTIR) spectroscopy and other remote sensing along pipelines;
8. 48-hour or greater advanced notification of all planned blowdowns, regardless of size, and other chemical releases; notification within 30 minutes of all unplanned blowdowns, regardless of size, and other chemical releases at all gas infrastructure facilities; and suspension of planned blowdowns or other chemical releases when weather conditions would increase exposure to air pollutants;
9. Timely replacement or retrofit of technology and update of site practices for existing gas infrastructure facilities to ensure compliance with current regulatory requirements and best management practices;
10. Chain of custody records and tracking for all industrial waste removed from gas infrastructure facilities;
11. Strict enforcement of all best management practices and protocols for gas infrastructure facilities to ensure protection of public health, safety, and the environment.

Additionally, it is critical for the health and safety of New Yorkers that the DEC and the DOH take the following steps:

The DEC, in cooperation with the DOH, promulgate more stringent performance requirements, including but not limited to the regulated levels of criteria pollutants, to address deficiencies in NAAQS which fail to consider human toxicity in populations proximate to gas infrastructure facilities, and any other deficiencies affecting public health, safety, or environmental protection.

The DOH in cooperation with the DEC require and oversee a comprehensive, independent Health Impact Assessment (HIA) as outlined by the Centers for Disease Control and the National Academy of Sciences, incorporating the latest peer reviewed science, to be conducted by an independent public health entity and include cumulative short and long-term, direct and indirect impacts from all natural gas infrastructure components, emissions from operations including blowdowns, leaks, and spills, and a thorough analysis of the chemical emissions and radioactive contaminants, as well as their concentrations, persistence, and dispersion; and that a health registry should be established and maintained with all data available to the public.

The DEC develop State Environmental Quality Review (SEQR) guidance to ensure that state agencies adequately address all cumulative impacts including but not limited to greenhouse gases and climate change during environmental reviews for gas infrastructure projects.

Protecting public health, reducing harm caused by gas infrastructure, and tackling climate change which is now upon us requires strong, comprehensive, and immediate action. Our health and welfare depend on your full adoption of these recommendations.

Sincerely,

SAPE Co-founders:

Paula Clair

Suzannah Glidden

Susan McDonnell

Jerry Ravnitzky

Marian Rose

Amy Rosmarin

Susan Van Dolsen

Ellen Weininger

cc: Governor Andrew Cuomo

Commissioner Howard Zucker

Chairman John Rhodes

Deputy Commissioner Jared Snyder

Robert Sliwinski

Michael Higgins

John Barnes

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