

ALISO CANYON SAFETY PLAN

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ALISO CANYON SAFETY PLAN

1 PURPOSE AND SCOPE

The purpose of this document is to describe the Aliso Canyon Safety program, and to define interactions, roles, and responsibilities.

The Aliso Canyon Natural Gas Storage Facility is owned and operated by the Southern California Gas Company and is the largest of four such storage facilities in southern California. The facility sits on 3600 acres of land located in a high fire hazard area to the north of the communities of Porter Ranch and Northridge. Major components of the facility include the gas storage reservoir, located thousands of feet below the surface in underground rock formations, gas compression and dehydration equipment, associated injection and withdrawal piping systems and wells, electric generation and distribution systems, and administrative offices.

SoCalGas has numerous existing safety programs, plans, and procedures in place that address specified infrastructure or areas of company activity. The intent of this Aliso Canyon Safety Plan is not to duplicate these existing safety program components, but to function within them as they apply to the Aliso Canyon facility.

The Aliso Canyon Safety program ensures that policies and procedures related to the safe conduct and actions are followed and meet the needs of the high fire dangers and unique conditions of Aliso Canyon. These policies and procedures are used as a foundation to establish safe operations at the Aliso Canyon Facility.

2 SAFETY POLICY

Sempra Energy considers it essential to protect the health and safety of our employees, our customers and the diverse communities in which we operate and provide service. Therefore, Aliso Canyon adheres to the following principles:

- **Aliso Canyon provides** safe products and services to our customers. Safety is one of Aliso Canyon's corporate values and in all that we do, we are committed to deliver products and services safely.
- **Aliso is committed to** comply with applicable international, federal, state and local health and safety laws and requirements.
- **Injuries and property damage can be prevented;** accidents are not an unavoidable consequence of doing business. Hazards can be eliminated by ensuring safe work practices and proper preventative measures. Identification and reporting of potential hazards are the responsibility of every employee.
- **Management is responsible** for providing a safe workplace, and for promoting and ensuring behaviors and providing safeguards that prevent accidents and injuries. All management personnel have a leadership role concerning safety within their areas of responsibility and for complying with both the Aliso Canyon and Corporate safety programs.
- **Safety is a condition** of employment. Working safely and looking out for the safety of fellow employees is an important part of job performance evaluations.

3 ALISO CANYON ORGANIZATIONAL SUMMARY CHART

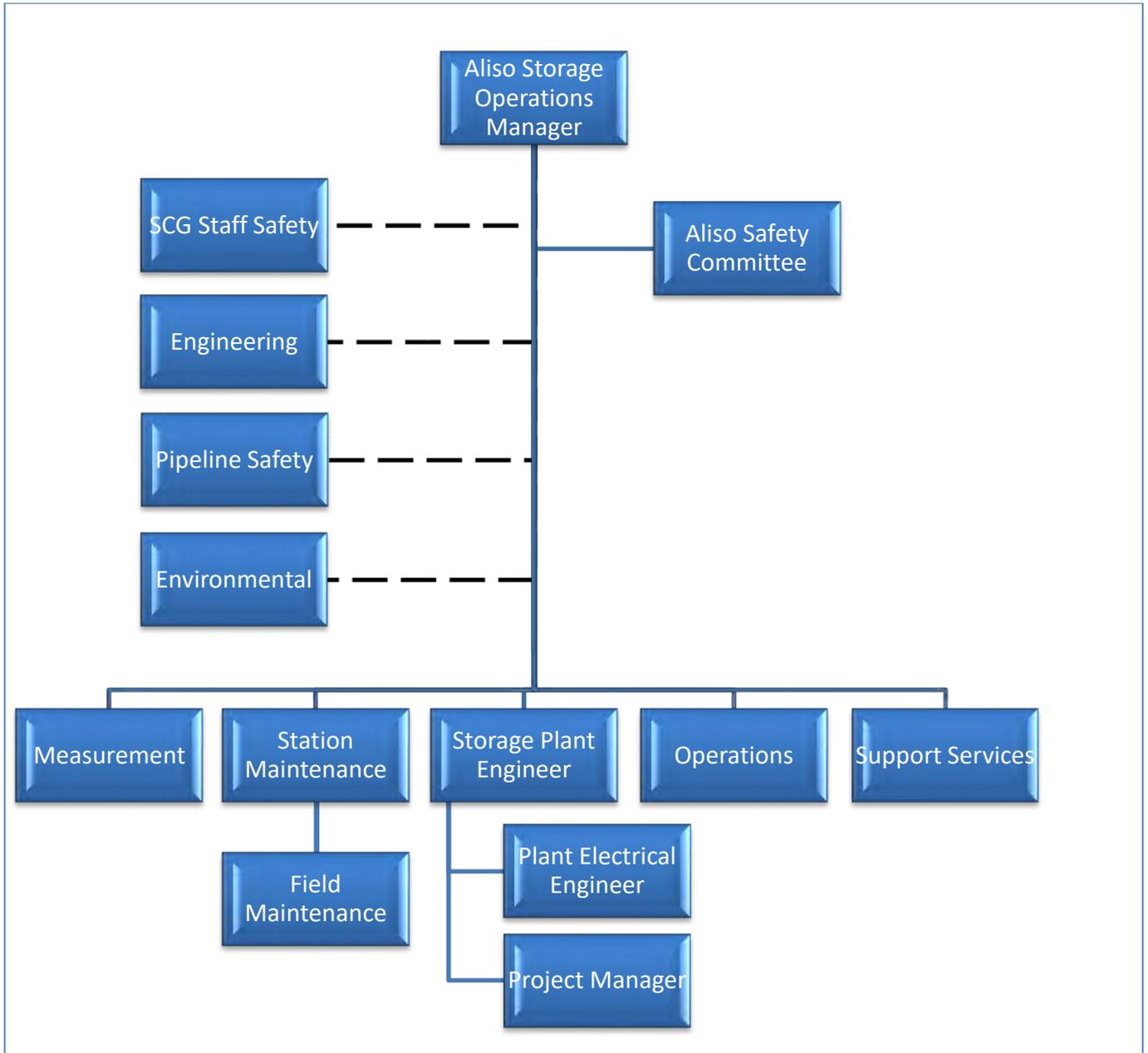


Figure 1 (Aliso Canyon Organizational Chart)



4 ALISO CANYON PRINCIPLE GOALS AND OBJECTIVES

4.1 WHAT IT MEANS

- We never compromise safety
- Pertains to everyone; each and every one of us
- Team work; Look out for one another.
- Includes all level from Directors and Managers, to Supervisors and front-line employees.

4.2 NEVER COMPROMISE SAFETY

- We care first and foremost about employee and customer safety.
- We want employees to be able to go home to their families and loved ones after work each day, and be able to return to work safely the next day.
- Never allow shortcuts to safety.
- Never compromise safety for production, customer satisfaction or other goals.
- No activity is so important that it should jeopardize employee or customer safety.

4.3 TAKE RESPONSIBILITY

- Raise one's level of safety consciousness.
- Learn how to work safely.
- Take responsibility for ensuring not only one's own health and safety, but also the safety of others.
- Be accountable and hold others accountable.
- Challenge at-risk behaviors and conditions, and intervene to correct them; positively reinforce safe and healthy behaviors, and insist on safe working conditions.
- Integrate health and safety into all policies, procedures and operating practices.

4.4 SAFE AND HEALTHY BEHAVIOR

- Focus upstream; eliminating at-risk behaviors will prevent near-misses and incidents.
- Includes management behavior in terms of leadership, instruction, resource planning, responsiveness, decision making, job observations, etc.
- Observable action; correctable, coachable, learnable, trainable, trackable, rewardable
- Safe and healthy behavior will become a core value and habit.
- Examples include using Smith Driving techniques, following office ergonomics procedures, recognizing safety efforts, and putting a lid on coffee cups, etc.

4.5 LEADING TO AN ACCIDENT-FREE LIFESTYLE

- Being Accident-free will be the consequence, or outcome, of practicing safe behavior; "at risk" behavior will be gone.
- Accidents (including near misses, minor injuries, etc.) are preventable; not limited to "recordable" or "reported" Accidents
- Safety has no quitting time.
- Safety is a value; we do it even when no one is looking.



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4.6 EXPECTATIONS OF LEADERSHIP

4.6.1 *Aliso Canyon Management Expectations*

- Storage Operations Manager, Station Operations Managers and Station Supervisors are responsible for ensuring all safety policies and procedures are clearly communicated and understood by all employees.
- Storage Operations Manager, Station Operations Managers and Station Supervisors are responsible for investigating injuries, incidents and near-misses to determine underlying/contributing factors and identify corrective actions.
- Storage Operations Manager (or designee) conducts semi-annual safety inspections of the Aliso Canyon facility and documents the results, including any corrective actions, in the Safety Information Management System (SIMS). The Storage Operations Manager is responsible for verifying that all corrective actions are completed within the timeframe specified in SIMS.
- Storage Operations Manager with support from the Field Safety Advisor is responsible for conducting an annual self-assessment of Aliso Canyon facilities and operations to assess compliance with applicable safety regulatory requirements and internal company policies. The results of the self-assessment, including any corrective actions, are documented in SIMS and the Storage Operations Manager is responsible for verifying that all corrective actions are completed.
- Storage Operations Manager completes the annual Environmental and Safety Compliance Management Program (ESCMP) checklist to assess compliance with safety and environmental laws and regulations and Company policies and procedures and submits the signed checklist to the Director of Storage for approval. The Storage Operations Manager provides quarterly updates on the status of open corrective actions to Safety and Environmental Services.
- Storage Operations Manager (or designee) is responsible to develop and maintain the Aliso Canyon Website dedicated to facility operations. The website will include the Aliso Canyon Safety Plan, brush clearing schedule, project updates, annual GO95 and GO165 reports, safety audit reports, notices of overhead electric distribution facility shut-downs, links to SCG safety website and safety audits and inspections status.
- Aliso Canyon Plant Electrical Engineer is responsible to manage the implementation of the Aliso Canyon Safety Plan, ensure compliance with company standards, codes and regulations and maintain documentation of compliance with the Aliso Canyon Safety Plan and GOs 95, 128 and 165. The Electrical Engineer is responsible for the inspection, maintenance and modifications of the Aliso Canyon electrical systems.

4.6.2 *Aliso Canyon Safety Committee*

- Provide safety leadership at Aliso Canyon, and promote a safety culture.
- Managers to be involved in safety committee meetings and ensure communication of safety related information to their employees
- Use every meeting as an opportunity to have a discussion about safety
- Observe and review safe practices and have the authority to stop any job when safety is concerned.



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- Actively work with management and leadership to communicate safety related issues

4.6.3 *Visibly set the example by our actions and involvement.*

- Visibly make safety our #1 value, and advocate involvement.
- Begin every meeting with a discussion about safety, e.g., “What have you done lately to ensure safe behaviors?”
- Always demonstrate safe behaviors (e.g., wear PPE, dress appropriately for work, perform the circle of safety)
- Conduct and/or be an active participant in safety meetings, emergency evacuation drills, etc.
- Actively engage in safety discussions and decisions. Be as involved in safety as you are with financial, customer service, reliability and other key business issues.
- Observe, and positively reinforce safe behaviors; challenge at-risk behaviors (e.g., field rides, office visits, job observations, job site visits, etc.)
- Take all safety issues seriously, with immediate follow-up.
- Make an extra effort to instruct newer employees.

4.6.4 *Instill a mindset that safety is everyone’s responsibility*

- Hold people accountable for safe behaviors, and ensure consequences for those who do not practice safe behaviors.
- Consistently ask direct reports what they have done for safety.
- Evaluate and provide feedback to direct reports based on contributions to safe behaviors and achieving safety vision.
- Solicit feedback from employees on safety issues during dialogue sessions, one-on-ones, area tours and safety meetings
- Encourage employees to challenge other employees about at-risk behaviors.
- Take action when you see safety rule violations or at-risk conditions; do not look the other way when you see at-risk behaviors or conditions. Ensure corrective action is taken immediately.
- Take personal responsibility for ensuring a safe work environment.
- Look out for the safety of every fellow employee.

4.6.5 *Constantly reinforce the safety vision and expectations of the organization.*

- Communicate and reinforce the safety vision and values in discussions with your employees.
- Inform employees of their safety responsibilities, and educate them on the advantages/requirements of working safely.
- Recognize employees for safe behavior consistently and often.
- Maintain an open door policy for all levels of employees to discuss safety issues and concerns.
- Deliver “State of the State” safety status reports to all employees on a monthly or quarterly basis.



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4.6.6 *Provide appropriate tools, equipment, data analysis, procedures and training and other safety resources.*

- Encourage employees to improve their skill sets, expertise and understanding of safe work practices.
- Ensure all employees are trained and qualified to do their job or are under close supervision for those jobs constituted as “on-the-job-training.”
- Provide Smith Driver Training to employees.
- Ensure appropriate tools and equipment is available to ensure all jobs are done safely.
- Ensure root cause analyses are thorough and complete.

4.6.7 *Demonstrate urgency, and take accountability for resolving at-risk conditions, behaviors or other roadblocks to safety.*

- All work should be performed in a manner that prevents injuries and illnesses. If a job is not safe, find ways to make it safe.
- Conduct employee safety observations to ensure employees are adhering to all safety standards, e.g., office ergonomic evaluations, field rides, job site visits, etc.
- Conduct facility safety inspections regularly to identify at-risk conditions and at-risk behaviors and take preventive measures
- Promptly evaluate the underlying factors of all incidents, and take immediate corrective action. Also find out what is working well in certain work areas in order to leverage opportunities.
- Never allow shortcuts to safety, and never compromise health and safety for production. No activity is so important that it should jeopardize employee safety.

4.7 EXPECTATION OF ALL EMPLOYEES

- To ensure you are properly trained to perform your job safely.
- Participate in all safety meetings and training provided.
- Wear proper apparel and PPE for the task at hand.
- Follow all safety rules, and stop when safety is in question.
- Report all incidents, near misses and at-risk conditions.
- Look out for the safety of others, and challenge any at-risk behavior.
- Encourage a 24/7 safety commitment.

5 ALISO CANYON SAFETY COMMITTEE

5.1 STRUCTURE

The safety committee is established as a mutual and collaborative effort of management and union represented personnel. The committee typically consists of a represented person from each work group at Aliso, and several management personnel. The Plant Electrical Engineer will hold a permanent position on the committee. Persons selected to serve on the committee should be those who support the Company and the Union’s efforts in safety and incident prevention.

5.1.1 Safety Committee Organizational Chart; Figure 2

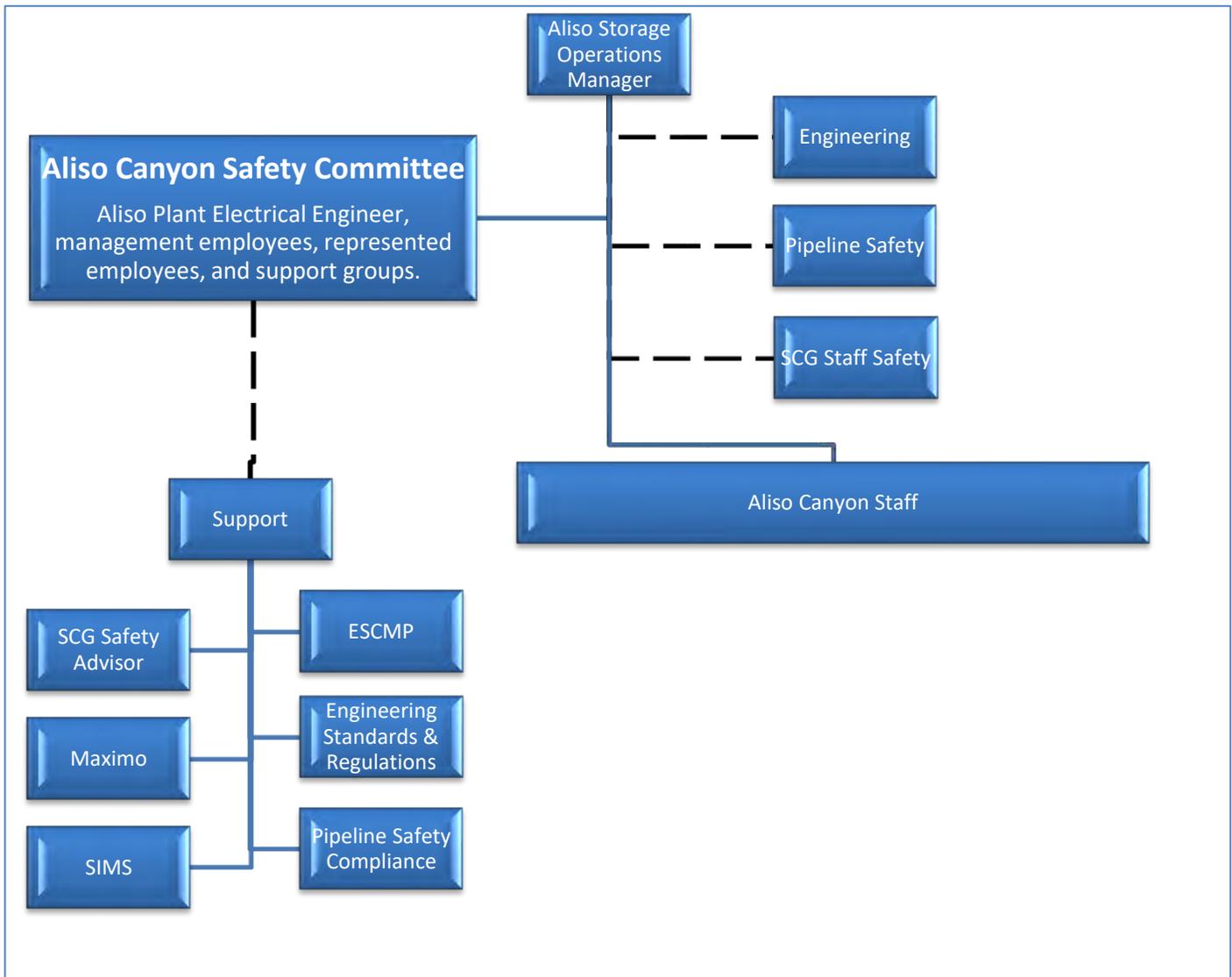


Figure 2 (Safety Committee Organizational Chart)



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- 5.1.2 *Aliso Plant Electrical Engineer* will act in a lead role on the safety committee.
- 5.1.3 *Aliso Plant Electrical Engineer*; Provide facility electrical expertise and support with onsite direction for safe electrical practices and assist engineering in ensuring maintenance, electrical related projects, and regulations meet the safety needs of Aliso Canyon. Obtain support as needed for the safety committee from the Aliso Plant Engineer on safe gas practices and assistance in ensuring maintenance, gas related projects, and regulations meet the safety needs of Aliso Canyon.
- 5.1.4 *Aliso Storage Operations Manager*; Provides overall authority and support to the Aliso Canyon Safety Committee. Attends safety committee meetings as needed to support the safety committee. Has overall facility responsibility for the safe operation and maintenance at Aliso Canyon, and for compliance with all regulations. Approves safety committee findings and audits.
- 5.1.5 *Other Committee members* are to be involved in all aspects of safety with leadership that facilitates & communicates safety in operations, maintenance, engineering, technical support services, administrative, and environmental.

