

CALIFORNIA PUBLIC UTILITIES COMMISSION

CONSUMER PROTECTION & SAFETY DIVISION UTILITIES SAFETY & RELIABILITY BRANCH ELECTRIC, NATURAL GAS & PROPANE SAFETY REPORT

2004 AND 2005



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Executive Summary

This report presents an account of various activities carried out under the California Public Utilities Commission's (CPUC) natural gas, electrical, mobile home parks, and propane safety programs for the calendar years 2004 and 2005. The CPUC has been entrusted with safety jurisdiction for these facilities in the state by legislative mandate. It is responsible for enforcing safety regulations, inspecting all work affected by the statutes and making necessary additions and changes to regulations for promoting the safety of the general public and the utility employees that work on the various systems.

General

Regulations for the natural gas and propane safety programs are stated in General Order (GO) 112-E. GO 112-E adopts Title 49 of the Code of Federal Regulations (49 CFR), Parts 190, 191, 192, 193, 199 and Part 40 that pertain to natural gas and/or propane safety. GO 112-E also includes a few regulations, which are more stringent than the federal regulations. Other pertinent legislation is contained in the Public Utilities (PU) Code. The CPUC has also been entrusted with the safety jurisdiction over all electric and communication overhead and underground facilities in the state of California. The electric safety program consists of the administration of GOs 95, 128, 165 and PU Code, Sections 315, 768, 8026 through 8038, and 8051 through 8057. The State of California has the nation's largest electric and communication systems.

The CPUC's Utilities Safety and Reliability Branch (USRB) oversees the safety programs and maintains an adequate level of inspections and surveillance to ensure that these public utility systems are designed, constructed, operated, and maintained in accordance with the regulations for safety of the general public and utility employees. It also conducts accident investigations, compliance inspections, reviews of utilities' reports and records, construction inspections, and

special studies, and takes action in response to complaints and inquiries from the general public on issues regarding gas pipeline and electrical safety. USRB is part of the CPUC's Consumer Protection and Safety Division (CPSD).

Gas Inspection Results

The California gas system (natural gas and propane) serves approximately 11 million customers with 100,000 miles of gas mains. Table I and Figure I below illustrate the miles and types of pipelines that makeup the natural gas distribution systems in California as reported by pipeline operators to the Department of Transportation (DOT).

Year	Company	Steel Pipe				Plastic	Cast Iron	Total
		Unprotected		Protected				
		Unprotected Bare Steel	Unprotected Coated Steel	Protected Bare Steel	Protected Coated Steel			
2004	PG&E	426	0	0	20,718	18,733	244	40,121
2005		420	0	0	20,704	19,360	220	40,704
2004	SCG	3,399	5,550	83	16,922	20,141	0	46,146
2005		3,404	5,637	150	16,826	20,074	0	46,092
2004	SDG&E	0	0	0	3,593	4,219	0	7,812
2005		0	0	0	3,663	4,362	0	8,025
2004	SWG	0	0	0	476	2,054	0	2,556
2005		0	0	0	599	2,240	0	2,865
2004	AVISTA	0	0	0	124	110	0	234
2005		0	0	0	0	0	0	0
2004	SCE	0	0	0	8,935	0.2	0	9.135
2005		0	0	0	8,935	0.2	0	9.135
2005	Total	3,824	5,637	150	41,801	46,036	220	97,695

Table I, Miles of Distribution Pipeline by Utility

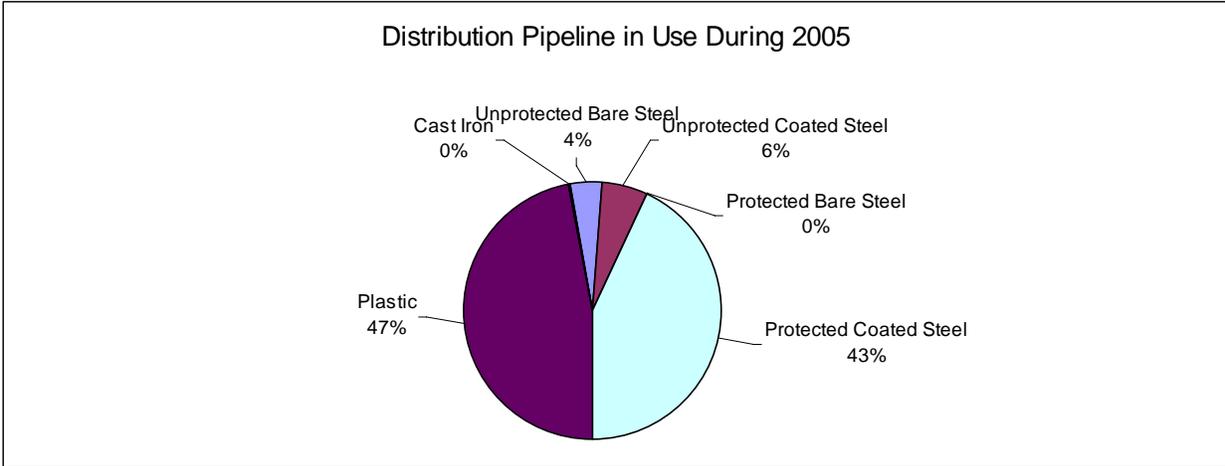


Figure I Distribution Pipeline by Type

Section IV contains additional information concerning the characteristics of the California gas system.

During 2004 and 2005, USRB was divided into two sections. Each unit was assigned specific counties in which to conduct GO 112-E inspections. Table II below presents a summary of gas inspections performed by USRB. Inspections are generally conducted over a three or four day period. The methodologies USRB uses to inspect the gas systems of gas utilities, mobile home parks (MHP), and propane entities are provided in Section I.

	2004	2005
Number of GO 112E Inspections Conducted	29	29
Number of MHP Inspections Conducted	366	575
Number of Propane Inspections Conducted	85	80
Number of Inspection Violations Found during CY		
	2240	3003
Number of Inspection Violations Corrected during CY		
	1884	2245

Table II, Summary of G.O 112-E Inspections

Each inspection is documented and maintained in a file for a period of at least 3 years. Major gas utilities are inspected every two or three years, or more often if conditions are discovered that are unsafe or not in compliance with GO 112-E. MHP gas systems are inspected every five years. Propane systems are inspected every two, three, or five years depending upon the size of the propane system.

Gas Incidents

USRB receives and investigates reportable natural gas and propane incidents from regulated utility companies, and MHP and propane system operators. GO 112-E defines reportable incidents as those which involve a release of gas and: (a) result in a fatality or personal injury rising to the level of in-patient hospitalization, (b) cause over \$50,000 in damage including the loss of gas, or (c) become the subject of significant public attention or media coverage. Table III and Figure II provide a summary of gas incidents. In 2005, 45% of the reportable gas incidents were caused by excavations (dig-in).

	2004	2005	Total
Construction/ Material Defect	0	2	2
Corrosion	1	2	3
Dig-In	22	37	59
Vehicle	8	6	14
Other/Unknown	16	35	51
Total	47	82	129

Table III, Reportable Incidents by Cause

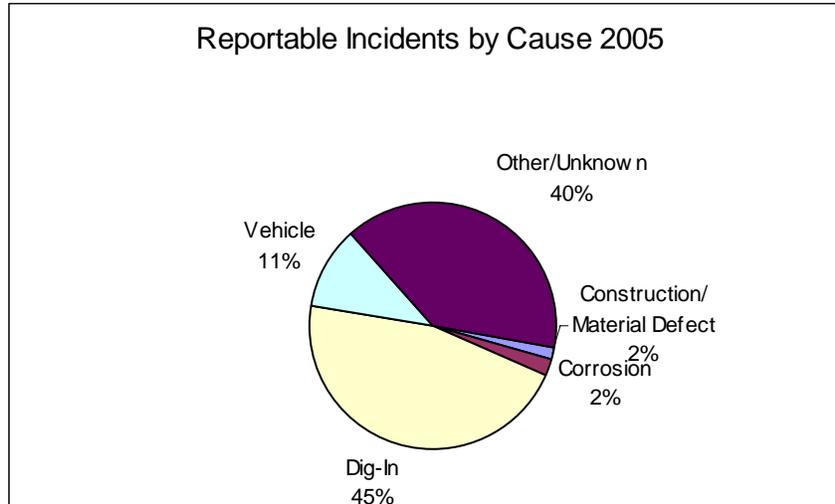


Figure II, Reportable Incidents by Cause

Electric Inspection Results

USRB enforces the provisions of GOs 95, 128, and 165. USRB conducts periodic inspections of both overhead and underground electric supply, and communication lines throughout the state. The methodologies USRB uses to inspect electric and communication facilities are provided in Section II.

Data for overhead electric facilities are summarized in Table IV and Figure III below. Table V provides data for underground electric facilities.

Utility	Transmission Lines (miles)	Distribution Lines (miles)	Total Overhead Lines (miles)	Number of Poles
PG&E	18,488	123,054	141,542	2,274,980
SCE	11,740	60,300	72,040	1,500,000
SDG&E	1,594	6,791	8,385	231,273
PacificCorp.	741	2,323	3,064	67,066
Grand Total	32,563	192,468	225,031	4,073,319

Table IV, Summary of Overhead Utility Facilities

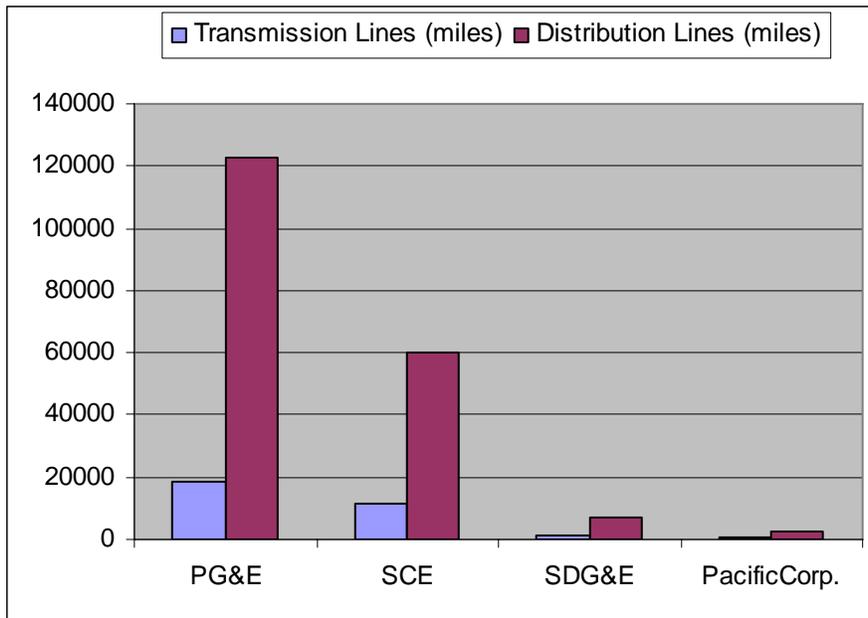


Figure III, Transmission and Distribution Lines by Utility

Utility	Transmission Lines (miles)	Distribution Lines (miles)	Total Underground Lines (miles)	Surface Mounted Structures	Underground Structures
PG&E	129	25,611	25,740	125,486	326,929
SCE	265	37,635	37,900	133,727	21,106
SDG&E	64	9,365	9,429	108,401	42,701
PacificCorp.	0	541	541	5,459	232
Grand Total	458	73,152	73,610	373,073	390,968

Table V, Summary of Underground Facilities

USRB engineers conducted GO 95, 128, and 165 field inspections for overhead lines and underground facilities in participation with the utilities. As part of the inspection process, USRB engineers conduct a survey of the electric facilities and perform a document review of pertinent

records over a three or four day period. Each violation discovered is recorded and discussed with the appropriate utility personnel. This procedure expedites the violation correction process. Table VI summarizes GO 95 inspections; Table VII summarizes GO 128 inspections. GO 165 inspections are conducted in conjunction with GO 95 and GO 128 inspections.

