



June 3, 2009

BY ELECTRONIC MAIL

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

**Subject: National Emission Standards for Hazardous Air Pollutants (NESHAP)  
Reciprocating Internal Combustion Engines (RICE), 74 Fed. Reg. 9698 (March 5, 2009)**

Dear Sir or Madam:

The Office of Advocacy submits these comments on the Environmental Protection Agency (EPA)'s proposed rule National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE). This rule will affect hundreds of thousands of small businesses and is likely to impose significant costs without concomitant health benefits. EPA's proposal appears to suffer from a lack of significant input from the affected entities. Less costly, but equally effective regulatory alternatives are available to achieve emission reductions. We recommend that the Agency substantially rework this proposal, and obtain additional emissions data to provide a stronger scientific basis for the final emission standards.

**Office of Advocacy**

Advocacy was established by Congress under Pub. L. 94-305 to represent the views of small entities before federal agencies and Congress. Advocacy is an independent office within SBA, so the views expressed by Advocacy do not necessarily reflect the views of SBA or the Administration.

The Regulatory Flexibility Act (RFA),<sup>1</sup> as amended by the Small Business Regulatory Enforcement Fairness Act,<sup>2</sup> gives small entities a voice in the rulemaking process. For all rules that are expected to have a significant economic impact on a substantial number of small entities,

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<sup>1</sup> 5 U.S.C. § 601 et seq.

<sup>2</sup> Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. § 601 et seq.).

federal agencies are required by the RFA to assess the impact of the proposed rule on small businesses and to consider less burdensome alternatives.

Moreover, Executive Order 13272<sup>3</sup> requires federal agencies to notify Advocacy of any proposed rules that are expected to have a significant economic impact on a substantial number of small entities and to give every appropriate consideration to any comments on a proposed or final rule submitted by Advocacy. Further, the agency must include, in any explanation or discussion accompanying publication in the *Federal Register* of a final rule, the agency's response to any written comments submitted by Advocacy on the proposed rule.

## **Background**

EPA has been developing RICE regulations since 2002, resulting in final rules in 2004 and 2008. Most recently, the agency published an advanced notice of proposed rulemaking (ANPRM) in January 2008, requesting information about regulating existing diesel engines, and more particularly the larger diesel engines. Many stakeholders agreed that there was a substantial opportunity to produce health benefits by regulating larger diesel engines, particularly by retrofitting these engines with add-on technologies. There was no indication that EPA was soon to embark on regulating spark ignition (SI) or gas-fired engines. Nonetheless, EPA issued this proposal in March of this year including liquid petroleum gas, gasoline and natural gas-fired engines with the diesel engines. In addition, although EPA had not collected any new data since 2002 regarding small RICE engines (< 500 horsepower [HP]) nor requested data from the public, it now is proposing new standards for such engines, despite having indicated in 2002 and 2004 that such data was inadequate to set standards for smaller engines.

In June 2004, EPA promulgated a National Emission Standards for Hazardous Air Pollutants (NESHAP) for stationary RICE engines that have a site rating of greater than 500 horsepower and are located at major sources of air toxics emissions. In January 2008, EPA promulgated a NESHAP for stationary RICE engines that either are located at area sources of air toxics emissions or that have a site rating of less than or equal to 500 horsepower and are located at major sources of air toxics emissions, and were constructed or reconstructed after June 12, 2006.<sup>4</sup> In both rules, EPA included requirements for emission standards, performance testing, operation and maintenance requirements, and reporting and recordkeeping.

It is clear from working with the affected trade associations that this proposal was unexpected. The EPA proposal for existing small engines, in many respects, is more stringent than the recently adopted requirements on new engines. The requirements for gas-fired engines, particularly for the smaller engines, produce little environmental gain for considerable burden and expense. EPA stated in 2002 that the data for regulating small engines (<500 HP) was inadequate, and yet EPA has proposed emission standards using this same inadequate data.<sup>5</sup> EPA spent considerable time considering other risk-based options in 2002, including excluding

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<sup>3</sup> Executive Order No. 13,272, 67 Fed. Reg. 53,461 (Aug. 13, 2002).

<sup>4</sup> Major sources of air toxics emit 10 tons per year of a single air toxic or 25 tons per year of a mixture of air toxics. Area sources release smaller amounts of toxic pollutants into the air – less than 10 tons per year of a single air toxic or less than 25 tons per year of a mixture.

<sup>5</sup> 67 Fed. Reg. 77830, 77841 (December 19, 2002). The American Petroleum Institute stated in its March 13, 2009 letter to EPA that the Agency was using only the 2002 rule data to develop emission standards.

sources under Clean Air Act sections 112 (d)(4), 112(c)(9), and concentration-based alternatives (or health-based compliance alternatives, known as HBCA), but there is no mention of such options in this proposal. EPA had promulgated a notification requirement for new large emergency engines of greater than 500 horsepower,<sup>6</sup> but in this proposal, small emergency generators with less than 50 horsepower are subject to emission standards.

