DEPARTMENT OF ENVIRONMENTAL QUALITY

WASTE AND HAZARDOUS MATERIALS DIVISION

STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GASES

(By authority conferred on the Michigan Department of Environmental Quality by Section 3c of 1941 PA 207, MCL 29.3c, and Executive Reorganization Order No. 1998-2, MCL 29.461)

PART 1. GENERAL PROVISIONS

R 29.6001 Applicability.

Rule 1. These rules apply to the operation of all liquefied petroleum gas (LP gas) systems. A person shall comply with these rules, other applicable state and federal statutes, and rules and regulations promulgated under the statutes.

History: 2008 AACS.

R 29.6002 Storage and handling of liquefied petroleum gases; adoption of standard by reference.

Rule 2. The National Fire Protection Association's (NFPA) pamphlet entitled "NFPA 58 Liquefied Petroleum Gas Code 2004 Edition," pertaining to the storage and handling, but not transportation, of LP-gas, is adopted by reference as part of these rules. Copies of the adopted code are available for inspection and distribution either at the office of the Department of Environmental Quality, Waste and Hazardous Materials Division, Storage Tank Unit, P.O. Box 30241, Lansing, Michigan 48909-7741, or from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269, telephone number 800-344-3555. The cost of the code, at the time of the adoption, is $41.00, plus a $7.95 handling charge, per copy.

History: 2008 AACS.

PART 2. AMENDMENTS TO ADOPTED CODE

R 29.6036 Nonapplication of code.

Rule 36. Section 1.3.2 of the code is amended as follows:

1.3.2 Nonapplication of code. This code shall not apply to the following:

(a) Frozen ground containers and underground storage in caverns including associated piping and appurtenances used for the storage of LP-gas.

(b) Deleted.

(c) LP-gas (including refrigerated storage) at utility gas plants (see NFPA 59, Utility LP-Gas Plant Code.) (d) Deleted.

(e) LP-gas used with oxygen.

(f) The portions of LP-gas systems covered by NFPA 54 (ANSI Z223.1), "National Fuel Gas Code," where NFPA 54 (ANSI Z223.1) is adopted, used, or enforced.

(g) Transportation by air, including use in hot air balloons, or water under the jurisdiction of the United States Department of Transportation (DOT).

(h) Marine fire protection.

(i) Refrigeration cycle equipment and LP-gas used as a refrigerant in a closed cycle.

(j) The manufacturing requirements for recreational vehicle LP-gas systems that are addressed by NFPA 1192, "Standard on Recreational Vehicles." (k) Propane dispensers located at multiple fuel refueling stations shall comply with NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages.

History: 2008 AACS.

R 29.6037 Prohibitions.

Rule 37. Sections 1.8, 1.8.1, 1.8.2, 1.8.3 of the code are added as follows:1.8 Prohibitions. Any LP-gas storage container system or practice that is not in compliance with these rules shall be considered to be in violation of these rules.

1.8.1 Upon notification by the department, a person shall not deliver LP-gas to a storage container system under any circumstances that are prohibited by these rules or if a container is not in compliance with these rules. Such notification may include a verbal, written communication, or an affixed written notification on the LP gas system.

1.8.2 A person shall not tamper with, remove, or disregard a written notification affixed to a storage container system.

1.8.3 An owner or operator shall not continue to use a storage container system that is causing a release and shall expeditiously empty, per chapter 7, the system or the component that is causing the release per applicable sections of chapter 7, until the system is repaired or replaced.

History: 2008 AACS.

R 29.6038 Notification of installation.

Rule 38. Sections 1.9, 1.9.1, 1.9.1.1, 1.9.1.2, 1.9.1.3, 1.9.1.4, 1.9.1.5, 1.9.1.6, 1.9.2, 1.9.2.1 of the code are added as follows:

1.9 Notification of Installation.

1.9.1 An applicant shall submit an installation application to the department before beginning construction of any new installation, or additional storage capacity to an existing installation, involving any of the following:

(a) Installations where individual storage capacity exceeds 2,000 gallons (7.6 cubic meters) water capacity.

(b) Installations where the aggregate storage capacity exceeds 4,000 gallons (15.2 cubic meters) water capacity.

(c) A LP-gas container filling location.

1.9.1.1 The installation application required by section 1.9.1 of the
LP-gas code shall include all of the following information:
a plot map showing all of the following:

(i) The location of all of the following:

(A) Buildings.

(B) Public roadways.

(C) Railroad mainlines.

(D) Public sidewalks.

(E) Overhead electric power lines.

(ii)The proposed location of the container.

(iii)The location of adjacent and existing containers.

(iv)The location of existing flammable and combustible liquid (FL/CL) aboveground storage tanks (ASTs).

(v)The location of the point of transfer in relation to all of the following:

(A) The container.

(B) Buildings.

(C) Public ways.

(D) Outdoor places of public assembly.

(E) Driveways.

(F) Mainline railroad track centerlines.

(G)FL/CL dispensers.

(H)ASTs and underground storage tanks (USTs).

(I)The lines of adjoining property that is or may be built upon.

(J)Drains and utility openings.
(a)The material of construction.
(b)The dimension and capacity of each container.
(c) Conntainer appurtenances.
(d)A piping diagram showing all of the following:
(i)Sizes.
(ii)Valves.
(iii)Pressure relief devices.
(iv)Fittings.
(v)The manufacturer and part number of all components on LP-gas system.The department may accept materials and equipment if it is demonstrated to the department's satisfaction that the proposed material or equipment is of an equivalent rating or higher.

1.9.1.2 Upon acknowledged receipt of the installation application the department shall issue a plan review report within 30 days. If a plan review report is not issued within 30 days, then the applicant may construct the installation according to the submitted installation application and shall comply with these rules.

1.9.1.3 The applicant shall notify the department after the plan review is approved to schedule a preliminary inspection prior to site construction. If the preliminary inspection is not made within 2 working days then the applicant may commence construction.

1.9.1.4 An applicant shall notify the department upon completion of the installation before the installation is placed into service. The department shall inspect the installation after receiving notification and shall certify the installation if the requirements of these rules are met. If the inspection is not made within 2 working days, then the applicant may place the installation into service, or if intended to be underground, mounded, or partially underground, may cover the installation from sight. In either case, an applicant shall notify the department and shall submit a signed affidavit to the department attesting to the fact that the installation complies with the installation application submitted and the applicable rules.

1.9.1.5 Upon request, the department shall return all installation applications submitted to the department for review after the department has certified the installation or within 30 days from notification of the completion of the installation.

1.9.1.6 If the construction of the storage system is not commenced within 1 year after the date of the installation application approval, then the applicant shall resubmit an installation application in accordance with this section. An applicant shall submit the fees required under the act with the resubmitted application.

