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February 14, 2011

VIA E-DOCKET

U.S. Environmental Protection Agency
Air & Radiation Docket
1200 Pennsylvania Ave. NW, Mail Code 6102T
Washington, DC 20460

**Re: EPA-HQ-OAR-2003-0167
Protection of Stratospheric Ozone: Amendments to the Section 608
Leak Repair Requirements
75 Fed. Reg. 78558 (December 15, 2010)**

Dear Sir or Madam:

The Council of Industrial Boiler Owners (CIBO) appreciates the opportunity to comment on the Environmental Protection Agency's (EPA) proposed changes to Leak Repair Requirements for comfort cooling, commercial refrigeration and industrial process refrigeration and air conditioning equipment with ozone-depleting refrigerants.

CIBO is a broad-based association of industrial boiler owners, architect-engineers, related equipment manufacturers, and university affiliates consisting of over 100 members representing 20 major industrial sectors. CIBO members own or operate facilities in every region and state of the country, with a representative distribution of almost every type of boiler and fuel combination currently in operation. CIBO was formed in 1978 to promote the exchange of information within industry and between industry and government relating to energy and environmental equipment, technology, operations, policies, laws and regulations affecting industrial boilers. Since its formation, CIBO has actively participated in the development of technically sound, reasonable, cost-effective energy and environmental regulations for industrial boilers. CIBO supports regulatory programs that provide industry with enough flexibility to modernize – effectively and without penalty – the nation's aging energy infrastructure, as modernization is the key to cost-effective environmental protection.

CIBO members are directly affected by EPA's proposed changes in that all CIBO members have comfort cooling, commercial refrigeration and industrial process refrigeration and air conditioning equipment which contains ozone-depleting refrigerants and members are subject

to the current regulations for leak detection, maintenance, repairs and recordkeeping under current provisions of 40 CFR 82 Subpart F.

I. Overview of the Proposal

EPA proposes to amend the current requirements for maintenance, repairs and recordkeeping for equipment containing Ozone Depleting refrigerants in the following ways:

- EPA proposes to revise the purpose of section 82.150 to make this applicable to those who use ozone-depleting refrigerants,
- EPA proposes to revise definitions for “Follow-up verification test,” “Full charge,” “Initial verification test,” “Leak rate” and “Normal operating characteristics;” add definitions of “Comfort cooling appliance,” “Commercial refrigeration appliance,” “Component,” “Industrial process refrigeration appliance;” and delete the definition for “Commercial refrigeration,” “Critical component,” “Custom-built,” “Industrial process refrigeration” and “Industrial process shutdown.”
- Within these definitional changes, EPA proposes to eliminate one of the two methods currently provided to calculate leak rate and to eliminate allowing a combination of methods for calculating full charge. EPA also proposes to require retired appliances be rendered unfit for use by the current or any future owner or operator.
- EPA proposes to remove provisions for extensions of time to repair or retrofit industrial process equipment which requires a process shutdown to complete and to shorten the amount of time allowed for repairs and retrofits of all industrial equipment.
- EPA proposes to require that initial and follow-up validation of repairs apply not only to industrial process refrigeration equipment but also to comfort cooling and commercial refrigeration appliances with charges of 50 lbs or more.
- EPA also proposes to require that follow-up validation tests be conducted no sooner than 24 hours after the repair is complete but as required today no later than 30 days after the repair is complete. EPA seeks comment on the additional burden and costs of requiring a period of operation of at least 24 hours before follow-up verifications can be performed.
- EPA proposes to reduce leak repair trigger rates from the current 35% for industrial process refrigeration and commercial refrigeration appliances to 20% and to reduce leak repair trigger rates from 15 to 10% for comfort cooling appliances with charges of more than 50 pounds of refrigerant. EPA also proposes that when these leak thresholds are reached, all leaks within that appliance must be repaired within 30 days.
- EPA proposes additional minimum notification elements for retrofits or retirement plans and additional reporting and recordkeeping procedures.

