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November 30, 2011

Air and Radiation Docket and Information Center  
U.S. Environmental Protection Agency  
Attention: Docket ID No. EPA-HQ-OAR-2010-0505  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

Re: GCA Comments on proposed New Source Performance Standards and National Emission Standards for the Oil and Natural Gas Sector

Dear Docket Clerk:

The Gas Compressor Association (GCA) is a trade organization for the natural gas compression industry. Our member companies manufacture and package natural gas compressor packages and related components. The products our member companies manufacture, sell and often operate are utilized throughout the oil and gas industry to fill the energy needs of our nation. The GCA would like to provide comments on six main topics:

1. The Proposed Definition of "Affected Facility" for Reciprocating Compressors and Centrifugal Compressors\* is Contrary to the Plain Language of the CAA's New Source Performance Standard Program and EPA's Longstanding Regulatory Definition of "Commence Construction".
2. Replacement intervals for reciprocating compressor rod packings should allow for the option of a calendar based frequency in addition to the hour based frequency.
3. The definition of pneumatic controller affected facility needs revision to prevent the imposition of overly burdensome reporting and recordkeeping requirements upon facilities with insignificant regulated emissions.
4. The EPA should provide specific clarification in the rule that rotary screw compressors are not covered by this rule making process.
5. The Natural Gas STAR program is not suitable for mandatory widespread use in the oil and gas industry.
6. The EPA's continued reliance on the term "Owner and Operator" is inappropriate for the Oil and Gas Segment in general and this rule in particular and seriously hinders compliance with the rule.

## **Comment 1: The Proposed Definition of "Affected Facility" for Reciprocating Compressors and Centrifugal Compressors\* is Contrary to the Plain Language of the CAA's New Source Performance Standard Program and EPA's Longstanding Regulatory Definition of "Commence Construction".**

*\*Note: For simplicity, in the comments below, the GCA has cited language and examples regarding reciprocating compressors. The GCA intends for these comments to be for both reciprocating AND centrifugal compressors, as the concepts discussed are applicable and should be applied to both types of compressors.*

GCA objects to the proposed definition of "Affected Facility" for reciprocating compressors as proposed in 40 C.F.R. 60.5365(c). Contrary to Section 111 of the federal Clean Air Act and EPA's longstanding NSPS regulatory interpretation, the proposed rule attempts to apply "commenced construction" to existing sources.

EPA's proposed application of "commenced construction" to an existing source— potentially a relocated compressor that has neither "commenced" construction, as defined under 40 C.F.R. 60.2, after the effective date nor been subject to a reconstruction or modification as defined by EPA—is contrary to the plain language and intent of the CAA. Additionally, it is a dramatic and unnecessary departure from EPA's long-standing interpretation of "commenced construction."

Specifically, the proposed subsection reads:

(c) A reciprocating compressor affected facility, which is defined as a single reciprocating compressor located between the wellhead and the city gate (as defined in §60.5430), except that a reciprocating compressor located at a well site (as defined in §60.5430) is not an affected facility under this subpart. *For the purposes of this subpart, your reciprocating compressor is considered to have commenced construction on the date the compressor is installed at the facility.*

*Proposed 40 C.F.R. §60.4365, italics added.*

**Summary of Recommendation:** GCA recommends that EPA remove the last sentence, in italics above, from the proposed affected facility definition for reciprocating compressors. Neither the proposed OOOO Rule preamble, the Regulatory Impact Analysis, nor any other supporting rulemaking materials acknowledged that or explained if EPA meant to drastically change the application of "commenced construction." If this is intended, the docket is also void of any reasoned explanation for such changes. Regardless, even if EPA granted notice and comment on the proposed language, redefining "commenced construction" as proposed for existing sources would be in conflict with the plain meaning of the CAA and prior precedent. *NRDC v. EPA*, No. 10-1056 (D.C. Cir. 2011) (finding that where EPA violates the CAA's plain language as interpreted by the court, that is the end of the matter).

Deleting the last sentence in the definition of affected facility for reciprocating compressor would provide greater clarity regarding the application of the rule and avoid regulatory and enforcement uncertainty associated with an unprecedented application of the NSPS rule on existing sources.