1.9.2 Owners and operators shall register any underground, mounded, or partially underground LP-gas storage location having a container that has an individual water capacity of more than 2,000 gallons, where 2 or more containers having an aggregate capacity of more than 4,000 gallons, or which is a container filling location. Registration shall be on a form provided by the department.

1.9.2.1 A propane gas supplier shall maintain records of the locations where underground, mounded, or partially underground LP-gas storage containers other than containers specified in section 1.9.3 of the rules were filled.

History: 2008 AACS.

R 29.6039 Referenced publications.

Rule 39. Section 2.3.10 of the code is added as follows:

2.3.10 NACE International Publications. National association of corrosion engineers international, P.O. Box 218340, Houston, Texas 77218.NACE RP0285, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection, 2002 edition, $37.00.NACE RP0169, Control of External Corrosion of Underground or Submerged Metallic Piping Systems, 2002 edition, $42.00.

History: 2008 AACS.

R 29.6040 Official definitions.

Rule 40. Sections 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5 of the code are amended, and sections 3.2.3(a) and 3.2.3(b) of the code are added as follows:

3.2.1 "Approved" means acceptable to the department.

3.2.2 "Authority having jurisdiction" means the department.

3.2.3 "Code" means the storage and handling of liquefied petroleum gases.

3.2.3(a) "Department" means the department of environmental quality.

3.2.3(b) "Director" means the director of the department.

3.2.4 "Labeled" means equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the department and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with accepted or approved standards of construction and or performance.

3.2.5 "Listed" means equipment, materials, or services included in a list published by an organization that is acceptable to the department and concerned with evaluation of products or services, that maintains periodic inspection of production listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

History: 2008 AACS.

R 29.6041 General definitions.

Rule 41. Sections 3.3.1(a), 3.3.11(a), 3.3.11(b), 3.3.16(a), 3.3.16(b), 3.3.16(c), 3.3.16(d), 3.3.47(a) and 3. 3.69(a) of the code areadded as follows:

3.3.1(a) "Aggregate" means total capacity of LP-gas containers that are manifolded or grouped together and includes all LP-gas containers that are located within 50 feet (15 meters) of each other.

Exception: Cylinders waiting use, resale, or exchange when stored in accordance with chapter 8.

3.3.11(a) "Cathodic protection" means a technique to prevent the corrosion of a metal surface by making the surface the cathode of an electrochemical cell.This protection renders a metallic container or piping component negatively charged with respect to its environment. This protection shall be designed by a corrosion expert as defined by these rules.

3.3.11(b) "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems applicable to metal piping and container systems and who has education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of metal piping and container systems. The person shall be certified as being qualified by the national association of corrosion engineers (NACE) international.

3.3.16(a) "Container filling location" means the location where LP-gas is transferred from a fixed stationary container into cylinders or containers.

3.3.16(b) "Container system" means the container assembly and piping system.

3.3.16(c) "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principals of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control of container systems. The person shall be certificated as being qualified by NACE, as a senior corrosion technologist, a cathodic protection specialist, or a corrosion specialist or be a registered engineer who has certification and licensing that includes education and experience in corrosion control.

3.3.16(d) "Corrosion protection" means protecting a container system to prevent the degradation of the metal through oxidation or reactivity with its environment.

3.3.47(a) "NACE" means the national association of corrosion engineers, international.

3.3.69(a) "Temporary installation" means an installation of an LP-gas container, piping, and equipment for a definite period of time that is non-reoccurring and non seasonal use.

History: 2008 AACS.

R 29.6042 Notification of installations.

Rule 42. Sections 4.3, 4.3.1, and 4.3.2 of the code are amended as follows:

4.3 Notification of installations.

4.3.1 Stationary installations. Plans for stationary installations must meet the requirements of section 1.9.

4.3.2 Temporary installations. The department shall be notified of temporary, not to exceed 12 months, installations for container sizes covered in section 1.9. All temporary installations shall meet the following:

(a) Approval by the department shall be required prior to bringing the container to the site. In reviewing a proposed installation, the condition of the container, the site where the container will be located, installation and testing procedures, and operational procedures shall be evaluated before approval.

(b) The approval shall include a definite time limit after which the container shall be removed from the site.

(c) The container shall comply with all applicable provisions of this code.

History: 2008 AACS.

R 29.6043 Notification of installations.

Rule 43. Section 4.4 of the code is amended, and sections 4.4.1 and 4.4.2 of the code are added as follows:

4.4 Qualification of personnel.

4.4.1 Not later than 1 year after the date of employment, a person who transfers LP gas, or whose primary duties fall within the scope of this code, shall complete a training program and then receive certification from the national propane association's employee training certification program that includes handling, operating, and certified testing of LP gas. The employer shall document that the person has received certified testing training. Only an individual who has received the certified testing training specified in this code is permitted to install or service LP gas systems and equipment.

4.4.2 A person who transfers LP gas at the dispensing station shall receive training in accordance with the national propane gas association's dispenser operator's training manual. The employer shall document the person received the training.

History: 2008 AACS.

R 29.6044 Containers.

Rule 44. Subsections 5.2.1.1(c) and 5.2.1.2(d) of the code are added and section 5.2.3.1 is amended as follows:

5.2.1.1(c) Composite cylinders shall be listed.

5.2.1.2(d) DOT 4E specification aluminum cylinders and composite cylinders involved in a fire and the cylinders show evidence of fire damage then the cylinders shall be permanently removed from service.

5.2.3.1 DOT cylinders in stationary service that are filled on site and, therefore, are not under the jurisdiction of DOT either shall be requalified in accordance with DOT requirements or shall be visually inspected within 12 years of the date of manufacture and within every 5 years thereafter, in accordance with subsections 5.2.3.1(a) through 5.2.3.1(c). Such requalification shall be completed no later than 3 years after the effective date of these rules provided, however, that if after 3 years of the effective date of these rules, any DOT stationary cylinder is found to have not been requalified, it may be requalified without penalty within 60 days of written notice of its discovery.

(a) Any cylinder that fails 1 or more of the criteria in subsection 5.2.3.1(c) shall not be refilled or continued in service until the condition is corrected.

(b) Personnel shall be trained and qualified to perform inspections.Training shall be documented in accordance with section 4.4.

(c) Visual inspection shall be performed in accordance with the following:

(i) The cylinder is checked for exposure to fire, dents, cuts, digs, gouges, and corrosion according to CGA C-6, Standard for Visual Inspection of Steel Compress Gas Cylinders, except that paragraph

4.2.1.1(1) of that standard (which requires tare weight verification), shall not be part of the required inspection criteria.

