

CGA P-55–2018

**U.S. ENVIRONMENTAL
REGULATIONS INVENTORY FOR
COMPRESSED GAS INDUSTRY**

THIRD EDITION

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NOTE—Technical changes from the previous edition are underlined.

NOTE—Appendices A, B, C, and D (Informative) are for information only.

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1 Introduction

This publication was written to help identify environmental regulatory requirements in the United States that may apply to environmental aspects associated with the compressed gas industry.

2 Scope

This publication is intended for use by compressed gas industry companies in the United States. It principally addresses the U.S. Environmental Protection Agency (EPA) federal regulatory requirements. Although individual U.S. states establish their own environmental regulations that can be more stringent, they generally follow the same approach as the federal requirements.

This publication provides a series of appendices to facilitate environmental regulatory compliance within the compressed gas industry.

3 Definitions

For the purpose of this publication, the following definitions apply.

3.1 Publication terminology

3.1.1 Shall

Indicates that the procedure is mandatory. Shall is used whenever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.

3.1.3 May

Indicates that the procedure is optional.

3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

3.1.5 Can

Indicates a possibility or ability.

3.2 Technical definitions

3.2.1 Environmental aspect

Element of an organization's activities, products, or services that can interact with the environment.

3.2.2 U.S. Environmental Protection Agency (EPA)

United States government agency that establishes federal environmental rules/regulations.

4 Summary of appendices

Appendix A is an overview of major U.S. environmental laws. It summarizes the principal U.S. environmental laws that can affect the compressed gas industry.

Appendix B lists the U.S. environmental regulatory inventory. It provides specific citations of federal regulations affecting the compressed gas industry while identifying the principal affected activities and a brief overview of required regulatory compliance efforts. The U.S. *Code of Federal Regulations* (CFR) database can be found at www.gpo.gov/fdsys/. The U.S. government has also established an electronic CFR website at www.ecfr.gov.

Appendix C is an overview of U.S. environmental regulatory requirements for compressed gas facilities. It identifies the environmental regulatory requirements that can affect specific operations of the industry. For each

operation, it identifies the activity/source and related environmental aspect affected as well as a summary of the regulatory requirements and associated compliance activities needed.

Appendix D includes a list of federal and state environmental regulatory agencies. It provides a listing of state environmental agencies and their associated addresses, phone numbers, and website hyperlinks as they existed at the date of publication.

5 Other useful environmental websites

The following links provide additional environmental information:

- EPA's Small Business Ombudsman homepage at www.epa.gov/resources-small-businesses;
- Small Business Environmental homepage at www.smallbiz-enviroweb.org; and
- Environmental Compliance Assistance Platform (ENVCAP) at <http://envcap.org/>.

Small businesses are eligible for some regulatory relief through EPA. See www.epa.gov/reg-flex for further information.

6 References

Unless otherwise specified, the latest edition shall apply.

- [1] *Clean Air Act*, Environmental Protection Agency. www.epa.gov
- [2] *CGA P-29, Application of OSHA PSM and EPA RMP to the Compressed Gas Industry*, Compressed Gas Association, Inc. www.cganet.com
- [3] *Clean Water Act*, Environmental Protection Agency. www.epa.gov
- [4] *Resource Conservation and Recovery Act*, Environmental Protection Agency. www.epa.gov
- [5] *Code of Federal Regulations*, Title 40 (Protection of Environment), U.S. Government Printing Office. www.gpo.gov
- [6] *Emergency Planning and Community Right-to-Know Act/Superfund Amendments and Reauthorization Act Title III*, Environmental Protection Agency. www.epa.gov
- [7] *Pollution Prevention Act*, Environmental Protection Agency. www.epa.gov
- [8] *Comprehensive Environmental Response, Compensation and Liability Act*, Environmental Protection Agency. www.epa.gov
- [9] *Oil Pollution Act of 1990*, Environmental Protection Agency. www.epa.gov
- [10] *Safe Drinking Water Act*, Environmental Protection Agency. www.epa.gov
- [11] *Toxic Substances Control Act*, Environmental Protection Agency. www.epa.gov
- [12] *Federal Insecticide, Fungicide, and Rodenticide Act*, Environmental Protection Agency. www.epa.gov
- [13] *Code of Federal Regulations*, Title 33 (Navigation and Navigable Waters), U.S. Government Printing Office. www.gpo.gov

Appendix A—Overview of major U.S. environmental laws (Informative)

Following is a brief summary of the principal U.S. environmental laws that can affect the compressed gas industry.

