SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Anthony Edeson
Principle Manager
Distribution Management
anthony.edeson@sce.com

December 2, 2016

Via email - Kenneth.Bruno@cpuc.ca.gov

Mr. Kenneth Bruno, Program Manager
Gas, Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Re: GI-2016-02-SCE70-04
Southern California Edison Response to CPUC General Order 112
Inspection of Southern California Edison, Catalina Island's
Emergency Management Program

Dear Mr. Bruno:

On October 31, 2016, you notified Southern California Edison Company (SCE) of the findings from the California Public Utilities Commission's Safety and Enforcement Division (SED) Emergency Management Program Inspection. This inspection was conducted February 16 through 18, 2016. The review focused on SCE's compliance with General Order (G.O.) 112 and CA Public Utilities Code Sections 950, 955, 956, and 956.5. The inspection included a review of SCE's Emergency Management procedures and records for calendar year 2015.

During this inspection, SED staff identified areas of concern and made various recommendations. SCE took prompt actions to address those issues. In your October 31 letter, you identified additional concerns and recommendations and advised SCE to respond with updates or corrective actions within 30 days of receipt of that letter. SCE is submitting its responses on December 2, 2016, two days beyond the original 30 day expectation, based on a discussion and agreement between SCE (Mr. Robert Grimm) and Alin Podoreanu, the contact person listed in your October 31 letter.

Below, SCE has prepared a response to the items identified by SED as "concerns and recommendations" noted in your October 31, 2016 letter.

Those responses are entitled "Inspection Report and SCE Response" and provided in Attachment A.

Sincerely,

Anthony Edeson

Attachment

cc: Dennis Lee (dennis.lee@cpuc.ca.gov)
Terence Eng (terence.eng@cpuc.ca.gov)
Alin Podoreanu (alin.podoreanu@cpuc.ca.gov)

ATTACHMENT A

Inspection Report and SCE Response
CPUC 2016 Inspection of SCE Catalina Gas System
February 16-18, 2016

I. SED Concerns and Recommendations

SED-Concerns and Recommendations

1. In addition, all standard procedures, training procedures, Emergency Response Plan (ERP), Safety Plan, and Incident Management Programs need to be revised to reference the June 25, 2015 General Order 112-F instead of General Order 112-E. (page 1)

SCE Response:
SCE will update references in all applicable plans and procedures from GO 112-E to GO 112-F by the end of December 2016. In addition, SCE will discuss GO 112-F with our crews and conduct training on any impacts to their field work practices as a result of the changes.

SED-Concerns and Recommendations

2. However, Section 2.3 of the ERP should be revised to include "annual" training instead of stating "periodically" trained by their supervisor. (page 2)

   In addition, during the audit Catalina District personnel agreed to coordinate with SCE Marketing Project Manager – Residential, Offer Management & Marketing Department, and the SCE Digital Content Team to add the following to the SCE main webpage https://www.sce.com/wps/portal/home specifically for the Catalina District:

   - Add a Gas Safety Brochure link to the Catalina Website, Gas Safety Brochure is being updated to match the revised Propane Gas Leak Telephone Report and Response
   - Provide Gas Safety Information on the Website for First Responders.

SCE Response:
SCE has added its gas safety brochure on its external website.[1]

SCE has revised its existing ERP maintenance plan to include "annual" training requirements (See attached ERP)

SCE considered adding propane gas safety information on its website for First Responders. SCE became concerned that providing First Responder gas safety information on its website could lead to confusion because gas safety related to propane that SCE provides to Catalina

[1] Go to www.sce.com, and select the "Catalina Island" link at the bottom of the website and then select the "Gas Safety Information" (English and Spanish) under "Related Documents."

customers is different than that of natural gas that is served to most SCE customers. As a result, SCE will take advantage of its close relationship with the First Responders in the small community of Avalon and instead will provide propane specific training materials designed for First Responders from the Propane Education and Research Council to each First Responder agency.

SED-Concerns and Recommendations

3. The Emergency Response Plan, Section 2.18, discusses the need to hire qualified general pipeline contractors to reconstruct broken gas mains if major gas ruptures occur that could lead to extended service interruptions. Section 2.18 states that there are currently no existing emergency response contracts with qualified contractors. (page 4)

   The Emergency Response Plan includes procedures that comply with 49 CFR §192.615 (a)(4). However, the Catalina District personnel should document in Section 2.18 of the Emergency Response Plan what contracts SCE already has in place with qualified providers that can improve the recovery efforts during catastrophic events on Catalina Island. In addition, all propane gas distribution maps shall be updated in all 8 vehicles that may be used during response to an emergency incident.

SCE Response:

SCE added language to Section 2.18 of the ERP that states; "SCE has existing purchase orders with two qualified pipeline contractors (ARB Inc. and CD Lyons) that could be called upon in the event of an emergency to provide response support and remediation." (See attached ERP)

All propane gas distribution maps have been updated in all 8 vehicles.

SED-Concerns and Recommendations

4. SED recommends that the Catalina District, with support from SCE mainland personnel, conduct annual table top or field exercises with police, fire, and other public officials on Catalina Island that includes both paid and volunteer First Responders. (page 5)

SCE Response:

SCE is scheduled to hold its annual table top exercise on December 20, 2016 and will conduct additional liaison activities with Fire Department and City personnel by December 31, 2016.

SED-Concerns and Recommendations

5. However, SED recommends that Catalina District personnel also continue to refine their recovery plan to include emergency isolation zones and critical/emergency valves for shut down and recovery procedures. (page 5)

SCE Response:
SCE currently has a recovery plan outlined in our ERP. Catalina gas annually reviews our ERP to identify areas of improvement and is working to refine our recovery plan to include emergency isolation zones and critical/emergency valves.

SED-Concerns and Recommendations

6. The Catalina District personnel agreed during the audit to reach out to all first responder full time, part time, and reserve firefighters to encourage their participation during the 2016 table top exercises. (page 8)

   In addition, the Catalina District has agreed to conduct actual field exercises with first responders and public officials on a three year cycle. SED recommends when the field exercise are conducted that the electric and water crews also attend and that the exercise scenario incorporate a coordinated response to the emergency.

SCE Response:
The Tabletop exercise to be conducted on December 20, 2016 will include water/gas/electric crews as required to respond to the emergency. While all First Responders are welcome to attend the emergency exercise, SCE encourages leadership and team field support representation from each of the First Responders. SCE utilizes additional liaison activities to reach First Responders that are unable to participate in the emergency exercise.

SCE agrees that field exercises can add a different dimension but also require considerable coordination with other First Responders in Catalina. While SCE stated during the audit that it will consider field emergency exercises in the future, these field exercises may not occur on three year cycles.

SED-Concerns and Recommendations

6. SED reviewed the new CA Public Utilities Code, Section 955.5 with the operator during the audit and the Catalina District personnel agreed to revise their standard procedures to include the new requirements of as listed in the CA Public Utilities Code, Section 955.5. (Page 9.)

SCE Response:
SCE has updated SP-406 to reflect new requirements for public liaison activities as outlined in CA Public Utilities Code, Section 955.5 and will create a scheduled maintenance plan in SAP to track through the GIMP report. (See Attached SP-406, Section 2, D-E.)

STANDARD PROCEDURE – 406

1.0 Scope

This Standard Procedure-406 (SP-406) outlines the requirements in order to minimize a hazard resulting from a gas pipeline emergency.

2.0 Summary of Regulatory Requirements and Compliance Information

(a) Each operator shall establish written procedures (Attachment A) to minimize hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:
   a. Receiving, identifying, and classifying notices of events which require immediate response by the operator.
   b. Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.
   c. Prompt and effective response to a notice of each type of emergency, including the following:
      i. Gas leak detected inside or near a building approaching LEL (2.1% propane gas in air)
      ii. Fire located near or directly involving a pipeline facility.
      iii. Explosion occurring near or directly involving a pipeline facility.
      iv. Natural disasters (earth quake, flooding, tsunami, and severe winds).
      v. Other Emergencies (abnormal high/low operating pressures, lack of propane).
   d. The availability of personnel, equipment, tools, and materials, as needed at the scene of the emergency.
   e. Actions directed toward protecting people first and then property.
   f. Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.
   g. Making safe any actual or potential hazard to life or property.
   h. Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency.
   i. Safely restoring any service outage.
   j. Begin Investigation of Failure actions under §192.617, if applicable.
   k. Actions required to be taken by a control room (management) during an emergency in accordance with §192.631.

(b) Each operator shall:
   a. Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures.
   b. Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.
   c. Review employee activities to determine whether the procedures were effectively followed in each emergency.

(c) Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:
   a. Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;

b. Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;
c. Identify the types of gas pipeline emergencies of which the operator notifies the officials; and
d. Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.

