



**COUNTY OF PLACER**  
**Community Development/Resource Agency**

Michael Johnson, AICP  
Agency Director

**BUILDING**  
**SERVICES DIVISION**

Tim Wegner, Chief Building Official

**MEMORANDUM**

**TO:** Honorable Board of Supervisors  
**FROM:** Michael J. Johnson, AICP Agency Director  
**DATE:** October 23, 2012  
**SUBJECT:** REPEAL AND REPLACE PLACER COUNTY CODE CHAPTER 15, ARTICLE 15.12, LIQUID PETROLEUM GAS

**ACTION REQUESTED**

- 1. Introduce an Ordinance repealing and replacing Placer County Code Chapter 15, Article 15.12 - Liquid Petroleum Gas, establishing best management practices and standards for the safe and reliable conveyance of liquid petroleum gas in Placer County's "High Country"; elevations greater than 5000 feet above sea level.

There is no net County cost associated with this action.

**BACKGROUND**

Nearly two years ago, Placer County's "High Country" experienced snow to such depths that propane systems began to fail. In spite of the County's previous efforts to establish Liquid Petroleum Gas (LPG) best management practices and "High Country" standards in 1982 due to a similar heavy snowfall incident, nearly 50 propane leaks were reported and one residence was destroyed as a result of a LPG leak explosion during the winter of 2010/11.

Since the 2010/11 incidents, a "High Country" focus group was formed with the intent of modifying LPG practices and standards for the conditions experienced in elevations greater than 5000 feet above sea level in Placer County. The group was comprised of the County's Building Official, a representative from the Contractor's Association of Truckee-Tahoe (CATT), a representative from each of the four Fire Districts serving the area (North Tahoe Fire Prevention District, Northstar Community Service District, Squaw Valley Public Service District, and the Truckee Fire Protection District), a representative of the Western Propane Association (LPG Vendors), and a representative of the Serene Lakes Property Owner's Association (SLPOA).

The focus group met for the first time in January 2012, and two subsequent times to review the group's recommendations. A "High Country" stakeholders meeting was held on September 21, 2012 for businesses and local public service districts that permit, inspect, enforce, and construct LPG systems. Based upon these outreach efforts, modifications to the County Code are proposed to update standards for LPG systems.

**PROPOSED ORDINANCE**

During review of County Code, Chapter 15, Article 15.12 - Liquid Petroleum Gas, it was determined much of the Article required revision and therefore an ordinance to repeal and replace Article 15.12 in

its entirety is attached for the Board's consideration. The proposed ordinance provides updated language and standards to address current liquid petroleum gas (LPG) systems in the County's "High Country". The language and standards of this Article were intended to address the conditions found in the County's "High Country" by: clarifying terms and language; by accepting the use of technologically advanced systems and components; by revising tank identification and annual inspection practices; and by effectively stop-gapping non-conforming system use through proper enforcement mechanisms.

To better clarify the process for LPG systems the proposed ordinance identifies the permitting and enforcing authorities. This added clarification encourages the local Fire District to adopt the provisions into its local codes for the purpose of permitting and inspecting LPG systems as the "Permitting Authority".

The proposal further distinguishes both the County and the local Fire Districts as having enforcing authorities. With respect to the County, it already has the authority to deny a building permit for structures that are noncompliant. This ordinance reiterates this authority and enables the County to exercise it if an application is received for an expansion, remodel, or repair of any structure where the LPG system is not in compliance with the proposed provisions in this update to Article 15.12. This will ensure residences and businesses are not exacerbating the noncompliant risk, will identify those structures and allow the County to work with the property owner to bring the LPG system up to code.

In addition to the permitting and enforcing clarifications mentioned above, the focus group desired updates to the construction standards and best management practices found in Article 15.12. The group noted that since the adoption of Article 15.12 in 1982, technological advancements have occurred with regard to piping. Adaptable regulations enable the use of approved materials such as flexible risers that may prove to be of value in heavy snow environments--the proposed language allows such adaptability.

The proposal further revises tank identification (snow stake) and annual safety practices at the request of the focus group. While snow stake standards were available previously, the standards were ineffective to properly identify the tank location when under many, many feet of snow. For this reason, the proposal recommends updated stake location and warning marking standards, as well as the requirement for snow stakes to remain all year to properly identify the tank's location.

Even though tanks will be properly marked through the use of snow stakes, the focus group desired further tank identification supporting the annual inspection effort. While an annual inspection is required, it was determined the reporting requirements were not sufficient in capturing potential hazardous conditions. The focus group agreed upon a quasi-license program requiring a "sticker", or other approved decal, being placed on the tank demonstrating which company inspected the tank, when, and by which vendor representative. This decal process enables the property owner, occupant, and emergency service personnel the ability to determine who to contact in case of a leak, needed repairs to the system, or in generally determining if and when the respective system was inspected and is safe.