5.2 FUNCTION

The function of the Aliso Canyon safety committee is to work with corporate and site management to help recognize safety hazards and assist in finding corrective actions to better incorporate safe work practices and continue to meet state, federal, and local requirements. Assist in safety inspections, audits, and review and make Aliso specific recommendations for corrective actions.

5.3 ROLES AND RESPONSIBILITIES

The roles and responsibilities of the safety committee are flexible to meet the needs of the facility, but will consist of the following:

- 5.3.1 *The safety committee leadership* is responsible to ensure that all meetings are held, documented, and that follow up issues are addressed in a timely manner.
- 5.3.2 *Aliso Canyon's safety* specific needs are being addressed and communicated to management.
- 5.3.3 *Safety committee* audits and findings to be reviewed by Storage Operations Manager
- 5.3.4 *Stop any work* that is found unsafe and report findings to facility manager.
- 5.3.5 *Reviews and follows up* with the SCG staff safety advisor on noncompliance issues (SIMS) and documents findings, corrective action(s), and closure.
- 5.3.6 *Assist* engineering, environmental, compliance and maintenance managers in audits, inspections, and compliance issues.



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- 5.3.7 *Hold regular meetings* to review safety related incidents, findings, and any regulation compliance issues.
- 5.3.8 *Assist in identifying training* requirements for Aliso Canyon and review audits, and annual training reviews with site managers and safety advisor.
- 5.3.9 *Conduct and help plan* local safety meetings.
- 5.3.10 *Promote* the idea that a person's individual safety must be his or her own responsibility. Most jobs (driving included) require an employee to work alone. Everything an employee does require total concentration on that particular activity to be able to perform the task properly and without incident.
- 5.3.11 *Review suggestions* from employees pertaining to changes in safety programs, safety equipment, incentive programs, etc. and make recommendations to appropriate personnel for consideration.
- 5.3.12 *Be familiar with the contents* of the Company's Injury/Illness Prevention Program and be prepared to make recommendations for changes to local management or safety supervisor.
- 5.3.13 *Be alert to the presence* of any hazard or hazardous conditions. If necessary secure the area and/or correct the hazard. Report these to supervision as soon as possible after discovery. Create a corrective work order in Maximo and send an email describing the issue to all members of the safety committee and assist with delivery of safety meetings and training.
- 5.3.14 *Review industrial injury* and motor vehicle incident reports and make recommendations on methods of prevention and protection to prevent a similar reoccurrence.
- 5.3.15 *Communicate and coordinate* safety/issues between work groups, all shifts, and other safety committees.
- 5.3.16 *Assures compliance* with the Aliso safety plan, and assists with incident investigations and root cause findings.



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6 ALISO CANYON EMPLOYEE TRAINING

The Aliso Canyon training program is required for all Aliso Canyon personnel, and it is the responsibility of management to conduct the required training throughout the year. Training is documented in accordance with Company procedures and tracked for all personnel on a training matrix. Records of completion of training requirements are audited annually as part of the ESCMP program. A list of the required training for Aliso Canyon personnel is included in Appendix (K).

6.1 ALISO CANYON AWARENESS TRAINING

Aliso Canyon management with the assistance of the safety department and the Aliso Canyon safety committee provides ongoing and regular safety training and safety awareness information to Aliso Canyon personnel. This includes fire awareness training, red flag conditions and Gas Operations power shutoff procedures, and local fire department involvement and training onsite.

- 6.1.1 *Daily Before the start of every shift*, relevant safety issues of the day are discussed and communicated to all employees as well as what contractors are onsite and their activities for the day.

6.2 TRAINING DEVELOPMENT

- 6.2.1 *Developing Training Program* - The Director of Safety, Wellness, & Disability Services and his/her designees are responsible for developing employee safety training programs that comply with applicable regulations and internal procedures.
- 6.2.2 *Identifying and Scheduling Training* – Aliso Canyon Station Operations Managers, Station Maintenance Supervisors and Station Operations Supervisors are responsible for annually identifying the appropriate safety training needed for their employees as defined in the Safety training matrices. Additionally, they must ensure that the identified mandatory safety training is completed and documented as described in the Safety Training Standards.
- 6.2.3 *Annual Training Review* – Aliso Canyon Storage Operations Manager and the Director of Storage are responsible to ensure the training processes are in place and reviewed on an annual basis.

6.3 TRAINING AND INSTRUCTION

- 6.3.1 *All employees*, including managers and supervisors, shall have training and instruction on general and job-specific Safety practices as well as on specific hazards associated with employee's job tasks. When employees know how to do their job properly, know the hazards of the job, and understand their supervisor's expectations, they work safely. The required training is provided:
- To all employees given new job assignments for which training has not previously been received;
 - Whenever new substances, processes, procedures or equipment are introduced into the workplace and represent a new hazard;



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- For supervisors to familiarize them with the Safety hazards to which employees under their immediate direction and control may be exposed and how to communicate information about those hazards effectively. Other required training as listed in the IIPP e.g. lock out tag out etc.

6.3.2 *Training and instruction* is provided depending on employees' job tasks and may include the following:

- How and when to use personal protective equipment;
- Code of Safe Practices found in the Injury and Illness Prevention Manual
- Smith System® defensive driving.
- Potential hazards, protective measures and safety practices associated with new job assignments before exposure
- Information on chemical hazards to which employees could be exposed and other hazard communication program information.
- Emergency action and fire prevention plans

6.4 FIELD TRAINING

In support of Gas Standards, Policies and Procedures at Aliso Canyon, the Field Training organization provides job specific training for all field employee groups. The training courses summarized in Appendix (A) are delivered in detail without exception to each function/classification in all field job progressions.

Integrated within each training courses for all classifications are the Operator Qualification (Department of Transportation Operator Qualification Program as required by 49 Code of Federal Regulations 192.801 through 192.809) elements which include all appropriate training, checklists, and testing to be fully Operator Qualification Certified. The documentation for these certifications and records are closely monitored and employees are re-trained or updated whenever significant changes occur in a task or when they are required to re-qualify as prescribed by the DOT Operator Qualification limit of 5 years.

Emergency Response is covered within our Policies and Procedures, Gas Standards, and within specific Operator qualification elements. These items are covered in detail within training courses for classifications that have any activities or functions involved in Emergency Response.



7 INJURY AND ILLNESS PREVENTION PROGRAM

The purpose of this program is to outline the essential elements of SoCalGas' Injury and Illness Prevention Program (IIPP). CAL-OSHA referenced in Appendix (H).

7.1 ELEMENT #1: AUTHORITY AND RESPONSIBILITY FOR THE PROGRAM

- 7.1.1 *Chief Executive Officer:* Has overall authority and responsibility for implementation of the IIPP.
- 7.1.2 *Vice President – Human Resources, Diversity & Inclusion:* Provides policy guidance, compliance oversight, and executive safety leadership.
- 7.1.3 *Officers:* Have overall authority and responsibility for program implementation and performance in their areas.
- 7.1.4 *Directors:* Have direct authority and responsibility for program implementation and performance in their areas.
- 7.1.5 *Department Heads/Managers and Supervisors:* Have responsibility for implementing and maintaining the injury and illness program in their work areas and for answering questions *about the injury and illness prevention program.*
- 7.1.6 *All Employees:* Perform only work they are qualified to do in a safe and efficient manner.
- 7.1.7 *Executive Safety Council:* Review, and/or support company-wide initiatives for Safety as well as remove barriers that inhibit a strong safety program.
- 7.1.8 *Safety Department:* Specifies employee protection, interprets all applicable safety related regulations, creates safety policies and programs, identifies and evaluates workplace hazards, periodically, conducts Safety assessments, and manages health and safety functions.

7.2 ELEMENT #2: PROMOTING COMPLIANCE WITH SAFE AND HEALTHY WORK PRACTICES

- 7.2.1 *All employees are responsible for using safe work practices,* for following all directives, policies, and procedures, and for assisting in maintaining a safe work environment. Employees who fail to follow safety procedures and rules are subject to disciplinary action.
- 7.2.2 *Management is responsible for* ensuring all Safety policies and procedures are clearly communicated and understood by all employees. Management is expected to enforce the rules fairly and consistently.
- 7.2.3 *Personal recognition,* as well as award and recognition programs, is used to recognize employees, organizations, and employee safety committees for safety leadership and safe performance. Refer to the Safety Recognition Policy for more details.



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7.2.4 *Our systems of ensuring* all levels of employees comply with the rules and maintain a safe work environment include job observations, inspections, audits, incident evaluations, performance appraisals, and safety training as well as those mentioned in the above paragraphs.

7.2.5 *Compliance deficiencies* may indicate the need for additional employee training and/or retraining, revision of policies and procedures, review of equipment and tools, etc.

7.3 ELEMENT #3: COMMUNICATING WITH EMPLOYEES IN A READILY UNDERSTANDABLE FORM

7.3.1 *Open, two-way communication* between management and employees on Safety issues is essential to an injury-free, productive workplace. The following system of communication is used to ensure a continuous flow of information is shared:

7.3.2 *Supervisors communicate* Safety information with all employees to whom they provide work direction including office employees.

7.3.3 *Employees report hazards, injuries, and incidents* without fear of reprisal of any kind.

7.3.4 *Various committees* are as follows with their associated responsibilities:

- Executive Safety Council: Communicates to employees at regularly scheduled meetings to gain a deeper understanding of safety at the frontline.
- Safety Champions/ Safety Advocates: Provide local safety leadership and communications throughout the regions and departments.
- Safety Action Committees: Communicate between union and management on health and safety issues.
- Local Safety Committees: Create and maintain active interest in their department's safety issues and initiatives.

7.3.5 *Injuries and incidents* are communicated to the organization via the Safety Information Management System (SIMS)

7.3.6 *Other means of communicating* Safety issues are:

- Safety training, including formal training instructions such as the safety lesson plans and classroom training.
- Employee newsletter, safety bulletins, posters, Cal-OSHA Log and Summary of Occupational Injuries and Illnesses, Safety Standards, surveys, incident evaluation reports, Safety Department intranet website and MS Outlook public folders.
- Safety Committee Congress
- Safety meetings, department staff meetings and tailgates.
- Office employees shall receive safety information through department staff meetings, safety meetings and email alerts. The goal is to ensure office employees are provided safety information and opportunities to discuss safety issues.
- Safety meetings are as follows:



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- Every 10 days for employees engaged in field construction or construction associated activities.
- Monthly for employees involved in operations, maintenance or other manual work (employee who spend at least 50% of their time in the field).
- Other communication methods can be found in the Injury and Illness Prevention Manual, Section V, Communication.

7.4 ELEMENT #4: IDENTIFYING AND EVALUATING WORK HAZARDS

- 7.4.1 *Safety inspections are conducted* to identify and evaluate hazards and results of inspections will be documented and communicated to affected employees. In addition, job observations are conducted periodically to ensure employees are minimizing exposure to injury by using safe behaviors.
- 7.4.2 *Periodic inspections* are performed by each area depending on the hazards involved and are conducted at a frequency to ensure workplace safety. At a minimum, inspections should be conducted:
 - Daily or weekly depending on project for construction areas and jobs.
 - Semiannually for operating bases, and office areas.
 - Daily for Class A and B vehicles and forklifts
 - When new substances, process, procedures, or equipment which present potential hazards are introduced into our workplace.
 - When workplace conditions warrant an inspection, i.e., new unidentified hazard is recognized, injury or illness occurs, etc.
- 7.4.3 *Supervisors* routinely observe their area(s) of responsibility and correct at-risk work practices and conditions.
- 7.4.4 *Employees* shall report immediately any hazardous conditions, defective tools or equipment, or at-risk procedures to their supervisor.
- 7.4.5 *In addition*, work place hazards and at-risk work practices can be identified through safety committee meetings, safety meetings, job observations, incident statistics and incident evaluation reports, near misses, audits, safety assessments and manufacturer warnings and information.
 - All inspection records are retained for a minimum of one year. Examples of inspection checklists and job observation forms can be found on the Safety department website.



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7.5 ELEMENT #5: INVESTIGATING OCCUPATIONAL INJURIES, ILLNESSES

7.5.1 *Employees report* all work-related incidents promptly to their supervisors.

7.5.2 *Department heads/supervisors* will investigate work-related injuries, illnesses, incidents, and near misses to determine underlying/contributing factors and actions necessary to prevent recurrences.

7.5.3 *Incident evaluation* procedures include:

- Proper notification is made.
- Visit the incident scene as soon as possible
- Interview injured employees and witnesses
- Examine all factors associated with the incident
- Determine the contributing factors of the incident
- Develop and implement corrective actions to prevent reoccurrence.
- Document the findings and corrective actions using SIMS.

7.6 ELEMENT #6: CORRECTING AT-RISK OR UNHEALTHY CONDITIONS, WORK PRACTICES AND PROCEDURES IN A TIMELY MANNER

7.6.1 *At-risk and unhealthy work conditions*, practices or procedures shall be corrected in a timely manner.

7.6.2 *Supervisors correct and control* identified hazards as soon as practical. When hazards are beyond supervisor's authority, supervisors communicate hazardous conditions with recommended corrective action to management and/or Safety will be contacted for assistance.

7.6.3 *When a hazard is identified*, the following steps are taken:

- Eliminate the hazard source immediately if practical.
- Take immediate temporary action until permanent controls are in place.
- Permanent controls are done in this order:

7.6.4 *If practical, build engineering controls* into the process and eliminate the hazard. Examples are: use barriers or mechanical guards; provide ventilation; substitute less hazardous substances; change the design; etc.

- Apply administrative controls to reduce or limit employees' exposure to hazards. They include training, personal hygiene, and reduction of employee exposure time.
- Provide personal protective equipment to the employee. It must be correct for the hazard. This includes eye and face protection, protective coveralls, respirators, gloves, foot protection, head protection, etc.



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- 7.6.5 *When an imminent hazard exists, and cannot be abated immediately, all exposed persons must leave the area. Only properly trained and equipped employees are allowed to correct imminent hazards.*
- 7.6.6 *A serious concealed danger is one which, (1) results from normal company operations, (2) poses a substantial probability of death or great bodily harm, and (3) is not readily apparent to the individual who is likely to be exposed. For these conditions that cannot be corrected immediately, take the following steps: STOP THE JOB*
- Notify and remove the employee(s) and call the Field Safety Advisor.
 - Outside normal working hours, contact the SCG message center and ask for the on-call Field Safety Advisor.
 - If corrections cannot be made within 15 days, Safety must report the condition to Cal-OSHA.
- 7.6.7 *Records of hazard control actions must be retained by each department for a minimum of three years.*



8 ALISO CANYON INSPECTION COMPLIANCE AND RECORDKEEPING

In support of all applicable Gas and Electrical standards, policies, regulations, and procedures Aliso Canyon has programs and processes in place to identify, document and track completion of all required work, as well as to review and audit compliance with applicable requirements. These include the use of the MAXIMO computerized maintenance management system for scheduling and tracking maintenance, inspections and follow-up corrective activities. In addition, the Environmental and Safety Compliance Management Program (ESCMP) is implemented to establish procedures and define roles and responsibilities necessary to ensure conformance to the Injury and Illness Prevention Program and other Safety requirements, and the Safety Information Management System (SIMS) is used to document and track safety inspections, incident/accident investigations and corrective actions. Each of these programs are described and defined in detail below.

8.1 MAXIMO

The IBM MAXIMO computerized maintenance management system is an integrated productivity tool and database that helps manage assets on a single software platform. MAXIMO provides a comprehensive view of all asset types, their conditions and location, and the work processes that support them, to provide planning, audit, and compliance capability.

All maintenance work performed by Storage Operations personnel on pipelines, equipment, and facilities is planned, scheduled, and documented using MAXIMO, in accordance with Company Gas Standard 223.0375, MAXIMO – Transmission and Storage Operations. This includes maintenance work required by the DOT, CPUC, and DOGGR, and maintenance work that is not mandated by a regulatory agency or entity.

All pipeline, facility or maintenance data, including all scheduled (planned) and corrective (reactive) maintenance work is entered or uploaded into MAXIMO by various work groups consistently and accurately to facilitate: creating/generating work orders; scheduling and tracking work activities and; querying/creating reports on the maintenance work or assets in the system. An example of a common MAXIMO compliance record is included below in Figure 3.



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2/19/2013 GAS TRANSMISSION WORK ORDER DOT COMPLIANCE INSPECTION

WORK ORDER #: PMNUM: **AC-BRUSH**

PARENT WO #:

DESCRIPTION: SUBJECT POWER POLE BRUSHING INSPECTION - ANNUAL

MUST START ON / AFTER: ROUTE NUMBER:

MUST BE COMPLETE BY: STATUS: INPRG

SCHEDULE START: REQUESTED BY:

SCHEDULE FINISH: REPORT DATE:

PM ACTIVITY CLASS: ENVIRONMENTAL

ASSET #:

ASSET DESCRIPTION:

LOCATION ID: AC-SUBJECT POLES

LOC. DESCRIPTION: ALISO CANYON SUBJECT POWER POLES

PHYSICAL LOCATION:

RESPONSIBLE SUPERVISOR / OWNER	WORK TYPE	PRIORITY	ACCOUNT INFO
FIELD MAINT /	CPM		

REMARKS: ALL SUBJECT POLES CLEARED BY
AGPLUNDH USING SURVEYS PROVIDED BY
APROR METRICS.

Date Completed: [REDACTED]

Completed By: [REDACTED]

SAFETY CHECKLIST COMPLETED?

