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Attention Docket ID No. EPA-HQ-OAR-2010-0505

Subject: Oil and Natural Gas Sector: Emission Standards for New and

**Modified Sources** 

### Introduction

The National Tribal Air Association (NTAA) is pleased to submit these comments and recommendations regarding the U.S. Environmental Protection Agency's (EPA)'s proposed Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, 80 Fed. Reg. 56593 (September 18, 2015) (Proposed Rule).

The NTAA is a member-based organization with 97 principal member Tribes. The organization's mission is to advance air quality management policies and programs, consistent with the needs, interests, and unique legal status of Indian Tribes. As such, the NTAA uses its resources to support the efforts of all federally recognized Tribes in protecting and improving the air quality within their respective jurisdictions. Although the organization always seeks to represent consensus perspectives on any given issue, it is important to note that the views expressed by the NTAA may not be agreed upon by all Tribes. Further, it is also important that EPA understands interactions with the organization do not substitute for government-to-government consultation, which can only be achieved through direct communication between the federal government and Indian Tribes.

The NTAA approves generally of the Proposed Rule and provides recommendations for outstanding issues NTAA has identified in the Proposed Rule. The oil and natural gas industry is causing millions of tons of methane, volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) to be emitted into the air that are harming human health and the environment, and speeding up climate change. The oil and natural gas industry must be held accountable for these emissions. The Proposed Rule creates this accountability and helps to move the

Obama Administration closer to its goal of reducing oil and natural gas sector methane emissions 40-45% below 2012 levels by 2025.<sup>1</sup>

Nevertheless, the NTAA provides its comments and recommendations concerning the Proposed Rule with respect to the health and environmental impacts caused by emissions at oil and natural gas facilities; the need to cover existing oil and natural gas facilities under the Proposed Rule; the need to cover additional equipment under the Proposed Rule; the performance of initial surveys for fugitive emissions from oil and natural gas facilities; the flaring of methane emissions by oil and natural gas facilities; information collection and sharing by oil and natural gas facilities; and Tribal consultation. However, the NTAA prefaces its comments and recommendations by advising EPA about what climate change means to Indian Tribes, understanding the methane plays a significant role in such change.

### **Indian Tribes and Climate Change**

### General

The oil and natural gas industry is one of the largest emitters of methane, a greenhouse gas with a global warming potential more than 25 times greater than that of carbon dioxide.<sup>2</sup> Methane pollution threatens public welfare in a number of ways by contributing to long-lasting changes in our climate that can have a range of negative effects on human health and the environment. The impacts vary regionally and seasonally and may include longer, more intense and more frequent heat waves; more intense precipitation events and storm surges; and less precipitation and more prolonged drought. The negative health effects associated with climate change are especially damaging for vulnerable populations including the elderly, young children, and those individuals already in poor health.

Indian Tribes are not immune from the effects of climate change. Like the rest of the nation, its populations are suffering from the health effects of climate change. Further, Tribes are seeing the effects of climate change through increased storm surges, erosion, and flooding; prolonged droughts never seen in modern times; and increased fires and insect pest outbreaks in their forests. These are just a few snapshots of what is happening on and around the lands of this nation's 567 federally recognized Tribes.

Indian Tribes are also affected much differently than the rest of the nation as their cultures are integrated into the ecosystems of North America; and many Tribal economies are heavily dependent on the use of fish, wildlife, and native plants. Even where Tribal economies are integrated into the national economy, Tribal cultural identities continue to be deeply rooted in the natural environment. As climate change disrupts biological communities, the survival of some Tribes as distinct cultures may be at risk. The loss of traditional cultural practices, due to climate-driven die-off or range shift of culturally significant plant and animal species, may prove

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<sup>&</sup>lt;sup>1</sup> "FACT SHEET: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions" at <a href="https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1">https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1</a> (last visited October 30, 2015).

<sup>&</sup>lt;sup>2</sup> Proposed Rule at 56599.

to be too much for some Tribal cultures to withstand on top of other external pressures that they face.

Climate-driven disruption of biological communities is also having a considerable effect on the treaty rights of Indian Tribes. Many such treaties preserve hunting, fishing, and gathering rights for Tribes on their lands and in the usual and accustomed areas. Some Tribes are finding that the animals and/or plants on which they depend for their cultural practices and identity have either migrated to lands not under their control or have disappeared altogether. How does one begin to value this type of loss for a Tribe? Further, methane emitted today can remain in the atmosphere up to 12 years,<sup>3</sup> meaning that the full impacts of these emissions on Tribes and their culture may not be seen for many years into the future.