II. Comments on the Proposal

- A. *EPA's proposed changes would make the current leak detection and repair procedures even more burdensome and costly. Rather than "simplifying" and "clarifying" the current rules, EPA is increasing burden and reducing flexibility for compliance.*

As described in more detail in the comments below, although EPA states that it is clarifying and simplifying leak detection and repair requirements, the majority of the changes proposed are unnecessary and would decrease flexibility and increase the current compliance burden associated with these regulations. While EPA has done some work to try to quantify the costs and benefits associated with revisions to leak rate trigger revisions, EPA has not demonstrated benefits associated with the majority of the changes proposed that are sufficient to justify proposed revisions, and the revisions should therefore not be made.

The provisions of 40 CFR 82 Subpart F have been in place for a substantial amount of time and industry has established procedures to meet the current requirements. EPA's proposed revisions to the procedures will impose a substantial burden to the regulated community. Over time, industry's investment in refrigerants with lower ozone-depleting substances has been significant. CIBO expects this trend to continue under the current regulatory regime and believes that changes to the provisions in this subpart are unnecessary.

- B. *EPA should not eliminate the 120-day provision for repairing industrial process equipment which requires process shutdown to repair. Similarly, EPA should not shorten the length of time allowed for completion of retrofit/retirement plans.*

EPA states that it is expanding some of the flexibility that is provided for industrial process equipment to comfort cooling and commercial cooling equipment. However, in making these changes and eliminating the definition of "Industrial process shutdown" EPA is removing important repair provisions needed by industrial process equipment. EPA is also proposing to shorten the amount of time allowed for retrofits and retirements of appliances.

Current regulations permit owners and operators of industrial process equipment that cannot be repaired without an industrial process shutdown, up to 120 days to complete the repair. This amount of time for repairs is critical for certain units and we urge EPA NOT to eliminate this. This range of possible repair problems must continue to be accounted for in the rule, which may entail equipment that is very different from comfort cooling devices. For example, repairs may be needed for certain industrial process equipment that are integral components of a manufacturing process that cannot be taken off line without significant economic penalties. EPA should not constrain repair provisions for facilities running highly complex manufacturing processes. The definition of "Industrial process shutdown" should be retained as well as the provisions that allow industrial process equipment to have up to 120 days to repair units when repairing those units requires an industrial process shutdown.

EPA also proposes to cut in half the current one-year timeframe for owners or operators to complete appliance retrofit/retirement plans. 75 FR 78573. Six months is an unreasonable amount of time in which to design, fund, order, obtain and install a new appliance. While EPA will allow more time in cases where a quoted deliver time is more than 12 weeks, per proposed 40 CFR 82.156 (l), the provisions allow for only 12 weeks after the date of delivery to complete installation. This may be insufficient in many cases, particularly when a scheduled industrial process shutdown with downtime is needed for installation of industrial process equipment which is integral to the process. EPA has no reason to cut in half the time period for sources to make needed repairs, not does EPA have record support, such as emission reductions based on the types of timeframes of repairs undertaken by the range of facilities that would be affected by this rule, to support the proposal. The amendment is arbitrary and lacks record support and should not be made. The current 1 year timeframe and provisions that allow for extensions when these extensions are warranted should be retained.

C. EPA should not require replacement of an entire commercial refrigeration process or industrial process refrigeration system after three failed leak verification attempts within 6 months as proposed at 82.156 (j) (4)

EPA proposes to require the retirement or retrofit of the entire appliance if an industrial process refrigeration appliance or a commercial refrigeration appliance has experienced three failed verification tests within a consecutive six-month period. This is inappropriate for several reasons. First, in most cases, retrofit or replacement of the entire unit is unnecessary where replacing the component that causes the leak will address the problem. Second, we would want to ensure that failure of an initial verification test, where refrigerant is not involved in the test is not considered to be one of these three “failures”. Finally, we believe that this requirement provides a disincentive for owners or operators to try to fix leaks as quickly as possible when these leaks may be technically difficult to repair, for fear of having to replace the entire appliance. EPA has not properly quantified the costs associated with these new requirements. We do not believe these costs warrant such drastic measures.

For this reason, we ask that EPA modify the proposed rule text at: 82.156 (j) (4) to read:

Owners and operators of commercial refrigeration or industrial process refrigeration appliances must repair the leaking component or retire or retrofit the appliance to use a refrigerant or substitute with a lower ozone depleting potential (ODP), in accordance with paragraph (l) of this section, if the appliance has experienced at least three failed verification tests within a consecutive six-month period and the owner/operator has not been able to repair the existing leak(s) within 180 days of a failed verification test.