Outreach to the affected entities would improve the EPA regulation. We strongly recommend that EPA spend more time exchanging data and information with the regulated entities in developing this rule. In the years 1999 to 2002, Advocacy spent several years coordinating joint industry/EPA collaborations on NESHAP rules. The Agency was able to compile and develop Maximum Available Control Technology (MACT) databases that have not been seriously challenged post-proposal, and avoided debates about the underlying data, which could have delayed delivering cleaner air to the public. In this case, however, commenters had great difficulty locating and deciphering the data, and did not have a discussion with EPA about the data used here to develop emission standards. The Interstate Natural Gas Association of America (INGA), for example, has stated that some emission standards are set for engines under 500 HP using data for engines that are much larger and not representative of these smaller engines.<sup>7</sup> Furthermore, many of the formaldehyde emission figures used by EPA were derived using protocols no longer deemed valid by EPA.<sup>8</sup> All such discussions should have preceded this proposal. Section 609 of the RFA requires that agencies consult with the affected small entities regarding economically significant rules that affect them, and EPA has not done so in this case.

### **The Current Proposal Potentially Affects Hundreds of Thousands of Small Facilities**

This proposal potentially affects hundreds of thousands of small businesses that employ engines for a variety of purposes. These engines are used at facilities such as power plants and chemical and manufacturing plants to generate electricity and power pumps and compressors. Such small businesses include those in oil and gas production, natural gas pipeline companies and agriculture (e.g., for irrigation pumps). Given the enormous number and great diversity of the affected small businesses, a regulation that includes emission standards, performance testing, operating and maintenance procedures, and reporting and recordkeeping could certainly pose a significant challenge for a large number of small firms. For example, tens of thousands of small business owners who operate marginal oil and gas production facilities are expected to use RICE engines at the wells. Marginal wells operate on the edge of profitability, and operators are very sensitive to any new regulations. Any slight increase in operating costs could lead to the shutdown of the facility, and given the heightened concern about energy costs and availability, EPA should carefully consider any new requirements.

In our view, the universe of affected sources is far larger than EPA has estimated. The Oklahoma Independent Petroleum Association estimates that of the 122,000 oil and gas production wells in Oklahoma, as many as 67,000 facilities have at least one engine subject to this rule.<sup>9</sup> However, EPA estimates only 94,000 engines for the entire U.S. oil and gas

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<sup>6</sup> 40 CFR 63.6590 (b)(1)(i).

<sup>7</sup> INGA comments to be filed in this docket.

<sup>8</sup> Id.

<sup>9</sup> Oklahoma Independent Petroleum Association, May 21, 2009 letter to EPA Docket EPA-HQ-OAR-2008-0708.

production sector.<sup>10</sup> Since there are more than 500,000 producing oil and gas wells in the United States, EPA appears to have substantially underestimated the number of affected engines and affected small businesses in this one industry alone. Furthermore, EPA has failed to account for the hundreds of thousands of emergency engines likely found at residences and home-based businesses. Thus, the impacts of this rule are probably much greater than those anticipated by the Agency.

### **Small Engine Requirements Should Be Revised**

This proposal addresses both small and large existing engines (below and above 500 HP). However, small businesses mostly use the small engines, and regulation of those engines creates the greatest concern. Regulating the smallest engines normally yields the smallest emission benefits and that is also the case in this rule. Indeed, as the State of Arizona Department of Air Quality (ADEQ) indicated in its comments on the rule:

ADEQ suggests that a size-based exemption be included in the rule, at least for area sources. The Department recommends that the size-based exemption be based on emissions data along with the quantity of smaller engines. Smaller engines generally burn less fuel, and therefore emit fewer pollutants overall, so the air quality benefit by regulating such engines is small when compared to the burden placed on area sources where the engine may be their only equipment. Furthermore, an area source with no other equipment than a small RICE would not be required to obtain a permit due to the applicability of the MACT (ADEQ's rules require any equipment subject to a MACT standard to obtain a permit) regardless of the age or size of the engine. As stated in Comment #1, it is more important to regulate larger engines at all sources than to regulate small engines at area sources.<sup>11</sup>

Under the Regulatory Flexibility Act, EPA is required to analyze reasonable alternatives that minimize small business burdens while still achieving the statutory goals.<sup>12</sup> In the 2002 proposal to regulate RICE engines, EPA devoted several pages to a discussion of risk-based alternatives to subjecting all these small sources to emissions standards, performance testing, and other requirements. The Agency acknowledged that in discussions with the regulators, engine manufacturers and engine users, "small stationary RICE have generally not been regarded as significant sources of air pollutant emissions".<sup>13</sup> EPA also stated, "[w]e are, therefore, specifically soliciting comment on whether there are further ways to structure the proposed rule to focus on the facilities with significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment."<sup>14</sup> EPA does not provide any indication in the current proposal that these observations are no longer valid today.