# Regional

In May 2014, the NTAA released the Status of Tribal Air Report<sup>4</sup> that highlights regional impacts from climate change:

Alaska: There is coastal erosion; melting permafrost threatens civil infrastructure in remote villages as well as food security as underground food cellars thaw; and Alaska Native Villages are unique because they face firsthand the effects of climate change, which has already resulted in the relocation of several villages away from eroding coastlines. A 2003 U.S. General Accountability Office study identified more than 200 Alaska Native Villages affected to some degree by flooding and erosion and 31 villages facing imminent threats that are compelling them to consider permanent relocation. The U.S. Army Corps of Engineers' March 2009 Alaska Baseline Erosion Assessment identified many villages threatened by erosion, but did not assess flooding impacts. At least 12 of the 31 threatened villages have decided to relocate—in part or entirely—or to explore relocation options (GAO, 2009).

<u>Northwest</u>: Changes in hydrology and water chemistry impact fisheries resources and shellfish (ocean acidification); and storm surges threaten coastal areas and Tribal lands along the coasts, which may result in the possible relocation of Tribes.

<u>Southwest</u>: Increased aridity threatens vegetation that is critical for stabilizing sediments which can lead to greater more severe and frequent dust storms and dune mobilization. Higher temperatures and increased droughts will lead to more intense forest fires and reduced grazing potential.

<u>Plains</u>: There are spreads of pests that previously could not survive cooler climates, potential increases in weed species due to more carbon dioxide in the atmosphere, higher temperatures, and changes in precipitation and decreases in soil moisture and water availability. The region's main water supply, the Ogallala Aquifer, is also threatened. Without alternative resources and better water management practices, projected temperature increases, more frequent droughts, and higher rates of evaporation are likely to further stress the water supply.

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<sup>&</sup>lt;sup>3</sup> *Id.* at 56598.

<sup>&</sup>lt;sup>4</sup> http://www7.nau.edu/itep/main/ntaa/docs/resources/NTAA 2015StatusTribalAirReport.pdf

Great Lakes: Heat waves are becoming more frequent, cold periods are becoming more rare, and snow and ice are arriving later in the fall and melting earlier in the spring. Ticks and mosquitoes will survive in greater numbers as winters become milder and will increase the risks of spreading diseases such as Lyme disease and West Nile virus.

<u>Gulf Coast</u>: Projected sea level rise, increased hurricane intensity, and associated storm surges may lead to further erosion, flooding, and property damage in the Southeast.

Northeast: Projected increases in heavy precipitation and likely sea level rise may lead to more frequent, damaging floods in this region. Large portions of the region may become unsuitable for growing some fruit varieties and some crops, such as cranberries, apples, blueberries, grain, and soybeans. Similarly, by the end of the century, only a small portion of the Northeast may be suitable for maple syrup production. In contrast, the region could see a longer growing season for a number of other crops, which would provide potential benefits to society.

NTAA recognizes that the Proposed Rule is a positive action towards reducing uncontrolled methane emissions in order to protect Indian Tribes and their cultures from climate change impacts, not only for current generations, but also for future generations to come.

### **Health and Environmental Impacts**

The NTAA is deeply concerned about the HAPs, methane, and VOCs emitted throughout the oil and natural gas development cycle. HAPs, such as benzene, toluene, ethylbenzene, xylenes, and n-hexane, are linked to numerous human health hazards including cancer, reproductive, developmental, and neurological damage. Further, methane and VOCs are precursors to ground-level ozone which can cause a number of harmful health and environmental impacts.

#### **Health Impacts**

Exposure to ground-level ozone can harm the human respiratory system (the upper airways and lungs), aggravate asthma and other lung diseases, and cause premature death from respiratory and cardiovascular causes.<sup>5</sup> Such effects can lead to increased visits to doctors, hospital admissions, school absences; and may increase the risk of premature death from heart or lung disease.<sup>6</sup>

Indian Tribes and their members are disproportionately susceptible to the health effects of ground-level ozone. Exposure to ground-level ozone can adversely affect Tribal community members including children, Tribal elders, members with asthma, and others who gather and use plants of cultural significance. Several studies show that Native Americans and Alaska Natives have a disproportionate incidence of asthma and are at risk from exposure to ozone.

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<sup>&</sup>lt;sup>5</sup> *Id*.

<sup>&</sup>lt;sup>6</sup> "Ground-Level Ozone: Health Effects" at <a href="http://www3.epa.gov/ozonepollution/health.html">http://www3.epa.gov/ozonepollution/health.html</a> (last visited October 30, 2015).

Specifically, American Indian and Alaska Native children are 80 percent more likely to have asthma as non-Hispanic white children.<sup>7</sup>

## **Environmental Impacts**

Ground-level ozone has also been shown to adversely impact the environment, which includes impacts on vegetation, ecosystems, and their associated services. Ground-level ozone causes visible foliar injury to plants and trees, decreased photosynthesis, changes in reproduction, and loss in forest growth and in the biomass of trees. Further, ground-level ozone can make sensitive species more susceptible to certain diseases, insects, competition, harsh weather, and other pollutants, which, in turn, can have adverse impacts to ecosystems such as changes to habit quality and water and nutrient cycles, and loss of species diversity. Some of these species can also include those on which Indian Tribes depend for subsistence, medicine, or other traditional practices that have existed since time immemorial.

