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Docket ID No. EPA-HQ-OAR-2008-0708  
Air and Radiation Docket and Information Center  
U.S. Environmental Protection Agency  
Mailcode: 6102T  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Sir/Madam:

On behalf of the National Association of Clean Air Agencies (NACAA), thank you for this opportunity to comment on the proposed National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE); New Source Performance Standards for Stationary Internal Combustion Engines, which were published in the *Federal Register* on June 7, 2012 (77 *Federal Register* 33812). NACAA is a national, non-partisan, non-profit association of air pollution control agencies in 45 states, the District of Columbia, four territories and over 115 metropolitan areas. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. The comments we offer are based upon that experience. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country

NACAA recognizes the need to address hazardous air pollutants (HAPs) and other air pollutants from RICE and stationary internal combustion engines located at major and area sources. We believe certain provisions in the proposal should be addressed prior to final rulemaking. To this end, NACAA provides the following comments on the proposed amendments.

**Public Health Concerns**

According to EPA, diesel-fired stationary RICE emit a substantial number of air pollutants that are harmful to human health. These include diesel exhaust, carbon monoxide, particulate matter, nitrogen oxides (NO<sub>x</sub>), volatile organic compounds and hazardous air pollutants (HAPs), including formaldehyde, acrolein, acetaldehyde, 1,3-butadiene, benzene, ethylbenzene, n-hexane, naphthalene, polycyclic aromatic hydrocarbons, polycyclic organic matter, styrene, toluene, and xylene. Metallic HAPs from diesel-fired stationary RICE

include cadmium, chromium, lead, manganese, mercury, nickel, and selenium.<sup>1</sup> Of these pollutants, just to name two, formaldehyde has been identified as a probable human carcinogen<sup>2</sup>, while diesel engine exhaust was just recently classified (June 12, 2012) as carcinogenic to humans by the World Health Organization's International Agency for Research on Cancer.<sup>3</sup> NO<sub>x</sub> and other pollutants emitted by diesel-fired RICE also contribute to the formation of ozone. These emissions and the resulting air pollution (e.g., ozone) are linked to a variety of adverse health impacts, including such serious problems as respiratory and cardiovascular ailments, cancer and premature mortality.

Clearly, EPA should ensure that its final regulations adequately address emissions from RICE and their impacts on public health.

### **Expansion of Hours for Demand Response and Peak Shaving**

EPA's proposal vastly expands the demand response hours – from 15 to 100 – that certain RICE can operate without meeting emission limits. This is intended to provide additional pollution control exemptions for emergency demand response. EPA's proposal also provides an allowance of 50 hours until April 2017 for ensuring available power at peak times (i.e., “peak shaving”). NACAA is concerned that expanding the hours for demand response and peak shaving may significantly increase diesel and other emissions, often in highly populated areas where many RICE are located, and adversely affect public health.

Another important consideration is that these distributed generating resources will most likely operate during high electricity demand days (HEDD), which often occur during hot summer days when atmospheric conditions are conducive to the formation of ozone. Moreover, if the use of inadequately controlled diesel generators is increased (which may be the case when they are offered at a cheaper rate), there will generally be more emissions of HAPs, particulates and possibly NO<sub>x</sub> (which contributes to the formation of ozone) than with the use of gas-fired single-cycle combustion turbines. In addition, while newer RICE models may be well-controlled, older uncontrolled units can emit 200 to 400 times as much NO<sub>x</sub> per megawatt as a new combined-cycle power plant and 10 times more than a coal-fired power plant.<sup>4</sup> This combination of HEDD, and the resulting higher emissions, particularly on hot summer days, makes the expansion of hours for units without emission limits especially problematic.

### **Lack of Data to Justify Proposal**

NACAA is concerned that EPA has proposed this rule without adequate information to evaluate the impact of the rule on public health. In fact, in the proposal the agency clearly states that it does not have specific information about the location of the affected sources.<sup>5</sup> Without this

<sup>1</sup> 75 *Federal Register* 9650 (March 3, 2010).

<sup>2</sup> 69 *Federal Register* 33475 (June 15, 2004).

<sup>3</sup> See [http://press.iarc.fr/pr213\\_E.pdf](http://press.iarc.fr/pr213_E.pdf).

