

# **Enforcement Alert!**

The United States EPA National Enforcement and Compliance Assurance Program implemented several national compliance initiatives (NCIs) effective for FY2020-2023. One of these NCIs is titled “Reducing Risks of Accidental Releases at Industrial and Chemical Facilities”. IIAR has received notice from the EPA and several end-users that one area of their focus is to determine whether facilities using hazardous chemicals have conducted a hazard analysis. The EPA is citing the Clean Air Act Section 112(r) which establishes the regulations of the Risk Management Program for facilities using large quantities of hazardous substance. EPA is also citing the General Duty Clause which is also a part of CAA 112(r) and applies to facilities using any quantity of hazardous substances. In addition to its process safety management (PSM) regulations, the US Occupational Safety and Health Administration (OSHA) also enforces a general duty clause that requires a hazard analysis.

Most IIAR members will likely have a hazard analysis in place. However, if your facility does not, we encourage you to get this done soon. If you are a contractor, a consultant, or sell equipment or other goods, we encourage you to pass the word to your end-user clients, especially those with smaller facilities that might not have a hazard analysis in place.

At a minimum, a hazard or safety review is required and must be done for an ammonia refrigeration system “NO MATTER WHAT SIZE IT IS”.

There are many IIAR members who can assist with establishing a hazard analysis and the other elements of a refrigeration management program, and IIAR offers several publications to aid in establishing a program based on the relative size of the system.

Here is more information about the general duty clauses for both OSHA and the EPA:

## **Occupational Safety and Health Administration (OSHA) General Duty Clause (GDC):**

Section 5(a)(1) of the Occupational Safety and Health Act (the "General Duty Clause") requires:

*“Each employer shall furnish to each of its employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.”*

Employers can be cited for violation of the General Duty Clause if a recognized serious hazard exists in their workplace and the employer does not take reasonable steps to prevent or abate the hazard. The General Duty Clause is used only where there is no standard that applies to the particular hazard. The following elements are necessary to prove a violation of the General Duty Clause:

- a. *The employer failed to keep the workplace free of a hazard to which employees of that employer were exposed;*
- b. *The hazard was recognized;*

- c. *The hazard was causing or was likely to cause death or serious physical harm; and*
- d. *There was a feasible and useful method to correct the hazard.*

### **United States Environmental Protection Agency US EPA) General Duty Clause (GDC):**

Under the Clean Air Act Section 112(r)(1), the General Duty Clause states: “The owners and operators of stationary sources producing, processing, handling or storing such substances [i.e., a chemical in 40 CFR part 68 or any other extremely hazardous substance] have a general duty [in the same manner and to the same extent as the general duty clause in the Occupational Safety and Health Act (OSHA)] to identify hazards which may result from (such) releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.”

### **The OSHA and US EPA General Duty Clauses apply to all systems, small or large.**

OSHA’s Process Safety Management (PSM) Standard 1910.119 and US EPA’s Risk Management Plan (RMP) 40 CFR Part 68 requires a Process Hazard Analysis (PHA) for systems with 10,000 lbs or more of ammonia in a refrigeration system.

A system with less than 10,000 lbs but more than 500 lbs requires a hazard review at a minimum.

A system with 500 lbs or less requires a safety review and/or an environmental safety evaluation, at a minimum.

**Due to the General Duty Clauses, all systems, no matter the size, require a hazard or safety review for an ammonia refrigeration system that will, at a minimum, “identify hazards which may result from releases using appropriate hazard assessment techniques.”**

It is of utmost importance to inform an employer, owner, operators, and clients, who have or are planning for an ammonia refrigeration system “to identify hazards which may result from releases using appropriate hazard assessment techniques.”

The hazard techniques can be one or more of the following methodologies that are appropriate to determine and evaluate the hazards of the process being analyzed:

- (i) What-if;
- (ii) Checklist;
- (iii) What-if/Checklist; (most widely used for ammonia refrigeration systems)
- (iv) Hazard and Operability Study (HAZOP);
- (v) Failure Mode and Effects Analysis (FMEA);
- (vi) Fault Tree Analysis (FTA); or
- (vii) An appropriate equivalent methodology

### **To Meet Compliance:**

IIAR's Process Safety Management & Risk Management Program Guidelines & Templates can be used to meet General Duty Clause (GDC) & regulatory compliance for systems with 10,000 lbs or more of ammonia refrigerant.

IIAR's Ammonia Refrigeration Management (ARM) Guideline & Templates can be used to meet General Duty Clause (GDC) requirements for systems with less than 10,000 lbs but more than 500 lbs of ammonia refrigerant.

IIAR's Low Charge Ammonia Refrigeration Management (ARM-LC) Guidelines and Summary Guideline can be used to meet General Duty Clause (GDC) requirements for systems with less than 500 lbs.

Any questions, please contact your qualified refrigeration contractor (designer/installer/servicer), compliance service provider, or the IIAR ([www.iiar.org](http://www.iiar.org)).