

**RESOLUTION REGARDING THE CONTENT OF AIR EMISSIONS REGULATIONS TO
BE DEVELOPED BY THE _____ (name of state air emissions regulatory agency)
AFFECTING NATURAL GAS INFRASTRUCTURE FACILITIES**

Whereas, the _____ (Village Trustees/Town Board/City Council/County Legislature) has a principal responsibility to protect the health and safety of its residents, businesses and institutions; and

Whereas, the people and environment of _____ (name of state) 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; and

Whereas, peer-reviewed scientific studies^{1,2} 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; and

Whereas, 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); and

Whereas, 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; and

Whereas, 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; and

Whereas, 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

¹ PSR/CHPNY Compendium 5th Edition (March 2018): http://concernedhealthny.org/wp-content/uploads/2018/03/Fracking_Science_Compndium_5FINAL.pdf

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

carcinogens like benzene and formaldehyde, and can also be sources of radioactive contamination³; and

Whereas, 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; and

Whereas, 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 systems⁴; and

Whereas, 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; and

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

Whereas, the _____ (name of state air emissions regulatory agency) 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; and

Whereas, the _____ (name of state air emissions regulatory agency) 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; and

Whereas, the _____ (name of state air emissions regulatory agency) does not require continuous air 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 the _____ (name of state air emissions regulatory agency) require that such data be made available to public; and

Whereas, the _____ (name of state air emissions regulatory agency) determines compliance with regulatory requirements and permit conditions through self-reporting by the industry without independent verification; and

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

⁴ 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>

Whereas, the _____ (name of state air emissions regulatory agency) does not require rigorous inspection of gas infrastructure facilities to detect and eliminate natural gas leakage at gas infrastructure facilities; and

Whereas, the _____ (name of state air emissions regulatory agency) 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; and

Whereas, the _____ (name of state air emissions regulatory agency) exempts many emission sources that exist at gas infrastructure sites from regulation requirements and lacks adequate regulatory requirements for non-combustion emission sources; and

Whereas, the _____ (name of state air emissions regulatory agency) 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; and

Whereas, the _____ (name of state air emissions regulatory agency) 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; and

Whereas, 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; and

Whereas, the _____ (name of state air emissions regulatory agency) process for gas infrastructure projects does not adequately address greenhouse gases and climate impacts; and

Whereas, the _____ (name of state air emissions regulatory agency) can rewrite or revise oil and gas regulations, which can be more stringent than federal requirements;

Therefore, be it resolved that the _____ (Village Trustees/Town Board/City Council/County Legislature), in the interest of protecting its residents, businesses and institutions, strongly urges the _____ (name of state air emissions regulatory agency) 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 _____ (name of state air emissions regulatory agency) regulatory framework; and

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; and
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; and
5. Installation and use of air monitoring 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; and
6. Onsite verification of compliance with regulatory requirements and permit conditions by independent registered inspectors through scheduled and random visits; and
7. Rigorous quarterly inspection by independent registered personnel with regular reports submitted to the _____ (name of state air emissions regulatory agency) 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; and

8. 48-hour or greater advanced notification to any Village Trustees/Town Board/City Council/County Legislature requesting it 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; and
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; and
10. Chain of custody records and tracking for all industrial waste removed from gas infrastructure facilities, and
11. Strict enforcement of all best management practices and protocols for gas infrastructure facilities to ensure protection of public health, safety, and the environment; and

Be it further resolved, that the _____ (name of state air emissions regulatory agency), in cooperation with the _____ (name of state) Department of Health (DOH), should 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; and

Be it further resolved, that the DOH in cooperation with the _____ (name of state air emissions regulatory agency) should 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; and

Be it further resolved, that the _____ (name of state air emissions regulatory agency) should develop 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; and

Be it further resolved, that the _____ (Village Trustees/Town Board/City Council/County Legislature) Clerk shall forward this Resolution to the Governor of _____ (name of state), Commissioner of the _____ (name of state air emissions regulatory agency), Commissioner of the _____ (name of state) Department of Health, and the local State Legislators.