#### **FISCAL IMPACT**

Implementation of the proposed amendments to the Placer County Code will have no fiscal impact on the County's General Fund.

#### **CEQA COMPLIANCE**

The requested action to adopt an Ordinance repealing and replacing Placer County Code Chapter 15, Article 15.12 - Liquid Petroleum Gas is not subject to review under the California Environmental Quality Act review pursuant to Section 15061 (b) (3) which exempts projects where it can be seen with certainty that there is no possibility that the activity discussed in this report may have a significant effect on the environment.

**CONCLUSION/RECOMMENDED ACTION**

The intent of the proposed ordinance repealing and replacing Placer County Code Chapter 15, Article 15.12 (Liquid Petroleum Gas), is to provide the needed language, terms, and standard revisions ensuring the safe and reliable conveyance of liquid petroleum gas in Placer County elevations greater than 5000 feet above sea level. The proposed standards were developed by way of a "High Country" focus group comprised of subject matter experts in the LPG field. Staff recommends the Board introduce the attached Ordinance repealing and replacing County Code, Chapter 15, Article 15.12 (Liquid Petroleum Gas), establishing best management practices and standards ensuring the safe and reliable conveyance of LPG in Placer County's "High Country."

**ATTACHMENTS:**

Attachment 1: Proposed Ordinance repealing and replacing Article 15.12

cc: Michael Johnson, CD/RA Director  
Paul Thompson- Deputy Planning Director  
Loren Clark – Assistant CD/RA Director  
Karin Schwab - County Counsel  
Ken Stuart - Environmental Health Services  
Rui Cunha - Emergency Services

# Before the Board of Supervisors County of Placer, State of California

**In the matter of: AN ORDINANCE REPEALING  
CHAPTER 15, ARTICLE 15.12 IN ITS ENTIRETY  
AND ADOPTING CHAPTER 15, ARTICLE 15.12  
LIQUEFIED PETROLEUM GAS INSTALLATIONS**

Ord. No. \_\_\_\_\_

**The following ordinance was duly passed by the Board of Supervisors  
of the County of Placer at a regular meeting held on \_\_\_\_\_, 2012,  
by the following vote:**

**Ayes:**

**Noes:**

**Absent:**

**Signed and approved by me after its passage.**

**Signed and approved by me after its passage.**

**Attest:**

**Board of Supervisors**

\_\_\_\_\_  
**Ann Holman  
Clerk of said Board**

\_\_\_\_\_  
**Jennifer Montgomery, Chairwoman**

---

**THE BOARD OF SUPERVISORS OF THE COUNTY OF PLACER HEREBY ORDAINS:**

**Section 1:** Placer County Code, Chapter 15, Article 15.12 Liquefied Petroleum Gas Installations is hereby repealed in its entirety.

**Section 2:** Placer County Code, Chapter 15, Article 15.12 Liquefied Petroleum Gas Installations is hereby adopted as follows:

**Article 15.12 LIQUEFIED PETROLEUM GAS INSTALLATIONS**

**15.12.010 Definitions.**

As used in this article:

“Hazardous Conditions” shall mean any conditions/ installations determined to present a risk or danger to life or property by the fire department/district or Placer County building services division. An LPG Installation which does not conform to the provisions of this Article may serve as evidence of a Hazardous Conditions.

“LPG Installation” shall mean a storage tank designed for the containment of liquefied petroleum gas for use by a customer for residential, commercial, or industrial purposes, together with appurtenant regulators, pipes, risers, gauges, and related equipment up to and including the outlet of the final pressure regulator. For purposes of this section, “LPG Installation” shall mean new installation, relocation of an existing tank, alteration and/or reconnection of service.

“LPG” shall mean liquefied petroleum gas.

“Nonconforming LPG Installation” shall mean any residential, commercial, or industrial LPG Installation which does not comply with the requirements of Section 15.12.030 as of the effective date of this Article. (Ord. No. \_\_\_\_).

“NFPA 58” shall mean the 2010 edition of NFPA 58 “Liquid Petroleum Gas Code”, as may be amended from time to time and published by the National Fire Protection Association.

“Permitting Authority” shall mean the local fire department/district which serves the geographical location of the LPG Installation. Pursuant to Chapter 38 of the California Fire Code, the Permitting Authority shall be responsible for permitting and inspection of a LPG Installation.

“Swing-joint” shall mean a pipe connection in which two 90° elbows are attached utilizing a schedule 80 nipple, and shall not be a street elbow configuration, allowing for movement of the adjoining pipes.

“Vendor” shall mean any person or business which sells, at retail, liquefied petroleum gas for residential, commercial, or industrial use.

