

# Safety and Enforcement Division



## Utility Office of Safety and Reliability

### 2014 Annual Plan

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## MISSION AND VISION

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The mission of the Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) is to work diligently to ensure that regulated services are delivered in a safe, reliable manner. Within SED, the Office of Utility Safety and Reliability has oversight responsibility over natural gas transmission and distribution, mobile home park natural gas operators, propane distributors, electric transmission and distribution, and electric power generators.

## MISSION OF THE OFFICE OF UTILITY SAFETY AND RELIABILITY

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The mission of the Office of Utility Safety and Reliability is to provide leadership in the energy and utilities industry and to develop, implement and enforce best in class safety and reliability programs within the regulated entities.

## VISION OF HIGH PERFORMANCE FOR THE OFFICE OF UTILITY SAFETY AND RELIABILITY

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The Office of Utility Safety and Reliability has developed a vision for what it would look like if the organization was performing at an optimum level. The elements of this vision are present in the organization, but a holistic adoption and continuous high performance is our goal.

## CLARITY OF MISSION AND GOALS

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- The public that we serve, the California residents and ratepayers, has a high level of trust that the CPUC protects the public interests and ensures safety and reliability of utility services.
- The mission of the Office of Utility Safety and Reliability is in alignment with the mission of the California Public Utilities Commission and Safety and Enforcement Division. The mission of the Office is known and understood by all members of the team.
- There are clear goals, priorities and measurements for success set at all levels of the organization. Goals are S.M.A.R.T. (Specific; Measurable; Attainable; Relevant and Trackable). Everyone is aligned towards achieving organizational goals.

## LEADERSHIP AND TEAM CULTURE

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- Open and clear communication that enables and fosters trust.
- Leadership at all levels recognizes expertise and the value of individuals, and appreciates the collective intelligence of the team.

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- The team makes decisions when there is natural agreement -- in the cases where agreement is elusive, a decision is made by the team lead or executive decisionmaker.
- The leadership of the team shifts from time to time, as appropriate, to drive results. No individual members are more important than the team. No single individual holds all critical knowledge – the team must be able to function with or without high-performing individuals. This builds in team resiliency.
- There is opportunity for professional growth for individuals, based on their performance. Leaders identify potential and work to develop skills.
- Everyone is held accountable to performance standards and leadership expectations. Each team knows how they are performing and are supported in their opportunities for growth.
- Senior members of the team coach and train. The environment is supportive and members of the team know where to turn for help.

### EFFECTIVE PROCESSES

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- Common language and terminology that's shared across all teams and programs.
- Consistency in processes, procedures and documentation, with differences only where needed for program reasons. Thorough documentation of processes and procedures that are consistently followed.
- Accurate tracking of workload and performance. Tracking supports measurement against established goals.
- Regular reporting that tracks performance and informs decision-makers and external stakeholders.
- Continuous improvement is embedded in all processes and organizational function. Benchmarking and industry best practices are used to identify areas of improvement. After action reporting/analysis; peer review and root cause analysis are consistently implemented.

### QUALITY OF WORK PRODUCTS AND EXECUTION

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- Workproducts demonstrate rigorous, multi-faceted analysis. All relevant aspects are considered: technical, policy, culture, process etc. Analysis leverages industry best practices.
- Workproducts are produced and completed in a timely manner, meeting or exceeding set targets.
- Documents are of consistently high quality – same in format, quality of writing & style. No inconsistencies between programs, sections, regions etc.
- Standard workproducts, such as audit reports, require minimal iterations of revisions. The person responsible for the workproduct knows the expectations of management and has the training to deliver to those standards. The supervisor performs validation and guidance

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on issues that may have been overlooked.

### EXCELLENCE IN TECHNICAL SKILLS

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- Members of the team seek new knowledge and stay up to date on latest industry developments.
- Industry best practices are leveraged in work products and analysis.
- Individuals develop industry recognized expertise in their fields, including presentations at conferences, writing whitepapers etc.
- Ideas for improving codes and regulations are constantly brought forward. The Commission policies are externally recognized by the industry as leading and reflective of latest industry knowledge.

### ENGAGEMENT OF STAKEHOLDERS

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- The mission and work performed by the Office of Utility Safety and Reliability is well understood by the Commission.
- Commission leadership feels well informed and appropriately engaged in decision making.
- There is transparency and easily accessible information on the work being performed by the organization.
- The public has a high level of trust in the information being provided.
- The reputation of the Office of Utility Safety and Reliability office is that of a highly professional organization that leads the industry in the issues of utility safety and reliability.

The Office of Utility Safety and Reliability is a place that creates industry leaders. Working here is seen as a professional badge of honor by those inside and outside of the organization.

## GOALS AND PRIORITIES FOR 2014

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### VISION FOR 2014

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The priority for 2014 is to make progress in all six areas detailed in the Vision of High Performance. Having analyzed the current state of the organization, the Office of Utility Safety and Reliability management team has identified a total of 13 specific goals to be attained by the end of the year. The primary focus is on cleaning up the remaining backlog issues, such as disposition of probable violations in the gas branch, and on developing the foundational tools and processes to ensure a strong base for continuous improvement for going forward.

### CLARITY OF MISSION AND GOALS

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1. Refresh mission statements for every team/section, branch and office. Management team to ensure consistency as a whole.
2. Each supervisor is to set S.M.A.R.T. goals to be attained by the section. The goals are to be reviewed and approved by the manager and Deputy Director.

### LEADERSHIP AND TEAM CULTURE

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3. Review organizational roles and responsibilities, starting with the management team. Clarify the responsibilities of the Deputy Director, Program Managers and Supervisors. Supervisors are to clarify roles and responsibilities throughout their teams.
4. Re-set expectations of performance throughout the organization, starting with the management team. Revise duty statements to reflect expectations of management and job requirements.
5. Hold each other accountable to roles, responsibilities, goals and performance expectations. Perform performance reviews for everyone in the organization in a timely manner.

