August 9, 2012

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
Mailcode-6102T
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

VIA ELECTRONIC FILING (http://www.regulations.gov)

Attention: Docket ID No. EPA-HQ-OAR-2008-0708

Dear Sir or Madam:

The Interstate Natural Gas Association of America (INGAA), a trade association of the interstate natural gas pipeline industry, submits these comments on the U.S. EPA's proposed rule National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Reciprocating Internal Combustion Engines (RICE), hereinafter referred to as the "Proposed Rule". The proposal, which would revise 40 CFR Part 63, Subpart ZZZZ, was published in the Federal Register on June 7, 2012 at 77 FR 33812. The Proposed Rule includes technical corrections and responds to several settlement agreements, including the proposed settlement agreement with INGAA and other parties published in the Federal Register on June 21, 2012 at 77 FR 37397.

INGAA member companies transport more than 85 percent of the nation's natural gas, through some 190,000 miles of interstate natural gas pipelines. INGAA member companies operate over 6,000 stationary natural gas-fired spark ignition reciprocating engines. These compressor drivers are installed at compressor stations along the pipelines to transport natural gas to residential, commercial, industrial and electric utility customers. INGAA and its member companies have a history of working with the U.S. EPA Office of Air Quality Planning and Standards (OAQPS) on standards that affect equipment used in natural gas transmission, including stationary spark ignited reciprocating engines and combustion turbines. INGAA and its members have supported the development of MACT standards and NSPS rules by providing data and input integral to the technical foundation of these important regulations. INGAA remains committed to providing constructive comments on proposed rules based on the underlying principle that regulatory requirements must be rooted in empirical evidence and sound science.

INGAA appreciates EPA's efforts to incorporate the proposed settlement agreement into the Proposed Rule. INGAA's comments express support for issues related to the settlement agreement and identify other minor issues, including minor technical corrections that could be addressed while Subpart ZZZZ is open. INGAA comments follow.

1. INGAA supports Proposed Rule amendments that allow management practices for additional area source engines in remote locations.

INGAA supports Proposed Rule amendments that revise requirements for existing remote spark ignited area source four-stroke cycle engines >500 horsepower (hp). For these engine subcategories, the Proposed Rule allows management practices rather than requiring catalytic

control. Because these engines are not in proximity to populated areas, INGAA agrees that it is appropriate for area source Generally Achievable Control Technology (GACT) requirements to be based on management practices for remote engines.

2. INGAA supports Proposed Rule amendments that require an equipment standard with alternative testing and compliance monitoring requirements for existing area source engines that require catalytic control.

For existing four-stroke area source engines >500 hp that are not remote, INGAA supports Proposed Rule amendments that would base GACT on an equipment standard that requires catalytic control, and simplified testing and compliance monitoring requirements for these engines. For these engines, the Proposed Rule replaces lean burn engine CO emission standards and rich burn engine formaldehyde emission standards with an equipment standard – i.e., catalytic control. As noted in the preamble at 77 FR 33813, operators "…would be required to test their engines to demonstrate compliance initially, perform catalyst activity check-ups, and either monitor the catalyst inlet temperature continuously or employ high temperature shutdown devices to protect the catalyst". For this area source GACT standard, INGAA supports the simplified testing and monitoring requirements that allow shorter duration portable analyzer CO emission tests and high temperature shutdown rather than a continuous parameter monitoring system.

3. INGAA supports Proposed Rule amendments that allow total hydrocarbon (THC) as an alternative to formaldehyde for verifying compliance for four-stroke rich burn engines with an emission standard.

The items in Comments 1 and 2 were integral to the settlement agreement that included INGAA. A separate settlement agreement that did not involve INGAA considered THC as an alternative to formaldehyde for compliance verification for 4-stroke rich burn engines complying with catalyst percent reduction requirements. INGAA supports the alternative that allows THC testing rather than formaldehyde testing. Formaldehyde is more difficult and costly to measure than THC (and other more conventional pollutants), and using THC as an alternative provides flexibility and reduced compliance burden. This is accomplished without sacrificing compliance assurance because THC reduction from natural gas-fired engines is an indicator of catalyst performance.