The NTAA supports the Proposed Rule for the health and environmental benefits that it will provide based on an expected reduction in ground-level ozone, the result of methane and VOC emission reductions from oil and natural gas facilities.

### **Coverage of Existing Oil and Natural Gas Facilities**

The Proposed Rule does much to reduce significantly the emissions of methane and VOCs from new and modified oil and natural gas facilities which, in turn, shall have positive health and environmental impacts to Indian Country and Alaska Native Villages. However, if the Obama Administration expects to meet its goal of reducing oil and natural gas sector methane emissions 40-45% below 2012 levels by 2025, 10 and if Indian Country and Alaska Native Villages are to be wholly protected from the harmful impacts of methane emissions from oil and natural gas facilities, the Propose Rule must also address methane emissions from existing facilities.

Existing oil and natural gas facilities are emitting methane at significant amounts with 73 million metric tons of carbon dioxide equivalent<sup>11</sup> emitted in 2014.<sup>12</sup> While some oil and natural gas companies, working through the Natural Gas STAR Program,<sup>13</sup> have taken steps to adopt best practices to reduce methane emissions for existing facilities, less than one percent of these

<sup>&</sup>lt;sup>7</sup> "Asthma and American Indians/Alaska Native: Asthma" at <a href="http://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlID=30">http://www.minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlID=30</a> (last visited October 31, 2015).

<sup>&</sup>lt;sup>8</sup> "Ground-Level Ozone: Ecosystem Effects" at <a href="http://www3.epa.gov/ozonepollution/ecosystem.html">http://www3.epa.gov/ozonepollution/ecosystem.html</a> (last visited October 30, 2015). Visible foliar injury is a visible bioindicator of ozone exposure in plant species, with the injury affecting the physical appearance of the plant.

<sup>9</sup> Id

<sup>&</sup>lt;sup>10</sup> "FACT SHEET: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions" at <a href="https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1">https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1</a> (last visited October 30, 2015).

<sup>&</sup>lt;sup>11</sup> Carbon dioxide (CO2) equivalent signifies the amount of CO2 having the equivalent global warming impact.

<sup>&</sup>lt;sup>12</sup> "Oil and Gas: Methane emissions fall for 3rd consecutive year," Pamela King, <u>Energywire</u>, at http://www.eenews.net/stories/1060025987 (last visited October 30, 2015).

<sup>&</sup>lt;sup>13</sup> The Natural Gas STAR Program is a voluntary partnership that encourages oil and natural gas companies to adopt cost-effective practices that improve operational efficiency and reduce methane emissions.

companies have joined the program.<sup>14</sup> Existing oil and natural gas facilities will continue to emit methane to the detriment of Indian Country and Alaska Native Villages, and do overwhelming harm to our planet, until EPA takes affirmative action to regulate such facilities as it has done for new and modified oil and natural gas facilities under the Proposed Rule.

The NTAA recommends that the Proposed Rule be expanded to cover existing oil and natural gas facilities, and in the alternative, EPA should propose swiftly a separate rule that covers such facilities.

## **Coverage of Additional Equipment**

The Proposed Rule omits from coverage under the Proposed Rule several key pieces of equipment. Such equipment includes reciprocating compressors at well sites; liquids unload operations; pneumatic controllers that operate on an intermittent or snap-acting basis; and storage vessels, covered only under existing VOC regulatory standards. Each of these pieces of equipment emits methane to varying degrees, and in the aggregate, could have significant impacts to the health and environments of Tribal communities.

The NTAA finds it more appropriate, and recommends specifically, that emissions standards be established under the Proposed Rule for each of the pieces of equipment identified herein in order to maximize the reduction of VOC and methane emissions from new and modified oil and natural gas facilities (and existing facilities if the Proposed Rule is modified to include them as well).

# **Performance of Initial Surveys for Fugitive Emissions**

The Proposed Rule provides that an initial survey of fugitive emissions components (*e.g.*, closed vent systems, connectors, open-ended lines, pressure relief devices, thief hatches on tanks, and valves) for a well site or compression station would need to be conducted within 30 days of the site's or station's startup or modification.<sup>15</sup>

The NTAA finds, as too long, the time allowed to conduct an initial survey, particularly since a primary purpose of the Proposed Rule is to limit the amount of fugitive emissions of methane and VOCs released by oil and natural gas facilities into the atmosphere. The Clean Air Act requires industrial facilities to implement a leak detection and repair programs to control fugitive emissions of VOCs. When repairs to such facilities have occurred, EPA has historically allowed owners and operators to resurvey the repairs within 15 days of their completion to ensure that the repairs have been successful; EPA has found the timeframe to be sufficient. <sup>17</sup>

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<sup>&</sup>lt;sup>14</sup> "Four Things to Look for in EPA's New Voluntary Methane Reduction Proposal" at <a href="http://blogs.edf.org/energyexchange/2015/07/20/four-things-to-look-for-in-epas-new-voluntary-methane-reduction-proposal/">http://blogs.edf.org/energyexchange/2015/07/20/four-things-to-look-for-in-epas-new-voluntary-methane-reduction-proposal/</a> (last visited October 30, 2015).