A1 *Clean Air Act* [1]¹

The primary purpose of the *Clean Air Act* (CAA), as amended in 1990, is to improve and protect the quality of the air we breathe. The CAA established ambient air quality standards for specific pollutants, permitting requirements for sources of air pollutants, requirements for programs/plans to prevent and respond to hazardous material emergencies, requirements for reporting greenhouse gas emissions, emissions standards for certain types of equipment, and an overall reduction and management program for ozone-depleting substances (ODSs). More information can be found at <http://www3.epa.gov/airquality>.

Specific requirements that can impact compressed gas industry facilities include:

- Permitting programs (for example, Title V or State Operating Permit) for air pollution sources with a potential to emit 10 tons/year of a listed hazardous air pollutant (HAP) (25 tons/year total HAPs) (<https://www.epa.gov/haps>) or 25-50 tons/year of a criteria pollutant (volatile organic chemicals [VOCs], nitrogen oxides [NOx], carbon monoxide, sulfur dioxide, particulates, lead) in a nonattainment area. In attainment areas, the criteria pollutant threshold is 100 tons/year. States also require air permits for relatively small sources and air pollution control devices. Permits can include:
 - Emission limits and operational requirements
 - Periodic monitoring and reporting requirements (for example, emissions inventories or Title V compliance requirements)
 - Requirements for risk management plans for sites storing hazardous materials above established thresholds (see [CGA P-29, Application of OSHA PSM and EPA RMP to the Compressed Gas Industry](#)) [2]
 - Manufacturing phaseout of ODSs; labeling requirements; usage bans; and maintenance, control, recovery, recycling, recordkeeping and certification requirements for ODSs in refrigeration equipment and selling ODS refrigerants
 - Emissions standards, monitoring, and work practices for certain pieces of equipment such as boilers and process heaters, flares, and reciprocating internal engines
 - Greenhouse gas monitoring and reporting for certain sources;
- Clean fuels fleet program for vehicles capable of being centrally fueled and less than 26 000 lb gross vehicle weight in some areas that are not in attainment with ozone ambient air quality standards; and

NOTE—This can impact company vehicle fleets.

- EPA notification requirements for renovation/demolition of structures containing asbestos and proper disposal of asbestos-containing wastes (for example, double bagging and approved landfills).

NOTE—Since states can require permits for air pollution sources with small emission rates, sites should work with the compressed gas industry company's environmental representatives to determine whether air pollution sources require a permit or an exemption/registration.

A2 *Clean Water Act* [3]

The intent of the *Clean Water Act* (CWA), created in 1972 and amended in 1977, is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The three major areas the CWA covers that

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.

affect compressed gas industry facilities are discharges to U.S. waters, pretreatment programs for discharges to public works, and stormwater discharges.

Specific requirements involve:

- National Pollutant Discharge Elimination System (NPDES) or State Pollutant Discharge Elimination System (SPDES) permits for direct discharges of wastewaters into U.S. waters;
- Compliance with effluent limitations established for each permit;
- Discharge monitoring reports to be prepared periodically (for example, monthly, quarterly, annually);
- Pretreatment programs/approvals for discharges to publicly owned treatment works (POTWs);
- Stormwater discharges associated with industrial activity and discharges from construction activities require permits, stormwater pollution prevention plans (often including monitoring), and employee training; and
- Facilities storing petroleum greater than 1320 gal total on site (includes storage in containers/equipment equal to or greater than 55 gal) require spill prevention control and countermeasure (SPCC) plans and employee training. The SPCC plan may need to be certified by a professional engineer.

A3 *Resource Conservation and Recovery Act [4]*

The *Resource Conservation and Recovery Act* (RCRA) was passed in 1976, amended in 1980, and amended again in 1984 with passage of the Hazardous and Solid Waste Amendments of 1984. Portions of RCRA that often apply to the locations of compressed gas industry companies include: Subtitle C of RCRA, which creates “cradle to grave” responsibility for the generation, transportation, treatment, storage, and disposal of hazardous waste; Subtitle D, which addresses nonhazardous waste management practices; and Subtitle I, which governs underground storage tanks.