(d) Each operator shall provide not less than three working days notice to the administration of a school or hospital prior to undertaking nonemergency excavation or construction of a gas pipeline if the work is located within 500 feet of the school or hospital. The notification shall include all of the following:
   a. The name, address, telephone number, and emergency contact information for the gas corporation.
   b. The specific location of the gas pipeline where the excavation or construction will be performed.
   c. The date and time the excavation or construction is to be conducted and when the work is expected to be completed.
   d. An invitation and a telephone number to call for further information on what the school or hospital should do in the event of a leak.

(e) The gas corporation shall maintain a record of the date and time of any notification provided to the administration of a school or hospital prior to undertaking nonemergency excavation or construction of a gas pipeline and any subsequent contacts with the administration of a school or hospital relative to the excavation or construction and the actions taken, if any, in response to those subsequent contacts. The gas corporation shall maintain these records and make them available for inspection for no less than five years from the date of the notification.

3.0 Regulations and/or Other References

Title 49 Code of Federal Regulations, Part 192 – *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, (49 CFR Part 192) (by CPUC GO 112-F reference)

- Subpart L – Operations
  - 49 CFR Part 192.615 – Emergency Plans*,* 12-03-09
- California Public Utilities Code Section 955.5

Attachment A

Community Gas Emergency Response Plan (ERP)

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

SOUTHERN CALIFORNIA EDISON

1 PEBBLY BEACH ROAD

AVALON, CALIFORNIA 90704

FEBRUARY 2016

Emergency Response Plan for the Catalina Petroleum Gas Pipeline Distribution System

1. REGULATORY COMPLIANCE

This plan is developed in accordance with 49 Code of Federal Regulations, 191-195 (Emergency Plans-Transportation of Natural and Other Gas, Article 82 of the California Fire Code - Liquefied Petroleum Gases, and Code of Federal Regulation, and regulations and General Orders (94-B) of the California Public Utilities Commission.

Introduction

The public gas utility for Catalina Island is unique, in that it utilizes propane-air mixtures as a surrogate for natural gas in its public residential distribution system. This creates specific and unique hazards when responding to gas utility incidents on the island. Initial response actions for all incidents involving propane gas will be directed toward the preservation of life first, property second, and environment third. Subsequent priorities include company image and the intention that all customers receive safe, reliable, and professional service.

2. PROPANE CHARACTERISTICS

The characteristics of propane are very different than that of natural gas which is more common in other gas utility systems. Propane is heavier than air and will sink to low geographic positions such as trenches or depressions, low lying areas etc., or accumulate in low parts of a structure like basements and flooring. As propane accumulates it can form explosive mixtures with air. Propane will seek low places whether inside or outside of a building, regardless of weather or sunlight conditions, but will move in the same trajectory as wind when released into open areas.

At standard temperature and pressure, LPG is a gas. It is liquefied by moderate changes in pressure (i.e. in a tank). The unique properties of LPG allow it to be stored or transported in a liquid form and used in a vapor form. LPG vapors are heavier than air and tend to collect on the ground and in low spots. After LPG is released, it volatilizes into a gas immediately, readily mixing with air and likely forming a flammable mixture. This mixture can ignite and cause a vapor cloud explosion. The residential mixture for propane in the gas distribution system is approximately 60% propane and 40% air.

2.1 Properties of Liquefied Petroleum Gas / Propane

Property	**Propane**
Volatility	High 100%
Specific gravity (water = 1.0)	0.5853
Vapor Density (air = 1.0)	1.55
Vapor Pressure	6536 mmHG

Boiling Point	-44F. (-42C.)
Lower Explosive Limit (LEL) in air	2.1 %
Upper Explosive Limit (UEL) in air	9.5 %
Ignition temperature	920^{o}F
Tank pressure at 60^{o}F.	90 psig
LPG liquid/vapor expansion	1 x 270
Water Solubility	Very slight
Odor threshold	5,000-20,000 ppm
Color	Colorless to white vapor
Flame Temperature	3,497^{o}F.
Speed of flame thru large vapor clouds	15 meters/second
Toxicity	Non Toxic- can cause headache, nausea and asphyxiation in high concentrations
Reactivity	None
IDLH range	2,100 PPM (10% of LEL)

2.2 Distribution System Summary

Miles of Main	9.46 miles
Number of Services	985 services
Operating Pressure	7 pounds per square inch gauge (psig)
Delivery Pressure	8 inches of water column

2.3 Receiving, Classifying, and Responding to Gas Incidents

Gas incidents may include leaks, odors, outages, fires, or other incident types. Incidents reported to SCE Catalina Utilities Center will be classified using the Catalina Gas Telephone Report of Customer Leak form. A copy of the telephonic leak report form is provided in Appendix B. SCE receives notifications of potential gas leaks or unsafe conditions through two different avenues as described below. Information is recorded on the Telephone Report of Customer Leak form and logged in the Pebbly Beach Station Logs. Control Room personnel is trained annually by their Supervisor on receiving, classifying, and responding to reports of propane gas leaks or other unsafe conditions.

1. Private individuals may call in report of occurrences to our customer service center 24 hours a day. The customer service representatives at our call center will record the location and basic nature of the problem, along with contact information (name and number) for the reporting party. The customer service center then notifies the Control Room by issuing a trouble ticket.

2. Private individuals may also contact emergency services directly by calling 911 and providing information to the local dispatcher. The emergency services agency will then

notify the Control Room of the leak or potentially unsafe conditions. The following agencies have been notified to call directly to the Control Room: Los Angeles County Fire Department, Los Angeles County Sheriff's Department, Avalon Fire Department, and the City of Avalon Public Works and City Hall.

Each of the emergency response agencies listed in this section have been provided a copy of SCE's Emergency Response Plan, including our Telephone Report of Customer Leak form for reference in receiving notifications. Additional guidelines for determining an appropriate action level can be found using the SCE Incident Complexity Analysis tool. The descriptions and recommended activation status for each SCE incident level is summarized in the table below. A copy of the Incident Complexity Analysis tool is provided in Appendix C.:

Edison Incident Levels		IMT/IST/EOC Activation Status
Level 1	Events with no potential for severe harm, but which requires management visibility.	Management Discretion
Level 2	Events with little potential for severe harm, but which can escalate rapidly if not managed properly.	Management Discretion
Level 3	Events with the potential to result in severe harm to the company, but for which there is a higher level of familiarity or anticipation.	Activate IMT/IST/EOC
Level 4	A rare and unanticipated or novel emergency with the potential to do, or that is in the process of doing, irreparable or severe harm to the company. The most severe type of incident.	Activate IMT/IST/EOC

Level 1 Incidents: These are non-emergency service calls which will be scheduled for routine response or maintenance by SCE gas service representatives. Events with no potential for harm to life, the environment, or property, but which require visibility.

Level 2 Incidents: These are urgent response issues with potential for escalation if not managed properly, potentially posing a threat to life, the environment, and property. Included among these incidents is a smell of gas inside or immediately adjacent to occupied structures. It includes incidents of interruption of service to critical clients. While SCE staff may be assisted by public safety responders for some incidents, these situations will generally be handled by SCE gas service staff. The response by SCE staff shall be immediate to any Level 2 incident.

Level 3 Incidents: This level of emergency response includes incidents posing catastrophic potential. These would include rupture of gas mains, fires and explosions involving gas accumulations or structures, high volume gas leaks, and similar incidents. Level 3 incidents will require public safety and may also involve specialized contractor response. Portions of the Catalina gas system may be subjected to extended outages while repairs are accomplished. The response by SCE staff shall be immediate to any Level 3 incident.

Level 4 Incidents: The most severe level of emergency. A rare and unanticipated or novel emergency with the potential to, or is in the process of doing, irreparable or severe harm. Incidents may include natural disasters (earthquakes, floods, tsunamis, fires, etc.) or catastrophic system failures.

2.4 Prohibitive Work Environments

SCE gas service staff shall not enter explosive atmospheres. If such conditions exist or are suspected to exist, SCE staff should request fire department assistance to mitigate the known safety hazards. An example of this condition may include a residential structure with a high interior gas concentration due to a gas leak. Explosives atmospheres are any environment which meets or exceeds 10% of the Lower Explosive Limit (LEL). No entry should be made into suspect spaces until this risk has been mitigated. SCE staff may close exterior valves and shut off the gas flow, or shutoff electrical power to such spaces from safe positions. As a precaution, use of electronic devices, smoking, or any hot work involving welding or cutting should be immediately suspended and restricted when a potential gas leak is reported.

SCE staff shall not enter confined spaces which may be either Immediately Dangerous to Life and Health (IDLH) or oxygen deficient. These environments require self contained breathing apparatus for respiratory protection and life safety, and are beyond the training and scope of SCE gas staff duties. If such conditions are encountered, immediate assistance may be sought from fire department or contract responders. SCE staff may not enter such spaces until they are ventilated and returned to normal atmospheric values that do not require respiratory protection. IDLH atmospheres include concentrations of 2100ppm (or 10% LEL) of propane or less than 19.5% oxygen (O_2). SCE staff may cause such spaces to be ventilated from safe positions.