The following sections outline how the CAA's NSPS statutory provisions and EPA regulations, including case law and applicability determinations, have confirmed that "commenced construction" is limited to "new sources" and should not be applied to existing sources which have merely been moved and have not been "modified" or "reconstructed".

#### **1. The Proposal is Contrary to the Plain Language of the Federal CAA**

With a single sentence in the affected facility definition of compressors, EPA removes the consideration of a *new source*, the very basis of the NSPS program, from the proposed rule. The CAA reads,

"New Source means any stationary source, the construction or modification of which is commenced after publication of regulation"...

42 U.S.C. §7411(a)(2).



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Courts have consistently applied the plain language of the CAA when interpreting the definition of a "new source." For example, one federal district court opined that "construction" of a new source means building something that didn't exist before. Specifically, the court stated that:

Numerous courts have considered the meaning of the term "construction" in resolving a question of statutory interpretation. **The uniform conclusion is that "construction" imports the creation of something new and original that did not exist before.** See, e.g., *Muirhead v. Pilot Properties Commission*, 258 So.2d 232, 233 (Miss.1972); *Commonwealth v. McHugh*, 406 Pa. 566, 567, 178 A.2d 556, 558 (1962); *Olney v. Hutt*, 251 Iowa 1379, 105 N.W.2d 515 (1960). In light of the plain meaning of the word, and the unanimity of Courts' interpretation of the term, **the "construction" of a new source under the Clean Air Act means the building, creation or erection of something new. The term does not refer to the repair or improvement of something already existing.** Further, Congress, by including modification provisions, expressly legislated standards relating to repairs to, or improvements of, plants. See §§ 111(a)(2) and 111(a)(4) of the Clean Air Act, 42 U.S.C. §§ 7411(a)(2), 7411(a)(4).

*US v. Narragansett Improvement Company*, 571 F.Supp. 688 (D-RI 1983).  
(emphasis added.)

Instead of using commenced construction for "the building, creation or erection of something new" the proposal arbitrarily applies NSPS regulations on existing sources. Contrary to the plain language of the CAA, the proposal is an unlawful retroactive application of a new NSPS standard on an existing facility which is not new, modified or reconstructed.

## **2. The Proposal is Contrary to EPA's NSPS Regulations and Applicability Determinations**

EPA's NSPS regulations and applicability determinations applying those regulations have always confirmed that NSPS does not apply to an existing source unless such source has been modified or reconstructed after publication of the associated rule. Relocation alone has not triggered NSPS applicability.

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EPA has incorporated the plain meaning of the CAA new source provision into its Subpart A definition of "commenced" as follows:

Commenced means, with respect to the definition of "*new source*" in Section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

40 C.F.R. §60.2, italics added.

Previous NSPS Applicability Determinations have clarified that NSPS regulations do not view relocating an existing affected facility as "commenced construction". See ADIs A029; A023; 0300006. In the following Applicability Determination (A029), EPA walks through when the CAA NSPS program, CAA Section 111, *does not* apply to an existing facility that has been dismantled and relocated:

**EPA has previously interpreted Section 111 of the Clean Air Act, and the implementing regulations found in 40 C.F.R. Part 60, to exclude from their operation those facilities which meet the following conditions.**

- 1. They were constructed before the effective date of a New Source Performance Standard.**
- 2. They were closed or moved to a different location.**
- 3. They were later operated in the same manner as they had been previously designed to operate.**
- 4. They emitted not more of the specified pollution than the original facility had.**

*Dismantling and Reconstruction*, Memorandum from O.W. Lively to Gary D. Whaley, NSPS Applicability Determination A029 (October 1, 1976).

Likewise, as recently as 2002, EPA confirmed the basic interpretation that "commenced construction" does not apply to the relocation of an affected facility. Addressing whether turbines, the affected facility, which are moved from location to location are subject to NSPS, EPA confirms in the following response that affected facilities are not subject to NSPS based upon the date of relocation alone:

Assuming the maintenance does not result in a "modification" or reconstruction," as those terms are defined in 40 CFR subpart A, and, assuming that the turbines are not otherwise "modified" or "reconstructed," as those terms are defined in 40 CFR subpart A, as a result of the relocation of the turbines, **relocation of a turbine as part of pool of identical turbines would not make the turbine subject to NSPS...**