4. Significant issues will need to be addressed if the Final Rule does not retain Proposed Rule requirements related to the settlement agreement.

In the Proposed Rule preamble at 77 FR 33824, EPA solicits comment on "…whether special consideration should be given to engines whose requirements would be reduced by this proposal if, in the final rule, the EPA does not finalize the proposed reduced requirements." This appears to be exploring a scenario where proposed revisions, which are primarily based on settlement agreements, are not included in the final rule. As discussed above, INGAA is party to a settlement agreement that addresses management practices for remote area source engines, and simplified equipment standards and compliance monitoring for existing area source engines that require catalytic control. It is imperative that the related Proposed Rule provisions be retained in the final rule. If not, the positive negotiations that occurred while EPA reconsidered Subpart

ZZZZ requirements will have been for naught, and significant issues related to the 2010 RICE NESHAP rulemaking will remain.

In addition, significant time will have elapsed during this reconsideration process, and the lost time impacts the three year compliance window (i.e., by October 2013) for affected existing natural gas-fired engines. For these engines, a rule that does not finalize proposed rule requirements and reverts to the current rule (or something similar) would require schedule revisions that allow additional time beyond October 2013 for all affected units to comply. INGAA hopes that such a scenario does not develop, but if that occurs, INGAA would like to engage in additional discussion with EPA regarding the extension of compliance deadlines to at least late 2014 or 2015.

5. For the area source engine catalyst test required in §63.6630(e) and §63.6640(c), the requirement to conduct simultaneous pre- and post-catalyst tests should be eliminated.

The Proposed Rule streamlines portable analyzer CO testing requirements for affected area source engines with catalytic control, and INGAA supports that revision as discussed in Comment 2. The testing requirements include an initial demonstration requiring three test runs per §63.6630(e). Subsequent tests to confirm catalyst activity are based on a single, 15 minute portable analyzer test per §63.6640(c). For engines that comply with a percent reduction requirement (i.e., percent reduction tests apply to all rich burn engines and are optional for lean burn engines), simultaneous pre- and post-catalyst testing is required according to §63.6630(e)(6) and §63.6640(c)(6). INGAA recommends more flexibility and the use of sequential rather than simultaneous testing – at least for the ongoing tests per §63.6640(c)(6).

INGAA believes that appropriate measures can be instituted to preserve test integrity and ensure that sequential testing pre- and post-catalyst assures compliance. This can be achieved via quality assurance measures such as monitoring parameters that determine engine load or fuel use for consistency during the pre- and post-catalyst testing. However, INGAA is willing to accept simultaneous measurement for the initial, more thorough test. For the ongoing annual tests under §63.6640(c), sequential testing should be allowed.

INGAA recommends that EPA limit the applicability of simultaneous testing to the initial test. Subpart ZZZZ should allow sequential pre- and post-catalyst testing for the subsequent tests required under §63.6640(c) and eliminate §63.6640(c)(6) or revise it to clarify that sequential testing is allowed. Since only a single, fifteen minute test is required, sequential testing presents less of a logistical challenge in ensuring engine operation over the short time frame required. Practical quality assurance measures could be included in §63.6640(c)(6), such as engine fuel flow or load monitoring, and time limits for completing the tests, to assure that the pre- and post-catalyst measurements are conducted under similar operating conditions.

INGAA regards these revisions as minor refinements to the testing requirements agreed to in settlement. In the words of the EPA settlement agreement involving INGAA, Final Rule requirements incorporating INGAA's suggested changes will be "substantially the same substance" as the settlement-tracking requirements appearing in the Proposed Rule.

6. The Proposed Rule will affect many existing area source emergency engines, including many small emergency engines. Criteria for maintenance checks and readiness testing need to be supplemented to allow operator procedures consistent with typical industry practices for engines that do not have readily available maintenance and readiness test recommendations from government agencies or other third parties.