Welding, cutting, or other “hot work” on gas mains which are actively transporting propane mixtures is strictly prohibited. Unlike lines transporting natural gas, propane will accumulate in low spaces quickly and pose a significant flash fire and explosion hazard. These lines must be blocked and drained completely of product and the workplace ventilated until free of propane (less than 10% of the lower explosive limit). This should be confirmed with gas detection equipment that is calibrated specifically to propane. Only then is it safe to weld or cut SCE gas mains.

2.5 Emergency Notifications (Establish and Maintain Adequate Means of Communication)

Public safety emergency response may be required to support SCE gas staff in managing potentially flammable concentrations of leaking gas. Catalina Utilities Center staff shall dial 911 and access emergency response services to any report of a significant gas odor within or immediately adjacent to a structure, any major leak, fire, report of rupture of a gas main, or emergency shutdown of gas system facilities.

If emergency response personnel are not yet on scene, the first gas operator to arrive will serve as Command. The gas operator will assess the situation and take or direct any necessary actions to protect life, property, and to secure the flow of gas.

If emergency response personnel are on scene prior to arrival of gas operator staff, that person will introduce themselves to the Incident Commander (IC) as the gas pipeline operator representative. SCE will operate within the ICS structure established by the local emergency response agencies. That person will continue serving as the point of contact until the situation is made safe or they are relieved of that duty by another gas pipeline operator representative.

Internal (SCE) emergency response communications will be coordinated through the Control Room at the Catalina Utilities Center.

2.6 Catalina Emergency Contact List

Avalon Fire Department	911 or (310) 510-0203
Los Angeles County Fire Department	911 or (310) 510-0424
Los Angeles County Sheriff's Department	911 or (310) 510-0174
Baywatch Avalon Lifeguards	911 or (310) 510-0856
Avalon Harbor Department	(310) 510-0535
City of Avalon (City Manager, Public Works, Elected Officials)	(310) 510-0220
Catalina Island Medical Center (CIMC)	(310) 510-0700
National Response Center	(800) 424-8802
State Warning Center	(800) 852-7550
SCE Pebbly Beach Generating Station	(310) 510-4301
SCE Operator (24 hour)	(626) 302-1212
Catalina Public Gas Smell/Leak Reporting Center	(800) 367-8851
Dig Alert – Underground Service Alert of Southern California	811 or (800) 227-2600 www.digalert.org

2.7 Response Priorities

The first priority of action for all incidents involving natural gas will be directed toward the preservation of life first, property second, and environment third. Immediate care shall be given to any injured person(s). The fourth priority is the company and the intention that customers shall receive quality, timely, and professional service. SCE shall utilize a compatible emergency response standard (Incident Command System or "ICS") when responding to gas system emergencies.

2.8 Incident Responsibilities

1. SCE staff shall manage all routine incidents (Level 1) within SCE procedures.
2. SCE staff shall operate within the Incident Command System (ICS) structure of the public safety responders near the scene, when necessary or as required, to coordinate response to significant incidents (Level 2, 3, or 4).
3. On-scene emergency personnel from Avalon Fire Department, with mutual assistance from Los Angeles County Fire and Paramedics, shall coordinate emergency medical care when necessary.
4. Los Angeles County Sheriff and the Avalon Fire Department shall conduct evacuations in gas incidents when necessary, as coordinated through the Incident Commander.
5. The Los Angeles County Sheriff's Department, in conjunction with other supporting agencies, shall establish and maintain incident perimeters as necessary to protect public safety and worker access, as coordinated through Incident Command.
6. SCE gas utility staff shall isolate the incident area by shutting off the flow of gas from feed lines into the impacted area.
7. The Avalon Fire Department shall manage any fire suppression, combustible, or oxygen deficient atmospheres and related risks, as coordinated through Incident Command.
8. SCE staff shall monitor the atmospheric conditions in and around the site and determine gas concentrations. SCE staff shall not enter hazardous work environments limited in "prohibitive work environments" above. SCE staff shall monitor any atmosphere where gas concentrations may be present.
9. Once the incident is made safe, the ICS structure established by emergency response officials may be deactivated. The restoration process will be managed by internal or external SCE resources. Use of the Incident Command System for restoration planning and execution will be made at the discretion of SCE.

2.9 Response Procedures

CONDITION	IMMEDIATE ACTIONS	RISK MANAGEMENT
Gas detected or suspected inside or near a building.	If the SCE representative has any concerns for employee or customer safety, call 911 and request fire department assistance if not already on scene. Identify affected area and close valves. Evacuate buildings as necessary.	Coordinate with emergency services and customers as necessary. Monitor for gas accumulations and ventilate as necessary. Eliminate sources of ignition. Check all piping and appliances for leaks.
Fire located near or directly involving our pipeline facility.	Identify affected area and close gas meter valves. Evacuate 1000' from source. Repair and restore system post-emergency once cleared by fire department and inspected by regulatory authority.	Assist fire and emergency services as requested. Monitor atmosphere for combustible concentrations. Eliminate sources of ignition.
Explosion occurring near or directly involving our pipeline facility.	Identify affected area and close gas meter valves. Evacuate 1000' from source. Repair and restore system post-emergency once cleared by fire department and inspected by regulatory authority.	Assist fire and emergency services as requested. Monitor atmosphere for combustible concentrations. Eliminate sources of ignition.
Natural Disaster / Natural Forces (i.e. Earthquake, Flood, Tsunami/Tidal Wave, Wildfires, Landslides, etc.)	Patrol the system to identify any impacted facilities. Assess the extent of the damage and potential for escalation. Evacuate 1000' from source. Mitigate hazardous conditions (emergency shutdown / isolation). Provide necessary repairs and restore system.	Assist fire and emergency services as requested. Monitor atmosphere for combustible concentrations. Eliminate sources of ignition. Perform additional patrols to evaluate the effects on any pipeline facilities.
Under-pressure in the gas system.	Contact customers and evacuate affected area with assistance from the Sheriff's Department,	Investigate potentially affected customers for extinguished pilot lights prior

	isolate gas by closing gas meter valves, plan and implement repair and restoration	to restoring gas to prevent fire and explosion risk. Conduct system repair. Restore pilot lights as needed.
Over-pressure in the gas system	Contact customers and evacuate affected area with assistance from the Sheriff's Department, isolate gas by closing meter valves, plan and implement repair and restoration.	Investigate affected customers for gas- flare caused fires. Investigate atmospheres for combustible concentrations. Eliminate sources of ignition. Conduct system repair.
Inadequate Supply (loss of delivery, plant failure, loss of power, etc.)	Notify customers of supply shortage and make preparations for service interruption. Isolate impacted areas. Develop and implement alternative means of source supply. Systematically restore system using purge points at system ends. Relight pilots.	Notify high priority customers (i.e. hospitals, customers on life-support, police, and fire departments). Identify systematic isolation and purge points. Coordinate with fire and emergency services as needed.
Pipeline rupture or uncontrolled escaping gas	Contact customers and evacuate affected area with assistance from the Sheriff's Department. Identify affected area and close gas meter valves. Repair and restore system.	Interact with customers and safety responders as needed. Monitor atmosphere for combustible concentrations. Eliminate sources of ignition. Ventilate and protect against ignition as necessary. Conduct system repair.
Gas detected or suspected outside of buildings	Attempt to identify cause of leak (ex. Excavation, new construction, fencing, vegetation, etc.). Pinpoint leak using barhole device, available openings, and CGI. Assess location, extent of migration, and magnitude of leak and assign a leak classification.	Identify the affected area, eliminate sources of ignition, and ventilate the area. Continue to monitor atmosphere for combustible concentrations. Perform repairs as necessary.

Transient or occasional light odor of gas in or near a building-unconfirmed leak source.	Identify affected area and close valves. Evacuate buildings as necessary.	Coordinate with emergency services and customers as necessary. Monitor for gas accumulations and ventilate as necessary. Eliminate sources of ignition. Check all piping and appliances for leaks.
Odor of gas emanating from single appliance.	Identify affected appliance and close appliance valves. Evacuate buildings as necessary.	Coordinate with customer as necessary. Monitor for gas accumulations. Ventilate as necessary. Repair leaks.
Suspected leaking gas meter.	Isolate meter by closing gas valves.	Coordinate with emergency services and customers as necessary. Monitor for gas accumulations and ventilate as necessary. Eliminate sources of ignition.