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<sup>10</sup> The EPA Regulatory Impact Analysis, table 4-7 lists 46,763 engines under NAICS 211111 and 46,763 under NAICS 211112 (petroleum and natural gas production, respectively).

<sup>11</sup> EPA Document # EPA-HQ-OAAR-2008-0708-0051.1, Comment by Nancy C. Wrona, Director, Air Quality Division, Arizona Department of Environmental Quality (ADEQ), undated, posted 04/15/09 in EPA Docket.

<sup>12</sup> 15 U.S.C. §§ 603, 604.

<sup>13</sup> 67 Fed. Reg. 77830, 77841 (December 19, 2002).

<sup>14</sup> Id. at 77847.

Indeed, the current proposal is silent regarding any such risk-based alternatives or other alternatives that would exclude small engines.<sup>15</sup>

### *Small Emergency Generators Should Be Excluded from Emission Standards or the Entire Rule*

All emergency generators less than 300 HP should be excluded from emission standards because of the high costs and the small amount of emissions they generate. Based on our analysis of EPA's own data, the expected baseline (before regulation) particulate matter (PM) emissions from the average Compression Ignition (CI) emergency engine is below ten pounds of PM per year. Smaller engines will emit less.<sup>16</sup> With the expected emission reductions being only a fraction of these very small baseline emissions, it seems that only modest regulation is warranted, if at all.

Indeed, EPA has previously agreed to exempt all new emergency engines larger than 500 HP from emission standards. Such engines are already subject only to an initial notification requirement. We do not see the merit in applying more stringent standards to smaller existing engines than larger new engines that are yet to be built. Advocacy recommends that EPA apply this exemption to the small existing emergency engines.

Furthermore, there is a very large population of emergency engines at homes and home-based businesses that EPA has not accounted for that is also subject to emission standards, maintenance, operating procedures and recordkeeping requirements. The Agency should exclude, at a minimum, all emergency RICE engines below 50 HP to avoid the enforcement and permitting resources that this proposal would require. Homeowners, in particular, should not be subject to EPA enforcement.

### *Limited Use Engines*

In the previous 2004 and 2008 rules, EPA also used its inherent *de minimis* authority to exclude large "limited use" engines from the coverage of the NESHAP rules. The Agency apparently failed to consider such an option for smaller existing engines, but the same rationale is applicable here. It seems incongruous to subject small engines to significant regulation, when EPA has already determined that the larger limited use engines (operating less than 100 hours per year) do not warrant any regulation. The RFA requires the Agency to consider less burdensome alternatives, and the EPA should complete this task for the final rule.

### *Area Sources*

Under section 112(d)(5) of the Clean Air Act (CAA), EPA is permitted to set standards or requirements for categories or subcategories of area sources which provide for the use of generally available control technologies (GACT) or management practices to control emissions. This provides EPA with additional flexibility to eliminate emission standards, or to substitute

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<sup>15</sup> See discussion of exclusions of subcategories or categories of sources under 112(d)(4) and 112(c)(9) at 67 Fed. Reg. 77830, 77847-77851 (December 19, 2002).

<sup>16</sup> We have requested additional information about EPA's emission estimates, and may supplement this analysis at a later date.

management practices for the standards due to costs and any other factors deemed relevant by the Agency. In the case of small engines or large emergency engines, EPA has complete discretion, for example, to impose only management practices, such as good maintenance and operating practices, which would considerably lower compliance costs for the affected entities. In developing the proposal, the Agency appears not to have taken advantage of this flexibility under the CAA and the RFA.

#### *Urban v. Rural Area Sources*

Section 112(k) of the CAA directs EPA to control risks of air toxics from area sources in urban areas. The Agency states that “EPA had determined that stationary RICE are located all over the U.S., and EPA cannot say that these sources are more prevalent in certain areas of the country. Therefore, for the source category of stationary RICE, EPA is proposing national requirements without a distinction between urban and nonurban areas.”<sup>17</sup> There are tens of thousands of remote engines throughout this country. For area sources, EPA should conduct an analysis of urban versus rural emissions and rural engine impacts on urban areas. Such an analysis is likely to lead to different standards or exemption for rural natural gas-fired engines, especially those in remote locations. For example, even the larger engines found at oil and gas production facilities in rural Texas or Oklahoma are unlikely to be close enough to populated areas to trigger a potential air quality issue. An examination of the real potential risks in rural America would warrant separate treatment of such facilities, and alone could justify substantial relief for hundreds of thousands of small firms.