<sup>4</sup> See <http://www.state.nj.us/dep/aqpp/downloads/sota/sota14.pdf> for new combined-cycle power plants, <http://www.state.nj.us/dep/aqm/Sub19.pdf> for coal-fired boilers and [http://www.nescaum.org/documents/nescaum-aq-electricity-stat-diesel-engines-in-northeast\\_20120801.pdf](http://www.nescaum.org/documents/nescaum-aq-electricity-stat-diesel-engines-in-northeast_20120801.pdf) for tier 1 and pre-tier emissions.

<sup>5</sup> “The EPA has concluded that it is not feasible to determine whether there would be disproportionately high and adverse human health or environmental effects on minority, low income or indigenous populations from the reconsideration of this final rule, as the EPA does not have specific information about the location of the stationary RICE affected by this rule.” 77 *Federal Register* 33831.

type of information, we believe EPA cannot reasonably determine that the expansion of uncontrolled emissions will not have a deleterious effect on public health.

RICE are small and widely distributed. Since many of them have been sited to be used for emergency back-up, owners of such engines likely have not been required to obtain permits. Therefore, governmental agencies may not currently have robust information about their locations, emissions or their proximity to the public.

While EPA has indicated that it expects these units will not be used often,<sup>6</sup> and presumably that their effects will then be minimal, this conclusion is not certain. It is very possible that the market for their services may expand, along with the resulting emission increases. On the other hand, if it is true, as EPA estimates, that they are unlikely to be used often, then perhaps there is not a need for such an expansion in the hours during which they can operate without meeting emission limits.

It does not appear that EPA has sufficiently analyzed the potential impacts of the proposal (or at least the agency did not provide the results). NACAA does not believe that EPA has made a sufficient case for the need for such a significant expansion in the number of hours exempt from emission limits for demand response and peak shaving (from 15 to 100), especially in light of the serious adverse public health impacts that these emissions can cause. NACAA recommends that EPA collect additional information about the number and location of the affected units and conduct additional modeling and analysis of the consequences of the rule before concluding that the expanded hours would not be problematic.

### **Compliance**

The proposal indicates that if an engine exceeds the calendar year limitations on non-emergency operation, it will be considered a non-emergency engine for the remaining life of the engine.<sup>7</sup> NACAA believes that EPA, in cooperation with state and local delegated authorities, should address these situations on a case-by-case basis. There may be mitigating circumstances that should be considered before requiring the classification of an engine for its remaining life.

### **Exemption for Remote Spark-Ignition Engines**

With respect to EPA's exemption for certain remote spark-ignition engines at area sources of HAP emissions, we appreciate that EPA recognizes that the costs of the emissions aftertreatment, testing and monitoring may be unreasonable when compared to the associated HAP emission reductions, and that these remote engines may have a minimal impact on the Urban Air Toxics Inventory. We believe that the proposal to implement management practices as generally available control technologies (GACT) for these remote engines is appropriate.

NACAA requests that the remote exemption proposed for certain existing spark-ignition engines at area sources of HAP emissions also be extended to existing remotely located agricultural compression ignition engines at area sources of HAP emissions in federal attainment areas and areas that do not significantly impact nonattainment areas. Assuming these engines are distant from

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<sup>6</sup> 77 *Federal Register* 33818.

<sup>7</sup> 77 *Federal Register* 33832.

human activity, we believe that it is appropriate to not include requirements that would necessitate aftertreatment and extensive testing and monitoring.

In response to EPA's request for comments regarding the definitions related to remote units, NACAA suggests that language could be added to define "Remotely-Located Agricultural Engine" as a stationary diesel-fueled compression ignition engine used in agriculture that is located in unclassifiable or attainment areas or an area that does not significantly impact nonattainment areas (which would have to be defined) for all particulate matter and ozone national ambient air quality standards and that is located more than one-half mile from any residential area, school or hospital. It would be the sources' responsibility to determine that they are an adequate distance away and to keep records available for EPA or state/local inspection that they made the determination.

### **Conclusion**

Thank you for this opportunity to comment on the proposed amendments. NACAA recommends that EPA perform additional analysis on this source category before concluding that the vast expansion of hours during which RICE units can operate without emission limits is necessary or acceptable. We remain concerned that expanding the exemption from 15 to 100 hours may be excessive, especially in light of the severity of the adverse health effects that can result from exposure to emissions from certain RICE units.

Please do not hesitate to contact us if you need additional information.

Sincerely,



G. Vinson Hellwig  
Michigan  
Co-Chair  
NACAA Air Toxics Committee



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