Utility Company	2004 Inspections	2005 Inspections	2004 Violations	2005 Violations	2004 Violations per insp.	2005 Violations per insp.
PG&E	6	7	239	136	40	19
SCE	12	9	187	341	15.6	37.9
SDG&E	4	4	98	115	24.5	57.5
Municipalities/Others	5	7	794	695	158.8	99.3
SBC	17	20	1411	1292	83	64.6
Comcast	6	7	459	305	76.5	43.6
Adephia	7	4	543	190	77.6	47
Verizon	1	6	65	583	65	97.2
Other Cable TV	10	18	930	1343	93	74.6
Grand Total	68	82	4,726	5,000	N/A	N/A

Table VI, Summary of GO 95 Inspections

Utility Company	2004 Inspections	2005 Inspections	2004 Violations	2005 Violations	2004 Avg. Violations per Insp.	2005 Avg. Violations per Insp.
PG&E	6	7	89	56	14.8	8
SCE	7	6	154	78	22	13
SDG&E	2	1	6	12	3	12
Municipalities/Others	2	3	133	84	66.5	28
Grand Total	17	17	382	230	N/A	N/A

Table VII, Summary of GO 128 Inspections

Electric Incidents

USRB staff receives and investigates reportable electric incidents from regulated utility companies. Per Appendix B of Decision (D.) 98-07-097, reportable incidents for 2004 and 2005 are those which (a) result in fatality or personal injury rising to the level of in-patient hospitalization, (b) result in property damage of \$20,000 or more, (c) are the subject of significant public attention or media coverage, or (d) involve or allegedly involve trees or other

vegetation in the vicinity of power lines or poles. Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) successfully petitioned the CPUC to amend the requirement for reporting when the incident only involved trees or vegetation. The CPUC amended Appendix B in D.06-04-055 of April 27, 2006 to remove the tree and vegetation reporting requirement. Incidents still must be reported if they meet the requirements of (a), (b), or (c) above.

There were 279 total incidents reported in 2004 and 228 in 2005. Of these, there were 244 incidents involving overhead equipment in 2004 and 196 in 2005. There were 35 incidents involving underground equipment in 2004 and 32 in 2005. Section V contains a detailed breakdown of incidents by type.

General Public Complaints and Inquiries

USRB also responds to complaints and inquiries made by the general public in all of the areas under USRB's jurisdiction. There were 227 customer complaints and inquiries in 2004 and 111 in 2005. Section VI contains a summary by type of complaint or inquiry.



INTRODUCTION

PURPOSE OF REPORT AND ORGANIZATION

This Annual Report provides general information about the Utilities Safety and Reliability Branch (USRB) activities, and summarizes and documents the progress of its safety programs during the 2004 and 2005 calendar years. Although this report is normally issued on an annual basis, the last Annual Report was issued in 2004 containing data current through 2003. Hence, this report includes years 2004 and 2005.

The California Public Utilities Commission (CPUC) monitors the pipeline safety of investor owned gas utilities, mobile home parks (MHP) and certain propane systems under General Order (GO) 112-E. USRB is charged with enforcing GO 112-E, which adopts Title 49 of the Code of Federal Regulations (49 CFR), Sections 190, 191, 192, 193, and 199. The CPUC also administers GOs 95, 128, and 165 which contain rules regarding regulations for electric and communication installation, safety, and maintenance.

The mission of USRB is to regulate pipeline and electrical safety of utilities under CPUC jurisdiction and assure an acceptable level of operational safety and reliability for the protection of the public and the utilities' employees.

Section I of this report provides a discussion of USRB's gas safety compliance and inspection programs. Section II gives a description of USRB's electric and communication safety inspections, reports and programs. Section III lists California utilities by type. Section IV provides gas data, inspection results, and gas incidents reported and investigated. Section V gives overall system electric data, inspection

results, and electric incidents reported and investigated. Section VI summarizes general public complaints and inquiries, which USRB received.

SECTION I: GAS SAFETY COMPLIANCE INSPECTIONS, REPORTS, AND PROGRAMS

1. General Order 112-E

In 1995, the CPUC adopted the sections of 49 CFR that pertained to gas safety in GO 112-E. Subsequent changes to the Federal Pipeline Safety Regulations, 49 CFR, Parts 190, 191, 192, 193, and 199 are automatically updated in GO 112-E with the effective date being the date of the final order as published in the Federal Register.

The Federal Department of Transportation (DOT) has jurisdiction for enforcing the regulations in 49 CFR. In November 2004, Congress authorized the partial reorganization of the DOT. Part of this reorganization created the Pipeline and Hazardous Materials Safety Administration (PHMSA), which replaced the Research and Special Programs Administration. The intent of this reorganization was to place a clear emphasis on the importance of safety in pipeline transportation and hazardous materials transportation. DOT also oversees the Transportation Safety Institute (TSI). Both PHMSA and TSI play a role in enforcement and education with regard to federal regulations.

USRB conducts audits and inspections of gas facilities owned and operated by investor owned utilities and MHP operators for compliance with GO 112-E. USRB also audits and inspects propane gas systems. The large investor owned utilities are made up of a number of operational units or divisions, each of which is normally audited every two to three years. When a significant problem is found, the frequency of inspections is increased to either one a year or six months depending on the severity of the problem. Once the problem is remedied the unit returns to the two to three year inspection cycle.

2. Description of a Typical GO 112-E Inspection

USRB inspectors review records and pertinent documents and conduct field audits to determine if the gas facilities are being properly maintained and operated. As part of the document review, the inspector determines if the utility possesses a complete and accurate map of the gas or propane system, an Emergency Plan, an adequate Operation and Maintenance (O&M) Plan, and an Operator Qualification Program (with documentation that the plans and programs are being followed). The inspector reviews the utility's records and verifies that the proper maintenance and appropriate surveys, such as cathodic protection, leak detection, and odorant checks were performed in accordance with state and federal regulations. The inspector frequently uses this review of the records as a guide to select the utility facilities to audit in the field.

The field inspection focuses on verifying the utility's records and maps, physically operating valves, checking regulator set points, randomly testing cathodic protection areas, and verifying that unsafe conditions noted by USRB in past inspections were corrected. Inspectors also observe the overall condition of the system and how the utility follows its own written procedures. USRB inspectors will cite the utility for non-compliances and specify the time within corrective action must be taken. USRB inspectors will monitor the utility until the non-compliances are corrected. USRB also suggests programs to improve utility performance regarding gas pipeline safety. Finally, a check is made of records pertaining to the anti-drug and alcohol program performed by the company (propane and MHP operators are exempt from this federal requirement).

3. Mobile Home Park (MHP) Program

Most natural gas customers in California receive gas directly from, and are billed by, the local gas utility. However, residents of some MHPs do not receive gas directly from the local utility, but instead receive gas from, and are billed by, their MHP operator. In this

case, the MHP gas system is master-metered. The MHP operator receives natural gas at a slight discount since the local utility is not responsible for maintaining and operating MHP gas systems that are master-metered. The MHP operator, in turn, bills its residents at the rates that are prescribed in CPUC's tariffs for the serving utility. The difference between what the master-meter operator pays for gas from the utility and what the operator may charge its residents is used primarily to maintain the gas system.

Under 49 CFR, California Public Utilities (PU) Code (4351-5361), and GO 112-E, the MHP program provides for periodic inspections of MHP master-metered gas systems. These MHP gas systems are expected to meet the requirements outlined in the Federal "Guidance Manual for Operators of Small Gas Systems". USRB inspectors are responsible for carrying-out this program and have the authority to cite operators who are not in compliance with the Federal regulations. Operators are required to have a map of the MHP gas system with key valve locations, an Emergency Plan, an O&M Plan, and an Operator Qualification Program to assure safe operation of their gas systems. USRB inspectors verify that the MHP operators know the requirements of the gas safety code and understand the operation and maintenance of their MHP gas systems. USRB engineers also perform visual inspections of the MHP gas systems to determine if unsafe conditions exist.

In addition to inspections, USRB offers training seminars to MHP master-meter operators to reacquaint seasoned operators and introduce new operators to the requirements for operating a gas system. USRB is responsible for inspecting over 2600 master-metered MHPs in California ranging in size from 2 to over 1,000 customers at least once every five years. Many of the MHPs require special attention to meet the requirements. This requires USRB to conduct follow-up inspections of certain MHP gas systems more than once during the five-year period.

USRB logs the results of each inspection into a database. USRB engineers use the database to follow-up and assure that operators who have been cited take appropriate action. MHP operators are required to submit an annual report to the CPUC regarding

their gas systems, which is also entered into the database. The database is also used to identify problem areas, which need to be addressed. The program continues to be successful. Potentially dangerous situations have been found by USRB inspectors and corrected before an incident occurred.

4. Propane Safety Program (PSP)

The PSP was created as a result of a number of propane related incidents involving deaths and injuries that occurred in the Sierras in 1992 and 1993. Investigation of these incidents revealed that operators of the propane systems had very little safety regulation. As a result, Assembly Bill (AB) 766 (Hauser) became law on September 1, 1994 and was later amended by AB 2430 on September 19, 1996. The PU Code incorporates the law in sections 4451 through 4465. The PSP directs operators of jurisdictional propane distribution systems in California to comply with the federal pipeline safety standards, and permits the CPUC to adopt rules, at least as stringent as the Federal rules, to protect the health and safety of the operators, their employees and the customers they serve. The CPUC's responsibility covers all propane distribution systems serving 10 or more customers in a residential or commercial district, two or more customers in a MHP, and any system with two or more customers in a public place. Under existing PU Code, the propane systems are subject to an inspection every two years for those systems that serve over 200 customers. USRB inspectors audit systems that serve at least 100, but less than 200 customers, every three years. Approximately 95% of the propane systems serve less than 100 customers and are audited at least once every five years.

The jurisdictional propane systems were initially identified by using other California state agencies' databases, conducting phone surveys and making field verifications during the early years of the program. USRB has identified 638 jurisdictional systems in which 581 were audited at least once by the end of 2005.

USRB inspectors work with the propane industry, mainly through the Western Propane Gas Association to improve the PSP. Many of the operators of these propane systems

also supply the propane. They are usually knowledgeable about their systems, safety requirements, and the federal regulations.