Other incidents may also require prompt action to protect life and property, and continuous action until the conditions are no longer hazardous. The prompt action in some instances may require one or more of the following (not necessarily in this order):

- Notifying police and fire departments
- Implementation of the SCE Community Gas Emergency Plan
- Evacuating a suitable area based on size of the leak
- Blocking off an area
- Rerouting traffic
- Eliminating sources of ignition
- Venting the area
- Stopping the flow of gas by closing valves or other means

2.10 Evacuation, Site Worker, and Public Protection

Lawful responsibility for ordering public evacuation rests with public safety officials. However SCE gas staff also have responsibility to immediately notify public safety officials of gas risks, and in the absence of public safety officials, take immediate actions to notify and protect the public from gas risks. This will include the recommendations as follows:

Perimeter zone(s) around the affected area should be established as directed by the incident commander. These include:

Hazard Zone – The Hazard Zone is the area in which personnel are potentially in immediate danger from the hazardous situation. This zone shall be established by the Incident Commander. Access to this area will be rigidly controlled and only authorized personnel shall be allowed to enter the Hazard Zone. Members of the general public are excluded from this zone. Further zoning may be incorporated into the hazard zone for purposes of emergency response and OSHA compliance.

Public Protection/Evacuation Zone - The Evacuation Zone is the larger area surrounding the Hazard Zone, in which a lesser degree of risk to emergency personnel exists, but from which all civilians will be removed. The limits of this zone will be enforced by the Sheriff's Department when necessary. The area to be evacuated depends upon the nature and extent of the fire, explosion, or leak.

2.11 In Case of Fire

Do not extinguish fire generating from open or broken pipes, flanges etc. Evacuate the public for at least 500-1,000 feet, dependent on the size of the release. Control the exposures so that the fire does not spread and shut valves or squeeze off pipes as necessary to stop the flow of fuel to the fire. Extinguishing flames without controlling escaping gas will potentially lead to larger concentrations of gas developing and forming explosive mixtures in air.

2.12 Purging Gas Distribution Lines

When a pipeline is being purged of gas product, care must be exercised so that explosive mixtures with air are not formed. If purging cannot be accomplished with sufficient flow or ventilation to prevent explosive buildup's, then inert gases must be used to secure affected line segments. This will be especially important when welding or cutting is to be performed to prevent fire or explosion.

2.13 Periodic Gas Line Inspection and Testing

The entire buried gas pipeline system is required by State and Federal regulation to undergo periodic surveillance and patrol (49 CFR 192.721). This should include inspection for leaks, corrosion, or geological instability. System inspections should occur not less than quarterly.

In addition to routine inspection, cathodic protection systems shall be maintained, and periodic cathodic and pressure testing shall be conducted (49 CFR 192.453). Cathodic inspections of buried gas lines shall occur not less than once each calendar year, but with intervals not

exceeding 15 months (49 CFR 192.463). Above ground exposed lines shall be expected at least once every three calendar years, but with intervals not exceeding 39 months.

The California Public Utilities Commission (CPUC) requires specific annual testing of buried gas utility systems with gas detection equipment in business districts, and in the vicinity of schools, hospitals, and churches. This instrument testing should focus at pavement cracks, utility manholes and pipe chasses, and other opportune locations.

Records must be maintained for such testing for at least 5 years. Consult federal and state regulation prior to the abandonment of any gas distribution line.

2.14 Gas Line Repair and Welding

Gas line repair and welds are required by law (49 CFR 192.241-245) to be accomplished in accordance with ANSI Standard 1104. This standard established the quality of the weld or other repairs and should be consulted prior to the beginning of significant repair work.

2.15 Availability of Pipeline Emergency Information

This plan, including system maps, shall be made available to fire departments serving Catalina Island. This emergency plan must be made available to the public upon request per state and federal law. The position of buried gas transmission lines in open areas shall be marked when possible by signage, and shall be made available to pipeline excavation warning services. Pipeline excavation warning services may contact representatives of the Catalina Gas Utility by dialing (310) 510-4314.

2.16 Catalina Utilities Center Response Equipment Inventory

SCE maintains the following equipment for response to gas emergencies on Catalina Island:

Trained Response Staff

Field	Administrative
Water & Gas Foreman (2)	District Manager (1)
Water & Gas System Mechanic (4)	Compliance Manager (1)
Utilityman (1)	Supervisor (1)
Control Operator (Non-Gas Control)	Technical Specialist (1)
	Safety & Environmental Specialist (1)

Tool and Equipment Inventory

Description	F-350 (38284)	F-350 (38285)	F-350 (38286)	F-350 (30726)	Ranger (38894)	Jeep (37550)	F-550 Dump (37249)	F-250 (30727)	Warehouse	Offsite Storage
Portable Electric Generator									X	
Aspirator									X	
Bar Hole Plungers	X	X	X	X	X				X	
Electric Hammer									X	
Line Locators									X	
Box Locators									X	
Portable light standards (2)									X	
Rotary Hammer									X	
Air Spade									X	
Air Compressor									X	X
Traffic Control Equipment									X	X
Signs									X	
Caution Tape		X	X	X					X	
Cones	X		X	X	X	X			X	
Plastic Barriers									X	X
Repair clamps									X	
assorted plastic pipe and fittings									X	
assorted steel pipe and fittings									X	
assorted meters and regulators									X	
Reusable wattles										X
Valve Keys (S, M, L)	X	X	X	X	X					
Pipe Wrenches	X	X	X	X	X				X	
Pressure Gauges	X	X	X	X	X				X	
Pipe Squeezers	X	X	X	X	X					
Repair Clamps									X	
Sensits	X	X	X	X	X					
Duct Seal			X	X					X	
Pipe Tape Wrap	X	X	X	X	X				X	
First Aid Kit	X	X	X	X	X		X			
Fire Extinguisher	X	X	X	X	X		X		X	
FR Clothing	X	X	X	X						
Safety Vest	X	X	X	X	X	X				
Hard Hat	X	X	X	X		X				
Gloves	X	X	X	X		X				
Emergency Response Plan	X	X	X	X	X					
O&M Manual (Standard Procedures)	X	X	X	X	X					
GMI Combustible Gas Indicator									X	
DP-4 Flame Ionization Unit									X	
Digging Bars	X	X	X	X	X				X	
Shovels	X	X	X	X	X				X	
Odorator									X	
Pipe Threader									X	
EasyFusion Machine									X	
Bike Pump									X	
Grease Gun									X	
Gas Pipe Warning Labels									X	
Tracer Wire									X	
Snoop - Leak Detection Solution				X					X	
Polyken 1027 Primer									X	
Polyguard 1139 Mastic Coating									X	
Trash Pump									X	X
900 mHz Radio	X	X	X	X	X	X	X	X		
Satellite Phone	X									

2.17 Mutual Assistance

Assistance from neighboring gas utilities is generally unavailable to SCE on Catalina Island. The use of propane rather than natural gas is the principle issue, since neighboring gas utilities all utilize, train, and have operational experience and preparedness for natural gas rather than propane. Risk management decisions by these neighboring utilities have barred past assistance.

SCE is an active member in two mutual assistance agreements containing both natural gas and propane operators: the California Utility Emergency Association and the Western Mutual Assistance Agreement. Each agreement is described below.

- **California Utility Emergency Association:** Mutual assistance agreement with investor owned utilities and municipalities operating within California.
- **Western Region Mutual Assistance Agreement:** Mutual assistance agreement with electric utilities throughout the Western United States and Canada. This agreement is facilitated by the Western Energy Institute. Resource requests pursuant to this agreement are coordinated by the Western Region Mutual Assistance Group.

SCE has also participated in regional and national exercises to validate these agreements' processes and procedures for requesting and obtaining mutual assistance. While operators of natural gas systems may not be trained in the hazards specific to propane gas they may still provide assistance in non-Operator Qualification capacities or under the direction and supervision of a qualified propane operator.

SCE is currently in the process of partnering with the City of Avalon Department of Public Works to establish an emergency services Purchase Order, outlining the resources and equipment which may be utilized when responding to emergencies. This will allow for prompt mobilization of equipment and resources during gas emergencies while providing guidelines to account for costs associated with response activities.

2.18 Contracting Emergency Response

General pipeline contractors may be sought to reconstruct broken gas mains. They will require that the site be confirmed as posing no combustibility hazards before they initiate work on the site. SCE has existing purchase orders with two qualified pipeline contractors (ARB Inc. and CD Lyons) that could be called upon in the event of an emergency to provide response support and remediation. Major gas outages from pipe main ruptures will likely mean protracted logistics and repairs will be required which could lead to extended service interruptions.

2.19 Training and Post-Incident Review

SCE gas utility staff shall be aware of the procedures established in this plan, and shall refresh this awareness through training. SCE staff shall establish liaison with local first responders and ensure familiarity and operational capability during joint response.

SCE gas utility staff should conduct an After-Action Review (AAR) of significant incidents and responses with an emphasis on response methods, strategies, management, and related information with the intent on strengthening team capability and performance. This process is outlined in Standard Procedure 415 *Accident and Failure Investigation* of SCE's Catalina Gas Operations and Maintenance Manual.

Persons responding to gas emergencies shall be trained in accordance with the utilities practices, OSHA standards, and emergency response techniques. Records of such training shall be maintained for not less than 5 years.

SCE also provides resources for employees to manage stress during and after major events or incidents. The Employee Assistance Program (EAP) provides free, confidential 24/7 counseling, referrals and information, to all employees and their immediate family when seeking guidance about personal or professional concerns. The EAP Resources for living can be accessed online at www.mylifevalues.com or by calling (800) 443-4474.