The Proposed Rule will affect many existing area source emergency engines, including many small, isolated units such as emergency engines associated with communication networks along pipelines. The Proposed Rule includes specific criteria that define the basis for maintenance checks and readiness testing. Recommendations from government agencies or third parties, as specified in §63.6640(f)(2)(i), may not always be available for existing area source engines. Additional criteria must be added to the Final Rule to address those circumstances.

§63.6640(f)(2)(i) of the Proposed Rule indicates:

> "Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. …"

Existing area source emergency engines affected by Subpart ZZZZ include many very small engines, such as communication engines along pipelines. Operator defined procedures are often used for maintenance checks and readiness testing of these existing engines, and testing procedures from government agencies or other third party entities listed in §63.6640(f)(2)(i) may not be available. Subpart ZZZZ needs to include criteria for these engines so that maintenance checks and readiness testing are not precluded. Since procedures defined by third parties may not be readily available for existing units, especially for smaller area source engines, operator procedures consistent with typical industry practices should suffice. INGAA recommends that that §63.6640(f)(2)(i) be supplemented to allow tests consistent with industry practices.

The Proposed Rule includes an analogous provision in §60.4243(d)(2)(i) of Subpart JJJJ, and that section should be similarly revised for consistency with Subpart ZZZZ and to address existing engines that may become subject to Subpart JJJJ due to reconstruction or modification. For both Subpart JJJJ and Subpart ZZZZ the 100 hour operating time limit would still apply, so unexpected or substantive emissions would not result from these revisions to the Proposed Rule.

7. For emergency engines, annual operating hours associated with maintenance checks and readiness testing that marginally exceed 100 hours should be reported as a deviation. The engine should not be re-categorized as a nonemergency engine.

The Proposed Rule revises §63.6640(f) of Subpart ZZZZ and §60.4243(d) of Subpart JJJJ to state that an engine will no longer be considered an emergency engine if certain criteria are not met, including the 100 hour annual operating limit for maintenance checks and readiness testing. INGAA believes that this is unnecessarily stringent. While INGAA understands that EPA wants to limit operation in nonemergency situations, including operation for demand response programs, minor aberrations associated with maintenance checks and readiness testing could result in annual operation that marginally exceeds 100 hours, and example scenarios follow. In

such a circumstance, it is not warranted for an engine to lose its status as an emergency engine. Instead, the aberrant event should be reported as a deviation.

For example, an emergency engine could be automated to run for two hours, four times a month for readiness testing and to ensure maintenance issues do not exist. The resulting annual operation would be 96 hours, which is less than the 100 hour allowance. Circumstances could arise that would marginally exceed the 100 hour allowance. For example, late in the year when most of the 100 hours have been consumed, a maintenance issue could arise, and troubleshooting, repair, and engine restart could require run time that would marginally exceed the 100 hour maximum. Since immediate repair may be needed to ensure emergency systems are functional, these activities could not be delayed to the following year. Deviation reporting is a more appropriate regulatory response for this scenario. In a similar example, the same engine (with 96 annual operating hours for readiness testing) could have an automation failure late in the year where the engine is started, but automatic shutdown fails and operating time marginally in excess of 100 hours accumulates before manual shutdown occurs. Similar to the previous example, deviation reporting is appropriate in this scenario.

If EPA is concerned about demand response operation exploiting this approach, then the Subpart ZZZZ and JJJJ sections can be revised to preclude this allowance for demand response operation, but allow deviation reporting associated with aberrations for maintenance checks and readiness testing. INGAA strongly believes that re-categorizing an engine as a nonemergency engine if an aberration occurs is an extreme and unwarranted approach. Deviation reporting should be allowed for issues associated with maintenance check and readiness testing operating hours. The reporting process provides EPA and/or delegated agencies the means to validate that this allowance is not abused or applied inappropriately.