Based on its experience to date with the PSP, USRB is working at solving several problems. The first problem is capturing all jurisdictional systems in the Propane Database and keeping the database current (i.e., removing entities that become non-jurisdictional and adding new entities as they become jurisdictional). USRB inspectors continue to refine the database by looking for previously undiscovered jurisdictional installations during inspection trips. Inspectors also collect information from propane suppliers, especially concerning new construction.

Second, trends have developed which point out common problems found during the inspections. Cathodic protection and record keeping are prime examples. USRB is trying to educate, not only the small propane system operators, but many of the suppliers, to help them better understand how cathodic protection works and what they need to do in order to achieve compliance at a minimal expense, and the importance of proper documentation.

In addition to implementing the PSP, AB 2430 requires the CPUC to collect a user fee from the propane operators under its jurisdiction. At present, the fee is set at twenty-five cents per unit per month or \$3.00 per unit per year. In accordance with the legislation enacted to implement the PSP, every operator of a propane system serving 10 or more units in a commercial or residential area or 2 or more mobile homes must prepare and submit to the CPUC a completed Annual Report form and pay the annual user fee.

Collecting the user fee can be problematic due to the changes in propane system ownership, operators, propane suppliers or maintenance staff. This is the only program for which USRB is obligated to invoice and collect a user fee.

5. Gas Incident Reports

USRB monitors and investigates gas incidents, which occur in the service territory of utilities under CPUC jurisdiction. The purpose is twofold: first, to determine the cause and whether the utility was negligent or violated GO 112-E; and second, to determine if measures can be taken to prevent similar incidents. By keeping a log of the incidents, USRB staff can track any trends that are occurring in gas incidents and initiate action to prevent them. Tracking leak histories and incident occurrences have led to the “Pipeline Replacement Program”, “Meter Protection Program” and the “Above Ground Pipeline Inspection Program”. These programs are discussed in more detail in subsections 9, 11, and 13.

Each utility is required to report any incident which involves (a) death or injury requiring in-patient hospitalization, (b) \$50,000 or more of damage to property, including loss of gas, or (c) in the operator’s judgment is significant, to the CPUC and DOT. These incidents are to be reported to both the CPUC and the DOT within 2 hours (during working hours) and 4 hours (during non-working hours) of the crew arriving on the scene. The CPUC also requires an operator to report an incident if there is significant media attention. USRB also requires the utility to file a quarterly report listing all reportable and non-reportable incidents that involve the escape of natural gas. This report includes all incidents caused by excavations (dig-in) to large incidents that involve fire or explosion, regardless of the amount of property damage. This data is tabulated, analyzed and used to evaluate the need to develop new gas safety programs or modify existing ones.

USRB staff investigates all incidents, but only conducts full-scale investigations for those incidents it believes are significant. This may be done by visiting the site, making written data requests, conducting phone interviews with the gas operator and witnesses of the incident or a combination of these activities. Leading causes of gas incidents are presented in Table 7 for 2004 and 2005. Many incidents are caused by homeowners and

small contractors working near gas pipelines, which are *not reportable* because they do not meet the criteria established by the CPUC or DOT.

On average, USRB is informed of between 400 and 500 gas events in the utility quarterly reports each year. In 2004, 47 of these were determined to be actually reportable. USRB determined that 82 were reportable in 2005. The reportability of some incidents is questionable because although they may involve considerable damage, death or injury, the cause may be unknown. For example, a house fire started by faulty wiring causes a wall to fall on the gas meter. It is not immediately obvious that the broken gas meter was not the initial cause of the fire. In order to comply with the state and federal rules, the utility tends to assume an incident to be CPUC or DOT reportable if gas *may* have been the cause, and rescinds its notification of a reportable incident if gas was subsequently not found to be the cause.

Typically many of the DOT reportable incidents involve damage over \$50,000. In 2004 and 2005 there were very few fatalities or injuries related to natural gas incidents. Most of the reportable incidents that resulted in injury or fatality were caused by leaks from faulty gas appliances within the home, or fire.

6. Safety Related Condition Reports

Safety Related Condition Reports are required by the DOT to monitor situations that could affect public safety if not repaired in a timely manner. These reports are generally required in the event of a natural disaster, physical damage (e.g., dig-in), corrosion, material defect or operating error causing the integrity of a gas pipeline to be compromised or when repairs to the affected pipeline must be delayed. It usually results in the utility reducing pressure or shutting down the line. The complete definition is found in 49 CFR, Parts 191.23 and 191.25. Repairs are often done by utilities before reaching the requirement for safety-related condition reporting. As a result, California utilities file a small number of these reports (1 to 5) during the calendar year.

7. Drug and Alcohol Testing Program

Utility Drug Testing Programs were required by DOT in 1990. Alcohol testing was incorporated in 1995. Each utility is now required to have a drug and alcohol testing program that conforms to the guidelines set forth by DOT in 49 CFR, Parts 40 and 199. In essence, the utility is required to randomly test utility employees that perform "emergency response functions" in accordance with DOT's procedures. USRB monitors the utility's performance by performing a thorough audit at the utility's headquarters of its Drug and Alcohol Plan. USRB audits the procedures, the collection process, drug testing laboratory and the chain of custody of the sample. The headquarters audit is supplemented by information gathered in periodic GO 112-E audits of the operator's field offices where questions are asked concerning the utility's Drug and Alcohol Program.

Propane operators and MHP master-meter operators are exempt from the drug and alcohol testing program (49CFR 199.2).

8. Underground Service Alert (USA)

USA was established to minimize the damage caused by dig-ins. USA is funded by its member utilities (gas, electric, water, telephone, cable, etc.) that are at risk of a dig-in. Each USA member pays dues based on either miles of facilities in the ground or population with some weight given to the importance of the buried facilities (e.g., a fiber optic cable or large high pressure gas line has more importance than a 2 inch water line). The function of USA is to provide a single 1-800 number for excavators to call (One call system) 48 hours before they dig. USA notifies utilities that have facilities in the area to locate and mark them so the excavator will be aware of their location prior to digging.

Calls made to the 1-800 number are directed to one of two USA organizations in California; one serving northern California and the other serving southern California. Approximately 600,000 calls are made annually to the two locations. When these calls are made and the pipeline is marked there is a very low probability of a contractor

damaging a pipeline. Major contractors are aware of the requirement to call before they dig. Some small contractors and homeowners appear to be unaware of the need to call before they dig and therefore, learn by an unfortunate experience. USRB has endeavored to promote legislation to increase penalties for not calling USA, especially for repeat offenders. USRB also sends warning letters in particularly egregious cases. Presently, the State Contractor's License Board will revoke contractor licenses if it is determined that the contractor is ignoring the rules. USRB created a dig-in database, which is being used to monitor the effectiveness of the program and determine those companies that are repeat offenders.

The Common Ground Alliance (CGA) is a member-driven association dedicated to ensuring public safety, environmental protection, and the integrity of services by promoting effective damage prevention practices. In recent years, the association has established itself as the leading organization in an effort to reduce damage to all underground facilities in North America through shared responsibility among all members. Members include representatives from both regulatory agencies and industry. USRB is an active participant in the CGA.

9. Pipeline Replacement Program (PRP)

The PRP is of paramount importance to gas utilities. Its purpose is to replace old gas pipelines, which are technologically obsolete and prone to leakage or failure, with new pipelines. Pacific Gas and Electric Company (PG&E) and Southern California Gas Company (SCG) have implemented programs which evaluate the numerous factors that must be considered in determining the priority of replacement. In general, the type of pipeline, age, condition, location, proximity of known faults, population density and leak history are the major considerations in setting the priority. As a result of the Loma Prieta earthquake in 1989, seismic effects were added as a major consideration in the formula. A seismic factor is assigned to each pipeline segment by using four components: (1) the probability of strong ground shaking, (2) the probability of surface faulting, (3) the susceptibility to soil liquefaction and (4) the susceptibility to slope failure or landslide.

PG&E and SCG presently use all these factors to develop a priority list for pipeline replacement. Both programs are well designed and appear to be an accurate method for planning and financing future replacements systematically. Each utility tracks the progress of its program detailing what has been accomplished and what remains to be completed. The priorities may be modified with substantial cause, which provides a utility with program flexibility. For example, when a utility learns of a planned re-paving project, it may rearrange priorities so that scheduled pipeline replacement can be accomplished just before the start of the re-paving.

Cast iron pipeline replacement has always been at or near the top of SCG and PG&E's priority lists. Southwest Gas Corporation (SWG) and San Diego Gas and Electric Company (SDG&E) do not have cast iron pipe in their systems. SCG completed replacement of the last of its existing cast iron pipeline during 2005. PG&E still has approximately 244 miles of cast iron pipeline (mainly in the San Francisco Bay Area) in its distribution system as of the end of 2005. PG&E is systematically replacing these pipelines as well as other high priority pipelines. In identifying high priority pipelines, PG&E takes into account its age, leak history, cathodic protection measures in place, seismic susceptibility and structure and population proximity. PG&E projects that it will complete its cast iron pipeline replacement in approximately six years.

Pre-1931 steel distribution mains and steel transmission lines with joint configurations and girth welds not meeting current standards are also a high priority on all utility pipeline replacement programs.

Quantities of type of both transmission and distribution pipelines are given in Tables 1 and 2 in Section IV.

Leak surveys and evaluations regarding the cause of recently replaced pipelines are used to judge the original pipeline replacement priorities. This coupled with unforeseen events, such as natural disasters, changes in operating conditions, city or county re-

paving programs, load shifts and funding all have an impact on the original set of priorities. With proper cause, replacement priorities can and should be modified. USRB monitors these modifications and determines if they are in the best interest of public safety.

10. Operator Qualification and Pipeline Integrity Management

The Pipeline Safety Improvement Act of 2002 amended the pipeline safety law by adding section 49 USC 60131. Section 60131 provides standards and criteria for operator qualification programs, directs PHMSA to ensure their inclusion in industry programs, and directs PHMSA to report to Congress on the status and results of operator qualification progress. In a final rule published in the Federal Register on March 3, 2005, PHMSA changed its operator qualification regulations to conform to section 60131. Among the changes was the required inclusion of training “as appropriate.” PHMSA and CPUC inspectors are completing their first operator qualification audits and are collecting information from those audits for the required Report to Congress. This report on the status and results of the operator qualification programs is due December 17, 2006. DOT clearly recognizes operator qualification as an important component of pipeline safety.

The Pipeline Safety Improvement Act also directed PHMSA to establish a Pipeline Integrity Management Program (IMP). In response PHMSA issued Subpart “O” containing sections 192.903 to 192.949 on May 26, 2004. This Subpart establishes a risk-based assessment program that requires operators of gas *transmission* pipelines to (1) identify all the segments located in “high consequence areas” (HCAs) - areas adjacent to significant population or frequently used areas, such as parks; (2) develop an IMP to reduce the risks to the public in such areas; (3) undertake baseline integrity assessments (inspections) at all segments located in the HCAs within 10 years; (4) develop a process for repairing any anomalies found in these inspections; and (5) reassess these segments every seven years thereafter to verify continued pipeline integrity. One-half of the baseline assessments must be done by December 2007 and the remainder by December

2012. The risks to be assessed include corrosion, welding defects and failures, third-party damage, land movement, and improper operation.