#### **15.12.020 Applicability of provisions.**

This Article shall apply to all real property located at an elevation of five thousand (5,000) feet or more above sea level.

#### **15.12.030 Requirements for LPG installations.**

The provisions of this section shall apply to all LPG Installations. Underground tank installation shall be in accordance with NFPA 58.

A. Two-Stage Regulator Required. Two-stage regulator systems shall be installed on all LPG Installations in accordance with NFPA 58 or the manufacturers’ instructions. First-stage regulators shall be installed under the tank dome, or other protective cover as approved by the Permitting Authority.

B. Riser piping and Change of Direction. The riser from the underground piping shall be schedule 80 rigid piping or approved/listed materials/products for LPG Installations or as per NFPA 58, but shall not include schedule 40 piping except as provided in section C below, and shall be located not more than three inches horizontally from the walls of the tank. Swing joints, or products/materials approved by the Permitting Authority, shall be installed at all rigid piping changes of direction including at both the tank riser and facility riser where extending from the underground pipe. Any approved/listed material or product shall be installed per the manufacturer’s installation instructions/listing.

C. Second-Stage Regulator. The second-stage regulator, unless an integral regulator is approved under the tank dome by the Permitting Authority, and riser pipe shall be installed on the gable end of the building, under an approved protective cover, and as close as practicable to the building wall avoiding areas subject to snow and ice shedding. Where infeasible due to structural or topographical constraints, the riser and regulator may be installed in a designed recess with covers or as approved by the Permitting Authority. This riser pipe may be an approved/listed material of any type, including Schedule 40 pipe, if properly protected and approved by the Permitting Authority.

An approved gas shutoff valve shall be installed immediately upstream of the second-stage regulator or where absent the second-stage regulator at the facility riser, and an identifier shall be

installed on the structure in a visible location and located as high as practicable directly above the shutoff valve.

D. Hard Surfaces. The riser pipes for the underground piping shall not be embedded in concrete, asphalt, or other hard surfaces unless the piping is installed per the California Mechanical Code for such installations. Concrete, asphalt, or other hard surfaces placed around such riser shall be held back at least three inches from all sides of the pipe to allow for movement.

E. LPG Installation Design Plot Plan. At the time of application by any person for new installation, relocation of an existing tank or alteration of a LPG system, the applicant shall submit four copies of a LPG Installation Plot Plan ("LPG Plot Plan") to the Permitting Authority and a separate copy to the County Building Services Division.

The LPG Plot Plan shall include, but not be limited to:

- a. The tank location showing distance to property boundary lines, structures, easements, public rights-of-way, and to the edge of pavement or other identifying marks;
- b. Tank capacity in US gallons;
- c. Location of the underground pipe, riser pipe, regulator, and shut-off valve at the building;
- d. An outline of all existing/proposed buildings on the lot and a depiction of the ridge lines of all buildings to determine the potential snow and ice shedding.

The LPG Plot Plan may be included on the normal site plan submitted with new construction, but must contain the stamp of approval of the Permitting Authority at the time of submission to the County Building Services Division.

LPG Installation shall not commence until the LPG Plot Plan has been affixed with a stamp of approval by the Permitting Authority. The applicant shall be responsible for providing the County Building Services Division with a copy of the stamp approved copy of the plan.

F. Snow Stakes. LPG tanks, above and below ground, shall be marked by the use of snow stakes. Such stakes shall be of sufficient height to rise above the anticipated snow depth. Snow stakes shall be yellow in color and will be placed on the side of the tank opposite the riser for above ground tanks; underground tank stakes shall be placed as close as reasonably possible to the tank or as approved by the Permitting Authority. The top six inches of the snow stake shall be painted in the supplier's designated color as determined by the Permitting Authority; underground tank stakes shall be marked "UG" in this same top six inches. The side of the stake indicating the tank location will be painted a minimum of eighteen (18) inches and will be opposite the shutoff valve on the propane storage tank. The stake shall additionally be marked "red" beginning at the top of the tank and for twelve (12) continuous inches above the tank as tank warning indicator, or as may be approved by the Permitting Authority. Snow stakes shall be installed no later than November 1<sup>st</sup> of each year and shall remain in place continuously.

Installation and maintenance of these snow stakes is the joint responsibility of the LPG vendor and LPG user.

G. No Installation Below First Floor or Below Grade. Propane appliances shall not be permitted in any new installation below the first floor level or below grade unless specifically designed by an engineer for such installations and approved by the Permitting Authority.

H. Tank Supports. Tank Supports shall be in accordance with NFPA 58 or as approved by the Permitting Authority. If saddles are used there shall be three layers of tar paper, or equivalent, between the saddle and tank or in accordance with NFPA 58.

I. Emergency Mapping. Changes to the installation location shall require the submittal of a copy of the LPG as-built plot plan per 15.12.030 (E). Such as-built site plan shall be submitted to the fire protection agency serving the property.