### EFFECTIVE PROCESSES

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6. Develop an initial list of continuous improvement initiatives and integrate the continuous improvement process throughout the organization.
7. Identify key types of workproducts and institute consistent tracking of performance against targets and goals.
8. Develop consistent documentation of all key processes. Standardize format and content. Ensure consistent terminology.

### QUALITY OF WORK PRODUCTS

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9. Raise the overall quality of workproducts being produced. Develop clear management expectations, re-communicate to staff and hold staff accountable.
10. For all major types of work products develop consistent templates and examples completed workproducts that represent quality of execution that meets or exceeds expectations.

### EXCELLENCE IN TECHNICAL SKILLS

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11. Each team to identify industry recognition opportunities to be incorporated into team goals.

### ENGAGEMENT OF STAKEHOLDERS

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12. Refresh reporting, both internal to the Commission and external reports.
13. Consistently utilize "Safety Alert" for day-of notification of incidents.

### CHALLENGES

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There are a number of challenges facing the Office of Utility Safety and Reliability. Some of the challenges are external and over which we have little or no control. Other challenges are internal, but may be difficult to overcome or require a long time to resolve.

### STAFFING

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Staffing is a significant challenge throughout the organization. In particular, in the last couple of years the Gas Safety and Reliability Branch has increased from fewer than 10 to 38 people today. Many engineers are still undergoing the extensive Pipeline Hazardous Material Safety Administration (PHMSA) training requirements and are required to be paired up with senior engineers in order to perform audits. This influx of new resources was needed, but has also provided challenges for limited management and senior staff. In addition, Gas Safety and Reliability Branch currently has only one Program and Project supervisor, which results in a significant imbalance between rank and file and supervisory staff. There are also significant gaps in staffing in the Electric Safety and Reliability Branch, specifically in the Generation Safety and Reliability Section. There are currently no Senior Utility Engineer, Specialist position in the Generation Safety and Reliability Section, resulting in limitations in being able to attract and retain qualified senior experts.

### SKILLS AND TRAINING

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There is a lot of great technical expertise in the Office of Safety and Reliability, but skill gaps nevertheless remain. For example, there is an ongoing issue with the quality of writing, particularly when it comes to developing policy-focused workproducts, such as staff proposals for rulemakings or revisions to proposed decisions. This is not only a training challenge, but also

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a result of lack of diversity of skills and qualifications. There are only 3 PURA analysts in the entire office of over 70 people resulting in lack of staff with policy-focused analytical skills and strong writing abilities.

### SYSTEMS AND DATABASES

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There are eight databases that maintain safety information vital to the functioning of the Office of Safety and Reliability. These databases track audits, inspections, reported incidents and self-reported violations and corresponding staff reports. These databases were developed by a staff member, Mike Robertson, in the 1990s using Access. They are very outdated and currently require constant SED staff support. With additional programs being established that are focused on safety, such as the citation programs, it is vital that the databases are updated to support expanding function of SED. In addition to upgrading the databases so that they can support expanded work of SED, a vital function that is required is the ability to do data analysis and complex queries to support assessment of records to identify patterns and trends. This will enable SED to identify risks and potential systemic safety issues. There is a request with Administrative Services to update the databases, but the project is progressing very slowly through the approval process with no expected start or end date at this point.

### LACK OF PRIORITIZATION

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The Office of Utility Safety and Reliability is responsible for executing a large number of mandates – federal code of regulation, State legislation, public utilities code, Commission General Orders etc. In addition, there have been numerous requirements, recommendations and priority initiatives in the aftermath of San Bruno. Prioritizing work remains a challenge, particularly because all work is by definition safety related and is therefore of importance. This annual plan is one of the attempts to help alleviate this problem by articulating top priority projects planned for the Office of Utility Safety and Reliability.

### BARRIERS TO REDUCING LOW PRIORITY WORK

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There are limited opportunities for reduction of workload, even for a purpose of making resources available for higher priority projects. Since the majority of work performed by the Office of Utility Safety and Reliability stems from federal regulation, State law or Commission requirements, it can be difficult to stop doing work even if it becomes unmanageable or unproductive. A good example is the expectation that all reportable incidents are investigated. The Office of Utility Safety and Reliability is notified of over 300 incidents a year. There is no current process to “administratively close” incidents, even if they are very minor (e.g. a plane hitting an overhead wire and causing an outage). There is a similar issue with self-reported violations. This is a long-term issue that needs to be actively managed and mitigated, including through some continuous improvement initiatives listed in this plan.



## ANNUAL PLAN FOR 2014

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### CROSS-CUTTING ACTIVITIES FOR THE OFFICE OF UTILITY SAFETY AND RELIABILITY

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#### ZERO BASED BUDGETING

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The Commission is undergoing zero based budgeting process. Each organization has specific activities that need to be performed, including estimation of current and future resources.

#### PREPARATION OF BUDGET CHANGE PROPOSALS

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Budget Change Proposals (BCPs) need to be prepared annually per the fiscal year cycle and occasionally off-cycle for emergent needs. There are several resource needs in the Office of Utility Safety and Reliability that require BPC development.

#### SUPPORTING OFFICE OF GOVERNMENTAL AFFAIRS

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There are several activities that are required in order to support Commission's governmental affairs. The Office of Utility Safety and Reliability analyses approximately 10 to 20 bills every legislative cycle, but there are also other important activities including answering questions from the legislature. Valerie Beck is the liaison to the Office of Governmental Affairs for SED.

#### CPUC SAFETY COUNCIL

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The CPUC Safety Council's mission is to improve safety primarily in three areas: Within the CPUC, within the utilities we regulate, and defining and preparing for statewide emergencies. The council typically meets monthly. The Risk Assessment section supports the logistics of the Safety Council.

#### REPORTING

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The Office of Utility Safety and Reliability needs to keep internal and external stakeholders updated on work planned, work accomplished and key developments. This includes the annual report, annual plan and occasional ad-hoc reports. In addition, the Office of Utility Safety and Reliability has a "safety alert" process to notify Commission leadership of important safety events as they take place. Currently SED does not develop a monthly report, but that has been discussed as a potentially useful communication tool for the future.