The Federal Government Accountability Office (GAO) issued GAO-06-474T on March 16, 2006, which is a preliminary assessment of the IMP. Operators have reported that they have assessed about 6,700 miles as of December 2005 and completed 338 repairs for problems they are required to address immediately. The GAO contacted 25 specific operators, which represent about half of the 6,700 miles of pipeline assessed. Although these operators felt overall periodic reassessments will be beneficial they expressed concerns about (1) their uncertainty over the level of documentation that PHMSA requires and (2) whether their pipelines really need to be reassessed at least every 7 years.

11. Meter Protection Program

The meter protection program was initiated because statistics indicated numerous vehicles were hitting meters and rupturing gas pipelines. Upon further investigation of the statistics, it was determined that many of these incidents could have been avoided, if gas meters were either relocated or protected by stanchions. Starting in the late 1980s, gas companies considered meter protection programs in order to minimize the vehicle-caused incidents that occurred in their service territory. In 1990, the CPUC ordered gas companies to develop a meter protection program and provide the CPUC with annual status reports in order to monitor the utilities' progress. Meter readers identify those meters that they feel are vulnerable to being struck by a vehicle. A utility expert evaluated these meters and many are slated to be protected. As a direct result of this program, the numbers of incidents involving a vehicle have decreased substantially. This program continues in effect.

In 2005, PG&E inspected a total of 3,840 meter locations and took 3,317 corrective actions to protect the meters.

12. Granting Of Waivers

The process of granting waivers initially involves a regulated utility requesting to perform an activity not covered by the existing regulations, or to deviate from existing legislation. These requests usually involve new products or gas safety technology. USRB evaluates each request for a waiver to determine if they are viable and have merit. If USRB supports a request for a waiver, it will prepare a resolution for CPUC approval to grant a waiver contingent upon DOT (Office of Pipeline Safety) approval. If the waiver is granted, the utility may proceed with the project for which the waiver was granted. It cannot use this technology elsewhere until DOT incorporates the new technology into the regulations or the utility requests and is granted a new waiver to use the technology in another project. A good example of how a request for a waiver eventually is incorporated into the regulations is SCG's request for waivers to install larger diameter polyethylene pipeline than allowed by the regulations on various jobs. SCG was convinced that the pipeline was safe and economical to use in its gas system. Eventually the regulations were changed to allow this pipeline to be installed.

13. Above Ground Pipe Inspections

Specific above ground pipeline inspections were initiated in 1990 after significant corrosion was observed on a major transmission pipeline. Inspections revealed major differences in the surface conditions of exposed piping in different districts within the same utility. In some districts above ground pipeline was in excellent condition while in an adjacent district, there were frequent instances of surface rust and pitting. All utilities are required to keep records of above ground facilities and inspection frequency and results. These records are reviewed during the course of normal GO 112-E inspections. PG&E has instituted an External Corrosion Direct Assessment program.

14. Other Programs

USRB is currently looking at new technology and pragmatic solutions to handle the current concerns in the state to improve gas safety. Paramount on this list is to improve the existing method to control gas during and immediately after a seismic occurrence. If pipelines in the interior of a house/building are damaged and leaking, as the result of an earthquake, it might be useful to have a device that would automatically shut off the gas at the meter. The city of Los Angeles adopted an ordinance to mandate installation of these valves on all new construction. SCG conducted a pilot program to install these devices but discontinued the program due to concerns about false closures. Numerous valves have been installed in southern California at customer expense downstream of the customer meter. It is expected that most of the existing seismic shut-off valves will initially experience some problems.

Other firms are working on a product that would sense the presence of gas in the air. The sensor would detect the amount of methane (CH_4) in the environment and possibly carbon monoxide (CO), and at preset levels would shut off the gas supply to the building. The device would also sound an alarm much like a smoke detector notifying the occupants with two alarms: first, that there is a problem and the gas is about to be shut off and second, when the gas is automatically shut off.

USRB is also looking at better ways to measure the condition of pipelines. Manufacturers are currently developing devices that can be inserted into a gas pipeline, travel through it and locate any areas of corrosion or damage. These devices are called "smart pigs". In 2005, PG&E completed a smart pig inspection in 35 miles of pipeline. This inspection included 26 miles of 1944 vintage pipeline. The preliminary report revealed several corrosion indications that were potential integrity concerns. Although the final report determined that there were no immediate anomalies, PG&E maintained a reduced pressure pending the repair of the indications.

Other devices such as pipe liners capable of being inserted into existing pipelines may greatly reduce the cost of pipeline replacement especially in highly populated areas. System Control and Data Acquisition (SCADA) systems are being used to remotely monitor critical pipeline facilities and in some cases, work as an early warning system to alert the utility to a potential problem such as over pressurization. Programs continue to be enacted as a result of information gathered following a natural disaster (e.g., the water heater strapping program resulted from investigations of the causes of natural gas fires following an earthquake).

15. Other Duties Required by the Pipeline Safety Act

USRB is required to log each of the regulated utilities' major construction projects, uprates and hydro tests. During the process of recording the construction projects, USRB staff also checks the utilities' calculations to verify the pipeline has adequate wall thickness to carry the pressure. In addition, USRB reviews the type of project (new or replacement), the location of the project, and the pipeline material being used. It also performs random inspections of these activities. These inspections are usually conducted when time permits or a significant job warrants an inspection.

16. DOT Annual Audit

USRB is audited annually by the DOT to verify its ability to perform as an agent for the federal government. The level of federal funding to USRB for natural gas and propane system inspections carried-out on behalf of the DOT is based upon the results of this audit. The audit consists of reviewing USRB's records of the previous year. Records regarding incident reports, inspections, citations for noncompliance and knowledge of the federal regulations are reviewed. The federal inspector also verifies that each state inspector spends a minimum number of days in the field. The DOT requires USRB to account for its actions and to have its inspectors fully trained by attending all the required courses at TSI.

SECTION II: ELECTRIC SAFETY INSPECTIONS, REPORTS, AND PROGRAMS

USRB is charged with enforcing GO 95, “Rules of Overhead Electric Line Construction”; GO 128, “Rules for Construction of Underground Electric Supply and Communication Systems”; and GO 165, “Inspection Cycles for Electric Distribution Facilities”. USRB conducts inspections and investigations to enforce GOs 95, 128, and 165 regulations. An overview of each GO and a summary of the inspection methodologies are provided below.

1. General Order 95

GO 95, “Rules for Overhead Electric Line Construction”, became effective July 1, 1942. Changes are noted in the order that reflect development of new materials and standards for line construction and changing operational practices. The latest edition is dated January, 2006.

The rules formulate uniform requirements for overhead electrical line construction. The application of these requirements provides adequate service and secures safety to persons engaged in the construction, maintenance, operation or use of overhead electrical lines and to the general public. The CPUC also has the jurisdiction to regulate safety of cable and telephone corporations (PU Code Section 215.5 and 234). Inspection of cable television and telephone facilities has been integrated with a field inspection program conducted on electric and telephone pole facilities.

2. General Order 95 Inspections

USRB staff engineers conducted GO 95 field inspections for overhead lines in participation with the utilities. The field inspections provide evidence on the quality of a utility's workmanship and maintenance programs. USRB engineers inspect many miles of pole lines and document GO 95 violations found during the inspections.

The field inspections are conducted over a three to four day period. A visual survey is conducted on the first day and detailed inspections are conducted on the remaining two or three days. Two engineers use the first day of inspection to identify specific areas for detailed inspections. They will do this by conducting a visual survey of two communities/cities that appear to have GO 95 violations. USRB engineers will also contact the utility companies to request information such as circuit maps prior to conducting the visual survey.

During the detailed field inspections, USRB engineers record the violations found on the overhead electric system, which includes poles, conductors and all overhead equipment. USRB requests the power and communication utilities to participate in these inspections. This expedites correction of violations found, as their personnel are also recording these violations.

3. General Order 128

GO 128, "Rules for Construction of Underground Electric Supply and Communications Systems", became effective December 12, 1967. The latest edition was issued in January, 2006.

These rules formulate uniform requirements for underground electrical supply and communication systems. The application of these requirements provide adequate service and secures safety to all persons engaged in the construction, maintenance, operation or

use of underground electric systems (including telephone and cable), and to the general public.

4. General Order 128 Inspections

One USRB engineer usually conducts GO 128 underground facility inspections. The inspection areas are selected in a similar manner to GO 95 inspections. The USRB engineer also spends time reviewing the records required by GO 128 for an auditable and consistent program of inspection which demonstrates compliance with GO 128. The inspection lasts three days and usually occurs in one utility operating district. GO 128 inspections are conducted only with the electric power utilities since communication utilities have fewer hazards associated with their facilities. If the USRB engineer finds any problems with the communication facilities, he will notify the communication company to correct the problems.

The GO 128 inspector joins a qualified utility lineman who opens the equipment enclosures containing live or energized equipment. The live equipment may be contained inside an underground vault, a walk-in vault, or subsurface enclosures such as a pad mount. The inspector records notes about the violations and prepares a formal report afterwards. The report details the violations and directs the utilities to correct them. Records are maintained similar to GO 95 inspections.

5. General Order 165

GO 165, "Inspection Cycles for Electric Distribution Facilities", became effective March 31, 1997 and it is the latest edition. GO 165 inspections are carried out in conjunction with GO 95 and GO 128 inspections.

The purpose of this GO is to establish minimum inspection cycle requirements for electric distribution facilities, condition ratings, scheduling and performance of corrective action, record keeping, and reporting in order to ensure safe and high quality electrical

service. All utilities subject to this GO are required to submit a report describing the status of their inspections and repairs, and future schedules for inspections.

GO 165 also implements the provisions of PU Code Section 364, which the California Legislature adopted when it enacted Assembly Bill 1890, Chapter 854, and Statutes of 1996.

6. Incident Reporting and Investigation

In addition to enforcing the above general orders, USBR staff conducts investigations of reportable incidents from the utility companies. Section 315 of the PU Code provides that the CPUC shall investigate the cause of accidents occurring upon the property of any utility.

Reportable electric incidents, as updated in CPUC Decision (D.) 98-07-097, Appendix B, are those which: (a) result in fatality or personal injury rising to the level of in-patient hospitalization and attributable or allegedly attributable to utility owned facilities, (b) involve property damage that exceeds \$20,000, (c) are the subject of significant public attention or media coverage and are attributable or allegedly attributable to utility facilities or (d) for 2004 and 2005 involve or allegedly involve trees or other vegetation in the vicinity of power lines.

It should be noted that PG&E, SCE, and SDG&E petitioned the CPUC to amend Appendix B with respect to the tree and vegetation reporting requirements. The utilities collectively argued that the current reporting requirements for these incidents was overly inclusive and resulted in excessive reporting of relatively minor events. The CPUC agreed with the utilities and issued D.06-04-055 dated April 27, 2006, eliminating requirements for reporting incidents involving or allegedly involving only trees or other vegetation in the vicinity of power lines.