D. The leak rates should not be reduced from 35% to 20% for industrial process equipment as proposed.

EPA proposes to reduce leak rate repair triggers for commercial refrigeration appliances and industrial process refrigeration appliances from 35% to 20% and to reduce the leak rate repair trigger from 15% to 10% for comfort cooling appliances. Even EPA has estimated the cost of this proposed change to be \$38.2 million dollars and monetized benefit of this change would

be \$1.6 million. 75 FR 78570. This \$38.2 million cost for \$1.6 million benefits is arbitrary and not supported by the record.

EPA sought input on the ability of owners or operators of commercial refrigeration, comfort cooling and industrial process refrigeration appliances to repair leaks within 30 days when appliances leak above these trigger levels. 75 FR 78571.

EPA fails entirely to account for the complexities related to repair, replace or retrofit of industrial process equipment components for the many reasons described above. Recognizing those difficulties, CIBO members believe that reduction of the leak rates as proposed could trigger more repairs that would require facility or process downtime, which does not routinely occur. EPA must allow more time for repairs requiring process shutdown for industrial process refrigeration appliances in the first instance. However, even if EPA fails to provide more time for industrial process repairs requiring shutdown, the current 35% leak rate provides industry with much greater flexibility than afforded by the 20% leak rate trigger. In general, companies that discover slow leaks in industrial process equipment plan to fix those known leaks as soon as possible or when shutdown is required will fix those units during the first scheduled downtime. Given that these industrial process refrigeration units are integral parts of the production processes at facilities, failure to maintain this equipment could result in unplanned and costly downtime at a facility. Therefore, industry maintenance practices are sufficient to minimize leaks of ozone-depleting materials to the atmosphere.

As for comfort cooling, the 10% trigger rate is very low and very small amounts of added refrigerant will trigger these requirements. While these units may be able to make repairs in most instances within 30 days, lowering the trigger to 10% may impose unnecessary burdens for these units. For these reasons, CIBO recommends that EPA retain the current leak trigger rates.

CIBO supports EPA's assertion that industry should not be forced to retrofit or replace equipment when a simple leak repair will address the issue at hand, and conclusion that it is appropriate for appliance owners or operators to decide how to repair leaking appliances and when replacement or retrofit is the best solution, as is existing practice.

E. *EPA should not impose additional constraints on timing of follow-up verifications*

EPA proposes to expand leak repair verification requirements to comfort cooling units with charges of more than 50 pounds and to impose additional restrictions on the timing of follow-up verification testing. CIBO does not object to expanding the verification requirements to comfort cooling units with charges of more than 50 pounds, even though this will require some additional recordkeeping.

However, CIBO opposes the proposal to impose timing limitations on follow-up verification testing. EPA proposes to require that the appliance operate at normal conditions for least 24 hours before follow-up verification testing can be completed rather than simply requiring follow-up verification testing after repairs are complete when the appliance has achieved

normal operating characteristics and conditions. EPA states that they are concerned that follow-up verifications do not appear to be part of the normal operating procedures for most service calls and they believe that these verifications require a technician to perform a test after the appliance has operated for an extended period of time. 75 FR 78572. This assertion, which lacks a supporting record or reasoned basis for requiring this extended amount of time or a 24 hour minimum following repair and operation at normal conditions, is arbitrary. EPA has provided no demonstration that this additional constraint on when follow-up verification can be performed is warranted.

EPA has no basis for and should not impose an initial time constraint of 24 hours or any other minimum time period of operation before a follow-up verification can be done. This arbitrary constraint will require a service call on a second day, which often will be handled by a second technician who did not perform the initial leak repair work. This requirement in and of itself could double the cost of the repair and verification process.

In addition to this concern, the proposed definition of “Follow-up verification test” EPA states that “[f]ollow-up verification tests include, but are not limited to, the use of soap bubbles, electronic or ultrasonic leak detectors.... and handheld gas detection devices.” This phrasing should be revised. As written, it could be interpreted to mean that each of the verification tests listed must be done, rather than EPA’s intended meaning, as suggestions of some methods that may be used.