*Turbine Relocations and Impacts on NSPS Applicability*, Memorandum from Jeff KenKnight to Jordan Jacobson, NSPS Applicability Determination 0300006 (August 1, 2002) *citing* 40 CFR 60.14(e)(6)(the relocation or change in ownership of an affected facility is not, by itself, a modification); Letter from Steven C. Riva, Chief, Permitting



Section, Air Programs Branch, EPA Region 2, to Thomas Micai, Chief, Bureau of Operating Permits, Air Quality Permitting Program, New Jersey Department of Environmental Protection, dated April 1, 1999 (switching a pool of identical turbines among different generating stations to allow for the routine repair of malfunctioning units does not constitute a "modification" for purposes of NSPS provided the turbines are not otherwise modified or reconstructed); letter from R. Douglas Neeley, Chief, Air and Radiation Technology Branch, Air, Pesticides and Toxics Management Division, EPA Region 4, to Ronald W. Gore, Chief, Air Division, Alabama Department of Environmental Management, dated March 1, 1999 (Control Number 0000110) (subpart GG does not apply to turbines retrofitted with pollution control equipment or relocated to another facility if the cost for any repairs or maintenance undertaken as a result of relocation is less than 50% of the cost for comparable new turbines; assumes the retrofitting with pollution control equipment will not increase emissions).

Originally promulgated in 1975, EPA's definition of "modification" also exempts relocated facilities from NSPS. 40 C.F.R. §60.14(e)(6). 40 Fed.Reg. 58416, 58419-58420 (Dec. 16, 1975). This provision allows relocation of the same unit to a new location as long as 1) there are no increases in emissions which would constitute an emission increase (and, therefore, it is not a "modification"); and 2) fixed capital costs to replace certain components of the unit will not exceed 50 % of the cost to construct a new comparable affected facility (and, therefore, it is not a "reconstruction").

In summary, far from applying NSPS to an existing facility, EPA has clearly stated that NSPS *does not* apply to a relocated facility. In addition to several NSPS applicability determinations on this very point, EPA went so far as to clarify in the regulations that relocating an existing engine does not meet the requirements for an NSPS applicable "modification." As discussed below, EPA has not provided any reasoned explanation for this departure from the CAA NSPS statutory requirements.

### **3. EPA Failed to Provide Any Explanation for its Departure from the Statutory Interpretation of "Commenced Construction"**

The proposed application of "commenced construction" to an existing, albeit relocated, compressor is arbitrary and capricious because EPA is greatly expanding the application of NSPS without a "reasoned explanation." See *AirMark Co. v. FAA*, 758 F.2d 685, 692 (D.C. Cir. 1985) stating that "an agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored, and if an agency glosses over or swerves from prior precedents without discussion it may cross the line from tolerably terse to intolerably mute." *Greater Boston Television Corp. v. FCC*, 143 U.S. App. D.C. 383, 444 F.2d 841, 852 (D.C. Cir.1970) (citations omitted), cert. denied, 403 U.S. 923, 29 L. Ed. 2d 701, 91 S. Ct. 2233 (1971).

Further, the OOOO Proposal lacks any statement of basis. The CAA requires EPA to publish with its notice of proposed rulemaking an accompanying statement of basis and purpose, which includes summary of the factual data on which the proposed rule is based, the methodology used in obtaining and analyzing the data and the major legal interpretations and policy considerations underlying the proposed rule. 42 U.S.C. § 7607 (2)-(3); see also *Small Refiner Lead Phase- Down Task Force v. EPA*, 705 F.2d 506 (D.C. Cir. 1983).

EPA has a legal obligation to justify its regulatory decisions with data, analysis and demonstrably rational decision-making. *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Insurance Co.*, 463 U.S. 29, 43 (1983). In the OOOO Proposal, EPA failed to provide any reasons or data that explained the dramatic departure from the traditional "commenced construction" application to new sources and the expansive triggering of NSPS upon the mere movement of inherently mobile compressors.

In conclusion, GCA requests that EPA delete the last sentence in the definition of affected facility for reciprocating compressors found at 40 C.F.R. §60.4365(c). That sentence assumes a facility "commenced construction" merely because it is installed at a facility without consideration of whether the source is new, modified or reconstructed and is in direct conflict with prior court and agency NSPS statutory and regulatory interpretations. Therefore, we request that EPA make the recommended change to avoid regulatory and enforcement uncertainty associated with an unprecedented application of the NSPS rule to existing sources.