USRB staff also responds to safety related customer complaints pertaining to GOs 95, 128, and 165. This may range from answering a telephone inquiry or correspondence, to conducting a formal investigation.

SECTION III: UTILITY COMPANIES

The CPUC has authority under the PU Code to enforce the requirements of GO 112-E on investor owned gas utilities. The CPUC also has authority under the PU Code to adopt and enforce the requirements of GOs 95, 128, and 165 requirements on all electric and communication utilities. There are a number of investor owned power, gas and communication utility companies providing service in California as well as utilities operated by municipalities and cooperatives.

1. Major Natural Gas and Electric Utilities



1. Southern California Gas Company (SCG)

Southern California Gas Company serves almost 5.6 million customers in southern California. Southern California Gas Company does not provide electric service.



2. Pacific Gas and Electric Company (PG&E)

Pacific Gas and Electric provides gas service to about 4.1 million customers and electric service to about 5 million customers. Its service area spans 70,000 square miles.



3. San Diego Gas and Electric Company (SDG&E)

San Diego Gas and Electric provides natural gas service to approximately 825,000 customers and electric service to 1.3 million customers in San Diego and Orange County.



4. Southwest Gas Corporation (SWG)

Southwest Gas provides natural gas service to approximately 150,000 customers in Victorville, Big Bear and North Lake Tahoe within California. The company also serves Nevada and Arizona (1.6 million).

5. Avista Corp.

This company served approximately 15,000 customers at the south end of Lake Tahoe. Avista's customers were acquired by Southwest Gas in 2005.

6. Southern California Edison Company (SCE)



Edison provides electric service to 13 million customers and operates a propane gas system on Catalina Island that serves approximately 1,300 customers. It also transports gas to one of its power plants. Its service area spans 50,000 square miles.

2. Other Natural Gas Companies

SMALL COMPANIES

- ALPINE NATURAL GAS
- WEST COAST GAS

MUNICIPALITIES

- PALO ALATO
- SUSANVILLE
- COALINGA

NATURAL GAS STORAGE FACILITIES

- LODI UNDERGROUND STORAGE
- WILD GOOSE STORAGE

3. OTHER ELECTRIC SERVICE COMPANIES

INVESTOR OWNED COMPANIES

- BEAR VALLEY ELECTRIC
- MOUNTAIN UTILITIES
- SIERRA PACIFIC POWER COMPANY
- PACIFICORP.

ELECTRIC COOPERATIVES

- SURPRISE VALLEY ELECTRIFICATION CORP.

- PLUMAS-SIERRA RURAL CO-OP.
- ANZA ELECTRIC COOPERATIVE
- VALLEY ELECTRIC ASSOCIATION, INC.

MUNICIPALITIES

ALAMEDA	ANAHEIM
AZUSA	BANNING
BIGGS	BURBANK
COLTON	GLENDALE
GRIDLEY	HEALDSBURG
IMPERIAL IRRIGATION DISTRICT	LASSEN MUNICIPAL UTILITY DIST.
LODI	LOMPOC
LOS ANGELES DWP	MODESTO IRRIGATION DIST.
NEEDLES	NORTHERN CAL. POWER AGENCY
OROVILLE-WYANDOTTE IRRIGATION DIST.	PALO ALTO
PASADENA	REDDING
RIVERSIDE	ROSEVILLE
SACRAMENTO MUNICIPAL UTILITY DIST.	ESCONDITO
SILICON VALLEY POWER	SHASTA LAKE
SOUTHERN CAL. PUBLIC POWER AUTH.	MORENO VALLEY
TRINITY COUNTY	TRUCKEE DONNER PUBLIC UTILITY DIST.
TURLOCK IRRIGATION DIST.	UKIAH
VERNON	

SECTION IV: GAS STATISTICS

This section describes the California gas system, a summary of USRB inspection results for 2004 and 2005, and a discussion of gas incidents and customer complaints.

1. Size and Character of the California Gas System

The California gas system (natural gas and propane) serves approximately 11 million gas customers with approximately 100,000 miles of gas mains. Table 1 and Figure 1 illustrate the miles and type of distribution pipeline as reported by the operators to the DOT. Table 2 and Figure 2 indicate the miles and type of transmission pipeline. Table 3 and Figure 3 show the number and type of services of each utility on their system during 2004 and 2005. Table 4 lists the cause of repaired leaks determined by each utility on their system during 2004 and 2005. Figure 4 illustrates an overview of the cause of repaired leaks in 2005.

PG&E and SCG are two of the largest utilities in the United States and serve most of northern and southern portions of California, respectively. SDG&E is significantly smaller and serves the greater San Diego area. SWG is smaller still and serves the Lake Tahoe and the high desert near Victorville. Avista was a very small company in California and served South Lake Tahoe until it sold its distribution system to SWG in 2005. SCE also operates a very small propane gas system on Catalina Island. SCE upgraded the system in 2005 with the addition of a mixed gas (propane/air) transportation tank and the deletion of a storage tank. Alpine Natural Gas, a small company, is building systems to serve customers who were previously served by propane. Finally, MHPs and other facilities may be served by a natural gas master-metered or propane system.

California also has independent firms that have developed underground storage to serve California utilities. Wild Goose Storage and Lodi Underground Storage are examples.

Despite their size, these systems fall under CPUC jurisdiction and are required to follow state and federal regulations.

Year	Company	Steel Pipe				Plastic	Cast Iron	Total
		Unprotected		Protected				
		Unprotected Bare Steel	Unprotected Coated Steel	Protected Bare Steel	Protected Coated Steel			
2004	PG&E	426	0	0	20,718	18,733	244	40,121
2005		420	0	0	20,704	19,360	220	40,704
2004	SCG	3,399	5,550	83	16,922	20,141	0	46,146
2005		3,404	5,637	150	16,826	20,074	0	46,092
2004	SDG&E	0	0	0	3,593	4,219	0	7,812
2005		0	0	0	3,663	4,362	0	8,025
2004	SWG	0	0	0	476	2,054	0	2,556
2005		0	0	0	599	2,240	0	2,865
2004	AVISTA	0	0	0	124	110	0	234
2005		0	0	0	0	0	0	0
2004	SCE	0	0	0	8.935	0.2	0	9.135
2005		0	0	0	8.935	0.2	0	9.135
2005	Total	3,824	5,637	150	41,801	46,036	220	97,695

Table 1, Miles of Distribution Pipeline by Utility

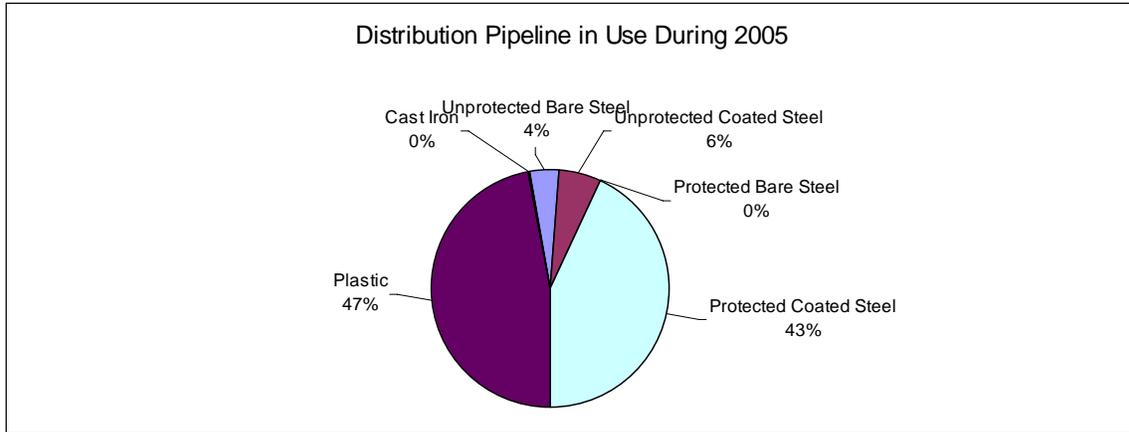


Figure 1, Distribution Pipeline by Type

Year	Com.	Unprotected Bare Steel	Unprotected Coated Steel	Protected Bare Steel	Protected Coated Steel	Total
2004	PG&E	9	0	0	5,494	5,495
2005		9	0	0	5,463	5,472
2004	SCG	51	0	252	3,784	4,087
2005		7	0	110	3,708	3,825
2004	SDG&E	0	0	0	248	248
2005		0	0	0	243	243
2004	SWG	0	0	0	26	26
2005		0	0	0	26	26
2004	AVISTA	0	0	0	0	0
2005		0	0	0	0	0
2004	SCE	0	0	0	0	0
2005		0	0	0	0	0
2005	Total	16	0	110	9,440	9566

Table 2, Miles of Transmission Pipeline by Utility

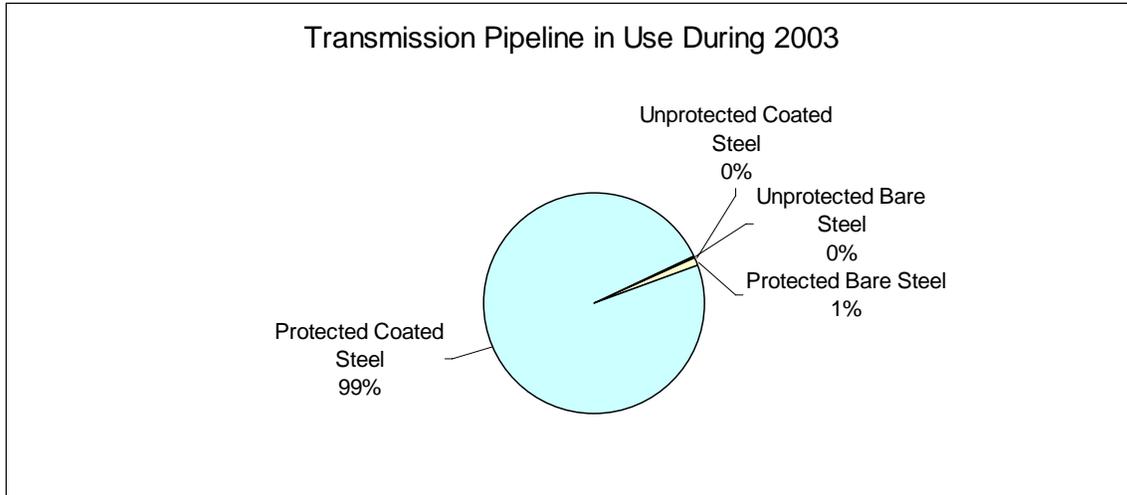


Figure 2, Transmission Pipeline by Type

Year	Company	Steel Pipe				Plastic	Copper	Total
		Unprotected		Protected				
		Bare	Coated	Bare	Coated			
2004	PG&E	28,173	0	0	1,209,312	1,853,729	78,809	3,170,023
2005		25,851	0	0	1,206,838	1,898,367	78,175	3,209,231
2004	SCG	20,130	32,873	7,332	1,642,137	2,408,945	4,163	4,115,580
2005		175	1,045,324	21	755,297	2,404,051	7,696	4,213,564
2004	SDG&E	0	0	0	266,401	308,537	0	574,952
2005		0	0	0	265,130	314,024	0	579,154
2004	SWG	0	0	0	4,516	127,546	0	132,062
2005		0	0	0	12,158	144,532	0	156,690
2004	AVISTA	0	0	0	7,828	8,456	0	16,284
2005		0	0	0	0	0	0	0
2004	SCE	0	0	812	158	0	0	970
2005		0	0	816	163	0	0	979
2005	Total	26,026	1,045,324	837	2,239,586	4,760,974	85,871	8,159,618