J. Final Inspection. Final inspection and final sign off of the LPG Installation is required before the Vendor is authorized to fill the tank. Notice of final inspection and sign-off must be received by the County Building Services Division prior to issuance of any building permits for new construction or permits issued pursuant to 15.12.040.

**15.12.040 Existing LPG installations.**

All existing installations shall conform to the requirements of this Article. Upon receipt of a building permit application for additions, conversions or remodels of existing residential or commercial structure(s) on property falling under 15.12.020, the Building Services Division shall require the applicant to identify any existing LPG Installation. If an existing LPG Installation is identified, the Building Services Division shall forward the application to the applicable Permitting Authority for verification of compliance with 15.12.030. The Building Services Division is authorized to hold said building permit application and shall not issue the permit until notice of compliance with 15.12.030 is received from the Permitting Authority. If said notice indicates the existing LPG Installation is deemed a Non-Conforming LPG Installation, the LPG Installation must be rendered in full compliance with 15.12.030 prior to issuance of the building permit. The Building Services Division is authorized to hold said building permit application until notice from the Permitting Authority of full compliance with 15.12.030. It shall be the building permit applicant's responsibility to obtain a letter of compliance from the Permitting Authority. Any such non-conforming LPG system shall not be serviced or refueled until such time the system is in full compliance with 15.12.030 and a letter of compliance has been issued by the Permitting Authority.

**15.12.045 Reconnection of service.**

Prior to reconnection by any Vendor of an existing LPG Installation, said Vendor shall obtain written verification from the Permitting Authority of compliance with 15.12.030. Until such time a compliance notice is received, the Vendor is prohibited from reconnecting the service or filling the tank.

**15.12.050 Enforcement.**

A. Enforcement Authority.

1. Any local fire district /department which adopts the provisions of this article into its own Fire Code or adopts a separate ordinance that incorporates the provisions of this article shall become the Enforcement Authority upon the effective date of adoption of the District's regulation. Local fire districts/departments implementing regulations are not limited to the provisions outlined in this article and may adopt additional penalty or enforcement mechanisms as permitted by law.

2. County Chief Building Official. Pursuant to Article 15.04, Section 15.04.123 of Placer County Code, the County Chief Building Official has the authority to withhold issuance of a building permit if he/she does not have evidence of compliance with all other applicable codes, including compliance with Chapter 38 of the California Fire Code (Liquefied Petroleum Gases). The County Chief Building Official is hereby authorized to withhold issuance of building permits for new construction or construction activities outlined in 15.12.040 for properties falling under 15.12.020 until written evidence of compliance with this article is presented to him/her by the building permit applicant. Evidence of compliance shall be in the written format agreed to between the Chief Building Official and each Permitting Authority.

B. Authority to Disconnect. The Enforcement Authority or the serving Vendor is authorized to disconnect or order the disconnection of any gas piping or appliance, or both, that does not conform to the requirements of Chapter 38 of the California Fire Code or Chapter 13 of the California Mechanical Code or this Article. When such disconnection is determined necessary, notice shall be sent to the property owner identifying the disconnection date together with the reasons thereof and such gas piping and/or appliance shall be tagged as such. Said notice shall provide a minimum 30 day time period during which the property owner may correct the identified problems and shall inform the property owner that failure to correct within the designated period of time shall result in a disconnection without further notice or warning. If an Enforcement Authority or Permitting Authority determines that Hazardous Conditions exists that presents an immediate or imminent risk or danger to life or property, the Enforcement Authority is authorized to immediately disconnect said gas piping or appliance by serving notice with the reasons for immediate disconnection on the property owner and such gas piping and/or appliance shall be tagged as such.

C. It is unlawful for a vendor to provide service to a LPG installation which does not comply with the provisions of this Article.

**15.12.060 Safety notice requirements.**

Each Vendor of LPG shall, prior to the connection or reconnection of service, provide a written document to the user containing safety instructions and containing emergency instructions for the use of such LPG installation. Each such Vendor shall also provide a notice to be posted on the user's premises at a prominent location.

**15.12.070 Annual inspections.**

An annual safety inspection shall be made by the LPG vendor of outside regulators, valves, meters, tanks, and piping for safe operating conditions and compliance with this Article at least once each year. The LPG vendor shall affix a sticker or tag, in a form approved by the Permitting Authority, to the tank, riser piping, main electrical service, or in a conspicuous location, as may be approved by the Permitting Authority, indicating the tank type, date of inspection, inspector name, and company that performed the inspection.

**Section 3:** This ordinance shall take effect and be in full force and effect thirty (30) days after its passage. The Clerk is directed to publish this ordinance, or a summary thereof, within fifteen (15) days in accordance with Government Code section 25124.