

US EPA ARCHIVE DOCUMENT

COMPLIANCE ASSISTANCE TOOLS AND RESOURCES FOR THE AMMONIA REFRIGERATION SECTOR JUNE 2017

SUMMARY OF TOOLS AND RESOURCES IN THIS DOCUMENT

This document contains industry-specific information for the implementation of the Chemical Accident Risk Reduction (CARR) National Enforcement Initiative (NEI). This document provides lists and descriptions of tools and resources broken out by the following types: EPA, EPA Partnerships, and Trade Associations

LIST OF AMMONIA REFRIGERATION COMPLIANCE ASSISTANCE TOOLS AND RESOURCES

EPA

- [Accident Prevention and Response Manual for Anhydrous Ammonia Refrigeration System Operators](#)
- [Appendix E: Supplemental Risk Management Program Guidance for Ammonia Refrigeration Facilities](#)
- [Enforcement Alert for Anhydrous Ammonia Refrigeration](#)
- [General Duty Clause Fact Sheet](#)
- [Guidance for Implementation of the General Duty Clause: Clean Air Act \(CAA\) Section 112\(r\)\(1\), May 2000](#)
- [Introduction to CERCLA 103, EPCRA and CAA 112\(r\)](#)
- [Emergency Planning and Community Right-to-know Act \(EPCRA\) Homepage](#)
- [EPCRA 311-312: Hazardous Chemical Inventory Reporting Requirements](#)
- [Enforcement Response Policy for Sections 304, 311, and 312 of EPCRA and 103 of CERCLA](#)
- [Combined Enforcement Policy CAA 112\(r\)\(1\), \(7\)](#)
- [Consolidated List of Chemicals Subject to EPCRA, CERCLA and CAA 112\(r\)](#)
- [Risk Management Plan \(RMP\) Rule Homepage](#)
- [How to Submit a Risk Management Plan \(RMP\) to EPA](#)

EPA Partnership & Trade Associations

- [International Institute for Ammonia Refrigeration \(IIAR\)](#)
- [Industrial Refrigeration Consortium \(IRC\)](#)
- [Ammonia Safety and Training Institute \(ASTI\)](#)
- [Refrigeration Engineers and Technicians Association \(RETA\)](#)
- [American Society of Heating, Refrigerating and Air-Conditioning Engineers \(ASHRAE\)](#)
- [Center for Retail Compliance \(Retail Industry Leaders Association\)](#)
- [Food Processing Environmental Assistance Center \(FPEAC\)](#)
- [American Society for Testing and Materials \(ASTM\) Compass Compliance Assistance](#)

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DESCRIPTION OF AMMONIA REFRIGERATION SECTOR'S COMPLIANCE ASSISTANCE TOOLS AND RESOURCES

EPA Compliance Assistance

[Accident Prevention and Response Manual for Anhydrous Ammonia Refrigeration System Operators](#)

This manual summarizes the requirements of environmental and safety laws for anhydrous ammonia refrigeration system operators. A list of the federal laws and regulations related to process safety, accident prevention, emergency planning, and release reporting may be found in Appendix C.

(https://www.epa.gov/sites/production/files/2015-05/documents/accident_prevention_ammonia_refrigeration_5-20-15.pdf)

[Appendix E: Supplemental Risk Management Program Guidance for Ammonia Refrigeration Facilities](#)

This appendix supplements the main body of the General Guidance to provide additional information for food processors, food distributors, and refrigerated warehouses who use ammonia as a refrigerant, as well as any other facility that has an ammonia refrigeration system. The appendix covers Risk Management Program elements in the same general order as those elements are addressed in the main document.

(<https://www.epa.gov/sites/production/files/2013-11/documents/appendix-e-final.pdf>)

[Enforcement Alert for Anhydrous Ammonia Refrigeration](#)

Evidence gathered by the U.S. Environmental Protection Agency (EPA) indicates that some refrigeration facilities may be failing to properly manage hazardous chemicals, including anhydrous ammonia, as required by the Clean Air Act (CAA) Section 112(r). This Alert is intended to inform the industry that companies must take responsibility to prevent accidental releases of dangerous chemicals like anhydrous ammonia through compliance with CAA's Chemical Accident Prevention Program.