(ii) The cylinder protective collar (where utilized) and the foot ring are intact and are firmly attached.

(iii) The cylinder is painted or coated to retard corrosion.

(iv) The cylinder pressure relief valve indicates no visible damage, corrosion of operating components, or obstructions.

(v) There is no leakage from the cylinder or its appurtenances that is detectable without the use of instruments.

(vi) The cylinder is installed on a firm foundation and is not in contact with the soil.

(vii) A cylinder that passes the visual examination shall be marked with the month and year of the examination followed by the letter "E" (example:
10-01E, indicating requalification in October 2001 by the external inspection method).

(viii) The results of the visual inspection shall be documented and a record of the inspection shall be retained for a 5-year period.

History: 2008 AACS.

R 29.6045 Container maximum operating working pressure.

Rule 45. Section 5.2.4.5 of the code is amended as follows:

5.2.4.5 Cylinders shall be designed and constructed for at least a 240 psig (1.6 MPag) maximum allowable working pressure.

History: 2008 AACS.

R 29.6046 Containers with attached supports.

Rule 46. Section 5.2.7.2 of the code is amended as follows:

5.2.7.2 Any ASME container over 4,000 gallons (15.2 cubic meters) water capacity or any container at a dispensing site as defined in section 3.3.21 shall be equipped in accordance with sections 5.2.7.2(a) to 5.2.7.2(d) and table 5.7.7.3.

(a)Steel legs or supports shall be either welded to the container by the manufacturer at the time of fabrication or attached to lugs that have been welded to the container.

(b) The legs or supports or the lugs for the attachment of legs or supports shall be secured to the container in accordance with the code or rule under which the container was designed and built, using a minimum safety factor of 4, to withstand loading in any direction equal to twice the weight of the empty container.

(c) The attachment of a container to either a trailer or semitrailer running gear, or the attachments to the unit can be moved by a conventional over-the-road tractor, shall comply with the DOT requirements for cargo tank service. The stress calculations for the design of the attachment shall be based on twice the weight of the empty container.

(d) The unit shall be approved by the authority having jurisdiction.

History: 2008 AACS.

R 29.6047 Container marking.

Rule 47. Subsection 5.2.8.1(c) of the code is added as follows:

5.2.8.1(c) Where the data plate is missing on an installation of an ASME LP-gas container over 4,000 gallons (15.2 cubic meters) water capacity, in use at a particular location. The department shall allow prior department LP-gas inspection reports/facility information sheets to be adequate proof, subject to approval by the department. Subject to approval by the department, the department shall agree to allow owners and operators to stamp, using non-sparking tools, within 12 inches (30.4 centimeters) of the center of the head, to stamp into the container all available pertinent information including: serial number, gallon water capacity, manufacturer, or a number issued by the department.

History: 2008 AACS.

R 29.6048 LP-gas hose.

Rule 48. Sections 5.3 and 5.3.1 of the code are added as follows:

5.3 LP-gas hose.

5.3.1 The inner tube of any LP-gas hose shall be compatible with LP-gas.

History: 2008 AACS.

R 29.6049 Pressure relief devices.

Rule 49. Section 5.7.2.3 and subsection 5.7.2.4(A) of the code are amended as follows:

5.7.2.3 DOT nonrefillable metal containers shall be equipped with a pressure relief device(s) or systems(s) that will prevent propulsion of the container when the container is exposed to fire. Composite cylinders shall not be equipped with fusible plugs.

5.7.2.4(a) The start-to-leak setting of such pressure relief valves, in relation to the maximum allowable operating pressure of the container, shall be in accordance with table 5.7.2.4(a).

History: 2008 AACS.

R 29.6050 Container connections and appurtenances.

Rule 50. Section 5.7.7.2, subsection 5.7.7.2(c), and section 5.7.7.4 of the code are amended as follows:

5.7.7.2 Any ASME container used for motor vehicle fueling and ASME containers over 4,000 gallons (15.2 cubic meters) water capacity shall be equipped in accordance with sections 5.7.7.2(A) to 5.7.7.2(G) and table 5.7.7.3.

5.7.7.2 (C) Liquid withdrawal openings in existing installations where the container is equipped with an internal valve or internal excess flow valve that is not fitted for remote closure and automatic shutoff using thermal (fire) actuation shall be equipped for remote and thermal closure.

5.7.7.4 ASME containers over 4,000 gallons (15.2 cubic meters) water capacity shall also be equipped with the following appurtenances:

(a) An internal spring-type, flush type full internal, or external pressure relief valve, and within 10 years of the date of installation, or within 3 years of the effective date of these rules and every 10 years thereafter, owners and operators of ASME containers shall complete a visual relief valve inspection for containers over 4,000 gallons (15.2 cubic meters) water capacity and any container filling site. These visual relief valve inspections shall include a thorough inspection including removal of stacks to remove all foreign matter from in and around the relief valve. If the valve appears to be damaged or deteriorated, then the relief valve shall be replaced or recertified. Documentation of the inspection shall be provided to the department during required inspections.

(b) A fixed maximum liquid level gauge.

(c) A float gauge, rotary gauge, slip tube gauge, or a combination of these gauges.

(d) A pressure gauge.

(e) A temperature gauge.

History: 2008 AACS.

R 29.6051 Container appurtenances protection.

Rule 51. Section 5.7.11.5 of the code is amended as follows:

5.7.11.5 Container inlet and outlet connections on ASME containers of more than 2,000 gallons (7.6 cubic meters) water capacity or any dispensing sites as defined in section 3.3.2.1 shall be labeled to designate whether they communicate with the vapor or liquid space.

History: 2008 AACS.

R 29.6052 Piping (including hose), fittings, and valves.

Rule 52. Sections 5.8.1.5 and 5.8.1.6 of the code are added as follows:

5.8.1.5 All piping shall be labeled to designate whether they communicate with the vapor or liquid space.

5.8.1.6 All steel or wrought iron piping shall be painted or protected against corrosion by other means acceptable to the department.

History: 2008 AACS.

R 29.6053 Hose, quick connectors, hose connections, and flexible connectors.

Rule 53. Section 5.8.6.1 of the code is amended as follows:

5.8.1.6 Hose, hose connections, and flexible connectors shall be fabricated of materials that are compatible with LP gas both as liquid and vapor.

History: 2008 AACS.

R 29.6054 Valves other than container valves.

Rule 54. Section 5.10.6 of the code is amended as follows:

5.10.6 Valves in polyethylene piping systems shall be manufactured from thermoplastic materials listed in ASTM D 2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing and Fittings" that have been fabricated from materials compatible with LP-gas and comply with ASTM D 2513.Valves in polyamide piping systems shall be manufactured from polyamide material as defined in ASTM D 2513. Metallic valves in polyethylene and polyamide piping systems shall be protected to minimize corrosion in accordance with 6.14.