Estimated Labor Hours	Labor Code/Craft	Quantity	Planned Hours	Actual Hours
120.00	CONTRACT	1	0.00	.50

JOB PLAN NUMBER: AC-BRUSHING

JOB PLAN DESCRIPTION: SUBJECT POWER POLE BRUSHING INSPECTION - ANNUAL

JOB OPERATIONS:

COMMENTS:

PERFORM JOB OPERATIONS ON THE FOLLOWING ASSETS:

Asset: ACP-0100
SUBJECT POWER POLE
GROUP 0, 35' CLASS III WOODEN POLE, UNIVERSAL FUSES

Asset: ACP-0101
SUBJECT POWER POLE
GROUP 0, 50' CLASS II WOODEN POLE, UNIVERSAL FUSES

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Figure 3 (Example: CMP MAXIMO)



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8.2 ESCMP (ENVIRONMENTAL AND SAFETY COMPLIANCE MANAGEMENT PROGRAM)

Establish procedures and define roles and responsibilities necessary to ensure conformance to the Injury and Illness Prevention Program and other Safety requirements.

POLICY AND SCOPE

Aliso Canyon is committed to ensuring the safety of our employees and protecting and conserving the environment, customers and the communities. We are committed to complying with all applicable federal, state and local safety laws, rules and regulations and SCG Standards. This Environmental and Safety Compliance Management Program (ESCMP) standard establishes processes that foster compliance with our Injury and Illness Prevention Program (IIPP), and all other applicable safety requirements.

8.2.1 COMPLIANCE

- **Compliance** – All employees are responsible for complying with all applicable laws, rules and regulations as well as the requirements of the internal policies, practices, and procedures as published in the IIPP and other Safety Standards and maintained on the safety intranet sites.
- **Policies & Procedures** - The Director of Safety, Wellness, & Disability Services and his/her designees will regularly identify safety laws and regulations applicable to SCG and, as needed, establish internal policies, practices and procedures to foster ongoing compliance.

8.2.2 ASSESSMENT OF COMPLIANCE

- **Self-Assessment Process** – Aliso Canyon Storage Operations Manager with support of the Field Safety Advisors are responsible for conducting self-assessments of Company facilities and operations as set forth in the Safety Standard (STANDARD 167.33). The purpose of the self-assessments is to: assess compliance with the applicable safety regulatory requirements and internal Company policies; identify areas, actions or activities that are not consistent with regulatory requirements or internal policies; and finally, develop the appropriate corrective action(s). The information obtained during these inspections and self-assessments may also result in changes to internal Company policies or training.
- **ESCMP Management Review Process** - The Director of Safety, Wellness, & Disability Services and his/her designees are responsible for distributing ESCMP communications, conducting the annual ESCMP management review, compiling the findings, and developing recommendations and goals with executives.
 - **ESCMP Communications** – Periodic communications are distributed to provide ESCMP updates and reminders. Quarterly reports on the status of the ESCMP goals and on the status of ESCMP open corrective actions pertaining to safety are prepared and distributed by the end of the month following the close of each quarter.
 - **Safety ESCMP and Environmental ESCMP Year-end Certifications** – Safety & Environmental ESCMP certifications, one for Aliso Canyon compliance and one for Employee-based compliance, are distributed at year-end. These documents contain questions that review compliance processes.



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- The Safety & Environmental ESCMP Facility-Based Year-end Checklist is a combined safety and environmental ESCMP checklist signed by the Aliso Canyon Storage Operations Manager and the Director of Storage to address safety and environmental permitting, spill reporting and other safety and environmental facility-based compliance concerns.
- The Safety & Environmental ESCMP Employee-based Year-end Checklist is a combined safety and environmental ESCMP checklist signed by Vice Presidents and their Direct Reports regarding the employees in their organizations. It addresses safety and environmental training, awareness and other safety and environmental employee-based concerns.
- **Review, Verify and Certify** – Prior to certifying an ESCMP year-end checklist, it is important that a thorough review is conducted to verify that compliance processes and activities reasonably ensure compliance with safety and environmental laws and regulations and Company policies and procedures. Electronic approval of the checklist certifies that to the best of the approver’s knowledge, after all appropriate inquiry, all entries are true, accurate and complete. The annual reviews create an opportunity to identify gaps in compliance and implement corrective measures. The checklist review is completed through the end of each year and due back to the Directors of Safety, Wellness, & Disability Services and Environmental Services by early-January. The Aliso Canyon Storage Operations Manager or the Director of Storage, or their designees, must provide quarterly updates on the status of open corrective actions to Safety and Environmental Services until properly closed.

8.2.3 RECORDS

- **Compliance Records** - Compliance records are maintained as an integral part of each safety program or procedure. These records are retained as directed in each respective program or procedure to satisfy applicable legal and Company requirements.
- **Electronic ESCMP Year-End Checklists** - the checklists are completed by the Aliso Canyon Storage Operations Manager or the Director of Storage (for Employee-based) and approved by in-line Director and Vice President and Senior Vice President electronically and kept in the ESCMP database system for four years (4) years.
- **Records Retention** – Management of Company records must adhere to the SCG Record Retention Schedule and Policy.



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8.3 SIMS (SAFETY INFORMATION MANAGEMENT SYSTEM)

Using SIMS maintains compliance with policy requirements of both the Injury and Illness Prevention Program (IIPP) and the Environmental and Safety Compliance Management Program (ESCMP).

8.3.1 *All INSPECTIONS ARE RECORDED* in the Safety Information Management System (SIMS). Entries include the person or person(s) conducting the inspection, the at-risk condition or work practices identified, and the actions taken to correct the identified condition or work practice. Inspection forms can be found at the Safety website.

8.3.2 *INSPECTION RECORDS* are retained in SIMS.

8.4 INSPECTIONS

At Aliso Canyon, safety inspections are a principal means of identifying potential hazards, and help to determine what safeguarding is necessary to prevent incidents, injuries, and occupational illnesses. Safety inspections are equally important to incident prevention.

Finding at-risk conditions and work practices through inspections, and promptly correcting them, are among the best management tools of incident prevention. Each time an inspection occurs, management's interest in safety is demonstrated. Inspections are a basic tool for maintaining safe conditions and checking at-risk behaviors. They capture a "snapshot" of work environments or conditions for effective follow-up.

Typically, inspections focus on the work practices, operations, equipment, and environment in which hazards may be present. Inspections are sometimes part of audits.

8.4.1 *INSPECTIONS DIFFER FROM AUDITS*

Routinely, inspections are done to look for physical hazards within a work place or jobsite and to ensure the work place is free of such hazards. Audits typically examine all elements of safety/environmental programs for compliance and performance purposes. For example, audits examine regulation compliance, training, and documentation as well as the physical hazards noted in inspections. Inspections are sometimes part of audits.

8.4.2 *INSPECTIONS - SUMMARY*

Aliso Canyon Storage Operations Manager (or designee) conducts safety inspections of the facility and the results are entered into the Safety Information Management System (SIMS).

Safety inspections are conducted using the Inspection Checklist of Facilities and Grounds Appendix (C-D). Items reviewed on the checklist, who reviewed them, and the findings of the safety inspection are documented in SIMS, along with corrective actions for issues needing attention. The manager is responsible to ensure the corrective action items are completed within a timeframe specified in SIMS. Any issues that could cause imminent danger are corrected immediately.



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8.4.3 *ESCMP SAFETY SELF-ASSESSMENTS*

The Field Safety Advisor (FSA), with support of Aliso Canyon Storage Operations Manager and the safety committee, is responsible for conducting an annual safety self-assessment of the facility and operations as set forth in the Safety Inspection and Self-Assessments Standard 167.33.

The annual safety self-assessment is conducted using the Safety Self-Assessment Checklist Appendix (C-D). Items reviewed on the checklist, who reviewed them, and the findings of the safety self-assessment are documented in SIMS. Any corrective actions are documented by the FSA in SIMS. The Storage Operations Manager (or designee) is responsible to ensure the corrective action items are completed within a timeframe specified in SIMS. Any issues that could cause imminent danger are corrected immediately. The safety committee will follow up and document findings, corrective action(s), and closure the FSA.



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9 CONTRACTOR SAFETY PROGRAM

9.1 PURPOSE

To outline the safety requirements for any contractor performing work for Southern California Gas Company (SCG) and to establish responsibilities for Company employees with respect to contractor safety issues.

9.2 POLICY AND SCOPE

- 9.2.1 *SoCalGas' commitment to safety*, health, and environmental management is evident in the Sempra Energy's Safety and Environmental Policies. Contractors working for SCG are required to comply with all Federal, State, & Local laws, ordinances, and regulations and ensure the safety and environmental compliance of their employees, as well as ensuring their operations do not impact the safety of SCG employees and the public.
- 9.2.2 *It is the Company's policy* to maintain an owner-contractor relationship with all contractors providing labor and other services to the Company. In terms of safety, we specify that the contractor shall abide by applicable safety laws, regulations, etc., but it is not our responsibility to interpret or enforce safety rules for the contractor. This standard practice establishes guidelines for SCG employees relative to the safety efforts of its contractors.

9.3 CONTRACT REQUIREMENTS

- 9.3.1 *Prior to commencement of work*, the contractor and SCG representative shall review the project scope and determine specific relevant health, safety, and environmental regulations. At a minimum, the contractor shall be required to abide by all applicable federal, state, and local environmental, health, and safety laws and regulations. Meet the insurance requirements. Have a written Injury and Illness Prevention
- If requested, provide historical data on safety performance such as OSHA 300 logs.
 - Ensure that the contractor's employees and all subcontractors have the proper tools, resources, work practices, and appropriate training when required by statute/regulation and the Company specific operating requirements, and provide such documentation upon request.
- 9.3.2 *When required for environmentally sensitive or other potentially hazardous projects*, the contractor may be required to provide additional documentation such as, but not limited to:
- Environmental, Safety, and Health Plan
 - Fire Prevention and Protection Plan
 - All required training, certifications, medical exams, Material Safety Data Sheets (MSDS), etc., for his or her employees or operations at the pre-job meeting
 - Specialized Environmental, Safety or Health Program(s)



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9.4 PRE-WORK MEETING

9.4.1 *Pre-work meetings* shall be held to discuss specific environmental, safety, and/or health issues for the job or facility. The following are examples of the information that shall be discussed, but are not limited to:

- Hazard Information
- Hazardous Materials
- Prohibited Materials
- Handling and Handling and Disposal of Hazardous Waste
- Environmental Permit Compliance
- Specific safety rules and requirements shall be discussed to ensure safe work practices are followed according to this Contractor Safety Program
- Reporting of Incidents
- Enforcement and Reporting of Post- Accident Testing
- Emergency Response
- Important phone numbers and general information.

9.5 NONCOMPLIANCE WITH SAFETY AND HEALTH REQUIREMENTS

9.5.1 *It is important that the independent status* of a contractor is maintained in all of the Company's contract relationships. There is no employer-employee relationship between the Company and any of its contractors or the contractor's employees.

9.5.2 *The Company reserves the right to take action* which includes warnings up to termination of contract if contractor has repeated non-compliance with safety and health requirements or observed safety hazards.

9.6 RESPONSIBILITIES

9.6.1 *SCG Representative:*

- Storage Operations manager has overall responsibility for implementation and oversight of the contractor safety program at Aliso Canyon.
- Oversees contractor performance relative to cost, schedule, quality, customer satisfaction, safety, federal, state, and local regulations, as well as specific operating requirements of the site.
- Attends and participates in meetings on an "as-needed" basis, including pre-construction meeting, construction status meetings, contractor safety meetings, etc., held with contractor.
- Provides each contractor with information regarding the known specific hazards and any required PPE.
- All incidents, complaints, and inspections by governmental agencies.

9.6.2 *Contractor:*

- Meets all contractual agreements and provides a safe and healthy workplace for its employees.



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- Complies with all federal, state, and local regulations and any site specific operating requirements specified by the Company.
- Corrects any hazardous condition identified.
- Notifies the SCG representative immediately of any project related incidents resulting in OSHA Recordable injuries, serious near misses, or any injury or property damage involving the public.
- Provides written report of investigation pertaining to any project-related incident, including serious near misses.

9.6.3 *Site manager(s) and supervisor(s):*

- Notifies the SCG representative of any hazardous working conditions at the site that may impact the contractor.
- Advises the SCG representative of any complaints of unsafe practices being performed by the contractor.
- Takes the following action if a contractor's work creates an imminent hazard:
 - Requests contractor employees, in proximity to the hazard, to immediately mitigate the hazard.

9.6.4 *SCG Employee(s):*

- Stays out of contractor construction zones unless it is necessary to enter for required job duties.
- Wears proper clothing, footwear, and all required PPE if required to enter construction zone
- Reports unsafe acts or conditions to their supervisors who will relay the information to the SCG representative.
- Takes action to prevent any person from entering a situation, which poses immediate potential for serious injury or death.

9.6.5 *Aliso Canyon Safety Committee:*

- Participates in contractor safety and pre-construction meetings as necessary and assist in communicating Aliso Canyon's safety concerns and requirements.
- Wears proper clothing, footwear, and all required PPE if required to enter construction zone
- Reports unsafe acts or conditions and/or stops the job and reports information to the committee facilitator.
- Takes action to prevent any person from entering a situation which poses immediate potential for serious injury or death.



10 GAS REGULATORY REQUIREMENTS

A summary of the regulatory requirements and general actions and activities that Aliso Canyon performs to meet these requirements is included below. A detailed listing of the policies, procedures, and programs that are applicable to gas storage operations at Aliso Canyon are included in Appendix (E). Each procedure contains detailed descriptions of required actions, roles, responsibilities, and regulatory requirements. Additionally, a detailed listing of local operations and maintenance procedures that have been developed specifically for Aliso Canyon is included in Appendix (F).

In accordance with General Order 112-E and by incorporation, 49 CFR Part 192 referenced in Appendix (B), SoCalGas has implemented and follows policies, procedures and programs that govern the design, construction, installation, operation, maintenance and determination of maximum allowable operating pressure for gas transmission and distribution facilities. These policies, procedures and programs are updated in a timely manner as appropriate in response to changes in regulation, safety advisories, and other safety information. These policies, procedures and programs have been developed to fit the needs of Aliso Canyon and comply with the code requirements and are summarized as follows:

- 10.1 DESIGN;** 49 CFR Part 192 Subparts B, C, and D specify the minimum requirements for the material selection and design of pipe and pipeline components. SoCalGas' transmission and distribution pipe and facilities are designed with approved materials that have sufficient wall thickness and/or adequate protection to withstand anticipated external pressures and loads that will be imposed on the pipe after installation. The pipe and facilities are also designed with materials of sufficient strength to contain internal pressures plus appropriate design and/or safety factors. Components, including valves, flanges, and fittings meet the minimum prescribed requirements specified in the regulations. The design also includes pressure relief or other protective devices to prevent accidental over pressurization as further described in the maintenance section.
- 10.2 CONSTRUCTION;** 49 CFR Part 192 Subparts E, F, G and J specify the minimum requirements for the construction and testing of transmission and distribution facilities, including the welding and joining pipe and components as well as the protection of the pipe and facilities from hazards such as unstable soil, landslides, and other hazards that may cause the pipe to move or sustain abnormal loads. SoCalGas' transmission and distribution pipe and facilities are to be constructed in accordance with these requirements.
- 10.3 INSTALLATION;** 49 CFR Part 192 Subpart H specifies the minimum requirements for the installation of distribution service lines, service regulators, and customer meters. These requirements include specifications pertaining to the location of this infrastructure, protection from damage, and valve requirements. SoCalGas' service lines, service regulators, and customer meters are to be installed in accordance with these requirements.
- 10.4 MAINTENANCE;** 49 CFR Part 192 Subparts M and I specify the minimum requirements for the maintenance of transmission and distribution pipe facilities along with the associated corrosion protection facilities. Maintenance activities include the patrolling of pipeline, performing leakage surveys, monitoring performance of corrosion protection systems, making repairs, inspection and testing of pressure limiting and regulating equipment, and valve and vault inspection and upkeep. SoCalGas maintains its pipelines and facilities in accordance with these requirements. SoCalGas' patrol, leak survey, pressure limiting, valve and vault maintenance activities are further explained as follows:



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- 10.4.1 *PATROL*; Pipeline patrols are performed to look for indications of pipeline leaks, missing pipeline markers, construction activity, right-of-way encroachment and other factors that may threaten the pipeline. These patrols are to be performed at specified frequencies dependent upon the type of facility and its location.
- 10.4.2 *LEAK SURVEY*; SoCalGas conducts leakage surveys of its pipelines at frequencies that are specified in the regulations. These surveys are typically conducted using combustible gas detectors. Leak indications are to be recorded and assigned a priority code based upon the concentration of gas recorded by the instrument as well as other relevant factors that may exist in proximity to its location. The highest priority leaks are to be continuously monitored and repaired promptly. Small leaks that pose little threat to the public are to be monitored and repaired based on operating conditions.
- 10.4.3 *PRESSURE MONITOR & CONTROL*; Each pipeline system receives supply from higher pressure pipelines connected to the integrated system. Equipment exists between systems to regulate and control the pressure in each pipeline. Failure of pressure control equipment could result in the accidental over-pressurization of pipelines not designed to withstand the higher pressure of the upstream system. Accordingly, the pipeline systems are to be equipped with appropriate secondary pressure relieving, regulating, or limiting devices that will activate in the event the primary pressure control device fails. The design and use of all gas pressure relieving devices are to conform to appropriate agency regulations and orders. These devices are to have sufficient capacity and be set to prevent the over-pressurization of pipe and pipeline components commensurate with regulatory requirements.
- 10.4.4 *PRESSURE RELIEF DEVICES*; At pressure limiting stations and pressure regulating stations must have sufficient capacity to protect the facilities to which they are connected. Each pressure limiting station, relief device (except rupture discs), signaling device, and pressure regulating station and its equipment must be inspected once per year. These inspections verify that the equipment is:
- In good mechanical condition;
 - Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
 - Set to control or relieve at the correct pressure consistent with the pressure limits of applicable regulatory requirements; and
 - Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.
 - Any defective or inadequate equipment found must be promptly repaired or replaced.
- 10.4.5 *CORROSION CONTROL*; Requirements for the protection of metallic pipelines from external, internal and atmospheric corrosion are prescribed in Subpart I – Requirements for Corrosion Control. Corrosion Control Activities include:
- The use of protective coatings and paints to prevent a corrosive atmospheric or soil environment from coming in contact with the external steel surface



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- For the external surface of buried steel, the use of Cathodic Protection (CP) systems. CP is a technology that uses direct electrical current to counteract the normal corrosion of a metal pipeline
- Management of the composition of the gas in the pipeline to prevent the formation of a corrosive environment and prevent internal corrosion

10.4.6 *VALVE MAINTENANCE*; SoCalGas performs maintenance and inspection activities on all valves that may be necessary for the safe operation of its natural gas system. These valves include system isolation valves, inlet and outlet valves to regulator stations, bridge approach valves and high pressure line sectionalizing valves. All identified valves are to be checked and serviced at least once each calendar year. Routine maintenance and inspection activities verify:

- Valve is not leaking
- Valve is properly identified;
- Valves are adequately lubricated;
- Valve operation is verified.