(<https://www.epa.gov/sites/production/files/2015-02/documents/112renforcementalert.pdf>)

<https://www.epa.gov/enforcement/national-enforcement-initiative-reducing-risks-accidental-releases-industrial-and>

[General Duty Clause Fact Sheet](#)

This fact sheet provides an overview of the Clean Air Act Section 112(r)(1), the General Duty Clause, which states: "The owners and operators of stationary sources producing, processing, handling or storing such substances [i.e., a chemical in [40 CFR part 68 Chemical Accident Prevention Provisions](#) or any other extremely hazardous substance] have a general duty 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." (<https://www.epa.gov/sites/production/files/2013-10/documents/gdc-fact.pdf>)

[Guidance for Implementation of the General Duty Clause: Clean Air Act \(CAA\) Section 112\(r\)\(1\), May 2000](#)

This Guidance details approaches for implementing the general duty clause of the Clean Air Act (CAA), explains statutory requirements, and describes how to assess compliance.

[Introduction to CERCLA 103, EPCRA and CAA 112\(r\)](#)

Contaminated Site Clean Up Information (CLU-IN) slideshow which provides a detailed explanation for various requirements under the above three statutes, including lists of regulated substances, applicability criteria and prevention programs. [CLU-IN](#) provides a forum for issues regarding chemical clean ups by spotlighting recent events and publications in the field. They provide databases, videos and other resources that can aid in awareness, prevention and clean up. (https://clu-in.org/conf/tio/osc4_111609/prez/osc4pdf.pdf)

[Emergency Planning and Community Right-to-know Act \(EPCRA\) Homepage](#)

The Emergency Planning and Community Right-to-Know Act (EPCRA) was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. To reduce the likelihood of a disaster in the United States, Congress imposed requirements for federal, state and local governments, tribes, and industry which cover emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. This homepage provides links to simple guides like the [EPCRA Fact Sheet](#) which outlines section by section requirements and procedures necessary to remain in compliance with [42 USC 116 The Emergency Planning and Community Right-to-Know Act](#). (<https://www.epa.gov/epcra>) (https://www.epa.gov/sites/production/files/2015-05/documents/epcra_fact_sheet.pdf)

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<https://www.epa.gov/enforcement/national-enforcement-initiative-reducing-risks-accidental-releases-industrial-and>

[EPCRA 311-312: Hazardous Chemical Inventory Reporting Requirements](#)

Provides guidance on the reporting requirements under EPCRA 311 and 312, including compliance assistance at Federal and State levels and links to [Tier 1 Inventory Submission Instructions](#) which are necessary when handling certain levels of ammonia. Provides a simpler overview of the EPCRA requirements under [40 CFR 370 Hazardous Chemical Reporting: Community Right-to-Know](#). (<https://www.epa.gov/epcra/epcra-sections-311-312>) (https://www.epa.gov/sites/production/files/2017-06/documents/tier_i_inventory_form_instructions_2017.pdf)

[Enforcement Response Policy for Section 304, 311, and 312 of EPCRA and Section 103 of CERCLA](#)

This policy assists in calculating proposed penalties for all civil administrative actions, and for settling actions concerning EPCRA §§ 304, 311 and 312 and CERCLA § 103(a). The purpose of this Policy is to ensure that enforcement actions are legally justifiable, uniform and consistent. The Agency reserves the right to act at variance with this Policy and to change it at any time without public notice. (<https://www.epa.gov/sites/production/files/documents/epcra304.pdf>)

[Combined Enforcement Policy CAA 112\(r\)\(1\), \(7\)](#)

This policy addresses civil enforcement actions for violations of Clean Air Act (CAA) section 112(r)(1), 42 U.S.C. § 7412(r)(1), known as the General Duty Clause (GDC) and for violations of section 112(r)(7) and its implementing regulations found at [40 CFR part 68 Chemical Accident Prevention Provisions](#). This policy is used to develop settlement penalty amounts for civil judicial enforcement actions and for civil administrative cases and only applies to violations of EPA's civil regulatory program, not to enforcement pursuant to criminal provisions of laws or regulations. (https://www.epa.gov/sites/production/files/documents/112rc_ep062012.pdf)

[Consolidated List of Chemicals Subject to EPCRA, CERCLA and CAA 112\(r\)](#)

This consolidated chemical list includes chemicals subject to reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and section 112(r) of the Clean Air Act (CAA). This consolidated list does not include all hazardous chemicals subject to the reporting requirements in EPCRA sections 311 and 312 which identify hazardous chemicals by broad criteria,

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<https://www.epa.gov/enforcement/national-enforcement-initiative-reducing-risks-accidental-releases-industrial-and>

rather than by enumeration.