History: 2008 AACS.

R 29.6055 Equipment.

Rule 55. Section 5.15.5.2 of the code is amended, and section 5.15.5.3 of the Code is added as follows:

5.15.5.2 Vapor meters of the die cast or iron cast type shall be permitted to be used at any pressure equal to or less than the maximum allowable working pressure for which they are designed and marked.

5.15.5.3 Liquid meters shall be installed so that the meter housing is not subject to excessive strain from the connecting piping. If not provided in the piping design, flexible connectors that do not exceed 36 inches (1 meter) in overall length may be used.

History: 2008 AACS.

R 29.6056 Other container location requirements.

Rule 56. Sections 6.4.1, 6.4.5.3, 6.4.5.10, 6.4.7 of the code are amended as follows:

6.4.1 Where storage containers having an aggregate water capacity of more than 4,000 gallons (15.1 cubic meters) are located in heavily populated or congested areas, the siting provisions of section 6.3.1 and table 6.3.1 may be modified as indicated by the fire safety analysis review described in section 6.23.3.

6.4.5.3 The area under containers shall be graded or shall have curbs installed so that the flow or accumulation of flammable liquids with flash points below 200 degrees Fahrenheit, 93.4 degrees Celsius, is prevented.

6.4.5.10 The minimum separation between LP-gas containers and liquefied hydrogen containers shall be in accordance with R 29.7001 et seq.

6.4.7 Persons shall not install structures such as fire walls, fences, earth or concrete barriers, and other similar structures closer than 10 feet (3.1 meters) adjacent to, or over nonrefrigerated containers. All structures installed around containers and container filling locations shall have not less than 6 inches (15.2 centimeters) of unobstructed clearancefrom the surface grade or floor to the bottom of the structure.

Persons may install structural supports less than 6 inches (15.2 centimeters) above grade or floor which are designed to maintain adequate ventilation in accordance with section 10.2.2. Means of egress shall meet the requirements in section 6.16.5 of this code. Structures shall not be permitted around or over installed nonrefrigerated containers unless specifically allowed as follows:

(a) Structures partially enclosing containers shall be permitted if designed in accordance with a sound fire protection analysis.

(b) Structures used to prevent flammable or combustible liquid accumulation or flow shall be permitted in accordance with section 6.4.5.3.

(c) Structures between LP-gas containers and gaseous hydrogen containers shall be permitted in accordance with section 6.4.5.9.

(d) Structures such as fences shall be permitted in accordance with section 6.16.5.

History: 2008 AACS.

R 29.6057 Location of transfer operations.

Rule 57. Section 6.5.1.3 of the code is deleted, and table 6.5.3 of the code is amended by adding part L, as follows:

6.5.1.3 Deleted. Table 6.5.3 Add (L) - The minimal horizontal distance between the point of transfer and utility system openings shall be not less than 15 feet (5 meters).

History: 2008 AACS.

R 29.6058 Installation of containers.

Rule 58. Section 6.6.1.7 of the code is added as follows:

6.6.1.7 Guard posts or other approved means shall be provided to protect a container system subject to vehicular damage. When guard posts are installed, all of the following design shall be used:

(a) Guard posts shall be constructed of schedule 40 steel pipe not less than 4 inches (10 centimeters) in diameter and shall be filled with concrete.

(b) Guard posts shall be spaced not more than 5 feet (1.6 meters) on center.

(c) Guard posts shall be set not less than 3 feet (1 meter) deep in a concrete footing that is not less than 10 inches (25 centimeters) in diameter and not less than 40 inches (1.1 meter) below grade.

(d) Guard posts shall be not less than 4 feet (1.3 meters) in height above grade.

(e) Other means as approved by the department based on the best interests of public health, safety, and welfare and the environment.

History: 2008 AACS.

R 29.6059 Installation of underground and mounded containers.

Rule 59. Section 6.6.6.1 of the code is amended, subsection 6.6.6.1(G) of the code is amended, subsection 6.6.6.1(M) of the code is added, and section 6.6.6.4 is added, as follows:

6.6.6.1 ASME container assemblies listed for underground installation, including interchangeable aboveground-underground container assemblies, shall be installed underground in accordance with 6.6.6.1(A) to 6.6.6.1(M).

6.6.6.1(G) Buried LP-gas containers no longer in service for more than 12 months shall be removed from the ground. If building structures exist above or in close proximity to the container such that removal would jeopardize the building structure integrity, then the owner or operator may close the container in place. To close the container in place, the container shall be emptied, cleaned, purged of all vapors, and filled with an inert solid material. Where a container is to be abandoned underground the following shall be followed:

(a) As much liquid LP-gas as practical shall be removed through the container liquid withdrawal connection.

(b) As much of the remaining LP-gas vapor as practical shall be removed through a vapor connection.

(c) The vapor shall either be recovered, burned, or vented to the atmosphere.
(d) If purged, the displaced vapor shall be either recovered, burned, or vented to the atmosphere.
6.6.6.1(M) Piping permanently removed from service shall be purged and capped, or removed from the ground.
6.6.6.4 An owner and operator shall ensure that container systems are properly designed and constructed in accordance with ASME and that any portion which is underground, mounded, or partially underground is protected from corrosion as follows:
(a)The ASME approved container system is cathodically protected in the following manner:
(i)The American society of mechanical engineers approved container system is coated with a suitable dielectric material.
(ii) Factory-installed or field-installed cathodic protection systems are designed by a corrosion expert in accordance with the NACE recommended practice RP0285 entitled "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," or equivalent protection.
(iii) Impressed current systems are designed to allow a determination of current operating status as required in section 6.14 of this code.
(iv) Cathodic protection systems are operated and maintained in accordance with the provisions of section 6.25 of this code or according to procedures acceptable to the department.
(b)The container is made of nonmetallic construction such as fiberglass or a composite (steel with fiberglass).

History: 2008 AACS.

R 29.6060 Installation of containers on roofs of buildings.
Rule 60. Section 6.6.7 of the code is deleted in its entirety.
6.6.7 Deleted.
6.6.7.1 Deleted.
6.6.7.2 Deleted.

History: 2008 AACS.

R 29.6061 Piping system service limitations.
Rule 61. Subsection 6.8.1.1(2) of the code is amended as follows:
6.8.1.1(2) Outdoor LP-gas liquid or vapor polyamide piping systems shall have pressure limitations as defined by the maximum allowable working pressure of the piping being installed.

History: 2008 AACS.