## **Comment 2: Replacement intervals for reciprocating compressor rod packings should allow for the option of a calendar based frequency in addition to the hour based frequency**

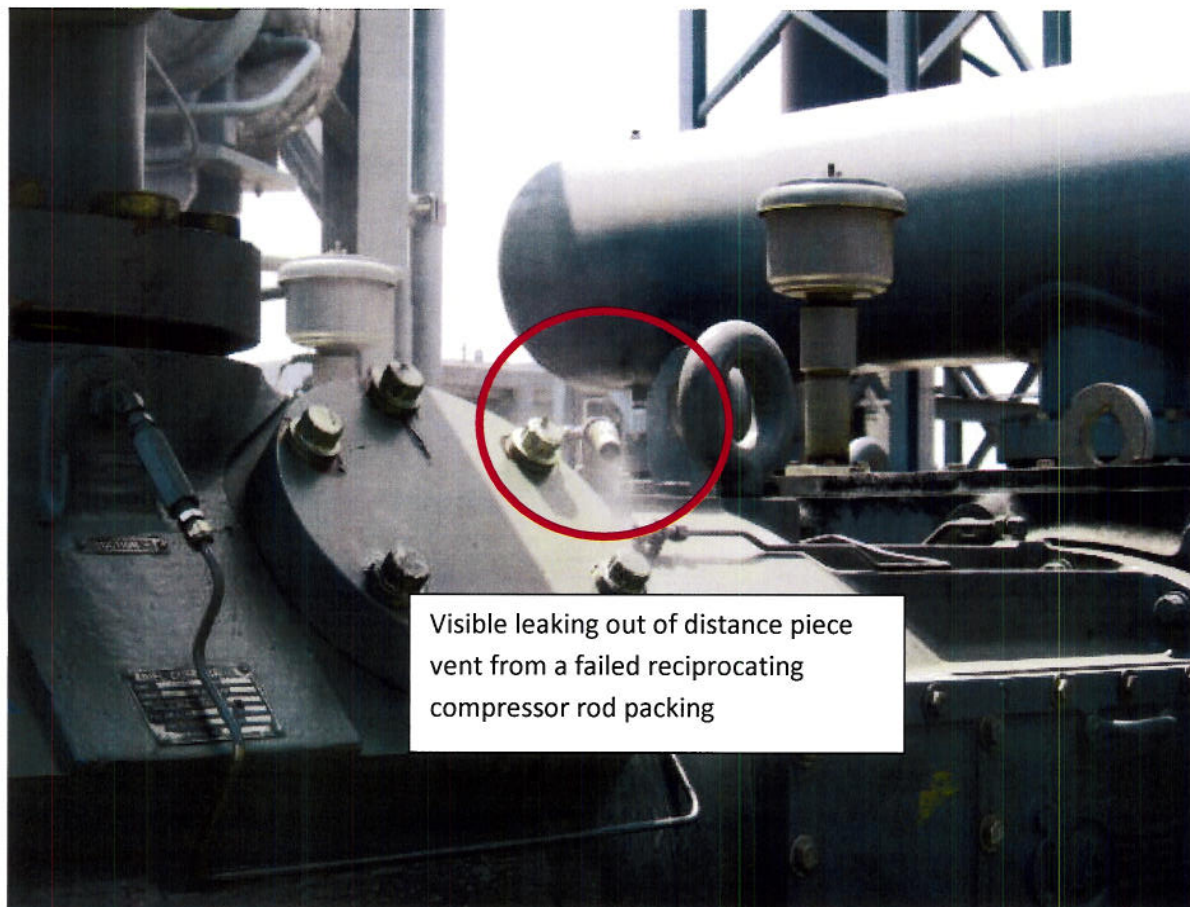
(Note: These comments apply only to rod packings on reciprocation compressors.)

