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August 10, 2018

Mr. Jeffrey Crawford 17 State House Station Augusta, ME 04333

RE: Comments in Support of Clean Air Act Section 176(A)(a)(2) Ozone Transport Region Petition

Dear Mr. Crawford:

Thank you for the opportunity to comment on the State of Maine's petition to the Environmental Protection Agency (EPA) to remove certain areas of the State of Maine from the Ozone Transport Region (OTR) pursuant to Clean Air Act (CAA) Section 176A(a)(2). I am currently employed as an environmental engineering consultant at Sevee & Maher Engineers (SME) located in Cumberland, Maine and have provided air emissions permitting, licensing, and regulatory compliance expertise to clients located in Maine and across the country for over 13 years. I have prepared major and minor modification air license applications for many of Maine's largest sources of regulated pollutants and understand the economic impact that inclusion in the OTR has on potential industrial projects in the State of Maine. I am writing to express my support for the State of Maine's petition to remove certain areas of the State from the OTR on the basis that: 1) the State of Maine has the legal authority to petition this request; 2) the State of Maine has prepared conclusive scientific evidence that control of emissions from the State will not significantly contribute to the attainment status of any area within the OTR; and 3) the current regulatory framework in the State of Maine which is required as a result of being in the OTR presents an unnecessary burden on the regulated community, thus creating an economic disadvantage for development in Maine while providing no real environmental benefit.

Legal Authority to Petition this Request

CAA Section 176(A) provides authority to the EPA Administrator or the Governor of any State to establish an interstate transport region if there is reason to believe that the interstate transport of air pollutants from one or more States contributes significantly to a violation of a national ambient air quality standard (NAAQS) in one or more other States. In addition, CAA Section 176(A) also states that upon petition from the Governor of any State, the EPA Administrator has the legal authority to *remove* any State or portion of a State from the transport region whenever the EPA Administrator has reason to believe that the control of emissions in that State or portion of the State will not significantly contribute to the attainment of the NAAQS in any area of the transport region. Because the CAA expressly provides for a mechanism of removal of a State from a transport region, the State of Maine has the legal authority to request removal of the State from the OTR through a petition to the EPA Administrator.

Control of Emissions from Maine will Not Contribute to OTR Area Attainment Status



The petition brought forward by the State of Maine to remove certain areas of the State from the OTR provides a thorough three-pronged technical justification to demonstrate why the control of NOx and VOC emissions in Maine will not significantly contribute to attainment of the ozone NAAQS in any area of the OTR. First, the Maine Department of Environmental Protection (MEDEP) prepared back trajectory analyses demonstrating that for ozone exceedance days at monitors in southern New England, emissions from Maine are insignificant contributors with most trajectory paths leading from the south and west and almost no trajectory paths from Maine. Second, EPA's ozone apportionment modeling prepared for the 2016 Cross State Air Pollution rule (CSAPR) Update and 2015 interstate transport modeling demonstrates that Maine's modeled contribution to ozone levels in other OTR states is less than one percent of the NAAQS which is the threshold EPA uses to link a state as a significant contributor to ozone levels in another area. It is worth noting that these same modeling efforts demonstrate that states outside the OTR (such as Ohio and West Virginia) are significant contributors to non-attainment and maintenance sites in the OTR with contributions over two percent of the 2008 and 2015 NAAQS. Third, MEDEP provided emission inventory data indicating that Maine's point source VOC emissions (i.e. those emissions the regulated community have the ability to change) are approximately 0.7% of Maine's naturally occurring biogenic VOC emissions. Therefore, any reduction in VOC that the regulated community is required to make as a result of being in the OTR has little to no impact on ozone formation considering the quantity of naturally occurring VOC in our heavily forested state.

Unnecessary Burden on the Regulated Community

As an environmental engineering consultant with expertise in air permitting and compliance and experience working with many industrial facilities in Maine, I understand the impact that locating a project in the OTR has on potential industrial projects that would otherwise provide economic growth, longevity, and stability to the people and families in their communities. Because Maine is located in the OTR, projects that could result in a significant net emissions increase of NOx or VOC must control emissions to the Lowest Achievable Emission Rate (LAER) and offset VOC and NOx emissions from the project at a ratio of 1.15 to 1 TPY.