Table 3, Number of Services by Utility

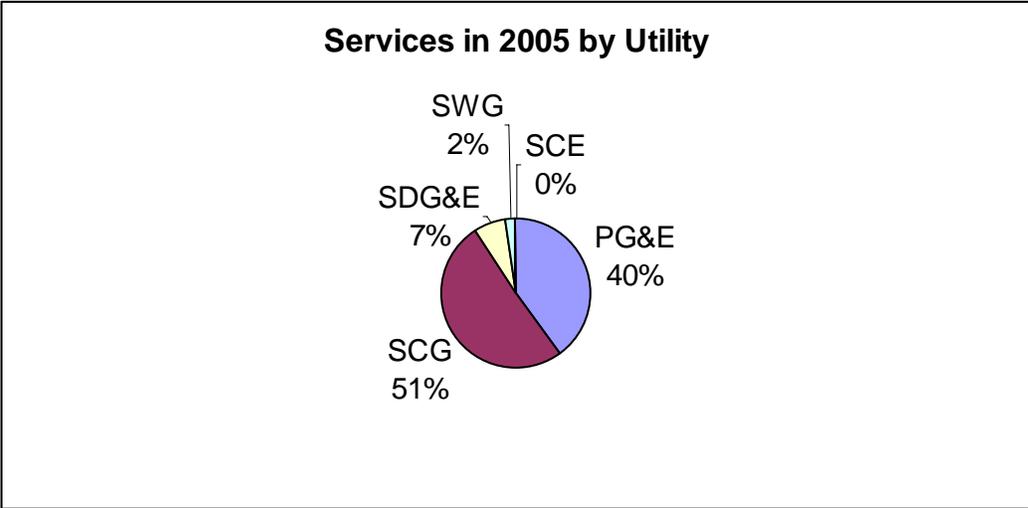


Figure 3, Services by Utility

Year	Company	Corrosion	Third Party	Outside Force	Equip/Ops	Material Defect	Other	Total
2004	PG&E	1,724	3537	151	6	550	2,324	8,292
2005		1,708	2626	192	27	1,803	617	6,973
2004	SCG	5,750	5,639	267	6	723	2,756	15,141
2005		6,062	6,048	323	39	1,612	2,454	16,538
2004	SDG&E	513	489	186	90	101	83	1,462
2005		463	432	97	100	117	71	1,280
2004	SWG	10	367	24	21	94	27	543
2005		15	435	17	34	99	24	624
2004	AVISTA	0	45	0	0	0	0	45
2004	SCE	0	0	0	0	0	0	0
2005		0	3	0	0	0	0	3
2005	Total	8,248	9,541	629	200	3,631	3,166	25,418

Table 4, Leaks Repaired by Utility

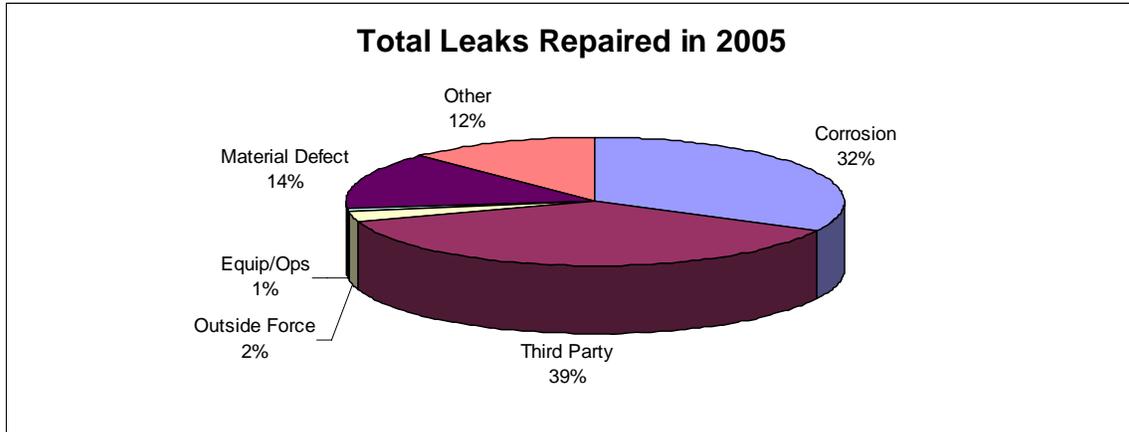


Figure 4, Leaks Repaired by Type

2. USRB Inspection Data for 2004 and 2005

During 2004 and 2005, USRB was divided into two units. Each unit was assigned specific counties in which to conduct GO 112-E inspections in California. The counties inspected by each unit are:

Northern Unit: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Inyo, Kern, Kings, Lake, Lassen Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Luis Obispo, San Joaquin, San Mateo, Santa Barbara, Santa Clara, Santa Cruz Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tuolumne, Tulare, Yolo, and Yuba.

Southern Unit: Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura.

A description of a typical GO 112-E inspection is presented in Section I, subsection 2.

Each inspection is documented and maintained in a file for a period of at least 3 years. Every unit of a major gas utility is inspected every two or three years, or more often if the condition of the unit is unsatisfactory or not in compliance with GO 112-E. MHP gas systems are inspected every five years. Propane systems are inspected every two, three or five years depending upon the size of the propane system. The frequency of inspections may be increased at any time if USRB believes more frequent inspections are warranted based upon review of Annual Reports or customer complaints.

The DOT provides funding for the CPUC to inspect intrastate gas pipelines for conformance to federal regulations in addition to state regulations. The DOT provides significant funding to the CPUC to perform these inspections. The level of funding is determined by funds allotted to DOT by Congress and an annual audit of USRB records (see Section I, subsection 16).

An overall summary of USRB GO 112-E inspections is given in Table 5 below. Table 6 presents GO 112-E inspections by utility.

Summary of GO 112E Inspections	2004	2005
Number of GO 112E Inspections Conducted	29	29
Number of MHP Inspections Conducted	366	575
Number of Propane Inspections Conducted	85	80
Number of Inspection Violations Found during CY	2240	3003
Number of Inspection Violations Corrected during CY	1884	2245

Table 5, Summary of GO 112-E Inspections

Utility	2004	2005
Alpine	1	0
Avista	3	0
Lodi Storage	0	1
PG&E	12	11
SCG	9	9
SDG&E	2	3
SWG	2	2
West Coast Gas Storage	0	1
Wild Goose	0	1
SCE (Catalina)	0	1
TOTAL	29	29

Table 6, Utility Inspections per Year

3. Gas Incidents

USRB staff receives and investigates reports of gas and propane incidents from regulated utility companies, MHP and propane system operators. GO 112-E defines reportable incidents as those which involve a release of gas and: (a) result in a fatality or personal injury rising to the level of in-patient hospitalization, (b) cause over \$50,000 in damage including the loss of gas, or (c) become the subject of significant public attention or media coverage.

The gas utility companies, MHP and propane operators, are required to provide notice to designated USRB staff within two hours during working hours or four hours during non-working hours of a reportable incident. The notice must identify the time and date of the incident, the time and date of notice to the CPUC, the location of the incident, identification of casualties and property damage, and the name and telephone number of a utility contact person.

USRB maintains an incident database, which tracks incidents by cause. These causes are divided into construction/material defects, corrosion, dig-ins, vehicle, unknown or other.

Table 7 summarizes incidents by cause for 2004 and 2005. Figure 5 shows reportable incidents by cause for 2005. In 2005, 45% of the reportable gas incidents were caused by dig-ins.

	2004	2005	Total
Construction/ Material Defect	0	2	2
Corrosion	1	2	3
Dig-In	22	37	59
Vehicle	8	6	14
Other/Unknown	16	35	51
Total	47	82	129

Table 7, Reportable Incidents by Cause

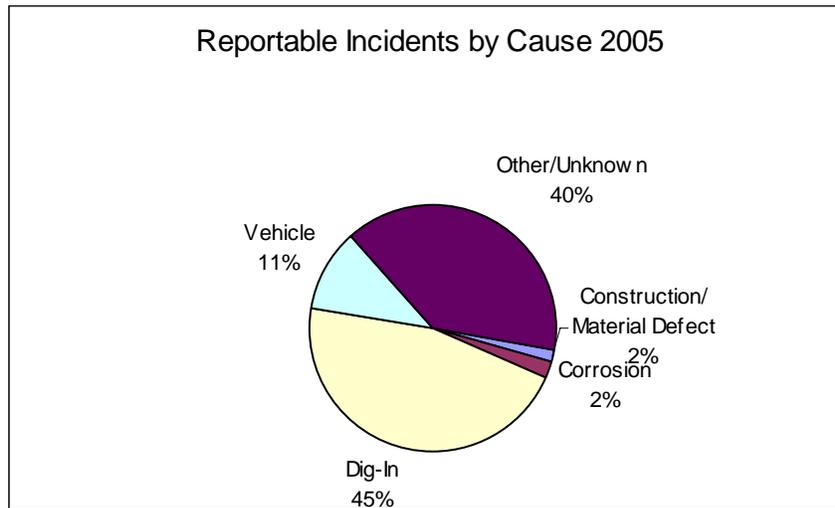


Figure 5, Comparison of Reportable Incidents

SECTION V: ELECTRIC STATISTICS

This section contains information and statistical data on the various electric related activities conducted by USRB during 2004 and 2005.

USRB is entrusted to enforce the provisions of GOs 95, 128, and 165. USRB conducts periodic inspections of both overhead and underground electric power and communication lines throughout the state. This involves both a document audit and field inspection. USRB maintains records of the inspections and monitors the utilities to insure violations are corrected.

USRB also investigates accidents involving overhead and underground electric and communication lines as mandated by PU Code Section 315 to determine if the utilities are at fault for non-compliance with the GOs.

USRB is divided into a Northern Unit and a Southern Unit for electric inspections as follows:

Northern Unit: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Inyo, Kern, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Luis Obispo, San Joaquin, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tuolumne, Tulare, Yolo, and Yuba.

Southern Unit: Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura.

Major utility data is presented in Table 8 and Figure 6 for overhead equipment.

California has one of the largest electric and communications systems in the United

States. USRB inspection results are given in Table 9. Utility data for underground facilities is presented in Table 10 and Figure 7. Related USRB inspection results are given in Table 11.