8. Subpart ZZZZ implementation issues are discussed in a Questions and Answers document released by EPA on July 17, 2012. INGAA has concerns and will provide separate comments on that document.

EPA released an updated Subpart ZZZZ implementation question and answer document on July 17, 2012 (July 2012 Implementation Q&A Document). INGAA is concerned that this release during the Proposed Rule comment period may pose issues related to this rulemaking. INGAA has conducted an initial review of the document and will likely have comments on several items. In addition, there are other implementation issues that could be addressed in the document. INGAA plans to provide comments on the July 2012 Implementation Q&A Document in a separate letter to EPA.

An example INGAA concern is provided here. While INGAA understands that the Q&A Document is guidance and not binding, it will serve as the basis for rule implementation and compliance assessments for delegated agencies. Question 21 of the document addresses temperature CPMS data roll-up, and the response indicates that 15 minute (or more frequent) "instantaneous" data should be rolled into an hourly average. This is consistent with previous discussions INGAA has had with EPA. However, the response goes on to indicate that hourly data averaging to 4-hour rolling averages should span engine shutdown and re-start –i.e., rather than restarting the temperature monitoring clock when an engine re-starts, hours pre-shutdown are retained and then averaged with the next hourly averages when the engine is re-started.

This approach was not previously indicated by EPA during CPMS discussions (e.g., during discussions associated with the March 2011 Subpart ZZZZ direct final rule to address CPMS requirements) and is not consistent with how 4-hour rolling averages have been implemented in CPMS data acquisition system logic for at least some operators already complying with Subpart ZZZZ CPMS requirements. In these cases, the clock for data roll-up is reset when the engine restarts, and INGAA believes this is a more appropriate approach. INGAA has several concerns on this issue and would like to engage in additional discussion with EPA on Question 21 and its response.

INGAA will provide more detailed and substantive comments in a separate letter and looks forward to additional discussion on the July 2012 Implementation Q&A Document. In addition, Comment 9 discusses two items tangentially related to the Q&A Document.

9. Other Technical Corrections: EPA should take advantage of the opportunity available during this rulemaking to address other minor technical corrections to Subpart ZZZZ. Several recommendations follow.

EPA should address other technical corrections that clarify rule requirements while Subpart ZZZZ is open. INGAA has discussed several items with EPA in recent years that have caused implementation issues, and INGAA recommends technical corrections to Subpart ZZZZ while the opportunity is available. Although not in the Proposed Rule, INGAA believes that these simple technical corrections are warranted to correct potential conflicts or unclear rule requirements. INGAA recommends that EPA address the following items:

- Table 8 should be revised to eliminate confusion regarding whether SSMPs are required.

  As EPA is aware, startup, shutdown malfunction (SSM) requirements were revised in 2010 amendments to Subpart ZZZZ. However, provisions related to SSM events and an SSM Plan (SSMP) are still indirectly linked to Subpart ZZZZ through references to the Subpart A General Provisions. These linkages imply that an SSMP and associated reporting are still required.

  INGAA previously raised this issue with EPA and was verbally told that SSMPs should no longer be required for Subpart ZZZZ. However, operators are conflicted by requirements within the General Provisions, and INGAA recommends simple technical corrections to provide clarity. The 2010 amendments corrected some references to SSMPs, but Subpart ZZZZ links to Subpart A requirements still remain. Additional details follow that explain Subpart ZZZZ and Subpart A sections that imply SSMP applicability:

  - 2010 revisions to Subpart ZZZZ, Table 8 indicate that §63.6(e) does not apply. Section 63.6(e) addresses SSM and 63.6(e)(3) requires an SSMP; Table 8 appropriately indicates that this section does NOT apply. However, an SSMP (i.e., §63.6(e)) is linked to Subpart ZZZZ through other citations.