The EPA has proposed replacement of the compressor rod packings in reciprocating compressors after 26,000 hours. Furthermore, the EPA has proposed that operators continuously monitor the hours of operation and report those hours of operation in an annual report. From a clean air perspective the value of the rule lies in a proactive replacement of the packings before they are worn and leaking. The record keeping requirement is a means to an end and does not in itself provide any value. As proposed, the rule does not allow sufficient operational flexibility. Many compressor packages do not have hour meters, or operators do not have sufficient personnel and procedures to adequately track hour by hour operation. Additionally, hour meters currently available for use on remote compressor packages are have known reliability and operating issues. Therefore, the GCA suggests the EPA allow an alternate means of compliance demonstration in lieu of the monitoring and tracking of hours by requiring the replacement of rod packings prior to the compressor accumulating 36 months of *actual* operation. A company should be able to utilize all sources of available information such as fixed asset tracking mechanisms or contract documents in the case of leased equipment to determine whether a compressor was active or idle during each monthly period. For example, a compressor may operate for 20 months at a location and then be transferred to a storage yard for 12 months before being redeployed on another location. At that point the compressor has accumulated 20 months of actual operation and 12 months of idle time. Therefore, the company would have another 16 months of actual



operation before the rod packings were required to be replaced. This would still be consistent with 26,000 hours of operation.

It should also be noted that in the event of a premature rod packing failure, it is standard industry practice to replace the rod packing in an expeditious manner for safety reasons, regardless of any air quality regulations. A failed rod packing would be indicated by visible leakage from the distance piece vent as shown in the graphic attached to an email sent on August 20, 2010 from Tony Robledo (EPA Region 6) sent to Larry Aldridge (Holt Caterpillar). The graphic from that email is included below with an indication of the visible leakage.



Visible leaking out of distance piece vent from a failed reciprocating compressor rod packing

Finally, with regard to annual reporting requirements, there is no additional benefit to companies submitting annual reports with cumulative hours or time periods of operation. Industry should be allowed the flexibility to document its compliance efforts in the manner most appropriate to the specific processes and procedures already in place for each individual company. The EPA or its delegated representative can audit compliance documentation as appropriate.



### **Comment 3: The definition of pneumatic controller affected facility needs revision to prevent the imposition of overly burdensome reporting and recordkeeping requirements upon facilities with insignificant regulated emissions.**

As proposed, this rule will result in facilities characterized by insignificant regulated emissions being regulated under NSPS as affected facility. GCA believes that the definition of pneumatic controller affected facility needs to be revised in order to prevent the imposition of a significant and unwarranted regulatory burden on the regulated community.

GCA advocates the concept of limiting the affected facility definition to high bleed *gas-driven* pneumatic controllers and recommends that §60.5365(d) be revised to specify *continuous bleed gas-driven pneumatic controllers*. This change should be accompanied by further clarification that affected facilities exclude controllers driven by natural gas with VOC concentrations below a specified percentage (i.e., 5%). This change is recommended because of widespread use of compressed air or “instrument air” or other gas having little or no VOCs to drive pneumatic controllers. Regulating these controllers as affected facility imposes a significant burden on the regulated community without any added benefit.

GCA supports regulation of continuous bleed controllers as pneumatic controller affected facility and feels that further clarification is needed to prevent uncertainty regarding the scope of this definition. That affected facility is not intended to include snap acting and other intermittent vent controllers is supported by the following EPA statement in Section 5.1 of the Technical Support Document (TSD): *“Since actuation emissions serve the device’s functional purpose and can be highly variable, the emissions characterized for high-bleed and low-bleed devices in this analysis (as described in section 5.2.2) account for only the continuous flow of emissions (i.e. the bleed rate) and do not include emissions directly resulting from actuation”*. Although proposed definitions for high bleed and low bleed controllers in §60.5430 further reinforce our understanding that EPA intended to limit affected facility to continuous bleed pneumatic controllers, GCA feels that that the final rule should specify both EPA’s implied intent, and our supported position, that snap acting and other intermittent vent controllers are low bleed devices that are exempt from consideration as affected facility.

Other comments submitted for EPA’s consideration include the following:

- EPA’s proposal to require pneumatic controllers to meet the 6 standard cubic feet of gas per hour will essentially outlaw high bleed rated devices at non-gas processing plants. There are literally hundreds of pneumatic controller model manufacturers and thousands of models available on the market, and the apparent benefit from this rulemaking is that high bleed controllers would be replaced with low bleed controllers. Consideration should be made to

allowing a phase-in period to minimize the economic impact on manufacturers and suppliers with inventories of high-bleed pneumatic controllers.

