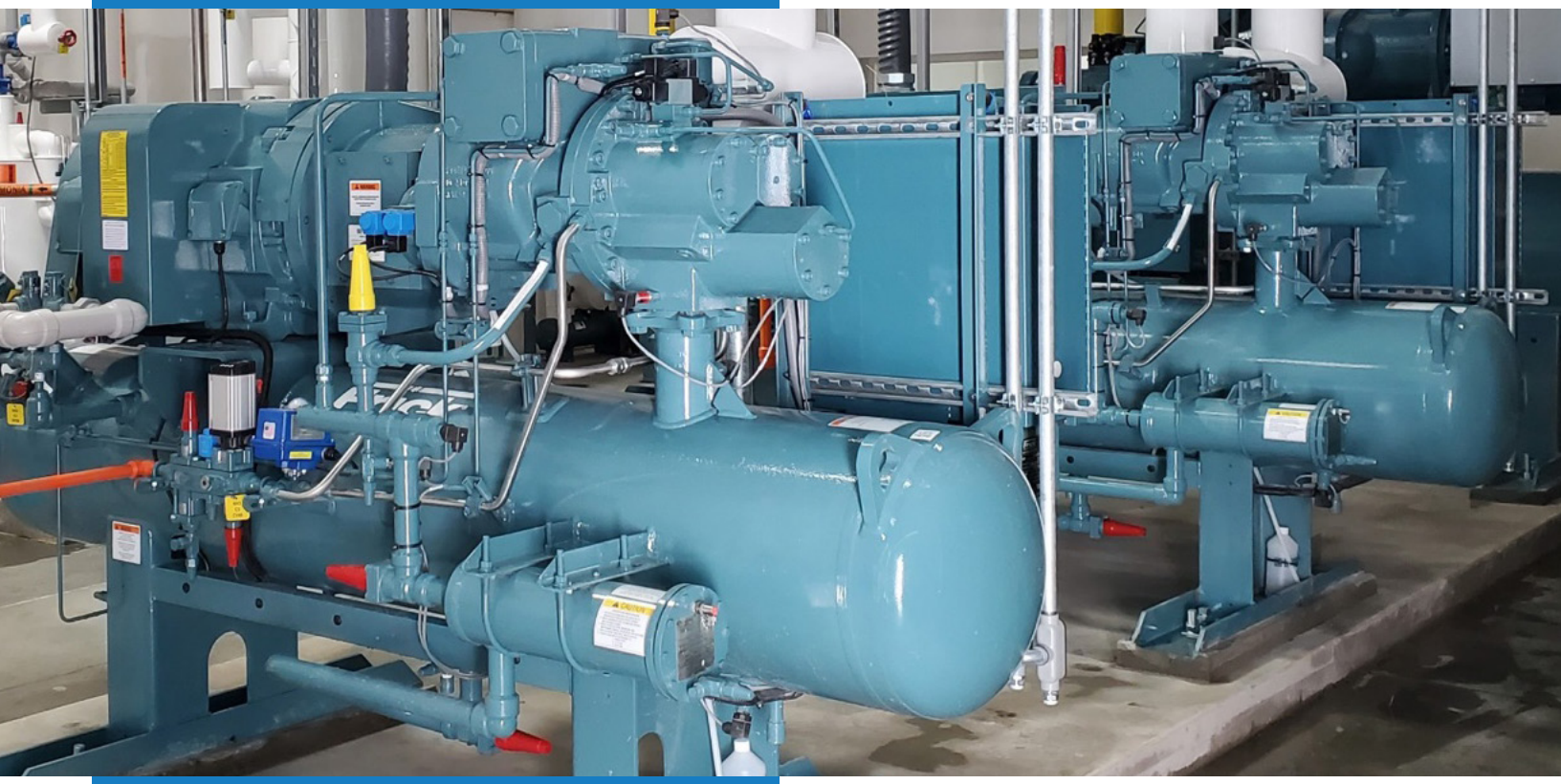

Understanding the General Duty Clause and Its Implications

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Introduction

This white paper focuses on facilities governed by the General Duty Clause (GDC). Even for refrigeration systems with over 10,000 pounds of anhydrous ammonia and covered under PSM/RMP, this information is essential. There is a widespread misconception in our industry that systems below the 10,000-pound federal threshold for anhydrous ammonia face minimal regulatory requirements. This is a myth with no foundation in current federal regulations.

The General Duty Clause (GDC)

Facilities that use R-717 but do not meet the 10,000-pound threshold for anhydrous ammonia must still adhere to OSHA and EPA General Duty requirements for their ammonia refrigeration systems. OSHA and EPA use the General Duty requirement to address hazards not explicitly covered by OSHA regulations and EPA rules. Facilities can be cited and fined under the GDC if they fail to recognize and mitigate hazards.

What is a Recognized Hazard?

OSHA identifies a hazard based on the following criteria:

- There is an actual hazard present.
- The hazard must be a recognized hazard.
- The hazard is widely known or generally recognized in the industry.
- The hazard can be detected by the senses or has widespread recognition, and there are accepted tests for its detection.
- The hazard could cause or is likely to cause serious harm or death.
- The hazard must be correctable.

Recognized hazards are typically addressed by appropriate RAGAGEP (Recognized and Generally Accepted Good Engineering Practices) for the industry. In the anhydrous ammonia refrigeration industry, common RAGAGEP sources include ANSI/IIAR Standards and the IIAR ARM (Ammonia Refrigeration Management) program. Compliance with these standards is essential:

- **System Design:** Must comply with IIAR 2 Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems.
- **Installation:** Must comply with IIAR 4 Installation of Closed-Circuit Ammonia Refrigeration Systems.
- **Startup and Commissioning:** Must comply with IIAR 5 Start-up and Commissioning of Closed-Circuit Ammonia Refrigeration Systems.
- **Testing and Maintenance:** Must comply with IIAR Standard 6 Inspection, Testing, and Maintenance of Closed-Circuit Ammonia Refrigeration Systems.
- **Operating Procedures:** Must comply with IIAR 7 Developing Operating Procedures for Closed-Circuit Ammonia Mechanical Refrigerating Systems.
- **Existing System Safety:** Must comply with IIAR 9 Minimum System Safety Requirements for Existing Closed Circuit Ammonia Refrigeration Systems.
- **Process Safety Information and Maintenance:** Must comply with IIAR standards.
- **Overall System Safety Management:** Must comply with the IIAR ARM program.

Regulatory Compliance Burden

The regulatory compliance burden for an ARM facility is approximately 95% of that for a PSM and RMP covered facility, due to existing IIAR Standards and OSHA/EPA requirements. The General Duty Clause applies to all employers covered by OSHA, regardless of the business size or type. This means that the expectation of a safe workplace for employees is required of both small businesses and large corporations alike.

Ensuring Compliance

To ensure compliance with the General Duty Clause and ARM, a facility must develop a comprehensive program that includes the following elements:

- Management System
- Process Safety Information (PSI)
- Process Hazard Analysis (PHA)
- Standard Operating Procedures (SOP)
- Mechanical Integrity (MI)
- Training
- Self-Audits
- Incident Investigation (II)
- Contractors
- Emergency Planning and Response
- Hazard Assessment
- Management of Change (MOC)

Conclusion

No facility is exempt from the GDC requirements simply because they “don’t have 10,000 pounds of ammonia on hand.” For questions or assistance in setting up or auditing your GDC Program, please contact our PSM team at Clauger. We are dedicated to ensuring your facility remains fully compliant.

FOR MORE INFORMATION CONTACT US TODAY.

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