2.20 Mandatory Reporting to the State and Federal Government

Gas pipeline emergency incidents that meet the reportable requirements and have caused private property damage must be reported to the state and federal government (49 CFR 191.5).

Reporting will be accomplished by SCE Safety and Environmental Specialists.

Federal 24 hour:	*National Response Center (800) 424-8802*
State 24 hour:	*State Warning Center (800) 852-7550*
	California Public Utilities Commission (800) 325-1076
Regional 24 hour:	*LA County Fire Certified Unified Program Agency (323) 890-4045*

This telephonic report, if required, should be no later than two hours after discovery. This telephonic report of a serious incident should include:

- Identity of reporting operator
- Name and phone number of individual reporting the incident
- The location of the leak (city, county, state, and street address)
- The date and time of the leak
- The number of fatalities and personal injuries, if any
- Type and extent of property damage

- Description of the incident including all significant facts

For each telephonic report, follow-up reporting must be filed with the U.S. Department of Transportation (DOT RSPA Form 7100) within 30 days of the telephonic report.

Annual reporting to the DOT is required not later than March 15 each year for system incidents. (DOT RSPA Form 7100 1-1). SCE also submits a Quarterly Summary Report to the CPUC of all reportable and non-reportable incidents which occur in the gas distribution system as required by GO 112-F, Section 122.2.d.

2.21 Checklist for Major Emergency

1. [ ] Has the Fire Department been notified?
2. [ ] Have the occupants been evacuated and the area secured?
3. [ ] Has the Sheriff's Department been notified?
4. [ ] Has a repair crew been notified?
5. [ ] Has command and communications been established?
6. [ ] Has the leak been shut off or brought under control?
7. [ ] Has SCE Catalina Utilities District management and supervisory staff been notified?
8. [ ] Has SCE Safety and Environmental Services been notified?
9. [ ] Have emergency valves or proper valves to shut down or reroute the gas been identified and located?
10. [ ] If an area has been cut off from a supply of gas, has the individual building been cut off?
11. [ ] Is the situation under control and has the possibility of recurrence been eliminated?
12. [ ] Has the surrounding area, including adjacent buildings and cross streets, been probed for the possibility of further leakage or gas accumulations?
13. [ ] Has SCE completed telephonic reports to the State and Federal Government?

2.22 Public Liaison Activities

Each year SCE meets with local agencies to discuss emergency management of gas incidents. These activities typically take two forms: a presentation of gas emergency management information to first responder personnel and a tabletop exercise (TTX) in which SCE and first responders practice effective emergency response by reviewing specific incidents which may occur within the distribution system.

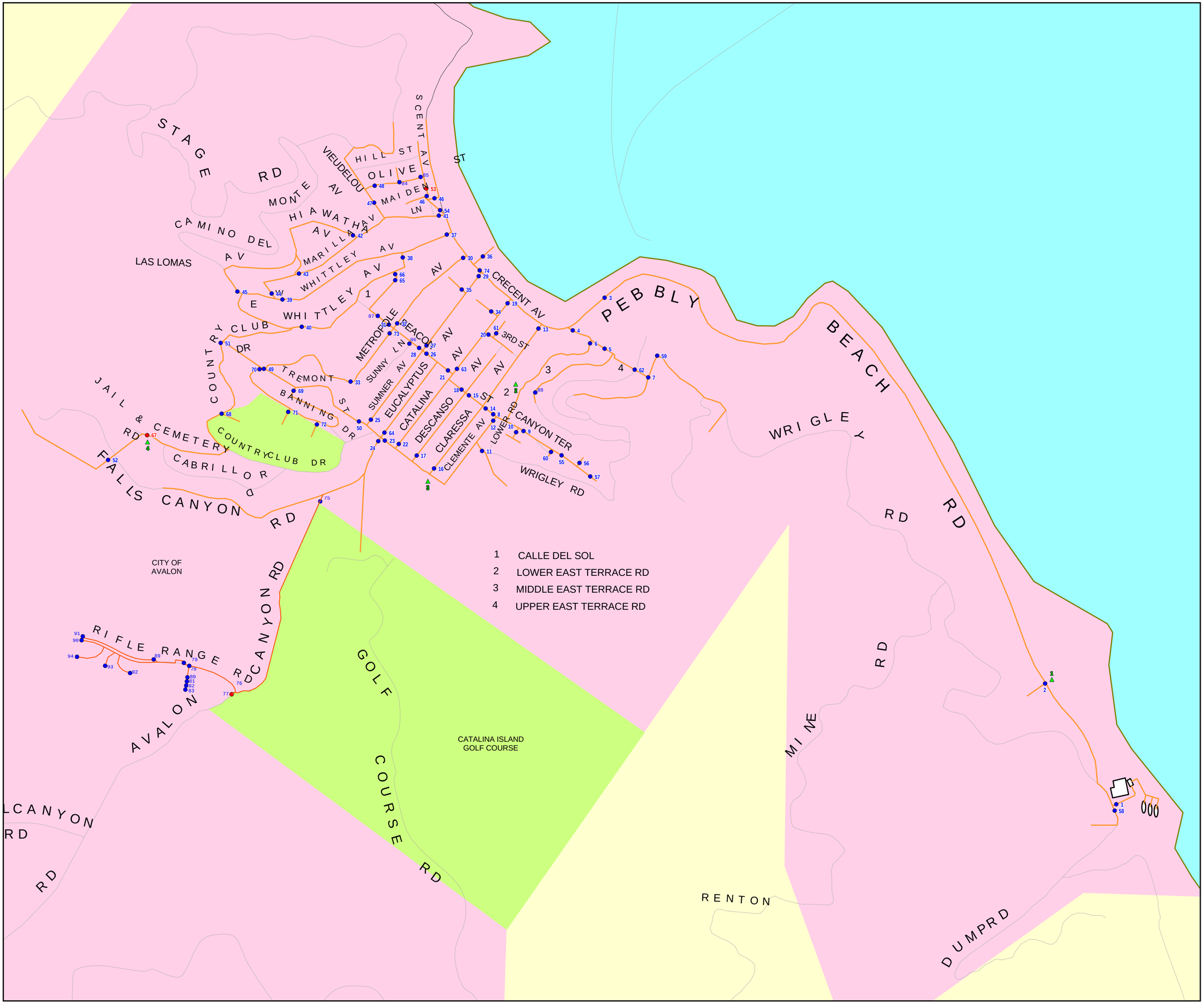
The presentation of emergency management information and TTX helps familiarize local first responders with the characteristics of our distribution system and supplied product. Acquainting local first response agencies with our responsibilities, resources, and capabilities in responding to gas emergencies will enhance communication and hopefully yield safe and effective response to future gas incidents within the Catalina Gas system.

Appendix A

Catalina Gas System Maps

Figure 1
SCE Petroleum Gas Pipeline System Location Map

Southern California Edison
Security Plan for
Petroleum Gas Pipelines



LEGEND

- Valve (Closed)
- Valve (Open)
- Rectifier
- Petroleum Gas Line

Project ID : GIS-15349
Custodian : Gary W. Talbott pax 54571
Map Projection : UTM Zone 11 (NAD83)
File Name : CatalinaGas15349.WOR
Date : 02/24/2003

N
W E
S

0 200 400 600 800
Feet

0 200 400 800 1,200 1,600
Meters

Mapping Prepared by:
Corporate Real Estate Department
Real Estate Sales & Service
Mapping & GIS

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL℠ Company
Shared Services

Appendix B

Telephone Report of Customer Leak

Attachment 405-A
TELEPHONE REPORT OF CUSTOMER LEAK
Customer Leak Information

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Time Call Received: _____ am/pm Date: _____
Name of Caller: _____ Caller's Phone Number: _____
Name of Customer if not Caller: _____
Affiliation: ( ) SCE Personnel ( ) SCE Customer ( ) Fire Department
( ) General Public ( ) Police Department ( ) Other _____
Address of Leak: _____
Nature of Complaint: Odor ( ) Blowing Gas ( ) Dead Vegetation ( )
Hissing ( ) Frost ( ) High Reading ( )
Other (describe): _____
_____
How long have you been smelling or hearing the gas? _____
Is the gas odor or sound inside or outside? Inside ( ) Outside ( )

INSIDE
Where is it located? ( ) Water Heater ( ) Heating System ( ) Stove
( ) Hall ( ) Kitchen ( ) Floor or Baseboards
If other, describe: _____
Was anyone working on indoor gas piping or appliances? Yes ( ) No ( ) ( ) Unknown
Are any buildings or facilities involved? Yes ( ) No ( ) ( ) Unknown
Business or residence? _____
Will someone be available to show us the leak? Yes ( ) No ( ) ( ) Unknown

---

If the caller's responses to the questions above indicate a potentially hazardous situation inside a building or facility, provide the following instructions to Caller:

□ Evacuate to a safe area and wait for SCE personnel to arrive.
□ Do Not Open/Close Windows & Doors
□ Do Not Turn On/Off Any Electrical Switches
□ Keep others clear of area.
□ Do Not Turn On/Off Any Appliances
□ Please leave door unlocked for 911/SCE access
□ Do Not Use Telephone or Cell Phone

NOTE: If the hazard appears to be significant, call 911 and notify emergency response personnel immediately

---

OUTSIDE
Where is it located? ( ) At the Meter ( ) Near the Street ( ) At the House
( ) In the ditch ( ) At the pool ( ) At the Grill
If other, describe: _____
Is there any ongoing construction in the area? Yes ( ) No ( ) ( ) Unknown
Can you hear evidence of escaping gas? Yes ( ) No ( ) ( ) Unknown
Are any buildings or facilities involved? Yes ( ) No ( ) ( ) Unknown
Business or residence? _____
Will someone be available to show us the leak? Yes ( ) No ( )

If the caller's responses to the questions above indicate a potentially hazardous situation outside a building or facility, provide the following instructions to Caller:

□ Evacuate the area and wait for SCE personnel to arrive.
□ Do Not Use Telephone or Cell Phone
□ Eliminate any sources of ignition (phone/cellphone, lighter, vehicles/motors, electrical switches, etc.)