## ANNUAL PLAN FOR UTILITY RISK ASSESSMENT

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The mission of the Risk Assessment section is to promote safety by ensuring that the regulated entities integrate risk analysis into their operational, planning and other decision-making processes.

### HAZARD ANALYSIS AND MITIGATION REPORTS

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The purpose of the Hazard Analysis and Mitigation Reports (HAMRs) is to examine hazards and understand each utility's approach to mitigate the risks posed by the hazard. Furthermore the HAMR may include recommendations to the regulated entities and development of best practices. These reports serve as an important forward-looking tool that can inform Commission policy and help prevent incidents from happening.

There are four HAMR reports currently planned for 2014, stemming from the top safety hazards analysis previously performed by the Risk Assessment team.

**Aldyl-A:** This project will provide background on the known risks posed by older vintages of DuPont Aldyl-A pipe and examine each of our major gas utilities' replacement plan, pace, and prioritization for high risk Aldyl-A pipes. Aldyl-A HAMR target date: April 30, 2014

**Technical Findings:** Extract technical findings (e.g. use of obsolete or high risk equipment or system configuration) found in the safety review of Pacific Gas and Electric's (PG&E) General Rate Case (A.12-11-009). Inquire with PG&E on technical findings and their planned course of action to address the findings and examine whether these conditions exist in other operator's gas and electric distribution systems. Technical Findings HAMR target date: July 31, 2014

**Leak Management:** This project will examine industry best practices both nationally and abroad on leak management including but not limited to leak grading, schedule and approach to repair/replace, downgrading. Comparison will be drawn from best practices to regulated utility processes and procedures. In addition, interviews will be conducted from people at both operational levels and management level. Leak Management HAMR target date: August 31, 2014

**Internal Corrosion:** This project will examine the hazard of internal corrosion, identify any safety gaps in the existing regulations and examine each utility's approach to identify and mitigate this hazard and examine industry best practices. Internal Corrosion HAMR target date: September 30, 2014

### UTILITY RISK MANAGEMENT PROGRAMS

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**Ongoing Risk Management Evaluation:** Hold semi-annually meetings with the utilities to review their risk management programs. This allows the Risk Assessment team to keep current with the safety management programs at each utility and to inform other work products (e.g. GRC work, HAMR, etc.). Assigned Risk Staff are the in-house utility safety/risk subject matter expert

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liaison.

Lead Risk Staff	Utility	Semi Annual Meeting Dates
Staff TBD	PG&E	Q2 and Q4, 2014
Staff TBD	SCE	Q2 and Q4, 2014
Staff TBD	Sempra	Q2 and Q4, 2014

### PROCEEDINGS

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**PG&E GRC (A.12-11-009):** Risk Team worked closely with Consultants Cycla and Liberty on evaluating the underlying risk assessment employed in PG&E's gas distribution and electric distribution GRC. Serving in an advisory capacity, the team has also provided input to the Administrative Law Judge (ALJ). Additional support may be required after the issuance of the Proposed Decision by the ALJ, estimated Q2 2014.

**SCE GRC (A.13-11-003):** Risk Assessment team and Electric Safety and Reliability Branch will review the Southern California Edison (SCE) GRC Application 13-11-003 and work in an advisory capacity to support the ALJ. The Pre-Hearing conference was held on February 11, 2014. Specific work-products are yet to be determined, but a staff analysis report will probably be required Q3/Q4 2014.

**Safety in Rates OIR (R.13-11-006):** The Policy and Planning Division (PPD) is the lead Division for the proceeding. The role of the Risk Assessment team is to provide expertise on the as-needed basis. The PPD staff proposal was issued in February 2014 and workshops took place in March, 2014. Revised staff proposal will be issued in April, 2014. The record for the current phase of the proceeding is expected to be closed by September 2014, at which time the ALJ may require assistance in drafting the Proposed Decision.

**Citation Program OIR:** The Risk Assessment team will lead the analysis for the Citation Program OIR estimated to be approved by the Commission in May 2014. Workshops will likely need to be held in Q2 2014, with staff proposals to follow.

### ENFORCEMENT

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**ALJ-274 Related Citations:** The Risk Team will evaluate and enforce the Public Utilities Code in incident investigations, audits, and self-reported violations with the goal of improving safety by both encouraging effective corrective actions to reduce the risk of repeat offenses. Currently the citation program is on-hold, pending refinement per feedback from the Legal Division. The updates to the process should be accomplished by end of April, 2014. The expected rate of citations once the program is active is two citations per month to reduce the backlog of known violations, but this may change depending on the developments in the Citation Program OIR.

### INDUSTRY OUTREACH

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**National Association of Regulatory Utility Commissioners (NARUC):** Bishu Chatterjee is a member of NARUC's Staff Sub Committee on Pipeline safety. Commissioner Florio also chairs on of the seats on the Committee for Pipeline Safety. Bishu attends three annual NARUC meetings and prepares highlight reports on the key developments.

**Ontario Energy Board:** The Risk Assessment team will research the approach to risk management of the Ontario Energy Board and identify any lessons learned that could be useful for the Commission. Report completion estimated for July 2014.

### *S<sup>3</sup>: SED SAFETY SERIES: MANAGING RISKS OF ORGANIZATIONAL ACCIDENTS*

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The purpose of the S<sup>3</sup>: SED Safety Series is to provide an ongoing learning opportunity for Commission staff on both safety and risk management concepts and industry best practices. The goal of the Risk Assessment team is to hold three workshops or presentations per year.

**February 2014 (Completed):** The CPUC hosted a National Aeronautics and Space Administration (NASA) executive in a discussion on safety reporting systems, which are used in several industries to help prevent accidents, improve safety, and share lessons learned. At this public workshop, Linda Connell, NASA's Aviation Safety Reporting System Director, explained the background of this system and NASA's experience operating safety reporting systems for the aviation and rail industries. The objective of this workshop is to promote awareness and potential increased application of safety reporting systems within California.