1. Major Utility Data (Overhead)

Utilities	Transmission Lines (miles)	Distribution Lines (miles)	Total Overhead Lines (miles)	Number of Poles
PG&E	18,488	123,054	141,542	2,274,980
SCE	11,740	60,300	72,040	1,500,000
SDG&E	1,594	6,791	8,385	231,273
PacificCorp.	741	2,323	3,064	67,066
Grand Total	32,563	192,468	225,031	4,073,319

Table 8, Summary of Utilities' Overhead Equipment

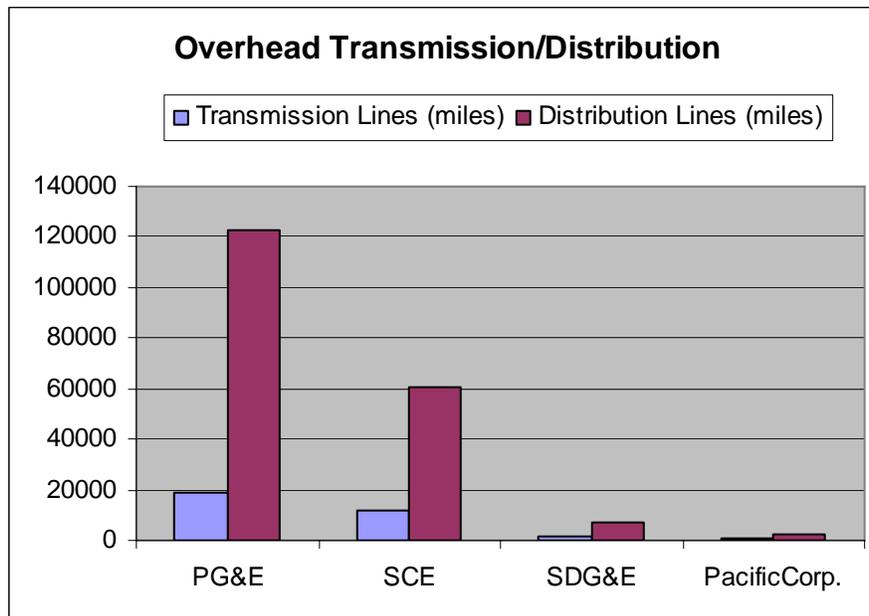


Figure 6, Overhead Distribution and Transmission by Utility

2. USRB Inspection Data(Overhead)

Utility Company	2004 Inspections	2005 Inspections	2004 Violations	2005 Violations	2004 Violations per insp.	2005 Violations per insp.
PG&E	6	7	239	136	40	19
SCE	12	9	187	341	15.6	37.9
SDG&E	4	4	98	115	24.5	57.5
Municipalities/Others	5	7	794	695	158.8	99.3
SBC	17	20	1411	1292	83	64.6
Comcast	6	7	459	305	76.5	43.6
Adephia	7	4	543	190	77.6	47
Verizon	1	6	65	583	65	97.2
Other Cable TV	10	18	930	1343	93	74.6
Grand Total	68	82	4,726	5,000	N/A	N/A

Table 9, GO 95 Inspection summary

In conjunction with the above inspections, 1,805 poles were inspected in 2004 and 2,384 in 2005.

3. Utility Data (Underground)

Utilities	Transmission Lines (miles)	Distribution Lines (miles)	Total Underground Lines (miles)	Surface Mounted Structures	Underground Structures
PG&E	129	25,611	25,740	125,486	326,929
SCE	265	37,635	37,900	133,727	21,106
SDG&E	64	9,365	9,429	108,401	42,701
PacificCorp.	0	541	541	5,459	232
Grand Total	458	73,152	73,610	373,073	390,968

Table 10, Summary of Utilities' Underground Equipment

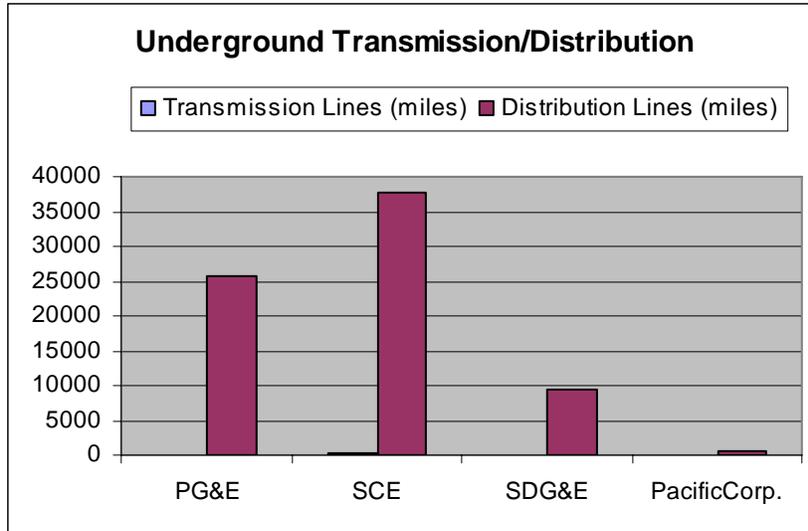


Figure 7, Underground Transmission and Distribution by Utility

4. USRB Inspection Data (Underground)

Utility Company	2004 Inspections	2005 Inspections	2004 Violations	2005 Violations	2004 Avg. Violations per Insp.	2005 Avg. Violations per Insp.
PG&E	6	7	89	56	14.8	8
SCE	7	6	154	78	22	13
SDG&E	2	1	6	12	3	12
Municipalities/Others	2	3	133	84	66.5	28
Grand Total	17	17	382	230	N/A	N/A

Table 11, Summary of Underground Inspection

5. General Order 165 Inspections

GO 165 became effective on March 31, 1997 for PG&E, PacificCorp., SDG&E, Sierra Pacific Power Company, and SCE. The CPUC subsequently ruled that the GO also applies to municipal utilities. This GO establishes minimum requirements for electric distribution facilities specifically regarding inspection frequency, scheduling and performance of corrective action, condition rating, record keeping, and reporting. The

requirements of this GO are in addition to GO 95 and GO 128 to maintain a safe and reliable electric system. These inspections are part of USRB regularly scheduled GO 95 and GO 128 inspections.

In addition to USRB inspections the utilities are required to report to the CPUC the measures they have taken to comply with GO 165 for the previous year and planned measures for the upcoming year. The report must be submitted annually.

6. Electric Incidents

USRB staff receives and investigates reportable electric incidents from regulated utility companies. The electric utility companies are required to provide notice to the designated USRB staff, via USRB Incident 1-800 number, within two hours of an incident. The notice shall identify the time and date of the incident, the time and date of notice to the CPUC, the location of the incident, identification of casualties and property damage, and the name and telephone number of a utility contact person.

USRB staff may investigate incidents at any time. An on-site inspection is performed as soon after notification as possible if a fatality or serious injury has occurred. If it is determined that a GO violation was involved, staff prepares a report and recommends appropriate action against the utility.

In addition, USRB maintains a database of outages and accidents to note trends. If there is significant trending, the USRB staff will investigate and work with utilities to correct a problem. In the past the CPUC has initiated Orders Instituting Investigation based upon the results of USRB's investigations.

There were 279 total incidents reported in 2004 and 228 in 2005. Of these, there were 244 incidents involving overhead equipment in 2004 and 196 in 2005. There were 35 incidents involving underground equipment in 2004, and 32 in 2005. An average of 23 incidents was reported per month in 2004 and 19 in 2005.

a. Overhead Equipment

The following Tables and figures are a summary of incidents that involved fatalities, injuries, damage and/or media attention for 2004 and 2005. The leading cause of accidents involved overhead work.

Electric Incident Causes	Fatalities	Injuries	Damage	Media Att.
Aircraft	1	0	1	0
Animal	0	0	2	0
Booms	1	1	2	0
Cranes	0	1	0	1
Falling Branch	0	1	4	1
Falling Tree	0	2	1	0
Fire	0	0	0	1
Insulator Failure	0	0	1	1
Irrigation Pipe	0	0	0	0
Ladder	0	0	0	0
Line Failure	0	2	2	3
Metal Object	0	5	3	1
Natural Causes	0	0	0	0
Other Causes	2	2	5	7
Splice Failure	0	0	1	1
Tree/Line Contact	0	1	2	0
Tree Trimmer	2	3	1	1
Transformer	0	0	2	2
Unknown	2	4	7	6
Vehicle	1	1	5	1
Working Overhead	2	8	2	0
Grand Total	11	31	41	26

Table 12, 2004 Overhead Incidents

2004 Incident Causes

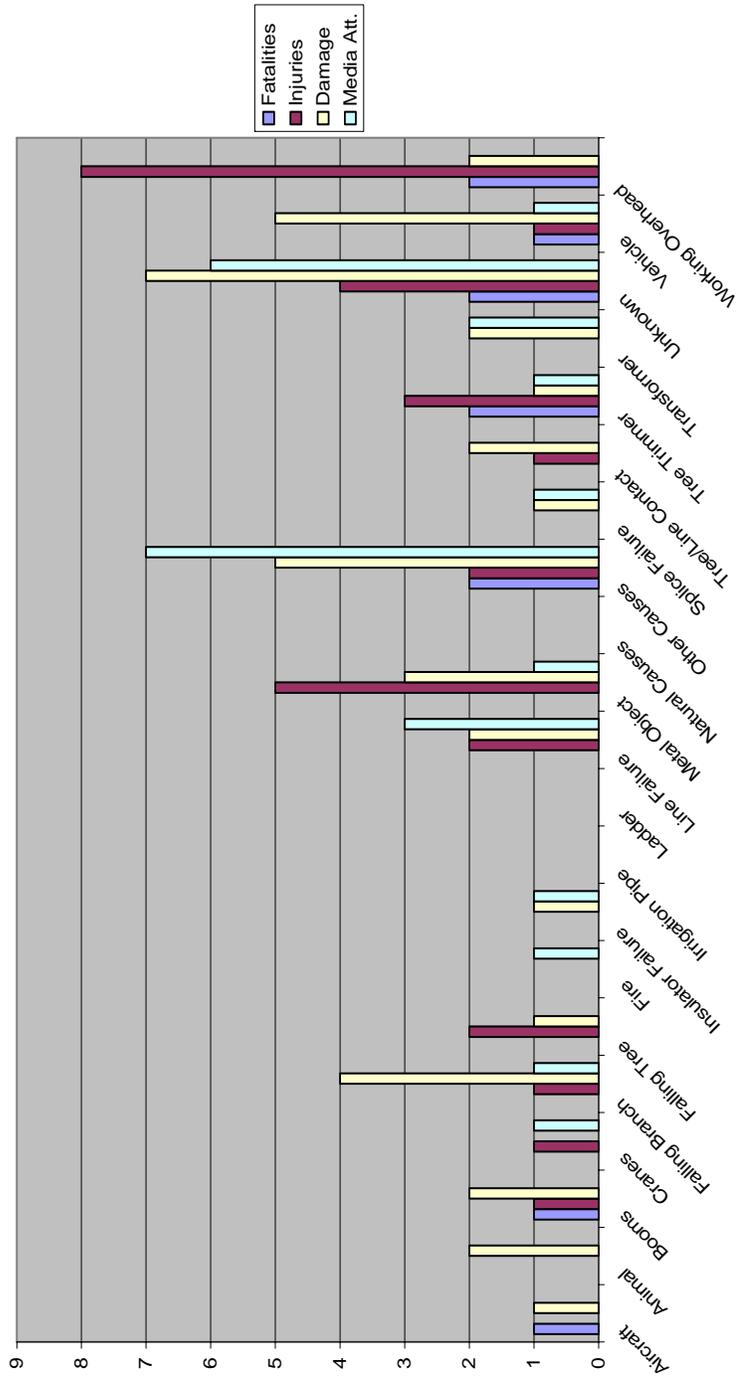


Figure 8, Comparison of Overhead Incidents

Electric Incident Causes	Fatalities	Injuries	Damage	Media Att.
Aircraft	1	2	0	0
Animal	0	0	0	2
Booms	1	2	0	0
Cranes	0	0	0	0
Falling Branch	0	0	0	0
Falling Tree	0	0	0	0
Fire	1	1	0	1
Insulator Failure	0	0	0	0
Irrigation Pipe	1	1	0	0
Ladder	0	0	0	0
Line Failure	1	1	2	0
Metal Object	2	0	0	0
Natural Causes	0	1	0	1
Other Causes	3	9	2	11
Splice Failure	0	0	1	0
Tree/Line Contact	0	0	0	1
Tree Trimmer	1	1	0	0
Transformer	0	0	0	1
Unknown	0	1	5	8
Vehicle	2	4	1	2
Working Overhead	4	13	0	2
Grand Total	17	36	11	29