NOTE: If the hazard appears to be significant, call 911 and notify emergency response personnel immediately.

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Leak Response Information

Time Tech/Mech. Dispatched: _____ am/pm Date: _____
Name of Tech/Mech. Dispatched: _____
Time Tech/Mech. Arrival at Scene of Leak: _____ am/pm
Action Taken: _____

_____
Time Leak was made safe (i.e., stopped or down-graded to a Grade 2), if applicable: _____ am/pm
Additional Follow-up (if needed): Yes ( ) No ( )
If so, what type of follow-up: _____

_____

_____
Signature of Tech/Mech.: _____
Signature of Supervisor: _____

		Definition	Examples	Response Action
☐	**Grade 1**	A leak that represents an existing or probably hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous	• Escaping gas that has ignited. • Any leak that can be seen, heard, or felt and which is in a location that may endanger the general public or property. • Strong indication or dangerous level of propane gas in the building or at the building wall. • An irate or excited caller. • Police or Fire Department request. • Damaged main/or service that has blowing/escaping gas.	• Requires prompt action to protect life and property and continuous action until the conditions are no longer hazardous. • Implementation of emergency plan • Evacuating premises, blocking off an area, rerouting traffic • Eliminating sources of ignition • Venting the area by removing manhole covers, barholing, installing vent holes, or other means • Stopping the flow of gas by closing valves or other means. • Notifying the police and fire department
☐	**Grade 2**	A leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probably future hazard.	• Any leak which in the judgement of operating personnel at the scene is of sufficient magnitude to justify scheduled repair.	• Proximity of gas to buildings and subsurface structures
●	**Grade 3**	A leak that is non-hazardous at the time of detection expected to remain non-hazardous	❖ *All Leaks will be evaluated and responded to as either Grade 1 or Grade 2.*	

Appendix C

SCE Incident Complexity Analysis Tool

Guide to Completing the Incident Complexity Analysis.

The following chart should be used as a guideline for determining a recommended Incident Level activation. It is designed to help analyze the complexity or predicted complexity of a given incident or event.

Instructions for using this guideline:

1. Carefully analyze each secondary element under the listed primary factors, and check response column either yes or no.
2. Decisions should be based on the number of yes answers under the primary factors. As a rule of thumb, if the majority of the seven primary factors have secondary elements answered with a "yes," the complexity is great enough to warrant an Incident Level 4 (Most Severe).
3. Tally the total of "yes" responses, and then refer to Incident Level score rankings on page 2.

INCIDENT NAME: _____ ***DATE/TIME:*** _____

Incident Complexity Analysis Type	YES	NO
A. Size & Scope (Observed or Predicted)		
1. More than one SCE Organizational Unit adversely affected.		
2. More than one facility impacted.		
3. There has been, or there is anticipation of employee evacuations or sheltering in place.		
4. Incident worsening or not improving.		
B. Resources		
1. Two or more SCE Organizational Units involved in response to the incident.		
2. Support personnel required from multiple SCE Organizational Units.		
3. Mutual Assistance (e.g. PG&E/SDG&E) required.		
C. SCE Facility Impacts		
1. Critical facility loss with move to alternate site is imminent OR in progress.		
2. Damage to SCE facility requiring personnel relocation to alternate work location.		
3. SCE-IT network impacts.		
D. Safety - Environmental		
1. SCE employee serious accidents or fatalities.		
2. Serious public and/or employee safety threat exists.		
3. Observed, or potential for, claims (damages).		
4. Observed, or potential for, serious environmental impacts.		
5. SONGS incident affecting or with the potential to affect public safety.		
E. Operations		
1. T&D "Catastrophic" Storm declared. (Check YES on lines E. 1, 2, 3, & 4)		
2. T&D "Severe" Storm declared. (Check YES on lines E. 2, 3 & 4)		
3. T&D "Moderate" Storm declared. (Check YES on line E. 3 & 4)		
4. T&D "Mild" Storm declared.		
5. Bulk Power or WECC interconnected system disturbance.		

Continue on page 2

Incident Complexity Analysis Type	YES	NO
F. External Influences		
1. First Responder Agencies (Fire/Law Enforcement) involved in the SCE response.		
2. Media interest/inquiries.		
3. Political/Regulatory interest/inquiries.		
4. Incident or event at another utility that has the potential to negatively impact the Company.		
5. Shareholder impacts.		
G. Evaluation of Ongoing Response Activities		
1. Unable to activate "Emergency Action Plan".		
2. Worked two operational periods without achieving initial objectives.		
3. Insufficient resources.		
4. Personnel overextended mentally and/or physically.		
"YES" TOTAL		

Recommended Incident Level Activation

Total # of **"Yes"** answers:

- **1 - 2 = Incident Level 1**
- **3 - 7 = Incident Level 2**
- **8 - 13 = Incident Level 3**
- **14+ = Incident Level 4**

Edison Incident Levels		IMT/IST/EOC Activation Status
Level 1	Events with no potential for severe harm, but which requires management visibility.	Management Discretion
Level 2	Events with little potential for severe harm, but which can escalate rapidly if not managed properly.	Management Discretion
Level 3	Events with the potential to result in severe harm to the company, but for which there is a higher level of familiarity or anticipation.	Activate IMT/IST/EOC
Level 4	A rare and unanticipated or novel emergency with the potential to do, or that is in the process of doing, irreparable or severe harm to the company. The most severe type of incident.	Activate IMT/IST/EOC

Note: Other considerations may influence decision on which Incident Level Activation to request. If the Incident Level Activation used is different than above indicates, attach supporting documentation.

Appendix D

Emergency Shutdown Procedures for Catalina Petroleum Gas Pipeline

STANDARD PROCEDURE – 406 Attachment B

1. Scope

The procedure for the safe control of propane gas and the restoration of gas service as a result of an emergency situation.

2. Purpose

Emergency shutdown procedures for emergency events affecting the complete Catalina District Gas pipeline

3. General Information

When it is determined by SCE Gas or SCE Electric operations or other governmental agencies or representative requests, that we shut down our gas facilities, that request should be obtained in writing. If it cannot be done in writing, the request should be made verbally to the control room on a recorded phone line and approved by the Gas Operations supervisor, or above, to ensure that shutting down the area is the best course of action. If we judge keeping the system live is unsafe, we will shut down the facilities, either by using remote valves or service by service, which will be based on the circumstances at the time.

4. Emergency Shutdown activities involving (Gas Plant)

Plant personnel, when given notice of the requirement of an emergency shutdown by the supervisor in charge of the plant, for the following reasons:

- Fire or Explosion (Catastrophic)
- Loss of Power (Failure)
- Loss of Propane (No delivery, Plant failure)
- Natural Disaster (Tsunami, Flooding, High winds, Earth quake)
- Over pressure/Under pressure conditions

4.1.1. Plant personnel will follow these procedures if it is safe to approach the propane emergency shutdown system and manipulate the shutdown, of any of the three emergency shutdown (ESD) switches

4.1.2. Pre-shutdown briefing by plant supervisor in charge will include these typical topics:

- Work assignments
- Duties to be performed and order of performance and sequence
- Means of communication
- Pressure limits to be maintained if any

- Normal and abnormal conditions that may be expected (AOC's)
- Alternative procedures that may be required if any
- Notifications to other agencies if needed

4.1.3. Shutdown by plant personnel, under supervision, will shut down the propane gas system by:

Activation of any one of three ESD emergency shutdown switches, located:

- West end of propane unloading area
- Mid-point of propane unloading area
- On fence line SE corner of 2.4KW electrical yard fence line

4.1.3.1. Operating, monitoring pressure relief valves

4.1.3.2 Purging the pipeline, if needed to make safe

4.1.3.3 Informing Gas operations when propane gas flow, to the pipeline is shut off

4.1.3.4 Alternate Gas shutdown locations to be operated by field operations personnel, under supervision, when unable to access ESD shutdown switches:

- Close valves 1, 2, 3 (if able)
- Close meter riser valves if possible to all residences and business serviced by the 8" main up to valve 3, this will keep propane gas in the 8" gas main

5. Field Emergency Shutdown activities

Gas Field personnel, when given notice of the requirement of an emergency shutdown by the field supervisor in charge, for the following reasons:

- Gas detected inside or near building
- Fire located near or directly involving our pipeline facility
- Explosion occurring near or directly involving our pipeline facility
- Natural Disasters, i.e., flood, earthquake, tsunami.