**ISM / Safety Management Systems Overview (June 2014):** The Risk Team will work to get a demonstration of a functional SMS and/or ISM. Possible candidates could include the airline industry, the transportation industry, DOE, etc. In general SMS systems will all share the following pillars:

1. Safety Policy
2. Risk Management
3. Safety Assurance
4. Safety Promotion

**Stages in the development and investigation of Organizational Accidents (October 2014):** The Risk Team will host a discussion on organizational accidents by discussing active and latent conditions and the complex nature of organizational accidents.

## ANNUAL PLAN FOR GAS SAFETY AND RELIABILITY BRANCH

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The mission of the Gas Safety and Reliability Branch is to ensure that the state's natural gas pipeline systems are designed, constructed, operated, and maintained according to safety standards set by the CPUC and the federal government.

The vision of the Gas Safety and Reliability Branch is to promote a culture that inspires and institutes the values of gas utility safety and reliability throughout the nation by providing leadership and technical expertise through an ever expanding scope of new regulatory methods and ideas.

### AUDIT REPORTS

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There is currently a backlog of audit reports of the major utilities, where audits have been conducted but the reports have not been sent out to the utility. There were a total of 48 audits completed in 2013, with 18 reports outstanding. The estimated completion for 2013 audit reports is June, 2014, and the goal for going forward is to ensure that all reports are sent out to the utility within 90 days of the completion of the audit.

### AUDITS

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Gas Safety and Reliability Branch will conduct 32 audits of the major utilities in 2014, including integrity management and control room management audits. Senior Engineer Supervisors will accompany each lead engineer on an audit at least once in 2014 to ensure that the lead engineers are properly conducting the audits and effectively managing staff. The Program Manager (PM) and Program and Project Supervisor (PPS) will also accompany staff on audits. Staff and Senior Engineers shall adhere to the procedures noted in Gas Safety and Reliability Branch "Audit Guidelines and Best Practices Manual".

Detailed Audit Schedule:



GSRB\_Audit\_Schedule\_2014.xls

### INCIDENTS

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There is a significant backlog of incidents that have not been fully closed. The backlog developed due to the resources being allocated to the San Bruno investigation after the incident in 2010. The current backlog of incidents is summarized in the table below:

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Year	Total number of reported incidents	Incidents Closed	Open - Report Drafted	Open - No Report Drafted
2010 -2011	281	192	49	40
2012	153	69	65	19
2013	164	12	53	99
2014	33	2	0	31

The goal is to develop a plan for incident close-out by April 25, 2014. The plan will need to include “administrative close” of outdated incidents and incidents with low-risk profiles. The remainder will need to be investigated and closed out. The goal is to have all pre-2014 incidents closed out by Q4 2014. Develop incident investigation procedures similar to the “Audit Guidelines and Best Practices Manual” by July 14, 2014.

### BACKLOG OF IDENTIFIED VIOLATIONS AND CITATIONS

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There is currently a backlog of violations that have either been identified by the Gas Safety and Reliability Branch through an audit or an incident investigation or been self-reported by a utility. There are an estimated 700 individual violations from 2012 to today that need to be closed out. There were some legal challenges with closing out the violations, which are being worked through. The goal is to have no backlog of utility reported and staff discovered by the end of 2014, which will require significant effort from staff and SED management. A detailed plan for closing out violations found through audits is planned to be developed by April 30, 2014.

### PHMSA FILINGS

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There are several activities associated with mandatory PHMSA filings, including:

- Assign staff to prepare and submit the Request for Year End Payment (Feb-Mar), Progress Report (Feb-Mar) and Base Grant Application (Sept).
- Ongoing entry into PHMSA Database all Protocols (OQ, TIMP, DIMP, PAP, and CRM)

### PHMSA AUDITS

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PHMSA performs an annual audit of the Gas Safety and Reliability Branch. There are both follow-up activities from the previous audit and preparation for the next audit:

- Prepared and sent response to PHMSA’s 2013 audit on March 28, 2014
- Prepare and sent an update letter to NTSB by end of May, 2014
- The PPS and Senior Engineers must review every 2013 audit file for quality and to make corrections as needed prior to PHMSA’s 2014 Program Evaluation
- Work with Finance to prepare for PHMSA’s 2014 Financial Audit (February, 2014)
- PHMSA mentoring (Feb 19, 2014)
- Develop procedures to prepare for PHMSA audits (estimated Q3 2014)

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### INDEPENDENT GAS PROGRAM AUDIT

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After San Bruno, the Commission was required to conduct an independent evaluation of the Gas Safety and Reliability Branch. The audit will be performed by Crow Horwath and is estimated to begin in April 2014 and last six months. Valerie Beck is the project manager for this effort, but participation from Gas Safety and Reliability Branch will also be required.

### PIPELINE SAFETY ENHANCEMENT PLANS (PSEP)

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Gas Safety and Reliability Branch is performing an ongoing assessment of PG&E's implementation of the PSEP program. This includes a review of reports, status updates, procedures and also auditing of field work. This work is also supported by Bureau Veritas (BV). There are a total of 220 projects planned by PG&E for 2014 of which 198 will be audited by either Gas Safety and Reliability Branch staff or BV contractors.

PSEP work is also ongoing at Sempra, although the majority of the work is delayed pending Commission decision. The proposed Sempra PSEP includes strength testing or replacement of 251 miles, and automation of 203 valves for both Southwest Gas (SWG) and San Diego Gas and Electric (SDG&E) combined. Although the implementation plan has not yet been approved by the CPUC, Sempra began strength-testing some of its transmission pipeline and has completed strength-testing of 15.6 miles of transmission pipeline and has replaced 0.045 miles of transmission pipeline. Gas Safety and Reliability Branch has been inspecting Sempra's ongoing PSEP activities. Currently there are 86 projects planned for 2014, with Gas Safety and Reliability Branch staff planning to audit about 30 projects. This number may increase or decrease, depending on the Commission decision. The Proposed Decision is expected to mail in May, 2014, and will require staff review, analysis and feedback.