R 29.6062 Installation of metallic pipe, tubing, and fittings.
Rule 62. Section 6.8.3.3 and subsection 6.8.3.5(2) of the code are amended as follows:
6.8.3.3 Metallic piping shall comply with the following:
(a) Piping used at pressures higher than the container pressure, such as on the discharge side of liquid transfer pumps, shall be designed for a maximum allowable working pressure of at least 350 psig (2.4 MPag).
(b) Vapor LP-gas piping with operating pressures in excess of 125 psig (0.9 MPag) and liquid piping not covered by section 6.8.3.3(1) shall be designed for a maximum allowable working pressure of at least 250 psig (1.7 MPag).
(c) Vapor LP-gas piping subject to pressures of not more than 125 psig (0.9 MPag) shall be designed for a maximum allowable working pressure of at least 125 psig (0.9 MPag).
6.8.3.5(2) Fittings and flanges shall be designed for a maximum allowable working pressure equal to or greater than the required maximum allowable working pressure of the service for which they are used.

History: 2008 AACS.

R 29.6063 Valves in polyamide and polyethylene piping systems.

Rule 63. Section 6.8.5.3 of the code is amended as follows:

6.8.5.3 Valves shall be manufactured from thermoplastic materials fabricated from materials listed in ASTM D 2513, "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings," that have been fabricated from materials compatible with LP gas, or from metals protected to minimize corrosion in accordance with section 6.14.

History: 2008 AACS.

R 29.6064 Emergency shutoff valves.

Rule 64. Section 6.10.8.1 of the code is added as follows: Owners and operators may satisfy the requirements of sections 6.10.6 and

6.10.7 of this code by using concrete or steel bulkheads or an equivalent anchorage installed at a minimum of 10 feet (3.1 m) from each storage container. Owners and operators shall ensure that fixed piping is used between the bulkhead and each storage container, and that the piping is attached to, and passes through, the bulkhead.

History: 2008 AACS.

R 29.6065 Corrosion protection.

Rule 65. Section 6.14.1 of the code is amended as follows:

6.14.1 Owners and operators shall ensure that all metallic container systems that are underground, mounded, or partially underground are protected and maintained to minimize corrosion as cited in the NACE standard RP0169 entitled "Recommended Practice, Control of External Corrosion of Underground or Submerged Metallic Piping Systems," and NACE recommended practice RP0285 entitled "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," or equivalent protection approved by the department. The requirements of this rule do not apply to the copper piping attached to tanks used exclusively for residential heating systems.

(a) All corrosion protection systems shall be operated and maintained to continuously provide corrosion protection to the metal components of the portion of the ASME approved container systems that routinely contains LP-gas and that is in contact with the ground.

(b) All container systems equipped with cathodic protection systems shall be inspected for proper operation by a qualified cathodic protection tester.

The system shall be tested within 6 months of installation and at least once every 3 years thereafter or according to another reasonable time frame

established by the department.

(c) Container systems equipped with impressed current cathodic protection systems shall be inspected by the owner every 60 days to ensure that the equipment is running properly.

(d) If container systems are equipped with cathodic protection, then the owner or operator shall maintain records to demonstrate that the cathodic protection is in compliance with the performance standards in this section. The records shall provide both of the following:

(i) The results of the last 3 inspections required in subsection (c) of this section.

(ii) The results of testing from the last 2 inspections required in subsection (b) of this section.

(e) Within 6 months following the repair of any cathodically protected

container system, the cathodic protection system shall be tested in accordance with subsections (b) and (c) of this section to ensure that it is operating properly.

History: 2008 AACS.

R 29.6066 Pump installation.

Rule 66. Subsection 6.15.2.3(B)(2) of the code is amended as follows:

6.15.2.3(B)(2) Operate at a pressure 50 psig (345 kPag) above the operating pressure where the maximum allowable working pressure exceeds 350 psig (2.4 MPag).

History: 2008 AACS.

R 29.6067 Security and protection against tampering for section 6.16 and section 6.22 systems.

Rule 67. Subsections 6.16.5.2(A) and 6.16.5.2(E) of the code are amended, and section 6.16.5.3 of the code is deleted, as follows:

6.16.5.2(A) There shall be at least 2 means of emergency egress from the enclosure located at opposite sides of the enclosure unless any of the following is met:

(i) The fenced or otherwise enclosed area is not over 100 square feet (9 square meters).

(ii) The point of transfer is within 3 feet (1 meter) of the gate.

(iii) Containers are not filled within the enclosure.

Exception: Two means of emergency egress is not required if the fencing is not less than 50 feet from any side of the container or piping.

6.16.5.2(E) Fencing shall not be required where devices that can be locked in place are provided that prevents unauthorized operation of valves, equipment, and appurtenances. Only valves, equipment, and appurtenances that could release product need be locked.

6.16.5.3 Deleted.

History: 2008 AACS.

R 29.6068 Additional equipment requirements for cylinders, equipment, piping, and appliances used in buildings, building roofs, and exterior balconies.

Rule 68. Subsection 6.17.2.6(1) of the code is amended as follows:

6.17.2.6(1) Hose used at pressures above 5 psig (34 kPag) shall be designed for a maximum allowable working pressure of at least 350 psig (2.4 MPag).

History: 2008 AACS.

R 29.6069 Cylinders on roofs or exterior balconies.

Rule 69. Section 6.17.11 of the code is deleted in its entirety as follows:

6.17.11 Deleted.

History: 2008 AACS.

R 29.6070 Container installation requirements.

Rule 70. Subsection 6.21.3.1(B) of the code is amended as follows:

6.21.3.1(B) Cylinders installed on recreational vehicles or on other vehicles shall be constructed for at least a 240 psig (1.6 MPag) maximum allowable working pressure.

History: 2008 AACS.

R 29.6071 Vehicle fuel dispenser and dispensing stations. General installation provisions.

Rule 71. Section 6.22.3.3 of the code is amended as follows:

6.22.3.3. A LP-gas installation shall be permitted under a weather shelter or canopy, constructed of non-combustible material, properly ventilated in accordance with this code and not more than 50% of the perimeter enclosed. A stationary storage container shall not be located under the weather shelter or canopy except where the distance between the top of the storage container and the lowest part of the weather shelter or canopy is not less than 8 feet (2.4 meters). The top of any required vent stack shall terminate above the weather shelter or canopy.

History: 2008 AACS.

R 29.6072 Protection of ASME containers.

Rule 72. Sections 6.23.3.1, 6.23.3.2, and 6.23.3.7 of the code are amended, and section 6.23.3.3 of the code is deleted, as follows:

6.23.3.1 Fire protection shall be provided for installations with an aggregate water capacity of more than 4,000 gallons (15.1 cubic meters).