5.1.1 Gas field operations supervisor, will notify SCE electric operations, we have a Gas Field Emergency, that all the gas meters of Catalina Island Gas Operations need to be shut off and need the resources of the meter readers, along with prior meter readers to locate gas meters for the emergency crews to shut off the gas

5.1.2 Gas field operations personnel functions as directed by supervision to determine the valve areas that can be isolated to control the flow of gas for shutdown.

The valve areas will be broken down into 4 areas

- Valves that control the 8" and 6" Mains, Group 1
- Valves that control the 4" mains, Group 2
- Valves that control the 2" mains, North of Sumner Group 3
- Valves that control the 2" mains South of Sumer Group 4

5.1.3 Refer to the following attachments for valve locations and areas

- Attachment B-1 – Figure 1 - Petroleum Gas Pipeline System Location Map
- Attachment B-2 - Emergency Gas Shut-Off Locations
- Attachment B-3 - Gas Valve Locations

5.1.4 Operate (close) the selected numbered valves in sequence in the group numbered areas as assigned

5.1.5 Operate (close) meter (riser) valves in sequence in group numbered areas as assigned

5.1.6. Monitoring of gas pressure at areas that have been assigned by supervision

5.1.7. Document all information on which numbered valves are closed and addresses of meters riser valves locked, including meters that were unable to access or shut off and report that information to the supervisor in charge for possible dig-up and isolation of services that were unable to be accessed.

5.1.8. Purging if needed to make safe in designated areas in consideration of:

- Proximity of pedestrian, automotive or helicopter traffic
- Proximity of electric transmission lines
- Potential ignition sources in blowdown area
- Wind direction and velocity
- Restricting access to blowdown area

5.1.9. Two way radio or visual communications is essential to the safe and efficient purging operation. The operator of the control valve shall be inconstant communications with the observer(s) at the purge point.

6. Prior to Restoring Propane Gas Service

6.1 Restoration of gas service(s) will not begin until the entire gas system has been secured or rendered safe. While repairs are being completed the service(s) in the affected area(s) shall be shut-off (i.e. riser valve curb valve(s), etc.)

6.1. A "Gas Service Temporary Off" tag should be left at each service affected by the outage. Attach the tag to the gas meter, hang it on a door or garage, etc. The tag informs the customer that the gas service is off and we will return to restore the service.

6.2 Verify that all services(s) in the affected area(s) have been properly shut-off by using maps, service records and field checks.

6.3 Evaluate the need for additional resources and personnel to restore services(s) within an acceptable time period.

7. Restoration of Propane Gas to Catalina Island

7.1 When the gas plant or field emergency shutdown becomes operational and given the go ahead for restoration by supervision, the gas supervisor will assign gas crews restoration duties as applicable.

7.1.1. The gas crews assigned restoration will start by opening valves 1 & 2, Select the best purging methods, using vent stacks, air movers or flaming methods along with safe locations, using AGA purging guide, purge the gas at each meter set controlled by valves 1 & 2, checking the concentration, with a Combustible Gas Indicator (CGI), when the correct concentration of propane gas mix, crews will relight the appliances.

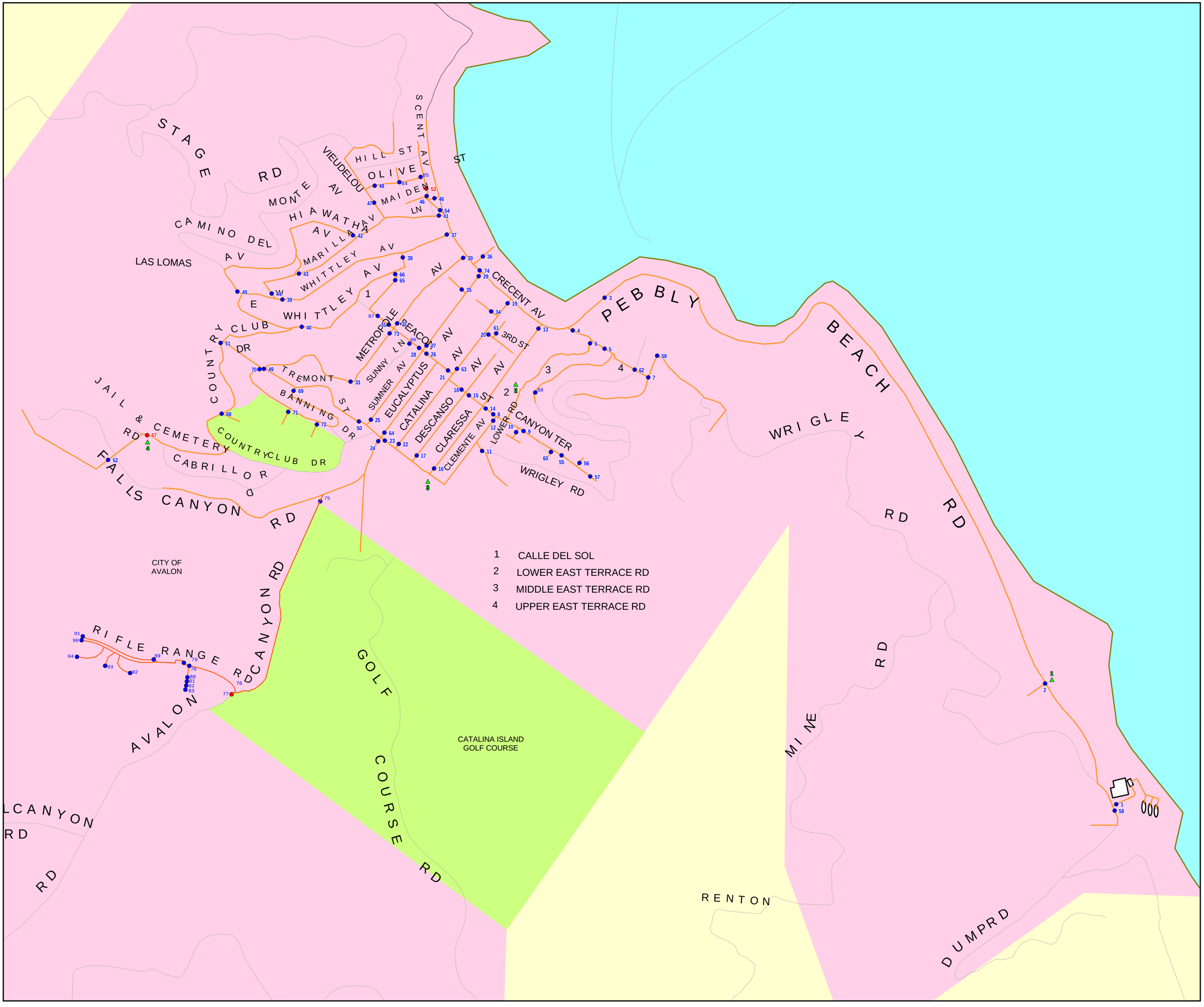
7.1.2. Select the best purging methods, using vent stacks, air movers or flaming methods along with safe locations, using AGA purging guide that leads to valve 3. Continue with the purging of gas checking the concentration with your CGI. When the correct concentration of propane gas mix, crews will relight the appliances.

7.1.3. The gas crews, under supervision, will continue with restoration, by opening valves and selecting the best purging methods, using vent stacks, air movers or flaming methods along with safe locations, using AGA purging guide, purging meters in sequence as assigned, reporting the valve numbers and addresses of meters turned on, appliances relit, and danger tags issued, meters left locked to the gas operations foreman or supervisors as directed.

Note: Follow relight procedures and danger tag any customer appliance found unsafe, by disconnecting and capping the appliance or locking the meter, until the customer has made repairs, also informing the foreman or supervisor of your actions

Figure 1
SCE Petroleum Gas Pipeline System Location Map

Southern California Edison
Security Plan for
Petroleum Gas Pipelines



LEGEND

- Valve (Closed)
- Valve (Open)
- Rectifier
- Petroleum Gas Line

Project ID : GIS-15349
Custodian : Gary W. Talbott pax 54571
Map Projection : UTM Zone 11 (NAD83)
File Name : CatalinaGas15349.WOR
Date : 02/24/2003

N
W E
S

0 200 400 600 800
Feet

0 200 400 800 1,200 1,600
Meters

Mapping Prepared by:
Corporate Real Estate Department
Real Estate Sales & Service
Mapping & GIS

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL℠ Company
Shared Services

Attachment B-2
Emergency Gas Valve Shut-Off Locations – Catalina District

This attachment is to be used as a reference guide in case of fire or ruptured main on any one of the below listed streets or locations. If a location is not listed below, please refer to maps and records to determine the best isolation options.