### PROCEEDINGS

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#### **San Bruno Investigations**

San Bruno investigations are pending Presiding Officer Decisions. After the Presiding Officer Decisions are circulated, staff may be required to provide support to upper management and decision makers, as appropriate. In addition, there are ongoing Federal investigations which require some support from staff (mostly providing responses to data requests).

#### **Sempra PSEP (A.11-11-002)**

Working with the ALJ on Proposed Decision, providing feedback and recommendations for modifications. Expected to be completed by May, 2014.

#### **Gas Safety OIR (A.11-02-019)**

Staff to develop final proposal for updates to Commission General Order 112. Estimated draft completion by May 16, 2014.

### **PG&E PSEP Update Application (A. 13-10-017)**

Staff has been performing analysis of the Update Application and underlying records. Report expected to be sent to the ALJ by April 25, 2014. Ongoing support expected until completion of the proceeding.

### **PG&E Gas Transmission and Storage Application (A. 13-12-012)**

Extensive analysis is required of the PG&E Gas Transmission and Storage Application. A proposed approach is estimated to be circulated for review by April 18, 2014.

### **SCG North-South Project (A.13-12-013)**

Southern California Gas Company plans to install approximately 150 miles of transmission line from its northern storage facilities to its southern system and build and upgrade compressor stations. Evaluation of safety implications is needed.

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### **Master Meter OIR (R.11-02-018)**

Gas Safety and Reliability Branch will need to develop a risk assessment and prioritization schedule for the transfer of master-meter/submeter systems at mobile home parks and manufactured housing communities to gas corporations. In addition, staff will work with Energy Division to ensure that the advice letters filed by the gas corporations comply with R.11-02-018. The Decision was adopted by the Commission on March 13, 2014. The three-year pilot program begins July 1, 2015. SED is planning to develop the prioritized list of master-meter/submeter systems by September 2014.

### **SDG&E L-1600 (pending)**

SDG&E is expected to file an application for approval of a capacity expansion for Line-1600 from Rainbow to Escondido, Mira Mesa, and Mission Valley (Highway 15 south to Highway 8). Evaluation of safety implications is expected.

## SPECIAL PROJECTS

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### **Non-Destructive Testing Project**

Continuous evaluation of PG&E non-destructive testing program and PG&E mitigation of a contractor quality issue that was identified in March 2013. Final staff report expected by June



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13, 2014. Evaluation of Sempra non-destructive testing program is also ongoing, with a findings report also expected by April 25, 2014.

### **Right of Way Encroachment Program**

PG&E has identified encroachment issues on the transmission pipeline right of way. PG&E has performed a centerline survey and identified encroachment issues consistent with a Compliance Plan it presented to SED in 2013. SED will continue to monitor the steps that PG&E is taking to ensure that the encroachment issue is corrected and to ensure that this issue does not happen again. SED workproduct TBD.

### **Low Pressure System Standards**

PG&E has proposed a change in how Maximum Allowable Operating Pressure (MAOP) is determined on the low pressure system. SED will review the proposal from PG&E and issue a determination via a letter, estimated to be completed in Q3 2014.

### **Enforcement of 811 “Call before you dig” program**

Dig-ins are the most frequent cause of incidents on the natural gas pipeline system. There are several issues with how the dig-in prevention and enforcement currently works. SED staff will continue evaluation of this issue and support efforts to improve the program. SED workproduct TBD.

## EMERGENCY RESPONSE STANDARDS

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Senate Bill 44 directed the Commission to establish emergency response standards. Staff held initial workshops in 2012, where several ideas for improvement were identified. In addition, the Commission has been evaluating Next Generation Incident Command System (NICS) for use by the utilities. In 2014, Gas Safety and Reliability Branch will conduct separate Emergency Response audits to ensure that the gas utilities are implementing the additional requirements of the California Public Utilities Code. Gas Safety and Reliability Branch will audit all operators and develop new audit forms to guide its auditors while performing its regular annual audits. The objective of the emergency audits is not only to ensure that the gas utilities are complying with State and Federal regulations, but to also collaborate with gas utilities to ensure that together we are providing the field crews and first responder community the tools they need to prevent and respond to potential future emergencies.

## QUARTERLY SAFETY REPORTS

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Gas operators file semi-annual “Safety Reports” with Gas Safety and Reliability Branch providing progress updates on major infrastructure improvements and operation and maintenance activities. Gas Safety and Reliability Branch uses these reports to monitor the operator’s prioritization and administration of key pipeline safety and integrity-related activities, identify deficiencies, provide feedback to the operators, and immediately bring concerns to the CPUC’s

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attention. Gas Safety and Reliability Branch will also use the information contained in these reports to help inform its assessment of PG&E's proposal for gas system improvements, operation and maintenance activities, and safety initiatives for years 2015 through 2017, currently before the CPUC under A.13-12-012.

### MOBILE HOME PARK (MHP) AND PROPANE INSPECTION AND ENFORCEMENT PROGRAMS

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- Conduct at least 360 MHP and 94 Propane inspections in 2014
- Determine frequent violators and issue citations
- Review MHP surcharge and adjust if necessary by July 1, 2014
- Revise Public Utilities Code regarding the submittal of Annual Reports to the Commission
- Transfer Propane billing to Finance
- Conduct with PHMSA MHP and Propane Seminars, October, 2014

### MEETINGS

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- The PM, PPS, and Senior Engineers shall meet once every two weeks
- The PPS and Senior Engineers shall meet once a month with their staff
- Have offsite meeting before June 30, 2014
- Establish meeting schedule for PG&E, Sempra, and SWG

### DATABASES

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- Improve Incident database: Expand list of causes by June 2014
- Incorporate risk based schedule into the MHP and Propane databases by May 2014
- Revise Audit Database to include the new units and statistical reports

### ADMINISTRATIVE

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- PM, PPS, and Senior Engineers establish schedule to meet with staff to discuss Performance Evaluations and Individual Develop Plans (IDP). IDPs were completed by March 31, 2014
- Establish administrative procedures to address traveling, telecommuting, leave of absence, and vehicle, computer, and cell phone usage by the end of 2014

### MISCELLANEOUS

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- PM and PPS attend NAPS Western Region Meeting in Wyoming (May 19, 2014)
- PM attend NAPS National Meeting in Illinois (Sept 15, 2014)
- PHMSA training for new staff

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### ANNUAL PLAN FOR ELECTRIC SAFETY AND RELIABILITY BRANCH: GENERATION SAFETY AND RELIABILITY SECTION

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The mission of the Generation Safety and Reliability Section is to ensure that generation asset owners operate and maintain their facilities in a safe, reliable and efficient manner.