Any issues requiring immediate action are to be addressed right away. All required follow-up work is managed through the issuance of an appropriate work order to perform needed repair or maintenance activities.

10.4.7 *VAULT MAINTENANCE*; Underground vaults typically house pressure regulating or pressure limiting equipment. The purpose of the vault is to allow access to the equipment for inspection, maintenance, and repair activities. SoCalGas performs routine maintenance and inspection on all underground vaults. Vault maintenance normally coincides with the scheduled maintenance of the equipment housed within the vault. These inspections are to be completed once per year. Routine maintenance and inspection activities for underground vaults include:

- Proper operation of ventilation equipment, if so equipped;
- Structural condition of vault walls, floor, ladders, steps, handrails, etc.
- Structural condition & operation of cover, include hinges & locking
- Correct for any presence of water, trash or other foreign substances.

Any issues requiring immediate action are to be addressed right away. All required follow-up work is managed through the issuance of an appropriate work order to perform needed repair or maintenance activities.



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10.5 OPERATIONS; 49 CFR Part 192 Subparts Land K specify the minimum requirements for the operation of transmission and distribution pipeline facilities. Operational activities are included in the O&M plan described in Chapter 4 and include the Emergency Response Plan described in Chapter 5 of the Natural Gas system operator Safety Plan. The operation of the pipeline also includes requirements for a public awareness program, damage prevention program, control room management procedures, odorization of gas, and identification of changes in population density along certain transmission lines, and the determination of maximum allowable operating pressure including requirements for increasing the maximum allowable operating pressure. SoCalGas operates its pipelines and facilities in accordance with these requirements:

10.5.1 *PUBLIC AWARENESS PROGRAM;* The regulations governing public awareness programs require pipeline operators to provide the following elements:

- Damage prevention awareness for excavators;
- Emergency plans for fire, police, and public officials;
- Public Education

The Public Awareness Program includes elements for the education of the affected public, government organizations and excavators including, but not limited to:

- The 811 one-call notification system which is to be used prior to excavation as well as other damage prevention methods;
- The possible hazards associated with unintended releases from a gas pipeline facility;
- Physical indications of a pipeline release of gas;
- Public safety measures to be taken in the event of a pipeline gas release; and
- Procedures to report a pipeline release.

The Public Awareness Program identifies specific audiences to be considered for targeted communications, the frequency of the communication for each audience, and the method of delivery. Many different audiences receive SoCalGas communications, including:

- Customers;
- Excavators and land developers;
- Public officials - school districts, city and county managers;
- Emergency officials;
- Residents and places of congregation along transmission lines;
- Residents within the distribution service territory;
- Residents near compressor stations and underground natural gas storage fields



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10.5.2 *DAMAGE PREVENTION PROGRAM*; The purpose of the Damage Prevention Program is to avert gas incidents -- such as dig-ins to SoCalGas pipelines -- and thereby improve public safety and property protection through public education and outreach activities. SoCalGas continues to promote awareness of the Underground Service Alert (811, "call-before-you dig") system by reaching out to contractors and the general public through meetings, mailers, bill inserts, the company website and other methods, so that gas lines are properly marked before excavation activities. Pipeline markers are to be accurate and visible. Excavation activity includes excavation, blasting, boring, tunneling, backfilling, the removal of aboveground structures by both explosive or mechanical means, and other earth-moving operations.

10.5.3 *CONTROL ROOM MANAGEMENT*; Gas Control monitors and/or controls pipeline facilities on a 24/7 basis. Gas Control personnel are Operator Qualified per 49 CFR 192 Subpart N and are to maintain pipeline pressures and gas flows within established safe limits while meeting customer supply demands.

In the event of an emergency, Gas Control personnel have the ability to stop the flow of gas to a given area, or reroute it, depending on the situation. Gas Control works with the Transmission Command Post, which communicates with the Emergency Operations Center and Gas Emergency Centers, to coordinate activities during an emergency. Gas Control personnel also participate in emergency drills. A fully functional back-up center is maintained and available for use during an emergency.

SoCalGas has a control room management program that is integrated with other operating and emergency procedures. Key elements of the control room management plan include:

- Definition of controllers' roles and responsibilities;
- Definition of information, tools, procedures, and processes controllers;
- A fatigue management program;
- An alarm management plan;
- A change management plan to address handling, approving, and implementing changes in pipeline equipment, monitoring, and operation;
- A means to incorporate operating experience into control room management procedures; and an established controller training program; compliance validation to meet federal and/or state agencies; and records and documentation that demonstrate compliance with plan mandates.

10.5.4 *ODORIZATION*; In its native state, natural gas is typically odorless. In compliance with regulations and as a primary safety measure, SoCalGas adds chemical compounds to the gas. These chemical compounds produce the distinctive odor associated with natural gas and serve as a means to detect a gas leak. Odor strength is to be maintained at a level so that gas may be readily detectable. The odor level is to be monitored at least monthly at representative locations for verification of odorization adequacy.



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- 10.5.5 *POPULATION DENSITY*; 49 CFR 192 requires that changes in population density, known as Location Class, be monitored for certain transmission pipelines. The SoCalGas transmission pipeline system is modeled in a Geographic Information System (GIS). The GIS uses geographic data, aerial photography, data collected in the field, publicly available data sets and the identification of building and dwelling points to determine class location. Maps with class designations are used by operations personnel to look for changed conditions. Observed changes are to be recorded by marking up or redlining a location class map or completing a form designed to record such changes.
- 10.5.6 *MAXIMUM ALLOWABLE OPERATING PRESSURE*; A maximum allowable operating pressure (MAOP) is established for each pipeline or piping system. The established MAOP cannot exceed the maximum pressure allowed by regulatory code as specified in 49 CFR §192.611 and 49 CFR §192.619 - 49 CFR §192.623 as applicable. The location, class, design, testing, and operating history is all factors that can limit the MAOP of a pipeline or system.



11 ELECTRICAL REGULATORY REQUIREMENTS

In accordance with General Order 95, 128, and 165; Aliso Canyon has implemented and follows policies and procedures that govern the design, construction, and maintenance for overhead and underground line design, the application of which will ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation or use of overhead lines and to the public in general.

The procedures and policies associated with this section are listed in the Appendix (G). SoCalGas' Electric distribution systems generally consist of overhead distribution to each facility. When new electrical distribution equipment is added, it is regarded as "inspected" on the date of installation. The new equipment is then scheduled for inspection during the next applicable inspection cycle. All electrical distribution structures and equipment in the current inventory is scheduled for inspection as required by General Oder 165 in intervals of 3-5 years, except for the overhead structures and facilities that is patrolled annually due to the high fire danger of Aliso canyon. All equipment on a given structure is inspected at the same time. The inspection record is documented in the structure record, any problems identified along with the nature of the work for the correction action

The maintenance goals for the year historically have been determined by the system-wide counts of facilities in each inspection type and priority, divided by the number of years in the cycle length. This practice created inspection cycles that set the maintenance goals for the year. The goals for the year are determined by the last inspection date. SoCalGas' maintenance cycles are designed to meet or exceed the GO 165 requirements.

SoCalGas employs a fulltime facility electrical engineer based at Aliso Canyon to oversee facility safety and regulatory compliance for SoCalGas' Aliso Canyon electric systems.

11.1 ELECTRICAL MAINTENANCE CYCLE;

- 11.1.1 *OHVI (Overhead Visual, 5-year)*; this cycle consists of a detailed inspection of all distribution power poles, pole-mounted facilities with primary and secondary conductors, and distribution equipment on transmission poles. These inspections identify conditions that are out of compliance with GO 165, and GO 95. This is a five-year cycle.
- 11.1.2 *ABOVE GROUND 5 (INTERNAL AND EXTERNAL INSPECTIONS)*; this cycle consists of Above Ground Dead-front (AGE) and Above Ground Live-front (AGI) detailed external and internal inspections of dead-front and live-front pad-mounted facilities to identify conditions out of compliance with GO 165 and GO 128.
- 11.1.3 *AGE (Above Ground Dead-front, 5-year)*; this cycle consists of a detailed external and internal inspection of dead-front pad-mounted facilities to identify conditions out of compliance with GO 165 and GO 128. This is a five-year inspection cycle. Originally, the AGE cycle only required an external inspection; however, changes in 1999 modified this requirement to include an internal inspection. The cycle is still named AGE to separate the dead-front equipment data from live-front equipment data.
- 11.1.4 *AGI (Above Ground Live-front, 5-year)*; this cycle consists of a detailed external and internal inspection of live-front pad-mounted facilities to identify conditions out of compliance with GO 165 and GO 128. This is a five-year inspection cycle.



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- 11.1.5 *SUBSURFACE, WITH EQUIPMENT SS3* (Subsurface, 3-year); this cycle consists of a detailed inspection of subsurface structures (manholes, vaults, primary hand-holes and subsurface enclosures) containing distribution equipment. Thus, structures with only cable taps, splices or pass-through are excluded as they are not required by GO 165. The SS3 cycle consists of a detailed inspection of these facilities to identify conditions out of compliance with GO 128. This is a three-year inspection cycle.
- 11.1.6 *WOOD POLE INTEGRITY (10/20 year)*; these inspections are performed on a 10-year cycle. Each pole is inspected visually, and if conditions warrant, intrusively. Any pole 15 years of age or older is inspected intrusively. The intrusive inspection is normally an excavation around the pole base and/or a sound and bore of the pole at ground line. Treatment is applied at this time in the form of ground line pastes and/or internal pastes. The 10-year cycle fulfills the requirements of GO 165, which are: (1) all poles over 15 years of age are intrusively inspected within 10 years; and (2) all poles which previously passed intrusive inspection are to be inspected intrusively again on a 20-year cycle.
- The wood pole integrity inspections* are currently performed by a SoCalGas contractor who also applies wood preservative treatments and installs mechanical reinforcements (C-truss). The type of treatment is dependent upon the age of the pole, the individual inspection history, and the overall condition of the structure.
- If a pole that appears to need replacement is found on a compliance inspection, SoCalGas' contractor for wood pole integrity inspections may bore into the pole to determine if it needs reinforcement or replacement based on the remaining shell thickness.
 - The choice to restore a pole rather than replace the pole is based on the strength of the pole (measured by remaining shell thickness). SoCalGas follows SDG&E's Transmission Engineering and Electric Distribution Standards Specification for Inspection, Treatment and Reinforcement of In-Service Wood Poles (Specification NO.TE-0108 and Specification NO. 337), which specifies the criteria for the rejection of a pole. It also addresses a pole's suitability for C-truss based on the remaining shell thickness for various lengths of pole. If a pole does not have sufficient shell thickness for C-truss, it is rejected and replaced.
- 11.1.7 *PATROL, URBAN (Patrol 1, 1 year)*; the purpose of the urban patrol is to identify obvious structural problems and hazards. This cycle consists of a simple-visual inspection of every applicable overhead, aboveground and underground facilities deemed urban area. Under agreement of interpretation with the CPUC, "urban" is defined as incorporated areas (GO 165 defined "urban" as those areas with 1,000 persons or more per square mile). GO 165 defines a "patrol" as "a simple visual inspection, of applicable utility equipment and structures, that is designed to identify obvious structural problems and hazards." When Patrols have been completed, any identified structural problems and hazards are recorded in SoCalGas tracking system.



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11.1.9 *PATROL, RURAL (Patrol 2, 2 year)*; the purpose of the rural patrol is to identify obvious structural problems and hazards. This cycle consists of a simple visual inspection of every applicable overhead, aboveground and underground. Under agreement of interpretation with the CPUC, "rural" is defined as unincorporated areas (GO 165 defined "rural" as those areas with less than 1,000 persons per square mile). GO 165 defines a "patrol" as a "simple visual inspection, of applicable utility equipment and structures, that is designed to identify obvious structural problems and hazards." When Patrols have been completed, any identified structural problems and hazards are recorded in SoCalGas tracking system. However, SoCalGas performs annual patrols on all its power poles.

11.1.10 *POLE BRUSHING AND TREE TRIMMING*; Aliso maintains brush and tree clearance around all overhead structures and electrical conductors (as established in GO 95, Rule 35 and the Power Line Fire Prevention Field Guide*) in our system. Brush clearance and tree trimming is done once each year after the winter/spring growing season. Additional tree trimming and pole brush clearance may be done if late-season rain causes regrowth.

Examples of vegetation conditions that are corrected when found during the Detailed Overhead Inspections are:

- Trees/Vegetation in primary (18") inches or closer
- Vegetation that causes strain and/or abrasion in secondary or service.
- Climbing space obstructed by vegetation
- Guy grounded by vegetation
- Dead, rotten, or diseased trees that may fall and damage overhead conductors or equipment.

Once each year, a survey is conducted to determine exactly which overhead structure need(s) brush clearance and what diameter the brush clearance circle should be. The survey also identifies trees growing close to primary conductors that require trimming according to G.O. 95, Appendix E; Guidelines to Rule 35. At Aliso Canyon, the minimum clearance between vegetation and conductors is (4') feet at the time of trimming.



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11.2 ELECTRICAL OPERATIONS POWER SHUTOFF (GOPS);

To de-energize the overhead power lines at Aliso Canyon Storage Field and implement the Gas Operations Power Shutoff (GOPS) procedure when a red-flag event is declared by the National Weather Service and other criteria are met. Re-energize the overhead power when the GOPS is over.

11.2.1 *ADVANCE NOTIFICATION AND PREPARATION*; Because GOPS events typically occur with some advance warning, the storage field can rely on the advance notifications, such as e-mails and/or phone call from Storage Risk Management for the GOPS event forecast. This will enable the storage fields to prepare for GOPS events, especially if they are forecasted for the off hours or weekends.

11.2.2 *GOPS DECLARATION & CRITERIA*; Storage Risk Management will declare a GOPS event given the following criteria:

- Live fuel moisture is less than 75%
- Dead fuel moisture is less than 10%
- Relative humidity is less than 20%
- Red-flag conditions have been declared by weather service for area
- Wind speed is:
 - 30 MPH or higher (sustained), or
 - 25 MPH or higher with gusts 55 MPH or higher

The GOPS event will be declared by Storage Risk Management. The on-duty supervisor, operations management, and environmental management need to be notified immediately.

11.3 ELECTRICAL OVERHEAD DESIGN AND STRENGTH; GO 95 rules 10-19, 20-29, 30-39 and 40-49, specifies requirements for all lines with suitable design and good maintenance, proper grounding, clearances, and strength requirements. SoCalGas lines are designed with proper arrangement and minimum clearances of different class of supply and communication lines. The electrical equipment and structures are designed with sufficient and proper grounding that conforms to the minimum requirements. Climbing space meets the minimum clearances, and overhead structure supports have the minimum specified sectionalizing material & clearances. The minimum clearances are established for vegetation. The design also follows the classification of the line, loading, structure, line crossing, and the required safety factor for the overhead structures and equipment.

11.4 DETAILED OVERHEAD ELECTRICAL; GO 95 rules 50-59, specifies minimum requirements for detailed construction standards for supply lines; class H, L, and T circuits. These requirements include specifications pertaining to the marking and guarding of overhead structures, clearances and sags of conductors and guys, protection against corrosion, cross arm construction, arm hardware, riser construction and termination, climbing and working space, conductor insulators, overhead guys, anchors, and span guys, messengers and insulated cables, enclosed equipment (transformers, capacitors, regulators), and common primary and secondary grounded neutral systems. SoCalGas' overhead distribution electrical structures and facilities are to be constructed in accordance with these requirements.

11.5 DETAILED OVERHEAD COMMUNICATION; GO 95 rules 80-89, specifies minimum requirements for detailed construction standards for class C circuit communication lines. These requirements include



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specifications pertaining to the inspection, structures, cross arm, hardware, bonding, conductor, cable, and messenger clearances and sags, climbing space, conductor insulators, and guys. SoCalGas' overhead communication structures and facilities are to be constructed in accordance with these requirements.

- 11.6 UNDERGROUND ELECTRICAL;** GO 128 rules 10-19, 20-29, 30-39 specify the minimum requirements for the underground supply line construction for clearances and depths, explosion protection, and guarding of live parts. SoCalGas' underground electric supply lines, underground structures, above ground terminations, clearances and separation, underground grounding and bonding, marking and guarding, pad-mounted, sub-surface, and surface mounted are to be installed in accordance with these requirements.
- 11.7 UNDERGROUND COMMUNICATION;** GO 128 rules 40-49 specifies the minimum requirements for the installation of underground communication lines and equipment. These requirements include specifications pertaining to clearances between duct systems of communication lines, surface distance, risers and above grade terminations, and police, fire alarm and traffic control circuit system design. SoCalGas' underground communication lines and equipment are to be installed in accordance with these requirements.



12 APPENDIX

A) ALISO CANYON EMPLOYEE TRAINING OVERVIEW:

1. STATION TECHNICIAN:

Course Title and Description

Station and Storage Operational Duties

Learn the duties of a Station Technician as outlined in the topics below.

Overview of Transmission and Storage Facilities

A complete description of Transmission Facilities, pipeline work, pipeline flow control and measuring stations.

Introduction to Natural Gas

Learn about the properties of natural gas, its chemical make-up, and the type of natural gas we use. Learn where natural gas is found both in and out of the United States and who are our major suppliers of natural gas.

Station Forms, Log Sheets and Log Books

Become familiar with practices and procedures dealing with identification and completion of appropriate forms used in transmission facilities and operations. Clear records, charts, log sheets and reports are very important to station operations.

Portable Gas Detectors

Each employee must be familiar with the equipment and measures employed to prevent and protect against fire in work areas. Learn how to use the gas leak detection equipment.

Fire Permits

Learn how to quality employees in the proper issuance of Company Fire Safety Permits. Learn how to test for contamination of flammable or combustible liquids, gases or vapors and safety precautions to follow before issuing a Fire Safety Permit.

Precision Tools

Learn how to safety use precision tools and the proper use of each. Learn how to care for and maintain these tools.

Slings, Cranes and Lifting Equipment

Learn the appropriate methods in using wire ropes and slings. Learn proper inspection methods for wire ropes and slings before each use, and wire rope or sling selection criteria for a particular application.

Station Piping Color Code

Learn about the contents of these pipes and the colors and codes assigned to these pipes. Colors and codes are used in all transmission facilities.