Table 13, 2005 Overhead Incidents

2005 Incident Summary

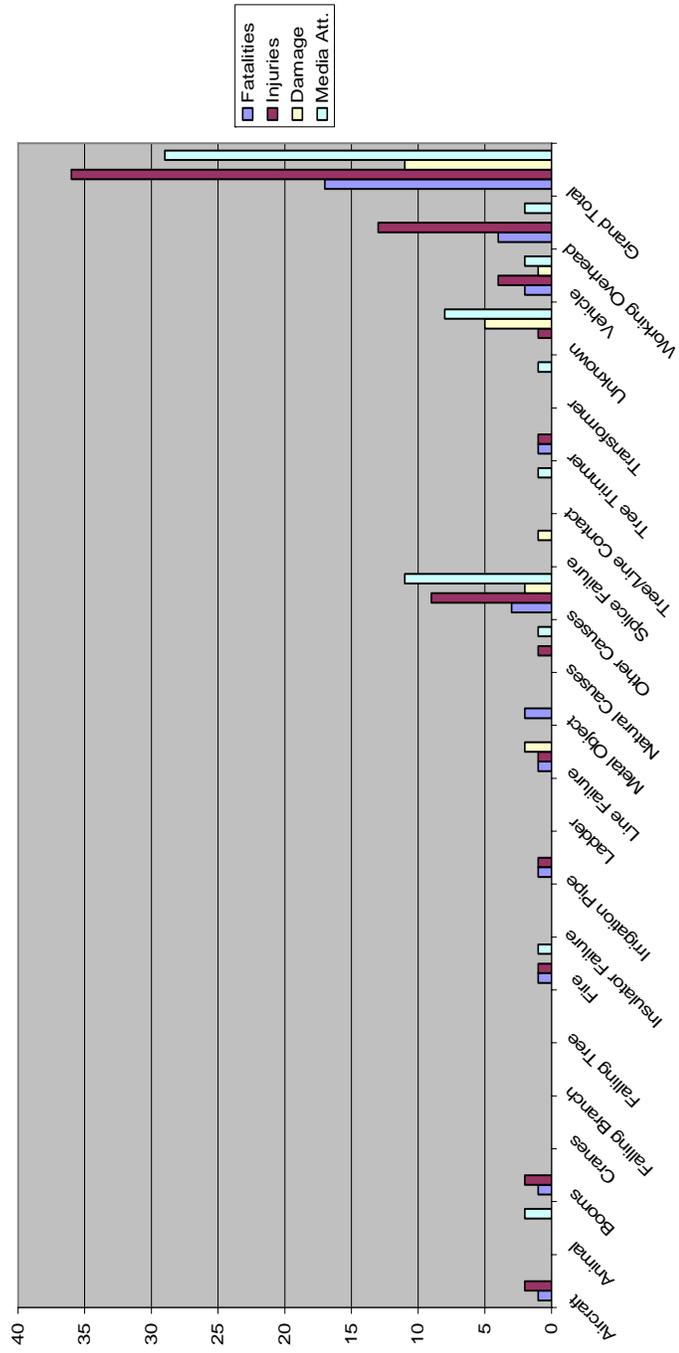


Figure 9, Comparison of Incidents

b. Underground Equipment

The following tables summarize the leading causes of incidents in 2004 and 2005 relating to underground equipment. The leading cause of accidents with underground equipment is due to dig-ins.

Electric Incident Causes	Fatalities	Injuries	Damage	Media Attn.
Dig In	0	2	11	0
Switch Malfunction	0	0	2	3
Transformer Malfunction	0	0	0	2
Underground Cable Failure	0	0	0	8
Underground Splice Failure	0	0	0	1
Working Underground	0	1	0	0
Grand Total	0	3	13	14

Table 14, 2004 Underground Incidents

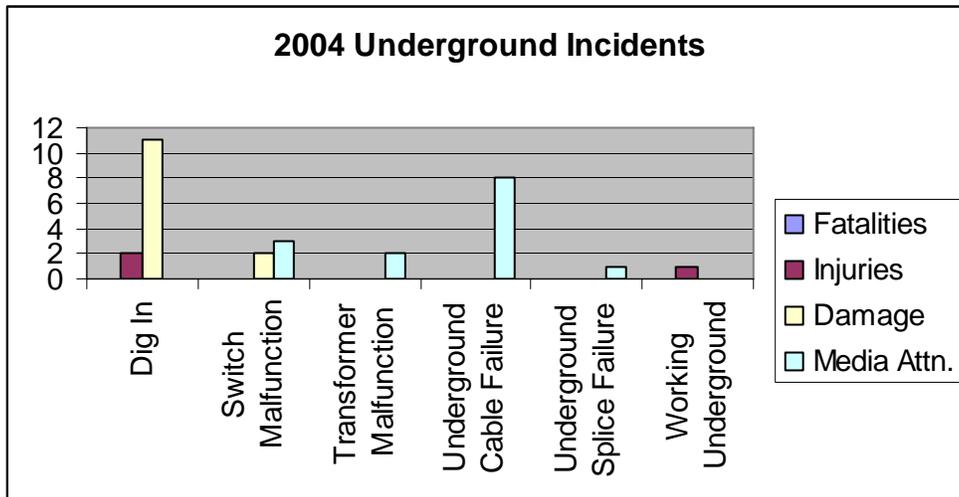


Figure 10, Comparison of Underground Incidents

Electric Incident Causes	Fatalities	Injuries	Damage	Media Attn.
Dig In	0	1	18	0
Switch Malfunction	0	0	2	1
Transformer Malfunction	0	0	0	1
Underground Cable Failure	0	0	0	3
Underground Splice Failure	0	0	0	2
Working Underground	0	1	0	0
Grand Total	0	2	20	7

Table 15, 2005 Underground Incident Summary

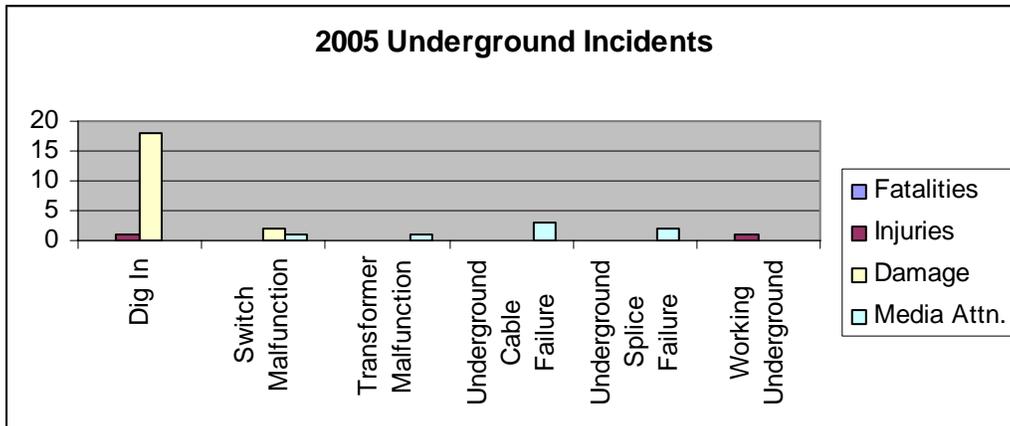


Figure 11, Comparison of Underground Incidents

SECTION VI: PUBLIC COMPLAINTS AND INQUIRIES

USRB responsibilities include recording, analyzing, and resolving complaints and inquiries received from the general public for those areas under USRB jurisdiction. Table 15 provides a summary of inquiries and complaints to USRB in 2004 and 2005. Figure 12 below provides a comparison of the relative numbers of types of complaints or inquiries. USRB responded to 227 public complaints or inquiries in 2004 and 111 in 2005.

Category	2004	2005
Electric	76	31
Gas	25	18
Telco	41	11
MHP/Prop	45	35
Misc.	40	16
Total	227	111

Table 16, Public Complaints and Inquiries

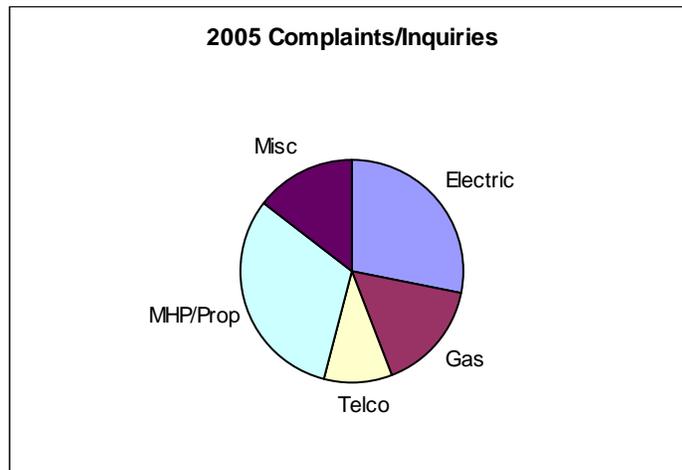


Figure 12, Complaint/Inquiry by Type

Electric complaints and inquiries generally involve problems with pole location or condition (leaning), height of service drops, height of power lines, or proximity of trees to power lines. Gas complaints and inquiries tend to involve customers smelling gas and not receiving a fast response from a utility. Telecommunication complaints and inquiries involve service failures or old and abandoned lines. The vast majority of MHP and propane complaints and inquiries are requests for information regarding annual reporting requirements and clarification about operator qualifications and operation and maintenance plans. Miscellaneous complaints and inquiries involve customers who called USRB by mistake and needed another branch of the CPUC, or who needed to talk to another state or local agency, such as the California Department of Forestry and Fire Protection, or a county planning department, etc. In all cases USRB staff assisted the callers by providing the proper information.