#### INSPECTIONS

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The CAISO expects power plants to be generally available to produce power when needed to serve customer load, ensure local or system reliability and to support the grid. Plant owners must maintain generation facilities to ensure reliable start-up and operation, and notify the CAISO when the unit is unavailable. The Electric Generation section inspects plant outages to ensure legitimacy, determine when the plant will become available and identify the cause of an outage. By the end of 2014, Electric Generation staff is estimated to inspect over 300 outages (based on 2013 data).

#### AUDITS

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Staff constraints prevented the Electric Generation section from conducting audits in 2012 and 2013. In Q3, staff intends to identify strategies to shift safety workload priorities (see Internal Process Improvements, below) that will enable SED to resume plant audits. The current objective is to audit two plants in Southern California during Q4.

#### INCIDENT INVESTIGATIONS

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The Electric Generation section investigates plant safety incidents that meet specific reporting criteria, such as the level of property damage, injury or fatality. By the end of 2014, the section expects to investigate at least 12 incidents (based on 2013 data).

#### KERN INVESTIGATION

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Electric Generation staff completed an investigation of a 2012 fatality that occurred at the Kern Power Plant in June 2012. Staff expects to complete an investigation of a separate 2013 safety incident at the Kern Power Plant by Q3 2014. Staff provided an update to upper management with some options for next steps on March 6, 2014. Next steps are being determined.

#### FEB 6 CAISO RESTRICTED MAINTENANCE ALERT

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Generation Safety and Reliability section is leading a cross-divisional team to investigate a February 6, 2014 CAISO Restricted Maintenance Alert. The team expects to provide internal findings by April 18, 2014.

#### PLANT READINESS

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Every year, the Electric Generation staff meets with individual large power plants to identify

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issues that could impact or impede production. Early issue-scouting uncovered two areas that require additional scrutiny: drought impacts and plant security.

1. Drought conditions may impact generators, and for various reasons. Generators require cooling systems to reduce the high temperature steam that powers the turbines. Newer gas-fired generation technologies reduce temperature through refrigeration and chemicals, while older steam plants rely on seawater or recycled water from the local water district. Solar panels must be kept clean to achieve optimal performance, which traditionally requires water. Regardless of technology, all plants need water. The Electric Generation section will survey all large generators for potential drought impacts to power production capabilities, including federal, state and local mandates regarding conservation or rationing. Staff will evaluate survey results and generator mitigation strategies. Staff will begin the survey in Q1 2014 and complete the evaluation by the end of Q2.
2. The attack on the Metcalf substation, located in San Jose, emphasizes the importance of physical security at electric facilities: substations, switchyards and generators. Security methods at power plants vary, depending on size, construction and location. In Q2 2014, the Electric Generation section will survey all large generators regarding the status and condition of plant security, including security plans, current measure, risks and vulnerabilities. The survey results, expected by Q3, will determine plant-specific corrective actions and associated timelines to optimize security.

### CORROSION-UNDER-INSULATION PROJECT

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Corrosion-Under-Insulation is a hidden hazard at power plants. In 2013, staff surveyed all fossil fuel plants over 50MW regarding their respective programs to detect, correct and monitor Corrosion-Under-Insulation. Staff then assessed Corrosion-Under-Insulation risks of each plant, based on age, environment, operating conditions, and mitigation efforts. The current strategy is to focus the effort on the high-risk group: older coastal plants that lack any Corrosion-Under-Insulation mitigation measures, plans and/or procedures in place. Staff expects to complete the plant-specific evaluations in Q3 2014. Survey results and subsequent evaluations will determine a need for corrective actions and appropriate schedule.

### ONGOING ACTIVITIES

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- Identify and engage in proceedings that could require SED safety input
- Track operational dates of new RPS generators
- Support ED Annual Resource Adequacy report
- Keep Electric Generation webpage and Safety Portal current, including generator filing deadlines, alerts and reports

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### INTERNAL PROCESS UPDATES

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- Improve SED communication methods (Safety Alert, CAISO Alert, etc.): Planned for Q1, 2014
- Identify and register for a class on advanced investigative techniques course for staff: Planned for Q2, 2014
- Study feasibility of continued enforcement of plant data submissions, given NERC cutbacks: Planned for Q2, 2014
- Explore a priority shift from outage inspections to audits and investigations without compromising safety. Update or develop implementation procedures: Planned for Q2, 2014
- Complete investigation procedures: Planned for Q3, 2014
- Build investigation report database: Planned for Q3, 2014
- Complete a functional, user-friendly tracking system: Planned for Q4, 2014
- Develop procedures to routinely post inspection reports to website: Planned for Q4, 2014

## ANNUAL PLAN FOR ELECTRIC SAFETY AND RELIABILITY BRANCH: ELECTRIC AND COMMUNICATION SAFETY AND RELIABILITY SECTION

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The mission of the Electric and Communication Safety and Reliability Section is to facilitate an environment inside and outside of the Commission that increases the safety and reliability of electric and communications systems in California.