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Emergency Shutdown System

Learn about the Emergency Shutdown System and how to use it. Cover testing procedures for the ESD Systems.

Relief Valves

Relief valves are very important to the safety of the transmission system and the safety of personnel. This lesson will cover the most basic understanding of the purpose of use of relief valves.

Electrical Safety

Learn about electrical safety and how this regulation affects your work at The Gas Company. Learn the rules for working with electrical equipment, use of equipment and safeguards for personal protection.

Electrical Motors

Learn about electric motors, how to remove and install them, and their maintenance requirements.

Hypergun -- Operation and Maintenance

Learn proper methods of lubricating a valve, valve maintenance, maintenance of air-driven and hand-held pressure grease guns.

Valves

Learn about various types of valves and the application for each of these valves. Review the proper procedure for greasing and the care and maintenance of each of them.

Positive Displacement Compressors

Cover the theory, operation and maintenance of Positive Displacement Compressor. Learn about the operation of compressor valves and the maintenance of the various valves.

Compressor Lubrication Systems

Describe the operation and key maintenance issues that affect compressor lubrication.

Compressor Safety Systems

Learn about the various safety systems used in engines and compressors. Learn the importance of knowing what problems activate these safety systems.

Rotary Pumps

Become familiar with the different types of rotary pumps used throughout the transmission facilities.

Grease Truck and Equipment Maintenance

Learn the care and maintenance on grease trucks, and also procedures and safety requirements to follow in conducting a pre-stat inspection of a grease truck and the air compressor located on the vehicle.



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Portable Gas Generator and Portable Air Blowers

Become familiar with the operation and preventive maintenance of portable gas generators and portable air blowers. Learn troubleshooting skills to identify and correct potential problems.

Vacuum Truck

Learn how to safely operate, care for and maintain a vacuum truck. Learn about the hazardous waste manifest and a straight bill of lading that must be completed and carried in the truck any time the truck is on public streets.

Storage and Oil Production Wells

Learn about the major components of oil production and storage field wells as well as related piping and pumper units.

Unibolt

Learn the proper and safe way to isolate and remove a unibolt.

Well Safety Systems

This lesson will cover all of the components that make up the surface safety system that is on all storage wells.

Chokes

Learn about the operation of a choke plate, and how it affects pressure and temperature at wellhead located at Gas facilities.

Storage Tanks

Discuss various types of production and storage tanks used at transmission facilities. Talk about the different methods of taking samples and reading tank levels.

Vessels and Separators

This lesson will cover various types of vessels and separators used to clean natural gas. Learn how to operate and maintain vessels and separators.

Storage Tanks and Three-Way Cut Valves

Learn the proper procedures for taking cuts on different types of tanks. Taking cuts is an important technique to determine what is happening in our stock tanks.

Blanket Gas and Vent Gas Compressors

Learn about blanket gas and vent gas compressors and their operations. Also learn about preventative maintenance procedures for the compressors.

Line Strainers

Learn about line strainers, what they are, what they do and how to properly maintain them. Also learn about hydrates are, the conditions that cause a hydrate and what to do about them.

Dump Valves

Learn about dump valves and how they are used in the operation of transmission facilities.

Station Blowing Drips



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Discuss the proper procedures to follow for blowing high and low pressure gathering line drips in a storage field.

Dehydration Systems

Learn how the dehydration system removes water from the gas. Explain how water is removed through the use of separators traps and dehydration units.

2. STATION OPERATIONS SPECIALIST:

Course Title and Description

Introduction to Station Operations Specialist Duties

An overview of duties for the Station Operations Specialist is presented.

Managing Your Time

Learn how to increase your awareness of critical attitudes and values along with skills that will help you better manage your time. Basic organizational skills can be learned by anyone, but it does take practicing those skills every day and focusing attention and effort to experience a change in behavior.

Emergency Manual Overview

Learn that the Emergency Plan consists of formal communications documents that have system-wide applications plus written instructions for individual facilities. Learn how to complete a Reporting to Emergency Center form and how to report a bomb threat.

Title V Rules and Regulations

Learn what Title V is and what it means to you and to the Company. Discuss the Clean Air Act.

Gas Standards On-Line Handbook

Learn how to access the Gas Standards that are available on-line through the internet explorer.

Hazardous Communications (MSDS)

Learn about the Gas Company's hazardous communication program. Identify terms used on a Material Safety Data Sheet and learn how to obtain an MSDS.

Job Safety Analysis

Identify and analyze job safety hazards, how to correct safety hazards, establish a safe performance guide for each job analyzed, and to reduce accidents through prevention.



Proper Use of Fasteners

Identify the proper grades or bolts and nuts to use as fasteners. Define common fastener terminology.

Use and Care of Torque Wrench and Torque Multipliers

Learn how to use a torque wrench, torque wrench extension and a stretch gauge and how to calculate torque value using existing formulas of Actual Mechanical Advantage and the Torque Multiplier.

Use and Care of Slings and Wire Ropes

Learn how to safety select and inspect wire ropes and slings for use. Learn the requirements for inspecting cranes and hoists.

Positive Displacement Compressors

Learn the theory, operation and maintenance of Positive Displacement Compressors. Also learn about the operation of compressor valves and the maintenance of the various valves.

Compressor Valve Operation and Maintenance

Learn how compressor valves work and how to recognize and correct valve malfunctions.

Clearance Pockets and Unloaders

Learn the functions of the various types of clearance pockets and unloaders and how to maintain them. Explain the theory and operation of clearance pockets and unloaders.

Compressor Lubrication Systems

Learn how to troubleshoot various lubrication systems.

Compressor Safety Systems

Learn about the various safety systems used in engines and compressors. Learn how to troubleshoot engines and compressor and know what problems activate these safety systems.

Engine Lubrication System

Learn about the lubricating systems used in Gas Company facilities. Also learn how to identify lubrication needs of large industrial engines and the types of lubrication and filter systems used in these engines.

Preventive Maintenance

Learn about the preventative maintenance programs that reduce costs and extend the life of compressor station equipment. Explain Company procedures and what should be checked during a preventative maintenance inspection.



Oil Analysis and Trending

Learn about oil analysis that are conducted to predict engine maintenance needs. Describe the oil analysis tests that are conducted and interpret the results to predict engine maintenance needs.

Bearings

Learn about the different types of bearings, the different design factors and various applications used in engines. Explain the need for bearings and identify the types of bearing required for particular kinds of leads and operating conditions.

Ignition Systems

Learn the fundamentals of how conventional and solid-state ignition systems work and identify the various ignition components for large industrial engines. Learn how to define common ignition problems and troubleshooting techniques.

Electric Motors

Learn about electric motors, how to remove and install them and their maintenance requirements. Safely unwire an electrical motor from its power source and remove and install electric motors.

Pumps

Learn about various pumps and their maintenance requirements. Describe the operation and key maintenance requirements of various pumps.

Overview of Underground Storage

The purpose of this course is to provide you with the knowledge and skills necessary for performing wire line surveys. Learn the purpose of an underground gas storage facility, the relationship between gas storage operations and Operation control, the function of an underground gas storage facility, including its relationship to transmission line, the compressor station and gas dehydration plant.

Dehydration Systems

Learn how to trace the gas and triethylene glycol flow on an unlabeled dehydration diagram. Accurately explain the process of how water is removed from gas through the use of separators, traps and dehydration units.

Theory of Regulation

Learn the basic operation of a regulator and the three elements of regulation.

Direct Operated Regulation



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Be introduced to spring loaded regulators and their applicators. You will also learn how to inspect, troubleshoot and repair spring-loaded service and monitor regulators.

Introduction to Pressure Regulation

Learn about natural gas pressure and the purpose of the pressure regulator as applied to our residential and most commercial customers.

Introduction to Programmable Logic Controllers

Learn the theory and operation of the PLCs.

3. STATION MAINTENANCE SPECIALIST:

The Station Maintenance Specialist performs higher level skilled technical assignments, independently or as a member of a crew, associated with the maintenance of engines and auxiliary equipment at transmission and underground storage compressor stations. Provides work direction and on the job training

Course Title and Description

Intro and History of Precision Measurement Tool

The history of measurement tools and an overview of the tools that will be used on the job. You will be able to explain the importance of precision measurement tools.

Use and Care of Calipers

Obtain accurate measurements on various props using a caliper and a 1/64th of an inch graduated scale.

Use and Care of Dial Calipers

Learn how to use and maintain a dial caliper, a precision tool with which you can measure object to within + or - .0005 of an inch.

Use and Care of Thickness Gauges

Learn how to measure small parallel openings with a thickness gauge and record reads to within + or - .001 of an inch accuracy.

Use and Care of Hole and Telescoping Gauges

Review the use of hole gauges and telescoping gauges in measuring vital engine and compressor clearances.

Use and Care of Outside Micrometers



Learn how to use an outside micrometer to measure various compressor engine parts and inside dimensions within an accuracy of + or - .0005 of an inch.

Use and Care of Inside Micrometers

Review how to measure inside dimensions to an accuracy of + of - .0005 inch using an inside micrometer.

Use and Care of Depth Micrometers

Learn how to correctly assemble a depth micrometer, verify calibration and measure various compressor and engine parts with an accuracy of + or - .0005 of an inch.

Use of the Borescope

Learn how to correctly use a Borescope to identify cracks and flaws in equipment. A Borescope can be an ignition source and can never be used to inspect an area where a gas or flammable vapor exists.

Use and Care of a Dial Indicators

Review the use of the dial indicator to detect anomalies in the horizontal plan of the compressor piston rod when performing a compressor rod "run out."

Use and Care of Strain Gauges

Learn how to assemble a strain gauge, selecting the appropriate extension rod for a given crankshaft throw. Learn how to use and maintain strain gauges.

Use and Care of Hand Tools

Learn how to safely use hand tools: taps and dies, easy outs, hand sockets, impact sockets, end wrenches, screwdrivers, hacksaws, files, hammers, punches, chisels, pliers, tubing cutters, tubing benders.

Use of Care of Slings and Wire Ropes, Cranes and Hoists

Learn how to safely select and inspect wire ropes and slings for use. You will also learn the requirements for inspecting cranes and hoists.

Proper Use of Fasteners

Learn how to recognize quality bolts and nuts necessary for work with compressors and engines.

Use and Care of Torque Wrench, Multipliers and Stretch Gauges

Learn how to use a torque wrench, torque wrench extension and a stretch gauge and how to calculate torque value using existing formulas of Actual Mechanical Advantage and the Torque Multiplier.



Positive Displacement Compressors

Learn the theory, operation and maintenance of positive displacement compressors. Learn about the operation of compressor valves and the maintenance of the various valves.

Compressor Valve Operation and Maintenance

Learn how compressor valves work and how to recognize and correct valve malfunctions.

Clearance Pockets and Unloaders

Learn the function of the various type of clearance pockets and unloaders and how to maintain them. The student will be able to explain the theory and operation of clearance pockets and unloaders.

Compressor Cylinders

Learn the function of compressor cylinders and how to lubricate, cool and maintain them. The student will be able to explain the function of compressor cylinders and the stresses to which they are subjected.

Compressor Cylinder Liners

Learn about the function of cylinder liners in the operation of a compressor.

Compressor Piston Rod Assembly

Learn about the removal and installation of compressor piston rod assemblies. The student will be able to explain how to safely remove and install a compressor piston and a rod assembly, and identify components of the compressor piston rod assembly.

Packing, Compressor Rod and Wiper

Learn how to remove and install packing and describe the purpose of packing. You will also learn how to inspect and replace a compressor rod and wiper packing. Explain how to remove and reinstall packing and describe the purpose of packing. Lap packing cups, measure their depth and fit the proper packing.

Compressor Connecting Rod, Cap and Bearings

Review all safety requirements connected with working inside a crankcase. You will have the opportunity to do a bearing crush and to remove and install bearings on a compressor connecting rod.

Compressor Connecting Rods

Learn how to safely remove and replace compressor connector rods, check for trueness, misalignment and pin-to-busing clearance. Review the use of safety wires and cotter keys.

Compressor Crosshead & Rod Run-Out



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Learn about compressor crosshead guides, crosshead and how to perform rod run-out, which is one of the most important measurements taken on a compressor.

Compressor Lubrication Systems

Learn how to troubleshoot various lubrication systems. Describe the operation and key maintenance issues that affect compressor lubrication. Explain how Trabon and McCord compressor lubrication systems function.

Compressor Safety Systems

Learn about the various safety systems used in engines and compressors.

Preventative Maintenance

Learn about preventative maintenance programs that reduce costs and extend the life of compressor station equipment.

Prime Movers

Learn about the various types of prime movers used by The Gas Company. A prime mover is a large industrial gas driven two-cycle or four-cycle engine. Some compressor stations have a gas driven turbine/compressor.

Two Stroke Engines

Learn about two stroke engines, their design and proper balancing techniques.

Four Cycle Engines

Learn about four-cycle engines, their major components, and systems.

Starting Air Systems: Pilot and Non-Pilot

Learn about the various types of starting air systems, their similarities and difference. Describe the operation of these two major starting air systems and troubleshooting skills.

Air Intake Systems

Learn about the intake systems for two and four stroke engines and how to maintain them. Identify the various types of air intake systems for two- and four-cycle engines and explain the purpose of a charged air system.

Turbochargers, Gear Blowers and Scavenging Pumps

Learn about the function and care and maintenance of turbochargers, gear blowers, and scavenging pumps.

Jacket Water Cooling Systems and Fin Fan Units



Learn the different types of jacket water cooling systems and how to maintain them.

Lubrication System

Learn about the lubricating systems used in Gas Company facilities. Learn how to identify lubrication needs of large industrial engines and the types of lubrication and filter systems used in these engines.

Oil Analysis and Trending

Learn about oil analysis that are conducted to predict engine maintenance needs.

Two Stroke Engine Power Piston, Power Cylinder, Piston Rod and Piston Head Assemblies

Learn the functions of the power piston, power cylinder, piston rod and piston head assemblies in a two-stroke engine.

Four Stroke Engines -- Power Piston, Power Cylinder, Piston Rod and Piston Head Assembly

Describe the functions of the power piston, power cylinder, piston rod and piston head assemblies in a four-stroke engine.

Maintenance of Two and Four-Cycle Power Pistons, Power Cylinders, Connecting Rod and Head Assembly

Learn how to maintain the major components of two and four stroke engines.

Bearings

Learn about the different types of bearings, the different design factors and various applications used in engines.

Bearing Assembly and Bearing Crush

Learn about how to install various types of bearings according to industrial standards and Gas Company procedures.

Main Bearing Bump Check Procedures

Learn the proper procedures for performing a main bearing bump check.

Connecting Rod Bearing Bump Check Procedure

Learn how to perform a connecting rod bearing bump check and to verify bearing clearance in accordance with industrial standards and company procedures.

Piston Wrist Pin Bearing Clearance Procedure

Learn procedures on taking wrist pin clearance measurements.

Crankshaft End Trust Clearance Bump Check



Learn about the thrust bearing and how to perform a thrust bearing clearance check.

Engine Frame and Foundation

Learn about the engine frame and foundation.

Flywheel

Learn about the function of the flywheel in engine operation.

Web Deflection Procedures

Learn about web deflection their importance and proper procedures for taking web deflection reads.

Governor Operation and Maintenance

Learn about the operation and maintenance of engine governors.

Basic Electricity

Learn how to identify the methods of generating and measuring electricity. Lear the basic electrical components and terminology.

Alternating and Direct Current

Learn the fundamentals of generating alternating current and direct current and of converting AC to DC.

Electrical Transformers

Learn about electrical transformers, the basic operation and components of an electrical transformer. Explain the functions of basic electrical components within an electrical circuit.

Ignition Systems

Learn the fundamentals of how conventional and solid-state ignition systems work and identify the various ignition components for large industrial engines.

Electrical Motors

Learn about electric motors how to remove and install them and their maintenance requirements



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4. STORAGE TECHNICIAN:

Deals extensively with underground storage theory, wellhead operation and safety, including surface and subsurface safety systems. Provides overview of Transmission Operations with training in Transmission equipment and tools. Emphasizes good work habits and safety.

Course Title and Description

Station and Storage Operational Duties

Learn the duties of a Storage Technician as outlined in the topics below.

Grease Truck and Equipment Maintenance

Learn procedures and safety requirements to follow in conducting a pre-start inspection of a grease truck and the air compressor located on the vehicle.

Portable Gas Generator and Portable Air Blowers

Become familiar with the operation and preventive maintenance of portable gas generators and portable air blowers. Learn troubleshooting skills to identify and correct potential problems.

Vacuum Truck

Learn how to safely operate, care for and maintain a Gas Company vacuum truck. Learn about the Hazardous Waste Manifest and a Straight Bill of Lading that must be completed and carried in the truck any time the truck is on public streets.

Storage and Oil Production Wells

Learn about the major components of oil production and storage field wells at The Gas Company facilities, as well as related piping and pumper units.

Unibolt

Learn the proper and safe way to isolate and remove a unibolt. Learn how to take the unibolt out of service, changing the API ring and put the unibolt back into service.

Well Safety Systems

Learn about the surface safety system and the components that make up this safety system. Learn how to troubleshoot this system and make appropriate repairs.

Chokes

Learn about the operation of a choke and how it affects pressure and temperature at wellheads located in Gas Company facilities.

Storage Tanks



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Become familiar with the various types of production and storage tanks used throughout The Gas Company transmission facilities. Learn about the different methods of taking samples and reading tank levels.

Vessels and Separators

This module will cover the various types of vessels and separators used to clean natural gas the transmission facilities.

Storage Tanks and Three-Way Cuts

Learn the proper procedures for taking cuts on different types of tanks. Taking cuts is an important technique to determine what is happening in our stock tanks.

Blanket Gas and Vent Gas Compressors

Learn about blanket gas and vent gas compressors and their operations. Also learn about preventative maintenance procedures for the compressors.

Line Strainers

Learn about line strainers, what they are, what they do, and how to properly maintain them. Become familiar with what hydrates are, the conditions that cause a hydrate, and what to do about them.

Dump Valves

Learn about dump valves and how they are used in operation of transmission facilities throughout the company.

Station Blowing Drips

Discuss the proper procedures to follow for blowing high and low pressure gathering line drips in a storage field.

Dehydration Systems

Learn how to trace the gas and triethylene glycol flow on an unlabeled dehydration diagram. Explain the process of how water is removed from gas through the use of separators, traps and dehydration units.