6.23.3.2 The modes of fire protection shall be specified in a written product release prevention and fire safety analysis.

6.23.3.3 Deleted.

6.23.3.7 If in the preparation of the fire safety analysis it is determined that a hazard to adjacent structures exists that exceed the protection provided by the provisions of this code, special protection shall be provided in accordance with section 6.23.5.

History: 2008 AACS.

R 29.6073 Spacing requirements.

Rule 73. Section 6.24.2.3 of the code is amended as follows:

6.24.2.3 No part of a mounded or an underground ASME container shall be less than 10 feet (3 m) from a building or line of adjoining property that can be built upon.

History: 2008 AACS.

R 29.6074 Transfer personnel.

Rule 74. Section 7.2.1.4 of the code is added as follows:

7.2.1.4 A container filling location that is not open to the public does not require an attendant or supervisor. Such private locations may include a card or key controlled dispensing device. The person performing the transfer shall be capable of performing the functions and shall assume the responsibility as prescribed in section 4.4 of this code and in accordance with section 7.4.2 of this code. Operating instructions for performing the transfer on a legible sign in the immediate vicinity of the point of transfer.

History: 2008 AACS.

R 29.6075 Filling and evacuating containers.

Rule 75. Sections 7.2.2.1, and 7.2.2.10(2) of the code are amended, and subsections 7.2.2.5.1(a) and 7.2.2.5.1(b) of the code are added, as follows:

7.2.2.1 The transfer of LP-gas out of or into a stationary container shall only be accomplished with authorization from the stationary container owner, and the transfer shall only be conducted by qualified persons trained in proper handling and operating procedures in accordance with the provisions of Section 4.4 of these rules. The person conducting the transfer of LP-gas shall also notify the owner of the container 2 working days before the transfer.

7.2.2.5.1(a) Owners and operators shall post the following legible wording, with letters not less than 3 inches (7.5 centimeters) in height and in plain view at a container filling location.No Smoking - No Open Flames

(b) Owner and operators shall post the following legible wording, with letters not less than 1/4 inch (1/2 centimeters) in height: Warning: Filling the following types of cylinders is prohibited and violators are subject to civil and criminal penalties:

(i) Cylinders not approved for LP-gas.

(ii) Cylinders more than 12 years old that have not been properly recertified.

(iii) Cylinders which are damaged, burned, or which, after visual inspection, appear unsafe.

(iv) Cylinders that are not equipped with a collar or cap to protect the valves while in transit.
7.2.2.10(2) The maximum allowable working pressure for ASME containers shall be at least in accordance with table 5.2.4.2.

History: 2008 AACS.

R 29.6076 Arrangement and operation of transfer systems.
Rule 76. Subsections 7.2.3.2(F) and 7.2.3.2(G) of the code are added as follows:
7.2.3.2(F) Signage shall be posted stating "No Smoking Within 25 Feet" on both sides of the container.
7.2.3.2(G) Signage shall be posted stating "Flammable Gas" on both sides of the container.

History: 2008 AACS.

R 29.6077 Purging.
Rule 77. Section 7.3.2.1 of the code is amended, and sections 7.3.2.5 and 7.3.2.5.1 of the code are added, as follows:
7.3.2.1 Venting of gas from containers for purging or for other purposes shall be accomplished in accordance with sections 7.3.2.2 to 7.3.2.5.1.
7.3.2.5 Venting of containers and burning of LP-gas in containers shall be allowed only when the activity is attended and carefully monitored so adjustments can be made if conditions change.
7.3.2.5.1 If container is to remain open after purging, all odorant shall be removed.

History: 2008 AACS.

R 29.6078 General provisions for the volumetric method of filling containers.
Rule 78. Subsection 7.4.3.2(A) of the code is amended as follows:
7.4.3.2(A) If a fixed maximum liquid level gauge or a variable liquid level gauge without liquid volume temperature correction is used, the liquid level indicated by these gauges shall be computed based on the maximum permitted filling limit when the liquid is at 40 degrees Fahrenheit (4 degrees Celsius) for aboveground containers, 50 degrees Fahrenheit (10 degrees Celsius) for underground containers, or -10 degrees Fahrenheit (23 degrees Celsius) for composite cylinders.

History: 2008 AACS.

R 29.6079 Location of storage outside of buildings.
Rule 79. Section 8.4.1.1 of the code is amended as follows:
8.4.1.1 Storage outside of buildings for cylinders awaiting use, resale, or part of a cylinder exchange point shall be located as follows:
(a) At least 10 feet (3 meters) from any doorway or opening in a building frequented by the public where occupants have at least 2 means of egress.
(b) At least 10 feet (3 meters) from any doorway or opening in a building or sections of a building that has only 1 means of egress.
(c) At least 20 feet (6.1 meters) from any automobile service station fuel dispenser.

History: 2008 AACS.

R 29.6080 Transportation of portable containers of more than 1,000 pounds (454 kilograms) water capacity.
Rule 80. Section 9.3.3.2 of the code is amended as follows:

9.3.3.2 Portable containers shall be constructed in accordance with section 5.7 and equipped in accordance with section 5.2 for portable use and shall comply with DOT portable tank specifications for LP-gas service.

History: 2008 AACS.

R 29.6081 Painting and marking cargo tank vehicles.

Rule 81. Section 9.4.6.1 of the code is amended as follows:

9.4.6.1 Painting of cargo tank vehicles shall comply with Title 49, Code of Federal Regulations, "Transportation", as adopted by reference in section 2.3.9.

History: 2008 AACS.

R 29.6082 Buildings or structures housing LP-gas distribution facilities.

Rule 82. Sections 10.4 and 10.4.1 of the code are added as follows:

10.4 Electrical equipment.

10.4.1 All electrical equipment and wiring installed in a building or room in the scope of this chapter shall comply with sections 6.20.2.1 and 6.20.2.2.

History: 2008 AACS.

R 29.6083 Engine fuel systems. Scope.

Rule 83. Section 11.1.2.1 of the code is amended as follows:

11.1.2.1 General purpose vehicle engines fueled by LP-gas. Vehicles complying with the federal motor vehicle safety standards covering the installation of LP-gas fuel systems on vehicles and certified by the vehicle manufacturer as meeting the standards need not comply with chapter 11 of this code except for section 11.11.

History: 2008 AACS.

R 29.6084 Container design.