Generators of hazardous waste are required to comply with Title 40 of the U.S. *Code of Federal Regulations* (40 CFR) Part 261 *et seq* of RCRA and applicable state requirements for the management of hazardous wastes [5]. These regulations are comprehensive to manage all aspects of hazardous waste management. Specific requirements are defined based upon the facility’s generator classification. Hazardous waste management and contingency plans are required for large quantity hazardous waste generators. Training of personnel handling hazardous waste is required annually.

Nonhazardous (solid) wastes shall also be managed properly. In general, states have primary authority over the activities of compressed gas industry companies related to nonhazardous wastes.

Requirements for underground storage tanks (USTs) in Subtitle I apply to any underground system storing a regulated substance that has at least 10% of its volume (including piping) beneath the surface. While tanks less than 110 gal, flow-through process tanks, and on-site heating oil tanks are usually exempted from regulation, these tanks shall be managed properly to avoid environmental releases/liabilities. States generally implement these requirements.

Primary regulatory requirements related to USTs involve:

- tank registrations;
- performance standards for UST and piping design, construction, and installation (for example, fiberglass or steel [with cathodic protection], spill and overfill protection);
- release detection of tank and piping (for example, automatic gauging, interstitial monitoring, inventory control with tank tightness tests);
- operation and maintenance of corrosion protection;
- recordkeeping (for example, corrosion equipment, release detection);

- reporting (for example, notification of releases); and
- proper closure of USTs (for example, notification, environmental assessment, etc.).

A4 *Emergency Planning and Community Right-to-Know Act or Superfund Amendments and Reauthorization Act Title III [6]*

The *Emergency Planning and Community Right-to-Know Act* (EPCRA) or *Superfund Amendments and Reauthorization Act* (SARA) Title III was enacted in 1986 and established numerous reporting requirements for use, storage, and releases of hazardous substances. Some major elements of EPCRA that impact compressed gas industry facilities include:

- Emergency planning notification requirements for facilities handling a threshold amount or more of any listed extremely hazardous substances;
- Requirements for immediate and written notifications for hazardous substance releases above a reportable quantity (RQ);
- Annual hazardous chemical inventories (SARA Title III, Section 312, Tier 2 reports), which shall be prepared and submitted to state emergency response commissions, local emergency planning committees, and local fire departments;
- Requirements for annual reporting of any listed toxic chemical released (Form R 313 Toxic Release Inventory [TRI] reports) from a facility when the amount manufactured or used on-site exceeds certain thresholds;
- Annual supplier notification for TRI chemicals;
- EPA bulk liquid customer notification agreement (Tier 2) between EPA and CGA;
- Facility latitude and longitude, number of full-time employees, and the facility identification numbers assigned under the TRI program and the risk management program;
- Maximum number of occupants that may be present at the facility and whether the location is staffed or unstaffed; and
- A phone number that is answered 24-hours per day.

A5 *Pollution Prevention Act [7]*

The *Pollution Prevention Act* of 1990 (PPA) establishes a national policy to prevent or reduce pollution at the source of facility processes using a hazardous material or generating hazardous wastes. The PPA emphasizes identifying methods to reduce the volume of waste before it is generated or sent for disposal. These source reduction programs include material substitution, closed-loop recycling, enhancement of current operating or maintenance programs, process improvements, energy or water use efficiency improvements, or other appropriate measures.

Currently, all facilities subject to SARA Title III, Section 313, toxic chemical release reporting requirements (TRI Form R), shall prepare and implement appropriate pollution prevention plans to meet the following objectives:

- eliminate hazardous material discharges from facility processes;
- reduce the volume of hazardous waste generated;
- reduce the toxicity and volume of wastes generated; and
- eliminate/reduce unpermitted hazardous material releases to all environmental media.

Section 8 of the facility SARA Title III, Section 313 TRI Form R report, submitted annually prior to July 1, shall detail source reduction and recycling activities for each reported toxic chemical used, manufactured, processed, or released during the previous reporting year as well as projected future reductions.