<sup>&</sup>lt;sup>15</sup> *Id.* at 56612-56613.

<sup>&</sup>lt;sup>16</sup> 40 C.F.R. Part 60 Subpart GGG.

<sup>&</sup>lt;sup>17</sup> *Id.* at 56612-56613.

The NTAA recommends that the Proposed Rule require an owner or operator of a well site or compressor station to conduct an initial survey of fugitive emission components within 15 days of the site's or station's startup or modification.

## **Flaring of Methane Emissions**

The Proposed Rule does little to affect the flaring of methane and VOC emissions. The NTAA understands that the flaring of natural gas, which contains both methane and VOCs, is a common practice in oil and gas exploration, production, and processing operations. <sup>18</sup> However, it wastes natural gas, causes noise pollution based on the volume and velocity of gases going through flare stacks, <sup>19</sup> and contributes to air pollution. Yet, practical options exist to use this natural gas effectively. The natural gas could be used onsite for energy generation; converted into more useful liquids such as methanol; or transported from oil and natural gas facilities via pipelines or fuel trucks.

The NTAA recommends that the Proposed Rule require the owners and operators of oil and natural gas facilities to pursue the aforementioned options as an alternative to flaring, and when circumstances exist that make flaring unavoidable, require owners and operators to substantiate such flaring based on objective criteria as defined by EPA.

# **Information Collection and Sharing**

For the Proposed Rule, EPA asks whether two types of information regarding new and modified oil and natural gas facilities should be made publicly available. First, EPA asks whether, and to what extent, the public should have access to the compliance reports, portions or summaries of them, and or any other information or documentation produced pursuant to specified auditing provisions.<sup>20</sup> Second, EPA asks whether owners and operators of affected facilities should be required to report quantitative environmental results on their corporate maintained websites.<sup>21</sup> Such results might include monitoring data, quantification of excess emissions and corrective actions, results of performance tests, affected facility status with respect to a standard contained in a rule, and third-party certifications.<sup>22</sup>

The NTAA recommends that both types of information from new and modified oil and natural gas facilities be made publicly available to help keep these facilities accountable to Indian Tribes and others impacted by the VOC and methane emissions from such facilities.

<sup>&</sup>lt;sup>18</sup> "Understanding the Basics of Gas Flaring," Ohio EPA, Division of Air Control (November 2014), at <a href="http://www.epa.state.oh.us/Portals/27/oil%20and%20gas/Basics%20of%20Gas%20Flaring.pdf">http://www.epa.state.oh.us/Portals/27/oil%20and%20gas/Basics%20of%20Gas%20Flaring.pdf</a> (last visited October 31, 2015).

<sup>&</sup>lt;sup>19</sup> *Id*.

<sup>&</sup>lt;sup>20</sup> *Id.* at 56650.

<sup>&</sup>lt;sup>21</sup> *Id.* at 56652.

<sup>&</sup>lt;sup>22</sup> *Id*.

#### **Tribal Consultation**

EPA finds rightfully that the Proposed Rule has Tribal implications albeit such implications do not extend to imposition of compliance costs for Tribal governments or preemption of Tribal law.<sup>23</sup> Further, EPA indicates that it consulted with Tribal officials,<sup>24</sup> but it fails to provide a summary about the issues discussed. The NTAA respects fully the sovereignty of Indian Tribes and would never ask EPA with whom or what Tribe(s) that it consulted. However, the NTAA would find it valuable to gain an understanding about the issues that Tribes have consulted with EPA regarding the Proposed Rule. Knowing about such issues could help lead to a fuller, more robust consultation process involving EPA and other Tribes that may not have wholly considered the Proposed Rule's impact to their communities. As such, the NTAA recommends that EPA make such information public, but in a non-descript way that does not identify the Tribe(s) or individuals involved with the consultations.

### Conclusion

In summary, the NTAA is pleased to provide the aforementioned comments and recommendations concerning the Proposed Rule.

On Behalf of the NTAA Executive Committee,

Bill Thompson, Chairman, NTAA

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<sup>&</sup>lt;sup>23</sup> *Id.* at 56659.

<sup>24</sup> Id