Rule 84. Sections 11.3.1.1, 11.3.1.3, 11.3.1.4, 11.3.1.5, and 11.3.1.6 of the code are amended, section 11.3.1.2 of the code is deleted, and sections 11.3.1.7, and 11.3.1.8 of the code are added, as follows:

11.3.1.1.Containers shall be designed, fabricated, tested, and marked (or stamped) in accordance with the regulations of the DOT, the ASME "Boiler and Pressure Vessel Code," Section VII, "Rules for the Construction of Unfired Pressure Vessels" or the API ASME "Code for Unfired Pressure Vessels for Petroleum Liquids and Gases," except for UG-125 through UG-136.

11.3.1.2 Deleted.

11.3.1.3 Containers fabricated to earlier editions of regulations, rules, or codes listed in section 5.2.1.1 and of the interstate commerce commission (ICC) "Rules for Construction of Unfired Pressure Vessels," prior to April 1, 1967, shall be permitted to be used in accordance with section 1.4.

11.3.1.4 Containers that have been involved in a fire and show no distortion shall be requalified for continued service before being used or reinstalled.

(1) Cylinders shall be requalified by a manufacturer of that type of cylinder or by a repair facility approved by DOT.

(2) ASME or API-ASME containers shall be retested using the hydrostatic test procedure applicable at the time of the original fabrication.

(3) All container appurtenances shall be replaced.

(4) DOT 4E specification aluminum cylinders and composite cylinders involved in a fire, and the cylinders show evidence of fire damage, then the cylinders shall be permanently removed from service.

11.3.1.5 A cylinder with an expired requalification date shall not be refilled until it is requalified by the methods prescribed in DOT regulations.

11.3.1.6 Cylinders shall be designed and constructed for at least 240 psig (1.6 MPag) service pressure.
11.3.1.7 Cylinders shall be continued in service and transported in accordance with DOT regulations.
11.3.1.8 Engine fuel containers shall be either the permanently installed or exchangeable type.

History: 2008 AACS.

R 29.6085 Container design pressure.
Rule 85. Section 11.3.2 of the code is amended adding sections 11.3.2.1 and 11.3.2.2 as follows:
11.3.2 Container maximum allowable working pressure.
11.3.2.1 ASME engine fuel and mobile containers shall have the following maximum allowable working pressure:
(1) 250 psig (1.7 MPag) or 312 psig (2.2 MPag) where required if constructed prior to April 1, 2001.
(2) 312 psig (2.2MPag) if constructed on or after April 1, 2001.
11.3.2.2 ASME containers installed as in enclosed spaces on vehicles and all engine fuel containers for vehicles, industrial trucks, buses (including school buses), recreational vehicles, and multipurpose passenger vehicles shall be constructed with a design pressure of at least 312 psig (2.2 MPag).

History: 2008 AACS.

R 29.6086 Container corrosion protection.
Rule 86. Section 11.3.7 of the code is amended as follows:
11.3.7 Container corrosion protection. Engine fuel containers constructed of steel shall be painted to minimize corrosion.

History: 2008 AACS.

R 29.6087 General requirements for appurtenances.
Rule 87. Subsection 11.4.1.7(B) and sections 11.4.1.2, 11.4.1.9, and 11.4.1.13 of the code are amended, as follows:
11.4.1.2 Container appurtenances subject to pressures in excess of 125 psig (0.9 MPag) shall be rated for a pressure of at least 250 psig (1.7 MPag).
11.4.1.7(B) The start-to-leak setting of such pressure relief valve, with relation to the maximum allowable working pressure of the container, shall be in accordance with table 5.7.2.4(A).
11.4.1.9 Pressure relief valves shall be marked with the following:
(a) The pressure in psig (kPag) at which the valve is set to start to leak.
(b) The rated relieving capacity in cubic feet per minute of air at 60 degrees
(c) Fahrenheit (15.6 degrees Celsius) and 14.7 psia (101 kPa).The manufacturer's name and catalog number.
11.4.1.13 ASME containers fabricated after January 1, 1984, for use as engine fuel containers on vehicles shall be equipped or fitted with an overfilling prevention device.

History: 2008 AACS.

R 29.6088 Carburetion equipment.
Rule 88. Section 11.5.1 of the code is amended as follows:
11.5.1 Pressure. Carburetion equipment subject to pressure in excess of 125 psig (0.9 MPag) shall be designed for a pressure of 250 psig (1.7 MPag) or for the maximum allowable working pressure of the container when the design pressure of the container is greater than 250 psig (1.7MPag).

History: 2008 AACS.

R 29.6089 Vaporizers.

Rule 89. Sections 11.5.2.3 and 11.5.2.4 of the code are amended as follows:

11.5.2.3 Vaporizers subjected to container pressure shall have a pressure rating of 250 psig (1.7 MPag) or the maximum allowable working pressure of the container when the design pressure of the container is greater than 250 psig (1.7 MPag).

11.5.2.4 Vaporizers shall be marked with the maximum allowable working pressure of the fuel containing portion in psig (MPag). The marking shall be visible when the vaporizer is installed.

History: 2008 AACS.

R 29.6090 Fittings.

Rule 90. Sections 11.6.2.1, 11.6.2.2, 11.6.2.3, 11.6.2.4, and 11.6.2.5 of the code are amended, section 11.6.2.6 of the code is deleted, and table

11.6.2.2 of the code is added as follows:

11.6.2.1 Fittings shall be steel, brass, copper, malleable iron, or ductile (nodular) iron.

11.6.2.2 Pipe fittings shall have a minimum pressure rating as specified in table 11.6.2.2 and shall comply with the following:

(a) Cast-iron pipe fittings shall not be used.

(b) Brazing filler material shall have a melting point that exceeds 1,000 degrees Fahrenheit (538 degrees Celsius).

Table 11.6.2.2 Service Pressure Rating of Pipe, Tubing, Fittings, and Valves

Service	Minimum Pressure
Higher than container pressure	350 psig (2.4 MPag), or the MAWP, whichever is higher, or 400 psig (2.8 MPag) water/oil/gas rating
LP-gas liquid, or vapor at operating Pressure over 125 psig (0.9 MPag) and at or below container pressure	250 psig (1.7 MPag)
LP-gas vapor at operating pressure of 125 psig (0.9 MPag) or less	125 psig (0.9 MPag)

11.6.2.3 Metal tube fittings shall have a minimum pressure rating as specified in Table 11.6.2.2.

11.6.2.4 Fittings used with liquid LP-gas or with the vapor LP-gas at operating pressures over 125 psig (0.9 MPag) shall be designed for a pressure rating of at least 250 psig (1.7 MPag) or the maximum allowable pressure rating of the container, whichever is greater.

11.6.2.5 Fittings for use with vapor LP-gas at pressures in excess of 5 psig
(34.5 kPag) and not in excess of 125 psig (0.9 MPag) shall be designed for a maximum allowable working pressure of 125 psig (0.9 MPag).

11.6.2.6 Deleted.

History: 2008 AACS.