  - In the CPMS specification section, §63.6625(b)(1)(iv) cites §§63.8(c)(1) and (3). For (c)(1), it appears that only (c)(1)(ii) should be cited. §63.8(c)(1)(i) refers to §63.6(e)(1),

which is not applicable according to Table 8, and §63.8(c)(1)(iii) requires an SSMP prepared according to 63.6(e)(3). These General Provisions are provided here:

"63.8(c)(1)...

(iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in §63.6(e)(3)."

"63.6(e)(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to – "

There are additional SSMP requirements defined in §63.6(e)(3)(i) – (ix) but those provisions are not provided here. These General Provision linkages to SSMP requirements are causing implementation concerns because of direct links to requirements for an SSMP. Since the SSM exemption was removed from Subpart ZZZZ in 2010, the SSMP and other related requirements should not apply. Unless this is addressed, operators are in the position of wasting resources on unnecessary reporting and recordkeeping requirements.

An apparent and appropriate technical correction would revise §63.6625(b)(1)(iv) to eliminate references to §63.8(c)(1)(i) and (iii); and/or, §63.6625(b) could add another provision that clearly states that Subpart A monitoring section references apply for operational issues but not for SSM related issues and that SSMPs are not required. A clear indication that SSMPs do not apply is warranted.

- Table 8 and §63.6600 should be revised to clearly indicate that onsite records are not required.

Minor revisions to Subpart ZZZZ are warranted to clarify requirements for onsite records. In the July 2012 Implementation Q&A Document, the response to Question 12 indicates that records need to be accessible but *not* retained on-site. However, that response conflicts with §63.6660(a) and Subpart ZZZZ Table 8, which both indicate that §63.10(b)(1) applies. Section 63.10(b)(1) clearly states that, "At a minimum, *the most recent 2 years of data shall be retained on site*. The remaining 3 years of data may be retained off site." [emphasis added] Without exception language in Subpart ZZZZ, §63.10(b)(1) criteria would appear to apply.

INGAA agrees with the EPA's intent expressed in response to Question 12 in the July 2012 Implementation Q&A Document, but that response does not comport with §63.10(b)(1). To add clarity, INGAA recommends that §63.6660(a) be amended to state, "Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1),

except the most recent two years of data must be readily accessible but do not need to be retained on site." In addition, for the line item related to §63.10(b)(1) in Table 8, the "explanation" column should be amended to include this same exception text.

- Monthly pressure drop measurement requirements should be clarified for situations where engine operation precludes the monthly, high load measurement.

  In previous comments and discussions with EPA, issues associated with engine operating constraints and implications for the monthly pressure drop (ΔP) measurement have been discussed. EPA has attempted to address implementation issues by providing responses to several scenarios in the July 2012 Implementation Q&A Document. However, issues remain that impose unnecessary burden on operators (i.e., going to extraordinary measures to make a ΔP measurement or filing for alternative monitoring) and EPA or delegated authorities (i.e., reviewing and approving alternative monitoring for many engines that require ΔP monitoring).

  The Q&A document attempts to address these issues through guidance provided in response to questions 16 through 19. However, issues remain. For example, responses indicate ΔP should be measured *immediately* upon engine restart; and, an "alternative monitoring" request is required if high load is not achieved in a given month. For the former example, engine (startup) automation and unmanned facilities (e.g., on weekends) may preclude the ability to measure ΔP "immediately upon startup". For the latter, it would be anticipated that at some point in time nearly every engine would operate at only a reduced load in a particular month and higher load may not be feasible. Thus, operators would need to apply for – and EPA review and approve – an alternative for many affected units. Since this scenario cannot be predicted in most cases, proactive requests may need to be pursued. Subpart ZZZZ should not require an "alternative" request for a scenario that will likely occur at some point in time for most affected units. INGAA recommends that EPA clarify the timing of monthly ΔP monitoring for no- or low-use operating months, and for low load operation, and provide a solution that considers:

  - Engines may operate at less than full load, and the owner/operator may have limited or no readily available method to increase load to 90% or higher for the ΔP measurement. As INGAA indicated in comments and through data provided in response to the original RICE MACT proposal, testing at lower load effects the ΔP measurement and the full load test restriction is necessary to consistently meet the required operating limit (i.e., if the test is completed at a different load than the baseline high load test, the different exhaust flow alone could cause the ΔP difference relative to the baseline to exceed the allowed 2 inches of water column).