5. MEASUREMENT SPECIALIST:

The Measurement Specialist course is offered to employees who have little or no field experience. The course covers all aspects of meter and regulator construction, installation, maintenance, calibration, and repair with emphasis on instrumentation used by Transmission.

Course Title and Description

Intro to Gauges

Various types of gauges will be discussed. The employee will learn about the basic operation of gauges and how to read them as well as how to determine if the read on the gauges is within tolerance or out of tolerance per the recommended guidelines.

Basic Regulation

Basic Regulation focuses on the theories of regulation, its components and some common applications in our transmission facilities.

Read and Interpret Detector Tubes

You will learn how to install, read and interpret Detector Tubes. You will learn the basic operation of the Draeger Pump.

Portable Ranarex

Learn about the portable Ranarex and its primary purpose and operation. Also learn about an inverter, how the Ranarex is connected to the inverter, and how the inverter is connected to an auxiliary outlet.

Linear and Non-Linear Charts

Learn how to read and interpret pressure, temperature, and differential charts.

How to Adjust a Spring-Loaded Regulator

The employee will be able to adjust a spring-loaded regulator to a specific pressure setting, explain the operation of regulator, identify the three elements of a regulator and explain the difference between p1 and p2.

Motor Valves and Motor Valve Theory

Learn about and have a basic understanding of pneumatic principles, applications and instrumentation that is used.

Download Electronic Measurement Devices: EC-AT, Mini P&T, TF 6610/11



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Introduce how to download data collected from the various facilities into the laptop computer. Mercury EC-AT, Mercury Mini P&T, Totalflow 6610 and Totalflow 6611.

Elements of Regulation and Bypassing

The employee will learn how spring and pilot loaded regulators operate, and learn how to correctly bypass, inspect and troubleshoot regulation devices. Demonstrate how to correctly perform a bypass on a regulation system and how to perform a regulator inspection.

Relief Valves

Learn the foundation for a progressive understanding of relief valve operation, application, and selection criteria, installation, and maintenance.

Pneumatic/Hydraulic Valves

The employee will learn about pneumatic principles, applications and instrumentation. The employee will be introduced to the essential parts of an operating system, specific instruments and related discrete components used for process flow control, liquid level control and safety systems.

Gas Measurement Systems (Big GEMS)

Big GEMS provide total energy measurement using a Gas chromatograph and a state of the art microprocessor. Also learn about remote terminal unit, smart transmitter calibration, uninterruptable power supply, standard electronic readout, and gas chromatograph.

Gas Chromatograph

Introduced to the theory, operation, maintenance, calibration, and troubleshooting of a gas chromatograph.

Controllers and Controller Concepts

The employee will learn the basic concept of controller action that includes, but is not limited to theory, tuning operation, maintenance and calibration of the Fisher snap action controller, Fisher 4160 series controllers, Fisher 4195 series controllers, concepts of a 3-mode control, and controller tuning.

You will learn the basic concept of the Liquid Level Control. You will be introduced to the basic concepts of Multi-Position valves, pilots and a relay amplifier. This will include, maintenance and troubleshooting.

624 ADII Controllers

The student will learn about the Differential Gas Controller (DGC) and the 624 ADII Controller.

Valve Positioners



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Learn the basics of valve positioners and actuators, which will include theory, turning, operation, maintenance, and calibration of the Bailey Positioner and Bettis Actuators.

Becker Precision Equipment - BOE System

Describe the working principles of the Becker Precision Equipment System and how all the components interact to provide an accurate process variable.

Liquid Level Control

Identify and explain what action must be taken to correct given condition and identify the major components of the liquid level unit. explain the operation and purpose of a Clayton Valve and a Fisher Leveltrol.

Differential Gap Controller

Learn basic concepts of a differential gap controller -- theory, operation, care and maintenance and calibration.

Multi-Position Valves, Pilots and Relays

Introduced to the basic concepts of multi-position valves, pilots and a relay amplifier.

Transmitters and Receivers

Introduced to the transmitters and receivers, which will include application and calibration.

Electrical Safety and Test Equipment

Using a Lab Volt Trainer, training manuals and a Digital Multi-Meter (DMM), you will be taught electrical safety, basic electricity AC and DC.

Electronic Measurement Devices (Little GEMS)

You will learn computer applications for configuring, calibrating, and troubleshooting electronic measurement systems.

Model 5 Meter Prover

Learn basic computer applications such as DOS function, menu driven programs, and how to initiate a program through DOS. Utilizing a laptop and a Model 5 meter prover you will be able to determine Displacement Meter accuracy.

Line Breaks

The employee will be introduced to the reasons for line breaks, where we have line breaks, basic operation of a typical line break and system components, setting up a pressure sensor, and orifice. The student will be able to explain how a line break trips under a given condition.

Well Safety Systems



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The employee will be introduced to the reason why we have basic well safety systems and sub-surface safety systems. You will learn how to install, maintain and troubleshoot a basic well safety system. The student will be able to explain how the B1-2 pilot and quick bleed operate in the manual mode.

6. INSTRUMENT SPECIALIST:

The Instrument Specialist performs high-level skilled work related to the operation and maintenance of all types of hydraulic, pneumatic, electric and electronic control instruments and telemetering equipment in the transmission and underground storage system.

Module Title and Description

Instrument Specialist Training Orientation

During this training module, you will learn about various tasks, job duties and responsibilities for your particular job classification. You will develop knowledge and acquire skills that will help you develop your expertise in this classification.

Introduction to Instrument Specialist Position

Instrument Specialist position is the key performer in three important gas transmission work processes: routine installation, monitoring and maintenance of a variety of gas measurement and control instruments; troubleshooting and repair of a variety of gas measurement and control instruments; installation and software/firmware updates for new or updated gas measurement and control instruments.

General Safety Orientation

Review general safety policies included in the Gas Company's Injury and Illness Prevention Program. Also learn general electrical safety procedures to follow when working as an Instrument Specialist.

Introduction to Basic Electricity: Direct Current

This module introduces you to the basics of electricity, including how it is created and the terms used to describe its components. In this module, you will be experiencing the following: LabVolt experiment -- The Electrical Circuit, lecture on the Fundamentals of Electricity, and practice activity on the Fundamentals of Electricity.



Current and Scientific Notation

This module explains how electrons produce an electric current and how to measure current flow. It also introduces how to use very small and very large numbers to measure current and to work with these measures using scientific notation -- a consistent format making them easier to read and interpret.

Voltage and Batteries: Direct Current

This module introduces voltage and batteries, including how to increase voltage and current by connecting batteries in series or parallel. After completing this module, you should be able to connect cells and batteries in series-parallel combinations, and generate a difference in potential using different methods.

Resistance

In this module, you will learn about resistance: the opposition to the flow of current. This module examines the types and characteristics of resistance and the effects of connecting resistors together by a conductor to form a circuit.

Ohm's Law

This module introduces Ohm's Law and how it is applied to a circuit. After completing this module, the student will be able to: identify the three basic parts of a circuit and three types of circuit configurations; describe how current flow can be carried in a circuit; state Ohm's Law with reference to current, voltage, and resistance; solve problems using Ohm's Law for current, resistance, or voltage in series, parallel, and series-parallel circuits; describe how the total flow differs between series and parallel circuits, how the total voltage drop differs between series and parallel circuits, how the total resistance differs between series and parallel circuits; state and apply Kirchhoff's current and voltage laws; verify answers using Ohm's law with Kirchhoff's law; define the symbol for voltage.

Electrical Measurement and Meters

This module introduces common tools used to measure current, voltage and resistance. These include: ammeters, voltmeters, ohmmeters and multimeters. The student will have hands-on opportunities to use these devices to make accurate measurements.

Power-Direct Current

This module introduces power and circuit applications involving power. After completing this module, you should be able to calculate power consumption in a variety of gas measurement and control instruments which would then be matched to a correctly sized supply.

DC Circuits

This module introduces the fundamental concepts of DC circuits, including key terms, how they work and how to calculate key values in these circuits. After completing this module, the student will be able to install, monitor and



troubleshoot series, parallel and series-parallel circuits used in gas measurement and control instruments.

Magnetism-Direct Current

This module introduces magnetism, electromagnetism, and the relationship between magnetism and electricity. After completing this module, you should be able to perform the following job task: troubleshoot circuits in a variety of gas measurement and control instruments using the concepts of magnetism and the relationship between magnetism and electricity.

Inductance and Capacitance

This module introduces the concepts, meaning and characteristics of inductance and capacitance. After competing this module, you should be able to identify uses of inductance encountered in gas measurement and control instruments and the uses of capacitance encountered in gas measurement and control instruments.

Introduction of Alternating Current

This module introduces alternating current and how it works. After completing this module, the student will be able to identify applications of AC electricity used in gas transmission instrumentation, the valves applied to an AC signal, and the non-sinusoidal waveforms.

AC Measurement

This module introduces you to the basics of AC measurement including how to measure AC current, voltage, frequency and waveforms. After completing this module, the student will be able to use meters to measure voltage and current in AC circuits, use oscilloscopes to analyze AC circuits, use frequency counters to measure AC frequency and use a function generator for generating exact sinusoidal and non-sinusoidal waveforms.

Resistive AC Circuits-Alternating Current

This module introduces basic AC resistive circuits. After completing this module, the student will be able to solve basic AC resistive circuits, connect resistors in series and parallel in an AC circuit and calculate power in an AC circuit.

Capacitive AC Circuits-Alternating Current

This module introduces basic capacitive AC circuits. After completing this module, you should be able to describe the effects of capacitance on an AC circuit and connect various AC capacitive circuits.

Inductive AC Circuits-Alternating Current

This module introduces basic inductive AC circuits. After completing this module, the student will be able to describe the effects of inductance on an AC circuit and connect various AC inductive circuits.

Transformers



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This module introduces the basic concepts of transformers, which allow the transfer of an AC signal from one circuit to another. Upon completing this module, the student will be able to draw schematic diagrams of transformers in various circuit applications and solve transformer ratio problems.

Semiconductor Fundamentals

After completing this module, the student will be able to identify uses of semiconductor materials in gas instrumentation.

Diodes

This module introduces diodes and how they work. After competing this module, you should be able to describe the function and characteristics of a junction diode, perform a test on a junction diode to determine if it is operational, describe the function and characteristics of a zener diode, and perform a test on a zener diode to determine if it is operational.

Power Supplies

In this module, the student will be introduced to basic power supplies and uninterruptible power supply (UPS). Power supplies supply voltage to a variety of circuits. They do this by converting AC to DC through a process called rectification. Power supplies may also use transformers to alter the AC voltage and a voltage regulator to hold the output voltage at a constant level. UPS are back-up systems meant to provide power in the case of an interruption in the electrical service. Solar panels, in conjunction with rechargeable batteries, provide power to electronic devices located in remote areas.



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B) GAS REGULATION POLICIES AND REQUIREMENTS:

1. CALIFORNIA GENERAL ORDER 112-E:

i. http://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/126869.htm

2. CODE OF FEDERAL REGULATIONS 49 PART 192:

i. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49cfr192_main_02.tpl



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C) SAFETY INSPECTION CHECKLIST FOR FACILITIES AND GROUNDS:

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Safety Inspection Checklist for Facilities & Grounds Including Additional Guidance		
Rev 12/1/2016	Safety Inspection Checklist for Facilities & Grounds Including Additional Guidance	
<p>The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.</p>		
<p>Instructions: Use this checklist for semiannual facilities and grounds inspections to cover all the grounds, facilities and buildings located at a site. Confirm the status of open corrective actions on the current inspection checklist. Enter inspection results in the Safety Information Management System (SIMS).</p> <ul style="list-style-type: none"> When conducting inspections, checking "Yes" indicates that the item is in compliance or is safe; checking "N/A" indicates that it does not apply; checking "No" requires that you document in SIMS: (1) what needs to be done to fix the item (Correction Action); (2) who will take the lead (Responsible Employee and his/her employee ID); and (3) the date the item was fixed (Completion Date). Corrective actions must be closed in a timely manner. Inspection findings that could reasonably be expected to cause serious harm to an employee must be addressed immediately (e.g., clearing a blocked emergency exit). Ensure responsible employee is aware of their action. For repairs that require assistance from the Facilities Department, submit a work request through the Facilities "Maximo" Work Order site. For safety support contact your Field Safety Advisor, or go to the Safety Website. 		Prepared by: _____
		Site Name _____
		Building/Floor _____
		Date Prepared: _____
1.0 Chemical Safety		
1.1	Is the 3E chemical inventory for your site up to date?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	<p>Review your local chemical inventory and check for new additions and updates sent to Safety. Once in the 3E Online system, follow these steps to obtain a specific inventory list for a particular facility.</p> <p>STEP 1. SELECT 'Inventory' near the top of the page, then select 'Inventory Reports.'</p> <p>STEP 2. SELECT A LOCATION.</p> <ul style="list-style-type: none"> Under 'Browse' click on the plus sign next to 'My Locations' to expand it, then expand either 'San Diego Gas & Electric' or 'Southern California Gas' to view all facilities for each utility. Highlight the location for your Facility inventory report. <p>STEP 3. TO VIEW AND PRINT A LIST.</p> <ul style="list-style-type: none"> Under 'Select Report,' <ul style="list-style-type: none"> o Select 'for Excel Friendly Export' then, o Select 'Run Report' to export report to Microsoft Excel o Save report to selected folder. <p>Submit an updated Excel report to Safety</p>	Additional Tools SDG&E: G8335 SCG.104.04
1.2	Are chemical containers/drums appropriately labeled with product name and physical/health hazards?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?



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<p><i>Rev</i> 12/1/2016</p> <p><i>Safety Inspection Checklist for Facilities & Grounds Including Additional Guidance</i></p> <p>The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.</p>		
<p>Guidance</p>	<p>All chemicals/hazardous substances containers and drums must be labeled with product name and physical hazards (i.e., flammable, combustible, oxidizer, etc.) and health hazard (i.e., corrosive, irritant, carcinogen, sensitizer, etc). You can determine the appropriate hazard by reviewing the physical and health sections of the product's MSDSs. If you have questions, contact your FSA.</p>	<p>Additional Tools</p> <p>Safety Website MSDS Info.</p> <p>BMPs</p>



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Rev 12/1/2016	<p>The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.</p>	
1.3	Are the Pesticide contractor completion notices on file for two years?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	For pesticide, herbicide, or insecticide application, contractor is responsible for providing the facility with a completion notice (location of property, pesticide applied, date and hour application was completed) and the County Agricultural Commissioner's Office with a usage report. The completion notice should be retained for two years and be available for inspection at the facility (Title 3, Division 6, Chapter 3, Subchapter 2, Article 1, Section 6619)	Additional Tools
1.4	Are <u>in</u> compatible hazardous materials stored <u>apart</u> with acids separated from bases and both away from flammables?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Compatible chemicals have similar hazards. Chemicals with similar hazards, if mixed together, produce mild or no reaction. To avoid violent reactions, incompatible chemicals with dissimilar hazards must be stored separately. Refer to the product's MSDS to determine hazard and incompatibilities of the product and whether the materials are acidic (ph <7) or basic (ph >7) or have a flash point (below 100 F) indicating that they are "flammable". Under additional tools is a link to guidance tips for proper storage. Please contact your FSA for questions regarding proper storage.	Additional Tools Safety Website MSDS Info. Storage Guidance Tips



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Safety Inspection Checklist for Facilities & Grounds Including Additional Guidance				
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The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.				
2.0 Confined Spaces				
2.1	Have Confined space entry permits been completed, posted at entry during use, and kept afterwards for one year?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	For those locations with PRCS, have those permits been completed, posted, and after entry, kept at their department for at least one year?	Additional Tools None		
2.2				
2.2	Is air monitoring equipment used at this site calibrated and in good working order?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Confined spaces atmospheres must be checked with specific air monitoring equipment that has been kept calibrated and in good working order. Typically this would be the four gas (LEL, CO, H2S, and Oxygen) monitors (Orions, GMI's, etc.)	Additional Tools None		
3.0 Cylinders (Gas)				
3.1	Are all cylinder caps in place when cylinders are transported and stored?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	All cylinders shall be capped when the cylinders are not in use or connected for use. Unless cylinders are secured on a special truck or rack, they shall be capped before being moved.	Additional Tools None		
3.2				
3.2	Are cylinders free of corrosion and dents?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Looking for significant corrosion and not necessarily small or light rust spots.	Additional Tools None		



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The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.		
3.3	Are cylinders marked with gas content?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Know the contents of each cylinder you are using and storing. Use only vendor label for positive identification of contents. Be aware that color coding may be inconsistent from vendor to vendor. Preferred labeling must be readable and include the identity of the material, statement of hazard and the associated signal word. Cylinders must be stored according to hazard.	Additional Tools
3.4	Are oxygen cylinders in storage separated from fuel gas cylinders or combustible materials (especially oil or grease) a minimum distance of 20 ft or by a non-combustible barrier either at least 5 feet high, or a minimum of 18 inches above the tallest cylinder and having a fire-resistance rating of at least 1 hr?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Options for storage of oxygen and acetylene cylinders either by a 20 foot distance or a sufficiently high (5 foot or 18 inches above the tallest cylinder) and substantial fire wall (cinder block, concrete, etc). Watch for leaves, trash, and debris accumulation at the bottom of the cylinders. We are also looking for 18 inches of clearance from the edge of the fire wall.	Additional Tools
		None
3.5	Are cylinders transported with the proper dolly or lifting device designed for the purpose?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Cylinders must be transported using appropriate lifting device designed for that purpose and the cylinders must be secured so that they do not tip, fall, or roll. It is necessary to take precautions so that gas cylinders are not dropped or allowed to strike each other or other objects. Dropping or striking may damage the cylinder valve, which could turn the cylinder into a missile with the potential to destroy property and/or injure personnel.	Additional Tools SCG 107.0345 SDGE ESH Rule 1200



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The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.		
3.6	Are all cylinders securely fastened to prevent damage?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Specifically looking to see if cylinders are securely stored (chains will not easily degrade in a fire like a rope).	Additional Tools None
3.7	Are empty cylinders indicated empty with valves closed and protection caps in place?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Empty cylinders shall be labeled with the word empty or the abbreviation MT or stored in racks labeled for "empties." Empty cylinders shall be stored away from full cylinders or cylinders in use and must continue to be stored with like hazards.	Additional Tools None
4.0 Electrical		
4.1	Is access to electrical panels clear for 36 inches in front of the panel, as wide as the panel or 30 inches whichever is greater and are the doors able to open 90 degrees or greater?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Electrical panel clearance is required by OSHA and must be maintained for emergency purposes. Clearance must be 36 inches in front of the panel and as wide as the panel or 30 inches whichever is greater. In addition, the doors must be able to open 90 degrees or greater -- looking to allow adequate clearance to open the panel door.	Additional Tools None
4.2	Are cover plates, switches and outlet covers in place and not damaged?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	To eliminate possible shocks, all electrical cover plates, switches, and outlets must not have cracks, missing pieces, etc. Are there places that people can stick their	Additional Tools



