



**Department of Energy**

Washington, DC 20585

August 31, 2005

Environmental Protection Agency Docket Center (EPA/DC)  
U.S. Environmental Protection Agency  
Mailcode 6102T  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
Attention Docket ID No. OAR-2005-0029

Dear Sir or Madam:

The Department of Energy (DOE) has reviewed the Environmental Protection Agency's proposed rule, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," published in the July 11, 2005, *Federal Register* (70 FR 39870). Enclosed please find a copy of the Department's comments and recommendations on the proposed regulations based on our review of their potential impacts on DOE operations and sites.

The Department appreciates the opportunity to comment on the proposed rule. If there are any questions concerning the enclosure, please contact Stephanie Woolf of DOE's Idaho National Laboratory (208-526-2187; [Woolfsa@id.doe.gov](mailto:Woolfsa@id.doe.gov)), or Ted Koss of my staff (202-586-7964; [theodore.koss@eh.doe.gov](mailto:theodore.koss@eh.doe.gov)).

Sincerely,

A handwritten signature in cursive script, appearing to read "Andrew Wallo".

Andrew Wallo  
Director  
Office of Air, Water and Radiation  
Protection Policy and Guidance

Enclosure

cc: Sims Roy (w enclosure)

**United States Department of Energy**  
**Comments on**  
**“Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”**

**Proposed Rule**  
**(70 FR 39870; July 11, 2005)**

**1. Diesel Fuel Requirements for Owners and Operators of Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). To reduce emissions of sulfur oxides associated with the operation of CI ICE, the rule proposes at 40 CFR 60.4207 to reduce the sulfur content in the diesel fuel used by these engines, to a level consistent with the requirements of the nonroad diesel rule.**

Although the Department of Energy (DOE) is in agreement with the requirements to reduce sulfur oxide emissions, the rule as proposed would be burdensome to some facilities that store and use large inventories of diesel fuel. To comply with the proposed fuel requirements in §60.4207, a source owner or operator of stationary CI ICE with large fuel inventories may have to:

- dilute/blend existing diesel fuel inventories with fuel that is virtually sulfur-free prior to each compliance date of proposed §60.4207, and sample/analyze the blended fuel for sulfur content, and cetane index or aromatic content to document compliance with the fuel content requirements. For example, DOE’s Idaho National Laboratory (INL) currently purchases diesel fuel with a sulfur content not to exceed 3000 ppm. One INL fuel storage area maintains a large diesel fuel inventory (typically ranging from 30,000 to 130,000 gallons). The fuel inventory would have to be diluted/blended with approximately 150,000 to 630,000 gallons (dependent upon the size of the existing inventory) of fuel that is virtually sulfur-free to meet the 40 CFR 80.510(a) fuel sulfur content standards by October 1, 2007, and with approximately 970,000 to 4,000,000 gallons of sulfur-free diesel fuel to meet the 40 CFR 80.510(b) fuel sulfur content standards by October 1, 2010. The upper range of these dilution quantities exceeds the existing storage tank capacities, and diluting/blending existing fuel inventory would be a burdensome and expensive task. Diluting/blending fuel to meet these requirements would require the procurement of diesel fuel that has a sulfur content and cetane index or aromatic content that would be much more stringent than the specified fuel sulfur content standards.
- as a second alternative, deplete existing diesel fuel inventories completely prior to each compliance date and then purchase diesel fuel that meets the requirements of §80.510(a) and §80.510(b) for just-in-time fuel delivery prior to each compliance date. However, this alternative is not reasonable for owners or operators that operate 24 hours a day. Additionally, depleting inventories to zero potentially would cause owners or operators to have to clean/remove tank bottoms to prevent fouling of fuel

lines and equipment, and to have to dispose of off-specification diesel fuel, producing additional costs.

To mitigate this burden, DOE recommends that the Environmental Protection Agency (EPA) consider including a grandfather clause that would allow owners or operators to continue to use up existing fuel inventories after the October 1, 2007, and October 1, 2010, compliance dates. Alternatively, we ask that the Agency consider changing the rule to read as follows:

Section 60.4207(a): *"Beginning October 1, 2007, owners or operators of stationary CI ICE that use diesel fuel must ~~use~~ purchase diesel fuel for use that meets the requirements of 40 CFR 80.510(a)."*

Section 60.4207(b): *"Beginning October 1, 2010, owners or operators of stationary CI ICE that use diesel fuel must ~~use~~ purchase diesel fuel for use that meets the requirements of 40 CFR 80.510(b)."*

**2. Operation of Emergency Stationary ICE for the Purpose of Maintenance Checks and Readiness Testing. At 40 CFR 60.4211(e) of the proposed rule, requirements regulating the operation of emergency stationary ICE for the purpose of maintenance checks and readiness testing are provided. Maintenance checks and readiness testing of such units are limited to 30 hours per year.**

The operational restriction on emergency stationary ICE to 30 hours per year for maintenance and readiness testing is, in our view, overly restrictive, and is inconsistent with the operational limitations established for emergency stationary reciprocating internal combustion engines (RICE) by 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. Subpart ZZZZ regulates emissions of hazardous air pollutants from the same type of diesel engines to be regulated by the July 11, 2005, proposed rule.

The definition of "emergency stationary RICE" at 40 CFR 63.6675 includes the following:

"...Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations."

Some existing stationary ICE at DOE's INL currently exceed 30 hours per year for maintenance and readiness tests. If and when these stationary ICE are modified or reconstructed, they will become subject to the 30-hour limitation of proposed §60.4211(e), thereby forcing INL to restrict maintenance and readiness tests on fire and life safety systems, and nuclear reactor emergency

coolant systems.

For the sake of regulatory consistency and the important need for nonemergency testing, we recommend that the 30-hour per year limitation for maintenance checks and readiness testing in proposed §60.4211(e) for emergency stationary ICE be eliminated, and that in its place the language of §63.6675 for emergency stationary RICE be incorporated. Thus, the language in proposed §60.4211(e) should be revised to state that testing of emergency stationary ICE required for the purpose of maintenance checks and readiness testing (provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine) should be minimized.

Also, we note that the restriction on emergency stationary ICE to 30 hours per year for maintenance and readiness testing in proposed §60.4211(e) does not make allowance for the manufacturer-recommended break-in period for new engines. If EPA decides to retain a fixed number limitation of annual hours for maintenance and readiness testing for emergency stationary ICE, then the Agency should include an explicit, allowable number of hours for a manufacturer-recommended break-in period.