(https://www.epa.gov/sites/production/files/2015-03/documents/list_of_lists.pdf)

[Risk Management Plan \(RMP\)
Rule Homepage](#)

The Risk Management Plan (RMP) Rule implements Section 112(r) of the 1990 Clean Air Act amendments. RMP requires facilities that use extremely hazardous substances to develop a Risk Management Plan. These plans must be revised and resubmitted to EPA every five years. Directions for RMP submission can be found [on the RMP eSubmit website](#).

(<https://www.epa.gov/rmp>)

(<https://www.epa.gov/rmp/rmpesubmit>)

EPA Partnerships & Trade Associations

[International Institute for
Ammonia Refrigeration \(IIAR\)](#)

IIAR advocates for the safe, reliable and efficient use of ammonia and other natural refrigerants. IIAR members share their collective knowledge and experience to produce consensus documents that address various aspects of the natural and industrial refrigeration industry. IIAR has broad industry representation including manufacturers, design engineers, contractors, end users, academics, scientists, and trainers. IIAR sets the standard for providing advocacy, education and the most up-to-date technical information to the ammonia and natural refrigeration community. IIAR's website offers links to 3rd party certifiers, insurers, publications and more.

(http://www.iiar.org/IIAR/WCM/WCM/Government_and_Code/Environmental_Protection_Agency.aspx)

[Industrial Refrigeration
Consortium \(IRC\)](#)

The Industrial Refrigeration Consortium is a collaborative effort between the University of Wisconsin Madison and industry with a goal of improving the safety, efficiency, and productivity of industrial refrigeration systems and technologies by conducting applied research, delivering knowledge transfer, and providing technical assistance with efforts focused on industrial refrigeration systems that utilize anhydrous ammonia and other refrigerants. The IRC offers a unique combination of complementary resources that include academic qualifications, technical expertise, and practical experience.

(<https://www.irc.wisc.edu/>)

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[Ammonia Safety and Training Institute \(ASTI\)](#)

The Ammonia Safety & Training Institute (ASTI) is a non-profit organization dedicated to making ammonia (NH₃) the safest managed hazardous material in the world. Bringing together leaders from industry and public safety organizations, ASTI provides safety management support through effective use of Prevention, Mitigation, Preparedness, Response and Recovery (PMPRR) training. ASTI offers live and simulated training courses in accordance with OSHA Standard 1910.120(q), Training Day conference-style programs across the country and internationally, tools to aid compliance with EPA's One Plan Response, and compliance assistance educational materials for sale.

(<https://ammonia-safety.com/>)

[Refrigeration Engineers and Technicians Association \(RETA\)](#)

The Refrigerating Engineers and Technicians Association (RETA) is dedicated to the professional development of industrial refrigeration operators and technicians. RETA is a non-profit membership and certification organization. RETA offers various certification and credential-building opportunities, annual conferences, local seminars, publications and updates, and educational and training materials for sale. (<http://reta.com/>)

[American Society of Heating, Refrigerating and Air-Conditioning Engineers \(ASHRAE\)](#)

ASHRAE focuses on building systems, energy efficiency, indoor air quality, refrigeration and sustainability through research, standards writing, publishing and continuing education. They provide resources and publications for free and for members and they also provide certification and education services.

(<https://www.ashrae.org/resources--publications/free-resources#everyone>)

[Center for Retail Compliance \(Retail Industry Leaders Association\)](#)

The Center for Retail Compliance helps retailers answer specific regulatory questions, find relevant resources and agency tools, identify environmental issues that apply to their specific operations, understand how sustainability can reduce regulatory risk and costs, plan and implement a systematic compliance program, and learn leading practices from other retailers. (<http://www.retailcrc.org/RegGuidance/Pages/factsheet.aspx?s=Refrigerant%20Fact%20Sheet>)

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[Food Processing Environmental Assistance Center \(FPEAC\)](#)

This website contains a Compliance Summary Tool, designed to provide information and compliance assistance about Federal, State and local environmental regulations for users of different categories of food processing facilities.

(<http://www.fpeac.org/cs/index.cfm>)

[American Society for Testing and Materials \(ASTM\) Compass Compliance Assistance](#)

Through ASTM Compass, users can access standards, translated standards, technical information and training plus productivity tools. Another advantage is the detailed search refinements, the upgraded learning management system (no additional sign-on needed), and other content including data series, research reports and the terminology dictionary.

(<https://compass.astm.org/download/E681.11224.pdf>)