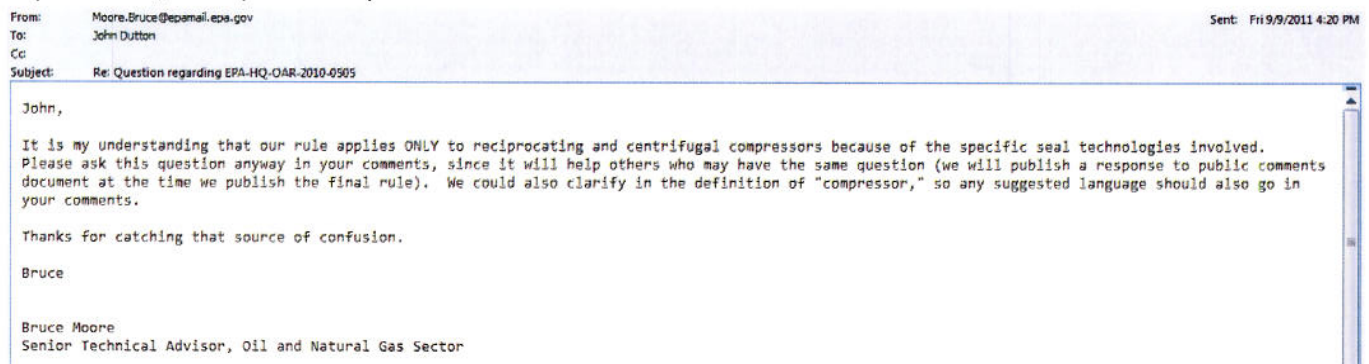
- A significant number of pneumatic controllers typically exist at each operating location. Requiring determination as to whether each repair, replacement or maintenance event performed on a controller at a given site constitutes a modification or reconstruction will impose an enormous reporting and recordkeeping burden on both EPA and the regulated community. These requirements are impracticable and present a compliance target that is both monumental and unrealistic. GCA recommends as a practicable alternative that EPA consider incorporating into the final rule means for site wide determinations (i.e., affected facility, reconstruct, modification) to be used in lieu of performing such determinations for each pneumatic controller.
- Given the number of number of pneumatic controller manufacturers, models and number of controllers that will typically exist at an operating site, obtaining manufacturer's guarantees that each controller is designed such that natural gas emissions are less than 6 standard cubic feet per hour is both problematic and impractical. GCA recommends that the rule instead prescribe a design standard by revising 60.5410(d)(3) to require manufacturer's design specifications documenting that the controller emits less than or equal to 6.0 scf gas/hr.



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## Comment 4: The EPA should provide specific clarification in the rule that rotary screw compressors are not covered by this rule making process.

It is the understanding of the GCA that rotary screw compressors are not regulated by this rule. This understanding is based on an email from Bruce Moore (EPA) to John Dutton (J-W Power Company) on September 9, 2011 (see below).



The GCA recommends that language be included to provide this clarification that rotary screw compressors are excluded from regulation and to avoid further compliance confusion. Specifically, the GCA recommends that the definition of "compressor" and "centrifugal compressor" be amended as follows:

- *Compressor* means a piece of equipment that compresses process gas. For the purpose of this rule, only reciprocating compressors and centrifugal compressors are affected facilities.
- *Centrifugal compressor* means a piece of equipment that compresses a process gas by adding kinetic energy by means of mechanical rotating vanes or impellers. Centrifugal compressors do not include positive displacement compressors such as liquid ring compressors and rotary screw compressors.