  - Shutdown of engines for an entire month is not unusual and should be addressed in Subpart ZZZZ.

  - Sporadic or infrequent operation in a particular month is also very common, especially for units in natural gas transmission or storage applications.

- Unmanned or partially manned facilities with automated engine startup pose an issue for completing a test "immediately upon startup". Operational control remote from the facility complicates engine re-starts and the ability to measure ΔP immediately upon startup.

INGAA believes that an approach *similar* to the response to question 17 in the July 2012 Implementation Q&A Document is appropriate, with additional measures to preclude tests *immediately* upon re-start. The recommended approach would include the following components:

- Owners/operators are required to conduct monthly pressure drop monitoring as required by Subpart ZZZZ, unless operations within the month prevent measurement.

- If the RICE does not operate during a given month, does not achieve 100% load +10%, or has limited operation in a month and is shutdown before the owner/operator completes the ΔP measurement, then the owner/operator is not required to startup the engine or take extraordinary actions to increase load solely to record the pressure drop.

- The owner/operator should record the pressure drop as soon as practical after startup of the RICE and document the basis for the timing of the measurement.

- For engines that commonly operate at reduced load and cannot readily achieve full load, the operator can choose to establish a ΔP "baseline" at more than one load (i.e., at reduced loads) during the performance test. The appropriate baseline can be used for comparing ΔP for subsequent monthly evaluations.

- The semi-annual report required in Section 63.6650 should identify the operational status of the affected engine to substantiate the basis for any calendar month that ΔP is not measured due to these operational limitations.

- If EPA or the delegated agency believes that the owner/operator may be attempting to circumvent the required continuous monitoring provisions of Subpart ZZZZ, EPA or the delegated agency may require that the owner/operator startup the RICE for the purpose of ensuring compliance with the operating limits.

INGAA believes that clarification to ΔP monitoring requirements should be addressed in Subpart ZZZZ, and it is inappropriate for alternative monitoring requests to be the solution for a situation that is likely to occur at some point in time for many affected units. INGAA recommendations result in reasonable compliance assurance that avoids unnecessary engine operation or pursuing the burdensome and time consuming process of alternative monitoring.

• <u>Subpart ZZZZ should incorporate Test Method revisions from the January 2012 proposed rule</u>.

EPA proposed revisions to test methods and testing regulations in January 2012 [77 FR 113]. That proposal addressed a number of regulations and EPA reference methods, including revisions to Subpart ZZZZ and Subpart JJJJ testing tables, and included positive revisions.

However, it is not clear if or when EPA plans to finalize the "test methods" rule. INGAA recommends that relevant Subpart ZZZZ items be addressed in the final rule, including:

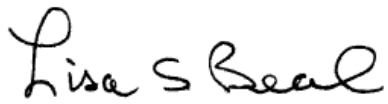
- INGAA supports revisions to Subpart ZZZZ Table 4 that allows sample probe placement at the engine exhaust centroid rather than completing a Method 1 or 1A traverse.

- INGAA supports moisture determination using Method 320 or an F-Factor as alternatives to EPA Method 4. The simple "alternatives" text regarding these two methods added to Method 4 in the January 2012 proposal should be added to Subpart ZZZZ Table 4.

- When revising Table 4, EPA should be sure that other erroneous changes are not introduced. The January 2012 proposed rule includes revisions to the Subpart ZZZZ table that introduces errors or omissions (e.g., footnotes were mistakenly deleted). Adding the items in the two bullets above can be easily accomplished without introducing other issues.

INGAA appreciates the opportunity to comment on this rulemaking. If you have any questions, please contact me at 202-216-5935 or lbeal@ingaa.org.

Sincerely,



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