

Oct 1<sup>st</sup>, 2015

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Ms. Gina McCarthy  
Administrator  
United States Environmental Protection Agency  
William Jefferson Clinton Building  
1200 Pennsylvania Ave, N.W.  
Washington, DC 20460

**Re: RIN: 2060-AS51 Protection of Stratospheric Ozone: Update to the Refrigerant Management Requirements Under Section 608 of the Clean Air Act**

Dear Ms. McCarthy,

Intertek was recently approached by Ken Ponder of RMS Georgia and Pete Williams of the New Era group to consider ways to improve the effectiveness of the EPA Reclaimer program, especially changes to mitigate the risk to the environment and to the overall health and safety of the employees. The reason being the current reclaimer environment is dramatically different than what it was 10-15 years ago when many of the Reclaimers were brought into the EPA program. There are new refrigerants that pose a wide risk to the employee, business and of course the environment. To reduce these risks Reclaimers may have processes for mitigation. These processes may or may not be as effective as required thus the need for auditing and corrective actions to educate on industry best practices so that the Reclamation Industry is being a sustainable steward of the environment.

Intertek and especially the Columbus location where I work out of has long been involved in the refrigerant reclamation industry. Since 1991 we have been testing reclaimed refrigerant to ARI 700 specifications and working with the technical groups to evolve the standards and testing methodologies. Intertek has served as a technical expert to the industry being on a number of AHRI, AHREA and SAE committees. All with the intent of helping the industry perform better and more efficiently while insuring that the integrity of the reclaimed product meets the required specifications.

One of the largest risk in the industry is dealing with the diversity of materials and the associated risks that each of those can pose. With the introduction of new near-flammable, flammable and marginally toxic component refrigerants, extra care must be taken to handle these materials. When reclamation batches are in the 10k-100k lbs. range a catastrophic failure in the processing can lead to a major release. In addition without proper screening methods and sample identification practices it becomes easy to cross contaminate materials and accumulate worthless hazardous material, which must be disposed of at a significant cost. In the validation process of Reclaimers adherence to some basic safety and process procedures must be audited to reduce the risk of a major release to the environment.

With this said, listed below are the existing requirements for the EPA approval. Under each are two separate validations. These are suggestions for auditing, documentation and reporting that Intertek would recommend for showing initial and continued compliance to the EPA requirements, mitigating risk to the environment and providing a safe working environment. These by all means are not definitive criteria, but merely ideas for us to further discuss and define if deemed criteria that we would like to pursue.

#### Checklist for EPA Approval of Refrigerant Reclaimers

1. List the complete name and address of the reclaimer (§82.164(e)(1)). Include the address where reclamation will take place, if it differs from your business address.
  - a) Auditor would verify place of business via actual on-site inspection
  - b) Off years would require valid copy of current lease.
2. List the names of the business owner and the responsible officer (§82.164(e)(1)) who will serve as an EPA point of contact.
  - a) Auditor would verify employment of contact name
  - b) Off years we would collect declaration/statement of ownership and responsible individual
3. List of the equipment used to reprocess the refrigerant (§82.164(e)(2)). If reprocessing equipment was purchased off the shelf, please provide make, model, and serial number. If equipment is generic or was manufactured by the reclaimer, please provide a description and photographs of the equipment and processes. Note that equipment used to recover refrigerant directly from air-conditioning and refrigeration equipment must be certified by ARI or UL under the ARI 700 (current edition) Standard
  - a) Auditor would visually inspect, catalog photos and /or schematics of the reclamation equipment
  - b) Off years Reclaimer would send in a documentation declaring specific equipment that is being used
4. List of the equipment used to analyze the refrigerant (§82.164(e)(2)). If an independent laboratory is used to analyze the refrigerant, submit the name, address, and phone number of the laboratory, and the list of equipment used by the laboratory to analyze the refrigerant. Please submit a letter from the laboratory confirming an agreement with your organization. Be advised that if the laboratory fails to verify refrigerant purity using the methods set forth in ARI 700 (current edition), you are responsible for this failure.
  - a) Auditor would inspect laboratory to confirm testing capabilities to the required ARI-700 (current edition) test methods. Also confirm that applicant is a regular customer of the lab.
  - b) Off years inspection would require letter from lab that testing processes are still within ARI 700 specifications and that Reclaimer continues to be a customer in good standing.
5. Certification that the refrigerant will be reprocessed to all of the specifications set forth in ARI 700 (current edition), Specifications for Fluorocarbon Refrigerants (§82.164(a)) that are applicable to that refrigerant.