## Comment 5: The Natural Gas STAR program is not suitable for mandatory widespread use in the oil and gas industry.

The Natural Gas STAR program attempts to instigate a pro-active maintenance approach whereby the leakage on the seals is monitored and the seals replaced when the value of the gas lost exceeds the cost of the replacement seals. The STAR program is not suitable for several reasons:

1. The analysis in the STAR program used a natural gas price of \$7/MCF, which is nearly double the current value. Therefore, the value of the gas savings is severely overstated.
2. In many instances, the beneficiary of the gas savings is not the same entity that bears the cost of the seal replacement. Examples include:

- Many contractual arrangements allocate fuel and/or lost and unaccounted for gas back to the owner of the gas, whereas equipment maintenance is usually on the operator of the equipment, not necessarily the same entity.
  - In rental compression, maintenance costs are usually born by the compressor rental company, while the cost of lost gas is born by the producer or customer.
3. The majority of facilities in the oil and gas industry are remote, unmanned facilities. Frequent monitoring of compressor seals at remote, unmanned facilities is much costlier than in a manned facility typical of the STAR program. This includes the cost of equipping and training a large number of personnel that work a large geographical area where sharing of sensitive electronic equipment is impracticable.
  4. The GCA believes that, for reciprocating compressors, the STAR program is duplicative and would not provide any significant benefit over a reasonable pro-active replacement schedule. In many cases the replacement interval would exceed the proposed interval and would incur additional costs for monitoring. If the EPA is intent on utilizing a program similar to the STAR program, it should be 1) Voluntary and 2) Exempt the operator from the 26,000 hour replacement interval.



## **Comment 6: The EPA's continued reliance on the term "Owner and Operator" is inappropriate for the Oil and Gas Segment in general and this rule in particular and seriously hinders compliance with the rule**

The EPA should either reconsider using "Owner or Operator" as the responsible party in this proposed rule or provide concrete guidance on responsibility in situations involving leased equipment and contract operations. In many other industries, the Owner and the Operator are the same entity or the roles are sufficiently defined. However, in this case the regulations are being applied down to such a low level that without further clarification will cause regulatory confusion. For example, a reciprocating rod packing is minor component of a reciprocating compressor that is typically installed on a skid with an engine and other piping. The compressor package is leased as a whole. In some instances, maintenance is performed by the lessor and in some instances, the maintenance is performed by the lessee. If the maintenance is done by the lessee, then the Owner (who is the lessor) has no control of when the rod packings are replaced. Although the term "Owner and Operator" creates flexibility with regard to formal enforcement, the reality is that the term actually hinders compliance efforts by causing regulatory confusion for both the regulated community and the agencies responsible for their oversight. When questioned about who is responsible in these situations, the responses are that the parties are "inextricably connected" or that they have "joint culpability". Although this is beneficial from an enforcement perspective, the real effectiveness of regulatory action rests in the industry voluntarily complying with the rule at levels far beyond what could reasonably be formally enforced. This requires clear and concise requirements and clearly defined responsibilities. The EPA has attempted some clarification in this regard within the GHG reporting rule (see excerpt from 40 CFR 98.238):

*40 CFR 98.238...Onshore petroleum and natural gas production owner or operator means the person or entity who holds the permit to operate petroleum and natural gas wells on the drilling permit or an operating permit where no drilling permit is issued, which operates an onshore petroleum and/or natural gas production facility (as described in §98.230(a)(2). Where petroleum and natural gas wells operate without a drilling or operating permit, the person or entity that pays the State or Federal business income taxes is considered the owner or operator.*

This type of thought process is a good start but needs to be further clarified and expanded for this rule. The GCA recommends that in general, the permit holder should be the responsible party and in absence of a permit, the "customer" should be the responsible party. In many cases, the permit holder would be both the "Owner" and "Operator" and if not, then the permit holder would also generally be the "customer" in a vendor-customer relationship. The customer sets the expectation and requirements of the business relationship, and is therefore able to ensure compliance by nature of vendor selection. The free market and competition will then determine the cost for compliance, and the most efficient methods will be promulgated, which provides for the lowest cost. The GCA is supportive of clean air

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initiatives, but these need to be accomplished in a cost effective manner with a clearly defined line of responsibility and in a way that works with our free market economy instead of against it.

## Summary

The GCA wishes to thank the EPA for the opportunity to make the preceding comments and for its thoughtful consideration of the same. If you have any questions regarding this submittal please contact the GCA via our management company (NACM) at 972-518-0019 or John Dutton, Environmental Committee Chairman, at 972-233-8191.

Sincerely,

A handwritten signature in dark ink, reading "John Dutton". The signature is fluid and cursive, with the first name "John" and last name "Dutton" clearly legible.

John Dutton

Environmental Committee Chairman, Gas Compressor Association