Street/Location	Valve Numbers
Pebbly Beach Road	No. 1, 2 and 3
Wastewater Plant	No. 58
Pebbly Beach Village	No. 2
Wrigley Drive	No. 7
Middle Terrace	No. 5, 62, and 88
Upper Terrace	No. 62
Mt. Ada	No. 5, 7, 59
Lower Terrace	No. 6 and 8
Claressa Avenue	No. 13, 14, 15 and 16
Wrigley Terrace (Monkey Town)	No. 11
Canyon Terrace Condos	No. 10
Clemente Avenue	No. 11, 12, 16, 17, 22 and 23
Pavilion Lodge Third Street	No. 20 and 61
Descanso Street	No. 15, 17, and 18
Catalina Street	No. 18, 19, 20, 21, 22, 34 and 63
El Galleon Mac Rae Hotel	No. 34 (Alley)
Eucalyptus Street	No. 21, 26, and 64
Sumner Ave/Beacon to Crescent	No. 27, 29, 35 and 74
Sumner Ave/Beacon to Tremont	No. 25, 26, 27, and 28
Lloyds Chi Chi Club	No. 35 (Alley)
Metropole St. Beacon to Crescent	No. 30 and 32
Metropole St. Beacon	No. 28, 31, 32, 33, and 73
Calle Del Sol	No 65, 66 and 87
Sunny Lane	No. 86
Whittley Avenue	No. 37, 38, and 39
Las Lomas Hiawatha Street	No. 42, 43, 44, 45, and 95
Crescent to Casino Way	No. 46
Olive Street	No. 48, 53, 54, 84 and 85

Hill Street Vieudelou Street Zane Grey	No. 47 and 48
Maiden Lane	No. 46, 53, and 54
Upper East Whittley	No. 39, 40, 44, 45, 49, and 51
N.W. Tremont Street	No. 33, 49 and 50
Avalon Canyon Road School Hospital Fire Department City Hall	No. 24
Country Club Drive Cemetery	No. 51, 67 and 68 (dead-ends at 67)
Tremont Street - Clemente to Eucalyptus	No. 12, 11, 16, 17, 22 and 23
Tremont Street – Eucalyptus to Sumner (5 corners)	No. 23, 24, 25, 50 and 64
Bluewater Grill Antonio's	No. 36 ,74 and 96
Sol Vista Condos (all)	No. 55
Sol Vista Condos (Units 42-53)	No. 56
Sol Vista Condos (Units 54-72)	No. 57
Canyon Terrace	No. 9, 10
Eucalyptus Apartments	No. 68, 69, 70, 71, 72
Avalon Canyon Rd. South of Sandtrap	No. 75
Bird Park Bird Park Apartments	No. 76, 77, 78, 79, 80, 81, 82, and 83
Triana Apartments	No. 76, 78, 79, 89, 90, 91, 92, 93, 94

Valve#	Location	Wrench Size
1	Pebbly Beach Power Plant	BALL
2	Pebbly Beach Village, across from fire hydrant	L
3	Pebbly Beach Rd, halfway between Mole and Crescent	M
4	Crescent Avenue by Catherine Hotel	S
5	Crescent Avenue by 800 crescent Ave (Deacon residence)	S
6	Lower Terrace, bottom of stairway from Middle terrace, by city park	L
7	Wrigley Terrace, across from stairs to Mt. Ada	L
8	Beacon Street, west of Lower Terrace	S
9	Beacon Street, front of St. Catherine's Catholic church	S
10	On townhouse side of Beacon, across from St. Catherin's Catholic church	STOP COCK
11	Wrigley Drive, east of bridge, feeds Sunshine Village (Monkey Town)	STOP COCK
12	Clemente Street, off of Beacon	S
13	Clarissa Street, off of Crescent	S
14	Beacon Street, east of Claressa	S
15	Beacon Streeet, east of Descanso	S
16	Clarissa Street, north of Tremont	L
17	Descanso Street, north of Tremont	S
18	Beacon Street, west of Descanso	S
19	Catalina Street, south of Crescent	S
20	Third Street, east of Catalina Street	S
21	Beacon Street, west of Catalina	S
22	Catalina Street, north of Tremont Street	S
23	Tremont Street, west of Eucalyptus	S
24	Quail Canyon Road, south of Tremont **DOES NOT EXIST(RETIRED IN PLACE)**	
24A	Quail Canyon Road, South of Tremont	
25	Sumner Avenue north of Tremont	M
26	Beacon Street, east of Sumner	S
27	Sumner Avenue, north of Beacon	M
28	Beacon Street, west of Sumner	L
29	Sumner Avenue, south of Crescent	S
30	Metropole, south of Crescent	S
31	Beacon Street, west of Metropole	S
32	Metropole, north of Beacon	S
Valve#	**Location**	**Wrench Size**
33	Top of Metropole, across from 358 Metropole	S
34	Alley, west of Catalina Street	S
35	Post Office Alley, west of Sumner / 115 Sumner (Alley)	S
36	Crescent, east of Metropole	S
37	Whittley, south of Crescent	S
38	East Whittley, east of Whittley	S
39	Whittley, east of Marilla	S
40	East Whittley, north of Country Club Drive	S
41	Marilla, south of crescent	M
42	Hiawatha, west of Marilla / Bottom of Hiawatha	S
43	Marilla, north of Hiawatha, above 321 Marilla	M
44	Marilla, west of Whittley	S
45	Las Lomas junction of East & West	S
46	Crescent Street, east of Maiden Lane by stairs	L
47	Vieudelou, front of Bray residence, 121 Vieudelou	S
48	Olive, north of vieudelou	L

Attachment B-3: Gas Valve Locations

49	Tremont Street, east of Social Hall	S
50	Tremont Street, west of Sumner	S
51	Country Club Drive, west of Tremont	L
52	East side of City Warehouse - **REMOVED**	N/A
53	Maiden Lane and Crescent	L
54	Crescent Street, north of El Encanto	L
55	Beacon Street, east of Sol Vista Units 29-32(**REPLACED WITH NOW BAIL VALVE**)**(NO GREASE)**	S
56	Sol Vista, east of pool, north side	S
57	Soil Vista east of pool, south side	S
58	Power plant, front of parking lot (east side), feeds sewer plant	S
59	Mt. Ada, located by stairs for salt water reservoir NO STOPS	S
60	Front of #18 Canyon Terrace, 1" stopcock	STOP COCK
61	Third Street, goes into alley behind Jack's	S
62	North end of Upper Terrace feeds mansion and Finnie & Curtin	S
63	Catalina, north of Beacon Street	L
64	Eucalyptus, north of Tremont	L
Valve#	**Location**	**Wrench Size**
65	Calle del Sol, north end	L
66	219 East Whittley, east side of road from hydrant	L
67	17' downhill from cemetery entrance, in planter	L
68	Above Eucalyptus Hill, north of backflow device across from hydrant 98	S
69	Tremont Street, feeds Eucalyptus Hill across from B-1 and C-1	S
70	Tremont Street, east of Social Hall, west of valve #49	S
71	Banning Drive Eucalyptus Hill development, west side	L
72	Banning Drive Eucalyptus Hill development, east side	L
73	Metropole, south of Beacon	L
74	Crescent Avenue west of Sumner	L
75	Falls Canyon Road and Bird Park road in front of Sandtrap Restaurant	M
76	Entrance to the Rifle Range	L
77	Located next to and east of Valve #76	L
78	In front of entrance to Bird Park housing	L
79	Next to and north of valve #78 - **CLOSED**	L
80	Bird Park Housing parking lot	L
81	South of valve #80	L
82	South of valve #81	L
83	South of valve #82	L
84	Half way down pavers on Olive Street	L
85	End of Olive next to stairs going down to Maiden Lane	L
86	Beacon & Sunny Lane, feeds Sunny Lane	L
87	Beacon, West of Metropole, feeds 217-229 Vista Glenar	L
88	Middle Terrace	L
89	Triana Spare Main - **CLOSED** (Plastic)	L
90	Triana End of Main - charged (Plastic)	L
91	Triana End of Spare Main (Plastic)	L
92	Triana, feeds Buildings 4 & 5 (Plastic)	L
93	Triana, feeds Buildings 1 & 3 (Plastic)	L
94	Triana, feeds Building 2 (Plastic)	L
95	Las Lomas, 10' from Valve #45	S
96	Bluewater Grill Restaurant - 306 Crescent	L
97	Wrigley Drive, South of Clemente	