#### *New Source Requirements for Small Engines Alleviate the Need To Add Complex Standards for Existing RICE Engines*

EPA has already established an entire set of requirements, including stringent emission standards, for small newly manufactured engines, emergency and non-emergency. Given the relatively short useful life for these smaller engines, the proposed standards for existing engines appear quite redundant in the short term. Furthermore, given the multiplicity of RICE rulemakings and complex rules, and the fact that small businesses need to understand and comply with these rules, there is considerable merit to reducing the complexity of new regulations wherever possible. Therefore, EPA has a large incentive to promote consistency between its existing regulatory approach and the new proposal.

#### **Alternative Approach for Emergency Engines – Work Practices Can Substitute for Emission Standards Where Such Standards are Economically Impracticable**

Section 112(h) the Clean Air Act (CAA or the Act) authorizes EPA to set design, equipment, work practice or operational standards when the Agency determines that it is not feasible to prescribe or enforce an emission standard for controlling HAP.<sup>18</sup> The Act defines in section 112(h)(2) “not feasible to prescribe or enforce an emission standard” as meaning any situation where:

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<sup>17</sup> 74 Fed. Reg. 9698, 97090 (March 5, 2009).

<sup>18</sup> 42 U.S.C. § 7412(h).

- (A) a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law, or
- (B) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.<sup>19, 20</sup>

Emergency engines only operate for short periods of time, if at all. EPA has estimated that the average operating time for CI emergency engines is 50 hours per year, in contrast to non-emergency engines which operate for 2000 hours per year.<sup>21</sup> For many small businesses, it would be very expensive for a consulting firm to visit a remote site in order to perform emissions testing. For this and other reasons, the flexibility offered by this section to replace emissions testing with management practices is attractive. Work practices would be an appropriate way to reduce emissions for engines managed by small firms.

### **Emission Standards**

As stated above, EPA failed to add any emissions data to the database since 2002, which it had declared was inadequate to develop emissions standards. In some cases, it appears that the emissions standard is based on only one data point. The Agency itself in 2002 advised against reliance on a single data point expressing that “single snapshot emission readings...[do] not account for variability of emissions that may occur as engines are operated in actual use.”<sup>22</sup> In addition, it appears that the Agency has relied on data from larger engines to regulate much smaller engines, without demonstrating adequately how these engines would be representative of the smaller engines.<sup>23</sup> Other commenters raise a large number of problems with regard to the data in the database, and EPA’s use of that data.

### **Conclusion and Recommendations for Future Steps**

In our view, this rule as proposed will have a significant economic impact on a substantial number of small entities. EPA should seek the input of small entities pursuant to section 609 of the Regulatory Flexibility Act and revise the proposal to minimize those impacts. EPA should also take the opportunity to seek more data on the gas-fired portion of this regulation, and obtain additional time from the affected parties to permit this activity. Similarly, with respect to the startup, shutdown and malfunction provisions in this rule, it is appropriate to defer that provision until the court has had additional time to act.<sup>24</sup>

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<sup>19</sup> 42 U.S.C. § 7412(h)(2).

<sup>20</sup> With regard to the work practices for emergency engines, we recommend that EPA permit engine users to employ either the EPA mandated maintenance requirements or the manufacturer-specified maintenance requirements. EPA’s requirements do appear overly stringent.

<sup>21</sup> *Hours of Operation for Stationary RICE Applicable to 112 (k) Rulemaking*, AGT memo dated May 11, 2006.

<sup>22</sup> 67 Fed. Reg. 77830, 77839 (December 19, 2002).

<sup>23</sup> For example, INGA notes in its comments that the 4SLB Engines 50 to 500 HP appear to be set by using 38 tests performed only on engines that were much larger than 500 HP.

<sup>24</sup> Advocacy has filed a separate letter yesterday with EPA outlining our views on this portion of the proposal, since it has ramifications well beyond the proposed RICE regulation.

Thank you for the opportunity to comment on this proposed rule. We also would like to specifically thank Bob Wayland and Melanie King for making a presentation last month at our Environmental Roundtable. These comments reflect, in large part, the small business viewpoints expressed at that meeting and subsequent discussions. Please feel free to contact me or Kevin Bromberg at (202) 205-6964 (or [Kevin.bromberg@sba.gov](mailto:Kevin.bromberg@sba.gov)) if you have any questions or require any additional information.

Sincerely,

/s/

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/s/

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cc: Melanie King, EPA  
Peter Tsirigotis, EPA  
Bob Wayland, EPA  
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