- i. Auditor would verify reports with batch numbers and finished product.
  - ii. Off years the participant would submit documents of processed product for review with batch numbers. Auditor would select random batches (% of) to verify compliance to test requirements
- 6. Certification that the specifications of the refrigerant will be verified using the methods set forth in ARI Standard 700 (current edition) (§82.164(b)). Please be advised that if the laboratory fails to verify refrigerant purity using the methods set forth in ARI 700 (current edition), you are responsible for this failure.
  - a) Auditor to verify laboratory is accredited and/or able to perform verify purity via the methods of ARI 700 (current edition)
  - b) In off years, Auditor will verify that lab is still accredited and performing type of work by collecting/reviewing online accreditations, lab supplied documents, and/or association certification programs.
- 7. Certification that no more than 1.5 percent of the refrigerant will be released during the reclamation process (§82.164(c)).
  - a) Auditor would review logs on refrigerant in and refrigerant out. Oil, water, mixed refrigerants and other waste will be taken into consideration and a total mass balance calculation will be done. Waste mass will be verified by looking into waste disposal methods, inventory and invoices. (It is anticipated that this will be an area of concern, but we need to know what actual true loss rates and where the gaps exist before we can educate the industry as to best practice)
  - b) In off years logs would be submitted for review.
- 8. Certification that wastes from the reclamation process will be disposed of in accordance with all applicable laws and regulations (§82.164(d)).
  - a) Auditor will compare the waste theoretically produced from the processing and compare that to actual masses on waste disposal invoices. Auditor will validate that Waste disposal service/process conforms to local, state and federal regulations. If a vender is used we will verify appropriate licenses.
  - b) In off years waste documentation will be submitted for review and comparison to total product processed. Should remain consistent with on-site inspection values, if not discrepancies will need to be explained.
- 9. Acknowledgment that Reclaimers must maintain records of the names and addresses of persons sending them material for reclamation and the quantity of the material (the combined mass of refrigerant and contaminants) sent to them for reclamation. Such records shall be maintained on a transactional basis (§82.166(g)).



- a) Intertek will verify that information is being recorded.
  - b) Off years will require submittal of documentation for review
10. Acknowledgment that Reclaimers must maintain records of the quantity of material sent to them for reclamation, the mass of refrigerant reclaimed, and the mass of waste products. Reclaimers must report this information to EPA annually within 30 days of the end of each calendar year (§82.166(h)).
- a) Intertek will verify that information is being recorded and in line with sales, inventory, and waste data. (some % deviation will need to be agreed upon)
  - b) Off years will require submittal of documentation for review
11. Acknowledgment that certificates are not transferable-In the event of a change in ownership of an entity which reclaims refrigerant, the new owner of the entity shall certify within 30 days of the change of ownership (§82.164(f)).
- a) Intertek shall verify ownership and length of ownership
  - b) Off years will require submittal of documentation for review
12. Acknowledgment that it is illegal to sell or offer for sale any CFC or HCFC (do we need to consider HFC, HC, HFO?) refrigerant consisting wholly or in part of used refrigerant unless it has been reclaimed by an EPA-certified reclaimer, except in cases where the refrigerant was used only in a motor vehicle air conditioner (MVAC) or MVAC-like appliance and is to be used only in an MVAC or MVAC-like appliance or in cases where the refrigerant is contained in an appliance that is sold or offered for sale together with the refrigerant (§82.154(g) & (h)).
- a) NA to an audit, but we can verify that they know of this law
  - b) Off years will require declaration of acknowledgement
13. Acknowledgment that failure to abide by any of the provisions of 40 CFR 82 may result in revocation or suspension of the certification of the reclaimer (§82.164(g)).
- a) NA to an audit, but we can verify that they know of this law
  - b) Off years will require declaration of acknowledgement
14. Certification that the information given in the certification is true and correct (§82.164(e)(3)).
- a) They will sign off on our audit report verifying that everything is honest and accurate
  - b) Off years will require declaration of acknowledgement

#### Additional Requirements

15. Refrigerant screening process – This serves two purposes. First it will confirm identification of the refrigerant so they know how to safely handle and process the material. Second with the proper identification they will be less likely to mix refrigerants. For example R-22 has numerous replacements on the market. Simply looking at the pressure-temp does not work as the alternatives all have similar properties. If proper ID is not made refrigerants can be easily mixed and then create a larger volume of waste material which in my opinion has a higher risk of being released to the atmosphere as a method of disposal.

- a) Auditor will verify that they had an accurate identification process for their defined scope and that the sample handling and logistical process provide low risk of cross contamination.
- b) In off years participant will submit a declaration that the screening process is still in place.

#### 16. Inspection of Processing equipment

- a) Verify equipment is electrical safe and in compliance with national electric codes (NEC and/or NFPA), standards (UL 1963 for Refrigerant Recovery equipment, UL 1995 for Heating and Cooling equipment, and /or Hazardous location-flammable atmosphere assessments. In addition verify that a competent party calibrates all relevant equipment, scales, thermometers, and gauges.
- b) In off years submittal of all calibration certificates.

#### 17. Proper MSDS (SDS), PPE and safety considerations

- a) Verify the accessibility, use and training for
  - i. Proper ventilation and emergency shutdown, cut-off safety features and air monitoring equipment
  - ii. Hazard containment
  - iii. DOT shipping qualifications, IATA cert
  - iv. Emergency Response- example (ChemTrax)
  - v. Verify that Staff is trained and have appropriate EPA 609 certificate
  - vi. Verify appropriate MSDS sheets and chemical information is available
- b) In off years resubmittal of documents showing continue compliance to above

The recommendations are that these requirements be audited by an accredited 3<sup>rd</sup> party. This could be any certification organization such as Intertek, UL, CSA etc.... as long as they have the specific standards and experience within their scope of accreditation. It is suggested that the on-site inspection be performed as an initial audit, however prior to the audit a pre meeting with the participant be performed to educate on what the auditor will be looking for and what is needed to show compliance. This will help speed the on-site process along and keep costs to a minimum plus help educate the participant.

In addition to the on-site audits there should be reviews of documentation and declarations that are submitted by the participant, basically self-certify. This documentation should be done annually to insure continued compliance. This will keep cost down to minimum while still maintain a high level of integrity. It is also