To address these two concerns, we recommend that this definition be revised as follows:

“Follow-up verification test means a test that validates the effectiveness of repairs within 30 days of the appliance’s return to normal operating characteristics and conditions Follow up verification test include, but are not limited to, the use of soap bubbles....and handheld gas detection devices.”

F. *EPA should not reduce flexibility and increase complexity for determining full charge or for calculating leak rate.*

EPA proposes to disallow use of a combination of methods for determining full charge and to disallow use of the most common and simplest method for calculating leak rates. CIBO opposes both of these changes.

EPA should not modify the definition of full charge in a manner that disallows the use of a combination of methods for determining full charge. The current rules allow a combination of methods and EPA’s own guidance recognizes that use of more than one method may be necessary to calculate full charge in certain instances¹. If EPA disallows use of a combination

¹ . See “Compliance Guidance For Industrial Process Refrigeration Leak Repair Regulations Under Section 608 of the Clean Air Act” Prepared by The Chemical Manufacturers Association and The Environmental Protection Agency, October 1995, Page C 1-2, e. “Combinations of a through d. For example suppose you have a system that consists of two components connected by pipe or tubing. The length of the pipe or tubing varies from one installation to another. As a result the manufacturer has specified how much refrigerant is in a full charge for the two components, but NOT for the pipe or tubing. You may calculate how much refrigerant is in the length of pipe or tubing for your system and then add that amount to the manufacturers’ estimate for the two components.”

of methods, which was previously allowed, owners will be forced to re-calculate full charge using one of the remaining methods, which in a number of instances will result in less accurate calculations of full charge. Not only does this proposed change result in less accurate full charge calculations, it also necessitates substantial review and revision to all previous full charge calculations and requires revisions to resulting leak rate calculation procedures. Given that there is no record support or legal justification for this change, that it will lead to inaccuracies and for other reasons as noted, this change is arbitrary and should not be made.

Similarly, EPA proposes to require use of only a single method (Method 2) to determine leak rate. CIBO opposes this change. By disallowing use of Method 1 found in current definition of leak rate EPA is reducing flexibility and imposing new burdens on industry that are unnecessary and unwarranted by fact, EPA analysis or data, or law. Today, many of CIBO's members use Method 1 for determining leak rate. If EPA adopts their proposed change, all facilities will be required to use a more complex approach to determining leak rate. This will require facilities to establish new compliance procedures. EPA fails to demonstrate benefit from this revision, or justify additional costs, and opposes EPA's proposed changes to the current methods for calculating leak rate.

G. *EPA's proposed changes to recordkeeping and reporting procedures are unnecessary and unjustified by the record or law.*

EPA proposes minimum requirements for retrofit and replacement plans at §82.166 (n). EPA's minimum plan requirements are excessively detailed, particularly given that a plan must be completed within 30 days of discovering a leak. In particular, EPA requires the procedures for flushing old refrigerant and lubricant, changes in lubricants, filters, gaskets, o-rings, or valves; the plan for the disposition of the recovered refrigerant the plan for the disposition of the appliance, if retired, and a six-month schedule for the complete retrofit or retirement of the appliance. These requirements are excessive and overly detailed, particularly since the plan is required so soon in the replacement/ retrofit process, when these details are unlikely to be available.

EPA proposes minimum recordkeeping requirements for persons servicing appliances [see new proposed requirement 82.166 (j)] and for owners or operators of appliances [see new proposed requirement at 82.166 (k) which includes much more detail than has previously been required. Specifically owners and service providers will need to document the quantity and type of refrigerant added to the appliance; the identity and location of the appliance; the date and type of service performed; the physical location of any leaks; the amount and type for refrigerant recovered from the appliance; and the date, method and results of initial verification and follow-up verification tests. While many of these details are valuable to owners of appliances, EPA fails to appreciate how much effort is required to ensure that every single item EPA proposes to require records for will require for owners of such equipment. Currently, getting the more modest records required of owners and operators often requires substantial follow-up effort.

CIBO urges EPA not to add to the current burden by adding substantial new records for each and every service call on appliances. We urge EPA to maintain the current requirements and

not require substantial additional details for these service records. Owners/operators must keep these records for many years. The additional recordkeeping requirements proposed are simply too burdensome.