R 29.6091 Hose, hose connections, and flexible connectors.

Rule 91. Sections 11.6.3.1, 11.6.3.5, and 11.6.3.7 of the code are amended as follows:

11.6.3.1 Hose, hose connections, and flexible hose connectors used for conveying LP-gas liquid or vapor at pressures in excess of 5 psig (34.5 kPag) shall be fabricated of materials compatible with LP-gas both as liquid and vapor and the hose and flexible hose connector shall be of reinforced construction.

11.6.3.5 Hose assemblies after the application of the connections shall be capable of withstanding a pressure of not less than 700 psig (4.8 MPag). If a test is performed, such assemblies shall be leak tested at pressures between the operating and 120% of the pressure rating.
11.6.3.7 Hose in excess of 5 psig (34.5 kPag) service pressure and quick connectors shall be listed or approved.

History: 2008 AACS.

R 29.6092 Container design temperature and pressure.
Rule 92. Sections 12.1.2.1 and 12.1.2.2 of the code are deleted, and section 12.1.2.3 of the code is amended, as follows:
12.1.2.1 Deleted.
12.1.2.2 Deleted.
12.1.2.3 The design of the ASME containers shall include a minimum 5% increase in the absolute vapor pressure of the LP-gas at the design storage temperature. The margin (both positive and vacuum) for low-pressure API standard 620, "Design and Construction of Large, Welded, Low-Pressure Storage Tanks," vessels shall include the following:
(a) The control range of the boil-off handling system.
(b) The effects of flash or vapor collapse during filling operations.
(c) The flash that can result from withdrawal pump recirculation.
(d) The normal range of barometric pressure changes.

History: 2008 AACS.

R 29.6093 Marking on refrigerated LP-gas containers.
Rule 93. Section 12.2.1 of the code is amended as follows:
12.2.1 Each refrigerated LP-gas container shall be identified by the attachment of a name plate located either on the container or in a visible location.

History: 2008 AACS.

R 29.6094 Piping.
Rule 94. Section 12.3.3.4 of the code is amended as follows:
12.3.3.4 Gaskets used to retain LP-gas in containers shall be fabricated with materials compatible with LP-gas.

History: 2008 AACS.

R 29.6095 Refrigerated LP-gas container impoundment.
Rule 95. Section 12.5.7 of the code is deleted as follows:
12.5.7 Deleted.

History: 2008 AACS.

R 29.6096 Operations and maintenance.
Rule 96. Sections 14.1.1 and 14.1.2 of the code are added as follows:
14.1.1 Multiple containers in vapor service only, with individual water capacity not exceeding 1,200 gallons (4.54 cubic meters) water capacity with an aggregate of 6,000 gallons (22.7 cubic meters) shall not require written operation or maintenance procedures where they are not manifolded together.

14.1.2 Industrial and some other installations with a capacity of 10,000 pounds (2,250 gwc) or moremay be required by United States Environmental Protection Agency regulations to have an operation and maintenance manual.

History: 2008 AACS.

R 29.6097 Small LP-gas systems (SLGS).

Rule 97. Sections 14.4.1, 14.4.2, 14.4.3, 14.4.4, 14.4.5, 14.4.6, 14.4.7, 14.4.8, 14.4.9, 14.4.10, 14.4.11, 14.4.12, and 14.4.13 of the code are added as follows:

14.4.1 Application.

14.4.1.1 A SLGS shall be a system with 99 or fewer users connected to a single supply source, except for the following:

(a) A system with 9 or fewer users where no part of the system is located in a public place.

(b) A system supplying 1 user where the system is located entirely on the users premises.

14.4.1.2 Each meter or regulator outlet connected to a consumer of gas shall be considered a user.

14.4.2 Registration.

14.4.2.1 Each SLGS shall register as follows:

(a) The DOT pipeline and hazardous materials safety administration (PHMSA).

(b) An installation that meets the requirements of section 1.9.

14.4.2.2 Each SLGS shall identify the entity which controls, operates, repairs, modifies, or installs the system.

14.4.3 Damage prevention. Each SLGS shall maintain a damage prevention program to minimize damage to underground portions of the system.

14.4.3.1 Each SLGS shall register and participate in a one call notification center located in the geographical area of the system location.

14.4.4 Incident reporting.

14.4.4.1 Incidents shall be reported, to the PHMSA, that involve 1 or more of the following:

(a) The release of gas from the SLGS where death(s) occurs or personal injury resulting in-patient hospitalization occurs.

(b) The estimated property damage, including the cost of gas or both exceeds $50,000.00 14.4.4.2 Incident reports shall contain an analysis of the cause of the accident, repairs made and other significant factors.

14.4.5 SGLS piping system service limitations. Pressure limits shall be in accordance with section 6.8.

14.4.6 Odorization. Each delivery to a SLGS shall be tested for the presence of odorization in accordance with section 4.2.3. The results of the tests shall be documented.

14.4.7 Construction records, maps and operating history. Each SLGS shall provide construction records, maps, equipment and operating history of the system and make them available to operating personnel and to the PHMSA.

14.4.8 Key valve maintenance. Key valves that are used to shut down the system or parts of the system, in case of emergency shall be maintained annually, and the maintenance shall be documented. Key valves include the container valves and any additional valves that can be shut off.

14.4.9 Leak testing.

14.4.9.1 Each SLGS shall be tested prior to startup in accordance with section 6.12.

14.4.9.2 Each lateral service line that has been disconnected from the main shall be pressure tested in accordance with section 6.12 before placing it back in service.

14.4.10 Response to gas leak reports and interruption of gas service. Each system shall have a written procedure for response to reports of gas leakage. All employees who respond to gas leakage calls shall be trained in the procedure.

14.4.11 Operator qualification and covered tasks.

14.4.11.1 Each SLGS shall have a written procedure for training operators in covered tasks, which meet the requirements of section 4.4.

14.4.12 Leak surveys.

14.4.12.1 SLGS leak surveys shall be performed either as necessary or at a minimum of every 5 years.

14.4.12.2 SLGS leak surveys performed using gas detection equipment shall include a subsurface survey where underground piping is a part of the system.

14.4.12.3 SLGS leak surveys shall utilize flame ionization detectors, combustible gas indicators and other means of leak detection.

14.4.12.4 Where leakage is found, equipment that gives a numerical reading shall be used to determine the seriousness and location of the leak, and shall be repaired immediately.

14.4.13 Consumer education. Each SLGS operator shall provide information to users and other residents in the area of a SLGS annually.

(a) Consumer education materials must include the characteristics and propensities of LP-gas.

(b) Consumer education materials shall be furnished to each active connected service location.

History: 2008 AACS.