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Guidance	fingers into? This includes cover plates that are found in electrical panel boxes over empty switch openings. Wall receptacles shall be designed and installed so there are no current carrying parts exposed.	BMPs
4.3	Are power strips on a single permanent wall plug (i.e., not plugged in series)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Power strips must never be in series to make a longer one (It is a violation of the National Electric Code to "daisy chain" power strips). It's best to use one cord in a continuous length from the receptacle to the appliance or tool. Power strips or extension cords are to be used within the limits as labeled/rated by manufacturer.	Additional Tools
		None
4.4	Are circuit breakers marked as to the equipment or areas they serve?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Typically, markings can be either numeric with respective electrical branching identified, or with text indicating specific locations. ALSO, be alert to unguarded openings in the electrical cabinet. Each space must be covered and typically with a simple plastic snap covering. Electrical tape is not considered an effective barrier.	Additional Tools
		None
4.5	Are flexible cords not in permanent use and not run through holes in walls?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Permanently wired equipment needs conduit housing. Also, flex cords cannot be attached to walls, ceilings, etc. and not in place for more than 90 days. We believe that the spirit of the regulation is to prohibit extension cords being used as permanent wiring in lieu of standard building wiring. We interpreted the regulation to include structural walls that would include bearing and non-bearing walls, half walls, divider walls, etc. The regulation doesn't prohibit power strip cords from running through the sides of cabinets to provide power inside of the cabinet. However, the use of extension cords in permanent service is still considered non-compliance.	Additional Tools
		None



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Rev 12/1/2016				
The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.				
4.6	Are electrical control panel room doors clearly marked with a sign indicating that it is an electrical control panel room?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Door signs indicating the location of electrical panels assist the quick finding of electrical control panels.	Additional Tools None		
4.7	Are phone or electrical wires placed away from foot traffic or properly covered?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Phone cords and extension cords shall not be run through doorways, holes in ceilings, walls, or floors. Never use staples or nails to attach to baseboards. Use appropriate cord covers to prevent tripping hazards.	Additional Tools None		
4.8	Are space heaters removed from operation under desks?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Space heaters carry a much greater risk of causing a fire than central heating. Space heaters present a greater potential for human error such as leaving them too close to combustible materials or failing to install, operate and maintain them properly. Due to the risk associated with space heaters, they are prohibited from use.	Additional Tools None		
4.9	Are all 15- and 20-ampere receptacles installed in wet areas, bathrooms and kitchens equipped with GFCI protection?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	All 15- and 20-ampere receptacles installed in wet areas, bathrooms and kitchens must have Ground Fault Circuit Interrupter (GFCI) protection for personnel. The	Additional Tools		



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Guidance	protection may be at the receptacle, connected to another GFCI protected receptacle (up to the limit as prescribed by the Electric Code), or at the circuit breaker.	http://www.bsc.ca.gov/codes.aspx
5.0 Eyewash/Shower		
5.1	Are the smaller plastic eye irrigation bottles within their label expiration date?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Several facilities have installed eye irrigation bottles as a supplement to existing plumbed or self-contained eye/face wash stations meeting ANSI 385.1-1987 requirements. Although these supplements may not be used in lieu of the required stations, they must be maintained in accordance with the manufacturer's instructions or replacement after their expiration dates. Inspection of these units is for the printed expiration dates.	Additional Tools None
5.2	Is access to eyewash/shower clear?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Can you easily get to the eyewash within 10 seconds and without having to climb over or move things?	Additional Tools None
5.3	Are eyewashes/showers tested monthly, documented, and have dust caps in place?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Emergency showers and eyewashes must have inspection tags affixed to them indicated that monthly inspections are occurring. There must be sufficient water flow from the eye wash to cause the two water streams to meet at the top of their arc. This flow must exist with the eyewash alone or with the shower activated at the same time (if a shower is present). Covers must be in place regardless whether inside or outdoors.	Additional Tools None



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Rev 12/1/2016	<p>The following includes additional guidance for questions on the inspection checklist for facilities and grounds. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.</p>	
6.0 Emergency Action/Fire Plan		
6.1	Does the current Emergency Action/Fire Plan exist?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	The emergency action plan shall be in writing and cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies. Plan of the work area to include team members, posting, accessibility.	Additional Tools None
7.0 Fire Safety		
7.1	Are fire extinguishers inspected and recorded each month at the facility?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Examine a few extinguishers in the area for their inspection tag indicating dates inspections were performed.	Additional Tools None
7.2	Is access to fire hydrants unobstructed and clear of any material for 36 inches around the hydrants?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Access to fire hydrants must be keep clear of vehicles parking/blocking hydrant access, storage of equipment or materials, brush, trees, landscaping, weeds, etc. at least 36 inches around the hydrant.	Additional Tools None



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7.3	Is fire equipment (e.g. extinguishers) marked when obstructed from view and readily accessible?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Signage arrows are used to indicate view obstructed fire equipment.	Additional Tools None
7.4	Are sprinklers guarded if they are subject to damage?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Fire sprinklers heads within chemical/cylinder storage areas must have a guard head to protect from being hit or damaged. A guard head allows water flow while protecting the sprinkler head. Do not attempt to protect the sprinkler by placing a physical block around it which would impede water flow if the sprinkler is activated.	Additional Tools None
7.5	Are materials stored with a distance greater than 18 inches below the sprinkler heads?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Sprinkler head clearance is required to ensure that, when activated the water flow is not blocked.	Additional Tools None
7.6	Are microwaves and toaster ovens away from any combustible items, such as paper towels?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Combustible materials, such as paper, that can quickly ignite from a hot surface	Additional Tools



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	<p>must be stored safely away (at least 2 feet) from microwaves and toaster ovens.</p>	<p>None</p>



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7.7	Are Fire doors unobstructed and operating freely?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Is it important to determine which doors in a facility are considered to be "fire doors" and not propped open. Fire door ratings are usually found on the door edge with the hinges.	Additional Tools None		
8.0 First Aid/CPR/AED/BPP				
8.1	Are first aid kits accessible to work area?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Kits must be mounted or kept in a visible, permanent, and designated location available and known to all employees in the work area.	Additional Tools BMPs		
8.2	Have first aid kits been inspected and replenished per included content list?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Designated first aids kits must be kept fully supplied. Monthly inspections are required to ensure supplies are replenished in a timely manner and available during emergency. Contents of first aid kit must match the list inside the first aid kit. Look for outdated or opened materials.	Additional Tools None		



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8.3	Are monthly inspections for AEDs completed and documented in a posting next to the AED or in an electronic format?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance		<p>Additional Tools</p> <p>None</p>
9.0 General Working Conditions		
9.1	Are building exits clearly marked and unobstructed?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	Additional guidance not provided.	<p>Additional Tools</p> <p>None</p>
9.2	Are building exit signs illuminated?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	Per Cal-OSHA and the state Fire and Building Codes, every required exit sign must be suitably illuminated by a reliable light source (i.e., fluorescent) and be visible in both normal and emergency lighting modes, with exceptions made for approved self-luminous or electro luminescent signs that provide evenly illuminated letters. Exit signs do not need to be provided for any room or building having an occupancy of 50 or less.	<p>Additional Tools</p> <p>None</p>
9.3	Are pedestrian walkways appropriately maintained with clear traffic signage?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	Cal/OSHA requires that where, due to lack of proper definition, walkways can become hazardous, they shall be clearly defined by painted lines, curbing, or other method of marking.	<p>Additional Tools</p> <p>None</p>



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9.4	Are walking and working areas (e.g. carpets and flooring) free of slip and trip hazards including exterior walkways?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Permanent walkways, and material storage areas shall be maintained free of dangerous depressions, obstructions, and debris.	Additional Tools None
9.5	Is adequate lighting provided?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Adequate lighting depends upon the task with the bare minimums established by regulation. Light meters are available at the Safety department.	Additional Tools None
9.6	Is emergency lighting operable?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Emergency exit signs must be suitably illuminated by a reliable light source and be visible in both normal and emergency lighting modes, with exceptions made for approved self-luminous or electro luminescent signs that provide evenly illuminated letters.	Additional Tools None
9.7	Are ladders in good condition (not splintered, rungs unbroken, anti-slip tread surface, rubber footings)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	This includes all facility and vehicle mounted ladders (a random sampling of available ladders that are onsite during the assessment/inspection. Ladders will be inspected for cracks, missing rungs, damage or slippery feet/surfaces before each use.	Additional Tools None



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9.8	Are scaffolds in good condition, guard-rails and toe boards in place?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Scaffolding must be inspected to ensure it is in good condition. Some of the things to look for include: (1) Footings must be level, sound, rigid, and capable of supporting the loaded scaffold. (2) Metal components must not be bent, cracked, have holes, rust, welding splatter, pits, broken welds, etc. (3) Wooden planks must not have cracks, splits, mold, separated laminate(s), etc. (4) Guardrails and midrails on platforms must be placed where work is being done. Contact your FSA with questions.	Additional Tools None
9.9	Is exit door panic hardware operable?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	If panic hardware is present, it must be tested to see if it works. The panic hardware is considered operable if it takes less than 15 pounds of pressure. In other words, it is "easy to use and doesn't take great force to open door using hardware."	Additional Tools BMPs
9.10	Are floor mats well maintained?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Additional guidance not provided.	Additional Tools None
9.11	Are desk, file drawers and cubicle flipper doors kept closed when not in use?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Additional guidance not provided.	Additional Tools None



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9.12	Are all ceiling tiles present with no openings into the overhead space. (Stained tiles are not considered to be damaged.)	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Ceiling tiles provide a level of fire protection. Ceiling tiles must be in place with no open spacing and in good condition. Ceiling tiles that are moved, cracked, broken, or have holes in them must be replaced.	Additional Tools None		
9.13	Are cubicle areas free of clutter (objects that could cause an employee to trip or fall)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	All common work areas must be kept clean and orderly to prevent hazardous conditions of over storage, fire hazards and trip, slip, and fall hazards.	Additional Tools None		
9.14	Are lobbies, patios, and sidewalks free and clear of debris that could cause trip or slip hazards?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Permanent roadways, walkways, and material storage areas in yards shall be maintained free of dangerous depressions, obstructions, and debris.	Additional Tools None		
9.15	Are stairways free of debris and repair concerns that could cause trip or slip hazards?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Stairways shall be free of dangerous projections or obstructions, maintained in good repair, and reasonably free of oil, grease, or water.	Additional Tools None		



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9.16	Are computer & equipment rooms clean and orderly?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	All common work areas must be kept clean and orderly to prevent hazardous conditions of over storage, fire hazards and trip, slip, and fall hazards.	Additional Tools None
9.17	Are floors and surfaces maintained free of paint chips?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	This question can be answered "yes" if no paint chips are present on surfaces or if documentation (e.g. lab report, safety data sheet) shows paint or chips contain no lead, arsenic, cadmium, hexavalent chromium and mercury.	Additional Tools Safety Website Asbestos Management
9.18	Are kitchen and lunch areas free and clear of clutter and debris?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Housekeeping activities ensure that the work environment is safe and clean. Kitchen and lunchroom areas must be maintained to prevent fire hazards, slip, trips, and fall hazards as well as the area must be clean and sanitized for proper food storage.	Additional Tools None
9.19	Are meeting conference rooms clean and orderly?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	All common work areas must be kept clean and orderly to prevent hazardous conditions of over storage, fire hazards and trip, slip, and fall hazards.	Additional Tools None



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9.20	Are restrooms clear of debris and are floors dry?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	All restrooms must be kept clean and orderly to prevent hazardous conditions of over storage, fire hazards and trip, slip, and fall hazards.	Additional Tools			
		None			
10.0 Machine Safeguards					
10.1	Are all machine controls such as emergency stop buttons identified?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Each process machine driven by an individual prime mover shall be equipped with a prime mover stopping device which can be safely actuated from the operator's working position.	Additional Tools			
		None			
10.2	Has the hazardous energy control procedure (Lock Out/Tag Out) been reviewed annually?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Use the checklist that has been developed to accomplish this task. Annually the responsible person (Site Manager) observes at least one Energy Isolation task and documents that all the steps of the site's procedure were followed. This completed Hazardous Energy Control Isolation checklist is retained at the facility for regulatory or compliance verification.	Additional Tools			
		None			
10.3	Are machines either bolted to the floor to prevent creeping or sufficiently heavy and rigid so as to prevent dangerous vibration or securely mounted on substantial floors, benches, foundations or other adequate and safe structures?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			



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Guidance	Stationary machines shall be sufficiently heavy and rigid so as to prevent dangerous vibration and shall be securely mounted on substantial floors, benches, foundations or other adequate and safe structures.	Additional Tools
		None
10.4	Are all points of operation including prime movers protected from employee access during machine operation via fixed barrier guards?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Moving machine parts have the potential to cause severe workplace injuries, such as crushed fingers or hands, amputations, burns, or blindness. Safeguards are essential for protecting workers from these preventable injuries. Any machine part, function, or process that may cause injury must be safeguarded.	Additional Tools
		BMPs
10.5	Is the abrasive wheel tool rest adjusted to within an 1/8 inch and guard 1/4 inch?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Work rests shall be kept adjusted closely to the wheel with a maximum opening of 1/8 inch (0.3175 cm) to prevent the work from being jammed between the wheel and the rest, which may cause wheel breakage. The guard shall be adjusted to maximum opening of 1/4 inch.	Additional Tools
		BMPs
10.6	Is an <u>eye and face</u> warning sign near where abrasive wheels are used?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Eye protection is required when operating an abrasive wheel. Eye protection must be provided and readily accessible to employees who operate an abrasive wheel. Readily accessible is defined as being near the abrasive wheel. Appropriate eye protection signs must be posted. The warning signs are: "Eye Protection Must Be Worn" sign and a sign regarding upper and lower guard maintenance. Wheel rating on abrasive wheels are checked during annual ESCMP but must also be checked regularly by user.	Additional Tools
		BMPs
10.7	Does hand grinder have a guard over 180 degrees of the abrasive wheel?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A



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Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Guards to protect the eyes and face protection is required when operating a hand grinder.	Additional Tools None



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10.8	Are machine pulleys less than seven feet from floor guarded and not allowing employee access?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	This also includes store room and garage roll-up doors and drill press pulleys.	<p>Additional Tools</p> <p>None</p>
10.9	Are all machine guards in place (e.g. pulleys, belts, points of operation, fans, etc.) and in good condition?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	All guards shall be appropriate for the hazards involved, secured in place, constructed of substantial material and have surfaces free of hazardous projections.	<p>Additional Tools</p> <p>None</p>
11.0 Postings & Records		
11.1	Is there a sign posted warning of machine (gate openers, generators, pumps, compressors) starting automatically?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	There shall be conspicuously displayed at all machines driven by electric motors that are controlled by fully automatic starters and which may injure employees, legible signs giving warning that the machines are automatically controlled and may start at any time.	<p>Additional Tools</p> <p>BMPs</p>
11.2	Is there an OSHA "all in one" poster and Access to Medical Records poster prominently posted for employees to view that includes emergency telephone numbers?	<p>In Compliance?</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
Corrective Actions/ Comments		<p><input type="checkbox"/> New Action?</p> <p><input type="checkbox"/> Previous Action?</p>
Guidance	The Emergency poster that must be posted must meet the requirements of Cal-OSHA S-500 Form. The copy centers have created a large poster to accommodate all required OSHA postings. Please contact your local copy center or facilities representative.	<p>Additional Tools</p> <p>BMPs</p>



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12.0 Pressure Vessels		
12.1	Are air hoses free of damage that could impair the hose's ability to hold pressure?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Where possible, examine hoses on mobile equipment/vehicles having pneumatic hoses.	Additional Tools BMPs
12.2	Do air tanks with a volume of over 1 1/2 cubic feet or with a safety valve set over 150 psi, have an up-to-date Permit to Operate and posted at the vessel?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	1. An Air tank having a volume of 1.5 cu ft or less and have a relief valve do not require a permit. 2. An air tank having a volume of 1.5 cu ft to 25 cu ft with safety valve set to open no greater than 150 psi shall be inspected upon start up and given an indefinite permit. 3. Air tanks having a volume of 25 cu ft or greater are subject to inspection every 3 to 5 years whether they are portable or stationary respectively. Permits are posted at the site of the tank.	Additional Tools BMPs
12.3	Are CAL/OSHA Permits present for LPG propane storage tanks over 125 gallons, and high pressure boilers over 15 psig steam (Natural gas vessels and installations and air brake tanks are not covered)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Permits are required for air tanks, LPG propane storage tanks over 125 gallons, and high pressure boilers over 15 psig steam. Air tanks having a volume of 1 1/2 cubic feet or less which have safety valves set to open at not more than 150 psi do not require permits to operate. Verify with the operating supervision at the location.	Additional Tools BMPs



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13.0 Storage And Material Handling				
13.1	Are forklifts checked and documented before use daily when used?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Forklift operators shall inspect the forklift before use on a daily bases. Attention must be given to the proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system of the fork lifts (forks, chains, cables, and limit switch). Appropriate inspection forms must be used. Contact your FSA with questions.	Additional Tools BMPs		
13.2	Are objects safely stored (on racks, inside cabinets, etc.) with heavy or breakable items on lower shelves?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	Objects and materials, wherever stored, shall not create a hazard. They shall be piled, stacked, or racked in a manner designed to prevent tipping, falling, collapsing, rolling or spreading.	Additional Tools BMPs		
13.3	Does it appear racks are not loaded in excess of their rated capacity?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?		
Guidance	This requirement refers to industrial storage racks (commonly called speed racks) that are used for storage of equipment and parts. These racks must have labels identifying maximum load capacity. Items stored on racks must not exceed rack capacity. Contact your FSA must you have questions. Actual load capacity must be labeled at SDG&E locations.	Additional Tools BMPs		



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13.4	(SDG&E only) Are audible warning devices mounted on each overhead traveling or bridge crane equipped with a power traveling mechanism (except pendant controlled)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Each overhead traveling or bridge crane equipped with a power traveling mechanism must have an audible warning device with the exception of cranes operated from a pendant control.	Additional Tools http://www.dir.ca.gov/tit/e8/4889.html
14.0 Vehicles		
14.1	Are wheel chocks set whenever parking or leaving vehicles with dual rear wheels unattended?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Company safety standards require that all large and medium size vehicles have wheel chocks in place to prevent the accidental movement of the vehicle.	Additional Tools None
15.0 Welding		
15.1	Are welding gas cylinders turned off when not in use?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	When operations are suspended for any substantial period of time, such as overnight, gas cylinders shall be shut off.	Additional Tools None