- H. *CIBO has several other concerns related to EPA's proposal that we urge EPA to address.*
- EPA proposes to require in 82.156 (i) that when the leak rate exceeds trigger levels, “all” leaks must be repaired within 30 days. 75 FR 78568. As EPA points out – this is different than current requirements which simply require that leaks repaired within 30 days bring the leak rate below the 15 or 35% leak rate threshold. We believe that it is unreasonable to require “all” leaks to be repaired. First of all, if a leak exists but has not been identified and is not known by the service provider, how can that leak be repaired? Second, while certainly the goal would be to repair all leaks, some leaks may be difficult to repair within a 30 day timeframe for a variety of reasons. It makes little sense for owners not to try to repair all readily repairable leaks while the service provider is working on the appliance, so we believe that most owners/operators and service providers do try to fix all leaks when they are servicing appliances. However, we think it is unreasonable for EPA to require all leaks to be fixed within 30 days when not every leak may be known and where some leaks may be difficult to repair. We believe that EPA's belief that owners don't try to repair all leaks is unfounded. We therefore urge EPA not to require owners/operators to fix all leaks within 30 days. Owners or service providers should not be penalized for their best efforts to reduce leaks.
 - In EPA's proposed requirements at 82.156 (l) (1) EPA requires that the retrofit plan be maintained “on-site *at the physical location* of the affected appliance in accordance with 82.166 (n).” 82.166 (n) requires the plan be maintained “at the site”. We do not believe it is EPA's intent to require us to keep a retrofit plan near the physical location of the appliance and urge EPA to revise the language of 82.156 (l) (1) to delete the “at the physical location” phrase making it consistent with the provisions of 82.166 (n). If it was EPA's intent for owners to keep a retrofit plan at the physical location of the appliance, we urge EPA to rethink this. We believe a better approach is to keep the plan with the other records for the program at the site.
 - In EPA's proposed requirements at 82.156 (i) and (j) EPA requires that the leak rate be calculated “immediately” upon each addition of refrigerant to the appliance. We do not believe this is necessary or appropriate. It generally takes a little while for records get from service providers to owners of equipment, who perform leak rate calculations. It is unrealistic and unnecessary to require calculations to be completed immediately. We urge EPA to revise this requirement by deleting the term immediately from this provision.

- Finally, in EPA's definition of retire, EPA proposes to require that in the process of retiring an appliance the owner or operator must render the appliance unfit for use by the current or any future owner or operator. While we are sure that EPA's intent is to ensure that when old units are retired because of leaks, that they are not used again. However, in most cases if a unit is being retired, it uses an older refrigerant that is no longer economical to purchase. Since different units are designed to use different refrigerants, this requirement seems unnecessary. Since this requirement imposes additional burdens on owners and service providers to ensure something special is done to make the appliance unfit for use, Since the benefit is unclear and this requirement imposes additional burden on owners/operators and service providers, we ask EPA not to impose this requirement.

I. *If EPA revises current requirements, EPA must allow transition time for facilities to conduct training, establish new procedures and obtain newly required documentation.*

EPA has proposed substantial changes to the current regulatory requirements. If EPA amends these requirements, it is unreasonable to expect facilities to be able to complete compliance preparations within the 60 days between finalization and the rule effectiveness date. For instance, if EPA were to disallow a combination of methods for determining full charge, facilities would need sufficient time to review full charge calculations for each of their units and to revise calculations that relied on a combination of methods. Similarly if EPA revises leak rate methodology or reduces the trigger leak rates, facilities will need time to put new procedures in place for compliance with the revisions. EPA has also proposed numerous changes to required elements of service records. It will take some time to train and establish procedures for service providers and facility management to meet these new recordkeeping requirements. In addition, EPA proposes to require follow-up verification for comfort cooling units that have not been previously subject to these requirements. For businesses that have not been required to conduct follow-up verification, this will be a substantial additional burden and new unfamiliar requirements for these entities.

For these reasons, if EPA makes these changes, facilities will need a 1-year phase-in period to ensure complete transition to new procedures and records requirements.

CIBO appreciates the opportunity to comment. CIBO would be pleased to provide clarification or additional information if that would be helpful.

Sincerely yours,

/s/ Robert D. Bessette

Robert D. Bessette
President