### AUDITS

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Conduct the following audits:

- Thirty-Two (32) Electric Distribution Audits
- Sixteen (16) Communication Audits
- Nine (9) Substation Audits
- Seven (7) Electric Transmission Audits

Please see audit schedule below:



Audits (ECFSS).docx

### INCIDENTS

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Investigate all Reportable Electric Incidents. Based on historic volumes, estimated 200 incidents will be reported in 2014. Also, clear the backlog of reported incidents by Q4 2014:

- Close all 2012 and older reportable incidents
- Close 75 Percent (50%) of incidents reported in 2013
- Close 60 Percent (60%) of incidents reported in 2014

### MONITOR MALIBU CANYON FIRE SETTLEMENT AGREEMENTS

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On October 21, 2007, strong Santa Ana winds swept through Malibu Canyon in Los Angeles County. Three interconnected utility poles located next to Malibu Canyon Road fell to the ground and ignited a fire. The resulting fire (the Malibu Canyon Fire) burned 3,836 acres, destroyed 14 structures and 36 vehicles, and damaged 19 other structures. The Los Angeles County Fire Department estimated the dollar loss from the fire was \$14,528,300.

The Commission opened an Order Instituting Investigating (OII) against AT&T, NextG, SCE, Sprint and Verizon Wireless (VZW) to determine if any of the parties violated any Commission decisions, rules, or general orders with respect to their facilities that were involved in the ignition of the Malibu Canyon Fire. The Commission settled with all parties and staff will verify that terms of the settlement agreements are met.

- **AT&T, Sprint, VZW agreement (D.12-09-019):** As part of their settlement AT&T, Sprint

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and Verizon Wireless will be upgrading certain poles in Malibu Canyon to higher loading standards and performing a random survey of all poles at least on entity is attached to in SCE's service territory. Staff will ensure that the poles upgraded in Malibu meet the higher loading requirements, and that the random survey was conducted as required. Furthermore, staff will ensure that any and all poles found out of compliance with current regulations during the random survey are corrected. Lastly, staff will prepare a report of the results of the random survey and pole upgrades in early 2015.

- **NextG agreement (D.13-09-026):** As part of its settlement, NextG will conduct a new pole load engineering analysis for each pole NextG is attached to and will verify all data provided by the Joint Pole Associations for these poles. Furthermore, NextG will remedy all violations of its facilities on these poles. Staff will prepare a report on the work completed by NextG in 2016.
- **SCE settlement agreement (D.13-09-028):** As part of its settlement, SCE will conduct assessments of poles in Malibu and repair and/or replace poles found out of compliance. Staff will verify that the assessments and pole replacements are being in accordance with settlement agreement. Staff will draft a report summarizing the results of the assessments and the scheduled pole replacements, once the assessments are complete, estimated Q2 2014.

### SAN BERNARDINO AND WIND STORM SETTLEMENTS

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San Bernardino and Wind Storm settlements were put forward for Commission consideration on March 20, 2014.

### PROCEEDINGS

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**Fire Safety Rulemaking (R.08-11-005):** After the devastating wildfires of 2007, the Commission opened a Rulemaking to reduce the likelihood of devastating fires caused by electric and communication lines. As part of the proceeding the Commission realized the need for the state to be mapped to identify areas at risk of large devastating wildfires. CalFire has agreed to lead a small team of independent national experts to map the state in 2014. Staff will serve in a support function of CalFire; such as, providing guidance of current regulations, and facilitating meetings with electric and communication companies. The CalFire map is estimated to be completed by the end of 2014, and will be used in 2015 to refine and enhance current overhead construction requirements utilizing a risk management model.

**High Speed Rail Rulemaking (R.13-03-009):** The Commission opened a rulemaking to create rules to govern overhead electric lines that only serve high speed electric trains in California. In 2014, staff will serve as experts and advocates for safety during all party workshops scheduled in 2014. Furthermore, a request has been made by one party for hearings and staff will serve

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as witness as needed.

**AT&T Petition to Modify Decision (P.13-12-009):** AT&T Mobility petitioned the Commission to modify Decision D.98-10-058 (ROW Decision). The petition would modify the ROW Decision to allow Commercial Mobile Radio Service providers access to Joint Use Poles in California. On the surface the petition seems straight forward; however, the petition would extend access to poles to companies and organizations not seen before the Commission and have little knowledge of Commission rules and regulations, including General Order 95 safety requirements. Staff will be active participants in workshops with the goal of reaching a settlement that works for the Commercial Mobile Radio Service providers, pole owners and does not reduce safety in California.

**Citation Program OIR (TBD):** As mentioned in the Risk Assessment section above, the Risk Assessment team will lead the analysis for the Citation Program OIR. Staff of the Electric and Communication Facility Safety section will support the Risk Assessment section during this proceeding by attending all workshops and providing information concerning the risk associated with electric and communication infrastructure.

**GO 166 Rulemaking (TBD):** Assembly Bill 1650, requires the Commission to modify General Order 166, to include requirements for the electric utilities to hold meetings with City and Counties served to provide information concerning the Utility Emergency Preparedness. Staff has developed a draft proposal to modify General Order 166 to accommodate the changes required and plans to submit a petition to the Commission to open a rulemaking in 2014 to discuss these changes and other changes during stakeholder workshops. Estimated draft rulemaking to be completed in Q3 2014.

**Revise Reporting Requirements (TBD):** Currently, electric incident reporting requirements are defined in Resolution E-4184 and require incidents that involve: death, overnight hospitalization, property damage exceeding fifty thousand dollars or significant media attention to be reported to the Commission. The reporting requirements as written are vague in certain areas, and have led to confusion amongst staff and utilities. This proposed rulemaking will seek to add clarity to the requirements, so that all parties know and understand the requirements. Staff will serve as advocates for the Commission in workshops and at hearings (if needed). Estimated draft rulemaking to be completed in Q4 2014.

**GO 95 and 128 Rule Changes (TBD):** The General Order 95/128 Rules Committee, which is a group made up of Electric and Communication company staff, plans to petition the Commission to open a rulemaking to revise rules in both General Orders 95 and 128. Staff plans to support



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opening a rulemaking, so that changes it has been developing can get in front of the Commissioners for a vote. In 2014, staff will serve as experts and advocates for rule changes that will enhance safety, if the Commission opens the rulemaking.