For NOx emitting projects, LAER can require the combustion of cleaner fuels, enhanced combustion techniques including flue gas recirculation, low NOx burners and ultra low NOx burners, and add-on NOx control equipment such as selective catalytic and non-catalytic reduction (SCR and SNCR). For many Maine projects, the selection of LAER could be equivalent to the selection of the Best Available Control Technology (BACT) which would be the level of control required for new or modified sources outside the OTR and located in attainment areas. However, for some projects locating in Maine, this could require the installation of enhanced combustion techniques and add-on control equipment with high capital and operating costs as well as other risks to the environment such as the storage of and release of ammonia when SCR is required. Equivalent NOx emitting projects locating outside the OTR, but, like Maine, are also in attainment with ozone NAAQs, may not be required to apply this high level of control placing Maine projects at an economic and possibly environmental disadvantage.

For VOC emitting projects, LAER can require the use of very-low or no VOC solvents, coatings and additives which are typically more expensive than traditional alternatives and may not provide equivalent functional properties leading to reduced runnability, downtime and lost production for manufacturers. LAER may also require the use of add-on control technology for destruction of VOC through combustion which leads to increased NOx emissions and the burning of



supplemental fuels. Like the case for NOx, equivalent VOC emitting projects locating outside the OTR, but in areas in attainment with ozone NAAQs, are not required to apply this same high level of VOC control.

Both NOx and VOC emitting projects subject to LAER are also required to offset project-related emissions at a ratio of 1.15 tons per year (TPY) of offsets for each 1 TPY of project NOx or VOC emissions. Certified NOx and VOC offsets are scarce in the State of Maine with only 1,389 tons of NOx and 604 tons of VOC offsets available. These offsets currently belong to a handful of business entities and were generated by the permanent shutdown of facilities in Maine. Accessing these offsets is problematic because it involves either: 1) reaching out to offset holders directly to facilitate a transaction which, in a small state like Maine, would negate any confidentiality the project hoped to maintain in order to enable a competitive advantage; or 2) reaching out to an emission reduction credit (ERC) broker to facilitate a transaction and, if a suitable seller can be found, paying the "market" price for offsets which could range from between \$8,000 and \$25,000 per TPY along with a brokerage fee. ERCs generated outside the State of Maine could potentially be used in Maine, however the generating State and the State of Maine would first have to enter into a memorandum of understanding which could take up to a year of costly project development time to establish. NOx and VOC offsets are both expensive and difficult to obtain and present a hurdle to NOx and VOC emitting projects in Maine that is absent in ozone attainment areas outside the OTR.

Because there are real project-related disadvantages, both economic and operational, for developers and manufacturers wishing to expand in Maine due to OTR requirements, most entities actively try to avoid projects resulting in a significant net emissions increase of NOx or VOC. This exercise is often a time-consuming and expensive part of the air licensing application process that ultimately provides very little benefit to the environment and results in unnecessarily stringent emission and operating limits. For example, many projects rely on published emission factors from EPA and other industry trade groups to estimate the net emissions increase from a project. Considering the current state of technology, these factors are often outdated and overly conservative and lead to overly high estimates of project related emissions. For projects locating in Maine, conservatively high emission estimates of NOx and VOC are unacceptable as this could potentially trigger applicability of LAER and the need to offset emissions. For these projects much time and expense are exhausted trying to more accurately estimate NOx and VOC emissions through the use of site-specific stack testing, process stream testing, and research initiatives. However, projects locating in attainment areas outside the OTR can comfortably use these higher emission estimates without triggering LAER and offsets and the time and expense needed to refine emission estimates is not needed. In addition, if projects locating in Maine cannot avoid resulting in a significant net emissions increase of NOx or VOC after refinement of emission estimates, many projects choose to voluntarily adopt production and fuel use limitations in order to reduce VOC and NOx emissions. These limitations effect every-day operation and business practices and are obstacles that entities with equivalent projects located in attainment areas outside the OTR do not have to overcome.

In summary, because the State of Maine has prepared scientific evidence that control of VOC and NOx emissions from the State will not significantly contribute to the ozone attainment status of any area within the OTR and because the State of Maine has the legal authority to petition removal of certain areas of the State from the OTR, I support the State of Maine's petition pursuant to CAA Section 176A(a)(2). Approval of this petition by the EPA Administrator will no longer



subject facilities, projects and developments locating in much of Maine, an attainment area for ozone, to economic and operational disadvantages that result in no benefit to air quality in Maine or other OTR states.

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Kristy Bishop, P.E. Project Manager, Environmental Compliance and Permitting