THE HINCKLEY COMPANY
Since 1928

August 3, 2018

Mr. Jeff Crawford
Maine Department of Environmental Protection
Bureau of Air Quality
17 State House Station
Augusta, ME 04333

Comments on the Ozone Transport Region Petition

Dear Mr. Crawford:

The Hinckley Company (Hinckley) is in full support of the Maine Department of Environmental Protection's (DEP) petition to the U.S. Environmental Protection Agency (EPA) to remove certain areas of the State from the Ozone Transport Region (OTR).

Hinckley, located in Trenton, Maine, is one of the state's largest boat manufacturers employing approximately 272 people at its primary manufacturing facility in Trenton. In addition, Hinckley owns and operates two boatyards located in Southwest Harbor and Northeast Harbor employing approximately 70 between the two locations.

The Maine DEP has effectively demonstrated in its draft document, *Maine's Ozone Success Story* that nitrogen oxides (NOx) and volatile organic compounds (VOC) emissions from Maine stationary sources are insignificant contributors to ozone in Maine and in other states; based on data provided by Maine's network of ozone monitoring stations, the state is in attainment with the ozone National Ambient Air Quality Standard. As a result of its participation in the OTR, Maine along with other OTR states, has been required to implement OTR requirements including Lowest Achievable Emission Rates (LAER) and emission offset requirements for new major sources and major modifications; Reasonably Available Control Technology (RACT) requirements for existing sources; and regulations based on EPA's VOC Control Techniques Guidelines (CTG) applicable to major and minor sources, existing and new. Based on emissions data contained in Table 6 of *Maine's Ozone Success Story*, Maine has effectively reduced annual VOC and NOx emissions from 1990 to 2016 by 6,560 tons per year (71% reduction) and 20,883 tons per year (68% reduction), respectively.

The inclusion of Maine in the OTR has impacted the boat building industry in the state in two ways: requiring new sources and major modifications to existing sources to apply LAER and obtain emission offsets, which is a deterrent to expansion and requiring new and existing sources to comply with VOC regulations established as a result of EPA's CTGs.

There are two CTG driven Maine DEP regulations that impact Maine's boat building and boatyard industry: Chapter 159 – Control of VOCs from Adhesives and Sealants and Chapter 162 – Control of Fiberglass Boat Manufacturing Materials. Chapter 159 sets VOC content limits for adhesives and sealants based on the type of adhesive/sealant or on the substrate the adhesive/sealant is being applied to. The adhesive/sealants that Maine boat builders/boatyards use are categorized as either being applied to a fiberglass substrate or "other" substrate limiting

VOC contents to 200 and 250 grams per liter, respectively, while other industries and/or adhesive types are allowed up to 850 grams of VOC per liter. There are four adhesives that the Maine boat building industry is currently using that exceed these limits and one in particular (3M Super 77) that is vital to the industry. The regulation exempts adhesives that are regulated as consumer products under Chapter 152 which includes aerosol can adhesives. 3M Super 77 can be purchased in 29 pound refillable cylinders or the aforementioned aerosol cans. To comply with Chapter 159 many boat builders are being forced to purchase this adhesive in aerosol cans in lieu of the much more economically practical and environmentally sound option of refillable cylinders. Attaching the refillable cylinder to a spray gun is the preferable method of application since it can cover a larger area, provides a more uniform distribution of adhesive, allows for a controlled application (misting as opposed to heavy spray), and is much more cost effective. The VOC content of the adhesive in the can is the same as the cylinder, yet due to the onerous requirements in Chapter 159 Maine boat builders are forced to resort to using 16 ounce spray cans to be compliant. This particular adhesive is used in composite molding of hulls, decks, and parts to tack each layer of fabric or core material in place so the next layer can be applied prior to the closed molding infusion process. The use of closed molding infusion of boat hulls and parts significantly reduces VOC emissions compared to the open molding process.

Hinckley, in conjunction with adhesive manufacturers, has continued to do extensive research and test alternative adhesives; however all of the adhesives that have been tested to date either contaminate the bond between the plies of structural material or core, or do not have enough tack to hold a completely dry laminate onto a vertical or overhead area of the mold. It is critical that the fabrics and core stay in position so that no gaps or voids are present in the laminate during the infusion process. Many of the adhesives that have been tested degrade the interlaminar shear strength which is unacceptable for the strength and stiffness of the composite part. Hinckley will continue to test new adhesives as they are formulated, however due to the serious implications involved in using an inferior product, Hinckley will not make any changes until an equivalent or improved product is identified to replace the Super 77.

The removal of portions of Maine from the OTR would hopefully allow the DEP to revise these regulations that provide no benefit to Maine and other states. Such revisions will not increase emissions or have an adverse impact on the environment, yet will allow the Maine boat building industry to remain competitive in the market place and ensure the structural integrity of their products, which are world renown.

Thank you for the opportunity to support the DEP's petition.

Sincerely,

Dean Myrick

Dean Myrick
Operations Manager, The Hinckley Company