### STUDIES AND WHITEPAPERS

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**Substation Security:** On April 16, 2013, the PG&E Metcalf Substation was attacked by two or more gunmen firing over 100 bullets which resulted in damage to over 10 transmission transformers and fifteen million dollars' worth of damage. The incident changed the perspective of risks to substations; from simple break-ins for copper theft to violent sabotage. This project will study the current security measures around substations based upon size of substations and criticality of substations. Additionally, this project will examine what changes to current Commission regulations, and/or utility standards and/or state laws should be done to enhance and increase security of substations in light of the possibility of a violent substation attack. This report will be completed by August 29, 2014. As part of this effort, SED will also be hosting a workshop and a closed technical session in June 2014.

**Vegetation Study Report:** In 1997, the Commission adopted a controversial law mandating minimum clearance requirements between vegetation and overhead electric lines. California has the strictest vegetation requirements in the nation which have caused a decrease in outages, but at what cost. This report will examine the outcomes of this law and will be completed by July 25, 2014.

**Diagnostic Test:** Electric utilities perform routine and non-routine tests on many of its common distribution equipment to gauge the useful life left of the equipment. These tests are an essential part of running and maintain a safe and reliable electric system. Currently, there is no person in the Commission that has an understanding of all tests performed, this project will document all test performed, why the tests are performed and examine California Utilities versus national best practices. The report will be presented to Commission staff in ORA, Energy Division and to other interested Commission staff to help expand the knowledge of the Commission of electrical equipment and reliability and safety. The report is estimated to be completed by September 19, 2014.

**Study of Common Electrical Outage Causes:** Elbows, underground cables and overhead splice failures are three of the leading causes of outages on the electrical system. The Commission currently only investigates those outages that meet the reporting requirements of Resolution E-4184, which is a small percentage of the outages on the electrical system. Furthermore, the investor owned utilities all have replacement programs for these facilities, with funding requested via a rate case, but there is little data and information on these programs other than

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what is submitted during the rate case. This project will examine the rate of failures, utilities proactive replacement programs and industry trends and best practices. The report will be presented to Commission staff in ORA, Energy Division and to other interested Commission staff to help expand the knowledge of the Commission of electrical equipment and reliability and safety. The report is estimated to be completed by October 3, 2014.

**Electromagnetic Protection:** This project will study the effects of Electromagnetic pulses on the grid due to solar activities and/or man caused. Additionally, this project will examine the preparedness of the major electric utilities and make recommendations as to next steps for the Commission and utilities. A white paper about the effects of Electromagnetic pulses will be completed by July of 2014, and a report on the electric utilities preparedness will be completed by November 7, 2014.

### REPORTING

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- Finalize and post to Web 2010/2011 ECFSS Annual report to web
- Finalize and post to Web 2012/2013 ECFSS Annual report to web

### INTERNAL PROCESS UPDATES

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- Review and Revise, as necessary, Incident Procedures
- Improve databases
- Review and Revise, as necessary, Communication Audit Procedures
- Review and Revise, as necessary, Electric Distribution Audit Procedures
- Review and Revise, as necessary, Electric Transmission Audit Procedures
- Review and Revise, as necessary, Substation Audit Procedures
- Create and Draft Customer Compliant Procedures/Guidelines.
- Develop Section procedure on sending out safety notification
- Create an onboarding program/manual for new employees in Section
- Create a consistent folder naming convention on our servers
- Revise Incident Cause Categories

### OTHER

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- Coordinate with Energy Division on California Environmental Quality Act (CEQA) activities; highlight safety considerations for projects undergoing CEQA review to ensure that utilities are able to execute safety projects in a timely manner.

## CONTINUOUS IMPROVEMENT

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The Office and Utility Safety and Reliability has a culture of continuous improvement, with an emphasis on identifying improvement opportunities and implementing solutions that improve the overall effectiveness of the organization.

### PLANNED CONTINUOUS IMPROVEMENT INITIATIVES FOR 2014

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#### WRITE MISSION STATEMENTS FOR ALL ORGANIZATIONAL UNITS IN THE OFFICE OF SAFETY AND RELIABILITY

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All managers to write mission statements for their teams. The management team to review all mission statements and submit them for approval to Division Director.

#### DEVELOP SECTION AND BRANCH PLANS FOR 2014

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All managers to identify goals to be set for 2014. They need to include specific work products and dates for completion.

#### REVIEW DUTY STATEMENTS FOR THE OFFICE OF UTILITY SAFETY AND RELIABILITY MANAGEMENT TEAM

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Review Duty Statements for the Office of Utility Safety and Reliability management team.

#### GAS BRANCH RE-ORG

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Complete Gas Branch re-org, aligning staff with supervisors to better equalize workload.

#### DEVELOP SED STAFF GUIDELINES FOR AUDITS

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Develop SED staff guidelines for audits.

#### DEVELOP SED PROCEDURE FOR HANDLING SAFETY HOTLINE AND WHISTLEBLOWER CALLS

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Develop SED procedure for handling safety hotline and whistleblower calls

#### DEVELOP A NEW FOLDER STRUCTURE TO HOLD PROCESS DOCUMENTATION, TEMPLATES ETC.

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Develop a new folder structure to hold process documentation, templates etc.

#### INSTITUTE "SAFETY ALERT" PROCESS

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Institute "Safety Alert" process to alert Commission leadership of any important safety information

### PENDING CONTINUOUS IMPROVEMENT IDEAS FOR POTENTIAL FUTURE

### CONSIDERATION

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- Develop incident investigation staff guidelines and revise procedures where necessary
- Make further improvements to databases
- Review and revise, as necessary Audit Procedures and templates
- Develop an internal procedure on sending out "Safety Alert" notifications
- Create an onboarding program/manual for new employees
- Conduct a study to determine what are common diagnostic test performed by utilities
- Consolidate all reporting requirements in one new General Order
- Improve SED Enforcement Process
- Clarify Commission's role in Emergency Response
- Expand Office of Utility Safety and Reliability Safety Plans
- Update time tracking codes in WTS to help gather better data about effort and work performed