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D) ESCMP INSPECTION CHECKLIST FOR TRANSMISSION FACILITIES:

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<p>Rev 12/01/2016</p> <p align="center">ESCMP Inspection Checklist for Gas Transmission Including Additional Guidance</p> <p>The following includes additional guidance for questions on the inspection checklist for Gas Transmission. Specific hyperlinks, as well as links to Best Management Practices (BMPs), are provided for additional information.</p>								
<p>Instructions: Use this checklist for ESCMP inspections of Gas Transmission. Confirm the status of open corrective actions on the current inspection checklist. Enter inspection results in the Safety Information Management System (SIMS).</p> <ul style="list-style-type: none"> • When conducting inspections, checking "Yes" indicates that the item is in compliance or is safe; checking "N/A" indicates that it does not apply; checking "No" requires that you document in SIMS: (1) what needs to be done to fix the item (Correction Action); (2) who will take the lead (Responsible Employee and his/her employee ID); and (3) the date the item was fixed (Completion Date). • Corrective actions must be closed in a timely manner. Inspection findings that could reasonably be expected to cause serious harm to an employee must be addressed immediately (e.g., clearing a blocked emergency exit). Ensure responsible employee is aware of their action. • For repairs that require assistance from the Facilities Department, submit a work request through the Facilities "Maximo" Work Order site. For safety support contact your Field Safety Advisor, or go to the Safety Website. 		<p>Prepared by: _____</p> <p>Site Name _____</p> <p>Building/Floor _____</p> <p>Date Prepared: _____</p>						
1.0 Chemical Safety								
1.1	Do employees know how to obtain SDSs for the chemicals they work with?	<table border="1"> <tr> <th align="center" colspan="3">In Compliance?</th> </tr> <tr> <td align="center"><input type="radio"/> Yes</td> <td align="center"><input type="radio"/> No</td> <td align="center"><input type="radio"/> N/A</td> </tr> </table>	In Compliance?			<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
In Compliance?								
<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A						
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?						
Guidance	Ask a few employees if they know how to obtain an Safety Data Sheet (SDS) either by our web site or contacting 3E. Note: Office Workers are excluded per training std.	<table border="1"> <tr> <th align="center" colspan="2">Additional Tools</th> </tr> <tr> <td align="center" colspan="2"> Safety Website MSDS Info </td> </tr> </table>	Additional Tools		Safety Website MSDS Info			
Additional Tools								
Safety Website MSDS Info								
1.2	Are chemical containers/drums appropriately labeled with product name and physical/health hazards?	<table border="1"> <tr> <th align="center" colspan="3">In Compliance?</th> </tr> <tr> <td align="center"><input type="radio"/> Yes</td> <td align="center"><input type="radio"/> No</td> <td align="center"><input type="radio"/> N/A</td> </tr> </table>	In Compliance?			<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
In Compliance?								
<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A						
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?						
Guidance	All chemicals/hazardous substances containers and drums must be labeled with product name and physical hazards (i.e., flammable, combustible, oxidizer, etc.) and health hazard (i.e., corrosive, irritant, carcinogen, sensitizer, etc.). You can determine the appropriate hazard by reviewing the physical and health sections of the product's MSDSs. If you have questions, contact your FSA.	<table border="1"> <tr> <th align="center" colspan="2">Additional Tools</th> </tr> <tr> <td align="center" colspan="2"> BMPs </td> </tr> </table>	Additional Tools		BMPs			
Additional Tools								
BMPs								



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1.3	If required, are all pipes labeled or color coded with their contents and color code posted?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Pipes need to be labeled unless they contain hazardous substances and would introduce confusion. Compressed air is not considered a hazardous substance no matter what pressure. A hazard, maybe, but it is not a hazardous substance. Compressed air would have to be reckoned with during any energy isolation/LOTO process due to the pressure. Even piping that contained various hazardous substances may not require labeling if no confusion would exist that would introduce a hazard.			Additional Tools None	
1.4	Have chemical products in the work area been approved for company use?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Select a random sample of five chemical products in use at the facility and check them against the company 3E listing. All approved chemical products appear in the 3E system, if it doesn't appear, it is not approved. However, be sure to enter the facility location and the correct name (for example, WD-40, must be entered with the "-". or search on a partial string such as "WD"). Approval for chemical products can be obtained by visiting the Safety Website and requesting approval using the Safety/Environmental Product Approval online request form.			Additional Tools Safety Website MSDS Info.	
1.5	Are pesticides stored in locked areas with signs visible from 25 feet?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Sign(s) must be visible from any direction of probable approach or any likely way of entrance into the storage area. Sign lettering must be of such size that it is readable from a distance of 25 feet.			Additional Tools None	



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1.6	When labeled as a <u>Flammable Storage cabinet</u> , is the cabinet fitted with self closing doors, sills and ventilation port?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	If the quantities (Referencing Cal/OSHA 5537, storage in excess of 10 gallons of Class I or II liquids (or 25 aerosol spray cans) combined or 60 gallons of Class IIIA require the use of a storage cabinet. However, not more than 120 gallons of Class I, Class II and Class IIIA liquids may be stored in a storage cabinet. Of this total, not more than 60 gallons may be of Class I and Class II liquid) of stored flammable liquids require a flammable storage cabinet, then the cabinet must meet all the requirements of a flammable storage cabinet. These requirements in addition to metal thickness requirements are: Conspicuous label in red letters on contrasting background which reads: FLAMMABLE—KEEP FIRE AWAY; Door shall be self-closing and provided with a three-point lock; Sills; Sealed ventilation port- unless connected to ventilation system. "What amounts require the use of flammable storage cabinets?" Referencing Cal/OSHA 5537, storage in excess of 10 gallons of Class I or II liquids (or 25 aerosol spray cans) combined or 60 gallons of Class IIIA require the use of a storage cabinet. However, not more than 120 gallons of Class I, Class II and Class IIIA liquids may be stored in a storage cabinet. Of this total, not more than 60 gallons may be of Class I and Class II liquid.	Additional Tools None	
1.7	Are flammables stored in company approved safety containers if out of their original shipping container?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Approved containers means that the container is either metal or be NFPA No. 388/Factory Mutual/UL labeled. Look down in the throat of the spout to verify flame arrestor screen.	Additional Tools None	



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1.8	Are incompatible hazardous materials stored <u>apart</u> with acids separated from bases and both away from flammables?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Compatible chemicals have similar hazards. Chemicals with similar hazards, if mixed together, produce mild or no reaction. To avoid violent reactions, incompatible chemicals with dissimilar hazards must be stored separately. Refer to the product's MSDS to determine hazard and incompatibilities of the product. Under additional tools is a link to guidance tips for proper storage. Please contact your FSA for questions regarding proper storage.	Additional Tools			
		Safety Website MSDS Info.			
2.0 Confined Spaces					
2.1	Is the annual review of confined space entry program (including cancelled permits) being done?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Each department is to annually review its Permit Required Confined Space operations (including canceled permits) to ensure the program protects employees involved in PRCS entry. It may be helpful if the local supervision uses work order systems (i.e., Maximo, if used) to help them remember to do this task.	Additional Tools			
		None			
2.2	Is each Company-owned permit required confined space permanently posted with wording "Danger - Permit Required Confined Space"?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Usually accomplished with a durable sign attached at every entry point. Often the sign is painted next to the entry point.	Additional Tools			
		None			



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3.0 Cylinders (Gas)		
3.1	Are all cylinder caps in place when cylinders are transported and stored?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Cylinder protective caps must be on unless the cylinder is currently being used or mounted in a specific rack.	Additional Tools None
3.2	Are cylinders free of corrosion and dents?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Looking for significant corrosion and not necessarily small or light rust spots.	Additional Tools None
3.3	Are cylinders marked with gas content?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Know the contents of each cylinder you are using and storing. Use only vendor label for positive identification of contents. Be aware that color coding may be inconsistent from vendor to vendor. Preferred labeling must be readable and include the identity of the material, statement of hazard and the associated signal word. Cylinders must be stored according to hazard.	Additional Tools None
3.4	Are cylinders protected from heat or physical damage?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Looking for high heat applications (not including desert conditions) and not necessarily that they are left outdoors. But they need to be protected from vehicles, machinery, and external heat sources such as flame impingement, intense radiant heat, electric arc, or high temperature steam lines.	Additional Tools None



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3.5	Are oxygen cylinders in storage separated from fuel gas cylinders or combustible materials (especially oil or grease) a minimum distance of 20 ft. or by a non-combustible barrier either at least 5 feet high, or a minimum of 18 inches above the tallest cylinder and having a fire-resistance rating of at least 1 hr.?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Options for storage of oxygen and acetylene cylinders either by a 20 foot distance or a sufficiently high (5 foot or 18 inches above the tallest cylinder) and substantial fire wall (cinder block, concrete, etc.). Watch for leaves, trash, and debris accumulation at the bottom of the cylinders. We are also looking for 18 inches of clearance from the edge of the fire wall.	Additional Tools None	
3.6	Are all cylinders securely fastened to prevent damage?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Gas cylinders shall be secured with a chain or appropriate belt above the midpoint, but below the muster. Specifically looking for a chain since it will not easily degrade in a fire like a rope. Laboratory cylinders less than 18" tall may be secured by approved stands or wall brackets.	Additional Tools None	
3.7	Are empty cylinders indicated empty with valves closed and protection caps in place?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Empty cylinders shall be labeled with the word empty or the abbreviation MT or stored in racks labeled for "empties." Empty cylinders shall be stored away from full cylinders or cylinders in use and must continue to be stored with like hazards.	Additional Tools None	



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4.0 Electrical			
4.1	Is access to electrical panels clear for 36 inches in front of the panel, as wide as the panel or 30 inches whichever is greater and are the doors able to open 90 degrees or greater?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Electrical panel clearance is required by OSHA and must be maintained for emergency purposes. Clearance must be 36 inches in front of the panel and as wide as the panel or 30 inches whichever is greater. In addition, the doors must be able to open 90 degrees or greater. Looking to allow adequate clearance to open the panel door.	Additional Tools None	
4.2	Is the facility free of frayed wires (repaired or removed from service)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Live electrical wires need to be enclosed and in good physical condition. Also inspect around junction boxes, etc. for the strain relief devices that protect wire coatings.	Additional Tools None	
4.3	Are circuit breakers marked as to the equipment or areas they serve?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Typically, markings can be either numeric with respective electrical branching identified, or with text indicating specific locations. ALSO, be alert to unguarded openings in the electrical cabinet. Each space must be covered and typically with a simple plastic snap covering. Electrical tape is not considered an effective barrier.	Additional Tools None	



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4.4	Are flexible cords not in permanent use and not run through holes in walls?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Permanently wired equipment needs conduit housing. Also, flex cords can not be attached to walls, ceilings, etc. and not in place for more than 90 days. We believe that the spirit of the regulation is to prohibit extension cords being used as permanent wiring in lieu of standard building wiring. We interpreted the regulation to include structural walls that would include bearing and non-bearing walls, half walls, divider walls, etc. The regulation doesn't prohibit power strip cords from running through the sides of cabinets to provide power inside of the cabinet. However, the use of extension cords in permanent service is still considered non-compliance.	Additional Tools None	
4.5	Is the electrical class compliant with the nature of the occupancy?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Electric equipment and wiring for all voltages in locations that are classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers which may be present. For example, Class I, Division 1 location are locations in which ignitable concentrations of flammable gases or vapors may exist under normal operating conditions (gas compressor stations).	Additional Tools None	
4.6	Are battery charging apparatus well ventilated, protected against physical damage by mobile equipment?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	This applies to permanently mounted battery charging stations and not to the portable battery chargers typically seen in the garages.	Additional Tools None	



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5.0 Emergency Action/Fire Plan								
5.1	Does the current Emergency Action/Fire Plan exist?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center; padding: 2px;">In Compliance?</th> </tr> <tr> <td style="text-align: center; padding: 2px;"><input type="radio"/> Yes</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> No</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> N/A</td> </tr> </table>	In Compliance?			<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
In Compliance?								
<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A						
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?						
Guidance	The emergency action plan shall be in writing and cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; padding: 2px;">Additional Tools</th> </tr> <tr> <td style="text-align: center; padding: 2px;">None</td> </tr> </table>	Additional Tools	None				
Additional Tools								
None								
6.0 Fire Safety								
6.1	Are fire alarms operational?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center; padding: 2px;">In Compliance?</th> </tr> <tr> <td style="text-align: center; padding: 2px;"><input type="radio"/> Yes</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> No</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> N/A</td> </tr> </table>	In Compliance?			<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
In Compliance?								
<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A						
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?						
Guidance	Verify with the Facilities manager at the location regarding ring back tests, etc., do not pull the alarm.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; padding: 2px;">Additional Tools</th> </tr> <tr> <td style="text-align: center; padding: 2px;">None</td> </tr> </table>	Additional Tools	None				
Additional Tools								
None								
6.2	Have company fire hydrants been tested annually with the current test report available on site?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center; padding: 2px;">In Compliance?</th> </tr> <tr> <td style="text-align: center; padding: 2px;"><input type="radio"/> Yes</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> No</td> <td style="text-align: center; padding: 2px;"><input type="radio"/> N/A</td> </tr> </table>	In Compliance?			<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
In Compliance?								
<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A						
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?						
Guidance	Private hydrant systems shall be inspected and serviced annually, and the owner shall correct any deficiencies immediately. Hydrants shall be flushed, valves operated and gaskets and caps inspected. Hydrant paint shall be maintained in good condition. The site is in compliance when a current vendor report of the test is provided by the site manager and a copy filed with the local Fire Agency or N/A if no private fire hydrant is on the property.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; padding: 2px;">Additional Tools</th> </tr> <tr> <td style="text-align: center; padding: 2px;">None</td> </tr> </table>	Additional Tools	None				
Additional Tools								
None								



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6.3	Are sprinklers guarded if they are subject to damage?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Fire sprinklers heads within chemical/cylinder storage areas must have a guard head to protect from being hit or damaged. A guard head allows water flow while protecting the sprinkler head. Do not attempt to protect the sprinkler by placing a physical block around it which would impede water flow if the sprinkler is activated.	Additional Tools			
6.4	Are sprinklers unpainted and uncovered to allow for immediate actuation in a fire?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
6.5	Are ignition sources kept from flammable or combustible materials?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			



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6.6	Is the fixed fire aqueous film-forming foam system checked every month and annually by certified vendor?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Verify with the Facilities manager at the location. Company employees conduct external monthly inspections on all portable foam generator fire extinguishing systems to verify the unit components, hoses and nozzles are in good condition. A State-certified contract maintenance company knowledgeable in the design and function of fixed systems inspect them annually to assure the system, including AFFF foam chemical analysis, is maintained and in good operating condition.	Additional Tools			
		None			
6.7	Are Fire doors unobstructed and operating freely?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	It is important to determine which doors in a facility are considered to be "fire doors" and not propped open. Fire doors ratings are found on the door edge with the hinges.	Additional Tools			
		None			
7.0 First Aid/CPR/AED/BPP					
7.1	Are names of designated AED rescuers posted at the AED units in their work area?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Individuals who have been AED trained must have their names posted at the AED units in their work area.	Additional Tools			
		None			
8.0 General Working Conditions					
8.1	Are building exits clearly marked and unobstructed?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			



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Guidance	Additional guidance not provided.	Additional Tools
		None
8.2	Are all hot (enough to cause skin damage) surfaces covered or located 7 feet above work areas?	In Compliance?
		<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/		<input type="checkbox"/> New Action?
Guidance	Typical with emergency power generators. Requires covering pipes and other exposed surfaces with thermal insulating material or otherwise guard them when they have an external surface temperature of 140°F (60°C) or higher and are within seven feet vertically from the floor or 15 inches horizontally from stairways, ramps or fixed ladders.	<input type="checkbox"/> Previous Action?
		Additional Tools
		None
8.3	Are light bulbs guarded if they are subject to damage?	In Compliance?
		<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/		<input type="checkbox"/> New Action?
Guidance	No additional guidance provided.	<input type="checkbox"/> Previous Action?
		Additional Tools
		None
8.4	Are elevated locations at company facilities where employees regularly work (roof tops, mezzanines, etc.) provided with protection from falls?	In Compliance?
		<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/		<input type="checkbox"/> New Action?
Guidance	No additional guidance provided.	<input type="checkbox"/> Previous Action?
		Additional Tools
		None
8.5	Are service pits guarded with chains when not in use?	In Compliance?
		<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action?
		<input type="checkbox"/> Previous Action?
Guidance	Typically seen at garage locations with chain/pole guarding around the pits.	Additional Tools
		None



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8.6	Are industrial truck aisles 2 feet wider than the single truck or 3 feet wider than two vehicles?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
		None			
8.7	Does each mobile platform have a name plate containing the manufacturer and capacity?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
		None			
8.8	Are mobile work platform inspected as required by the manufacturer?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
		None			
8.9	Are employees secured with a restraint or fall protection device while on an aerial lift device?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
		None			
9.0 Machine Safeguards					
9.1	Are all machine controls such as emergency stop buttons identified?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	



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Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Each process machine driven by an individual prime mover shall be equipped with a prime mover stopping device which can be safely actuated from the operator's working position.	Additional Tools None
9.2	Does an EQUIPMENT and/or PROCESS SPECIFIC written hazardous energy control procedure (Lock Out/Tag Out) exist when employees are cleaning, repairing, servicing or adjusting prime movers, machinery or equipment?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	(1) Equipment-specific hazardous energy control procedures need only be prepared when employees are performing service or maintenance work on the equipment; (2) Operations must clearly document this just-in-time procedure compliance approach to ensure the employees/supervisors responsible for performing service or maintenance work clearly understand what is expected of them; (3) Best practices for specific operations hazardous energy control situations could be prepared in advance (for example: in a common reference binder) for the typical and routine maintenance and repair work. Best practices and/or checklists using customized formats for use in Operations need to address all types of hazardous energy sources found in the appendix of the company standard (i.e. electrical, mechanical, hydraulic, natural gas, pneumatic, heat, chemical, and water). Furthermore, supervisors, or their designees, and qualified persons can signoff hazardous energy procedures to accommodate shift staffing levels. Retention of a copy of the most recent completed hazardous energy procedures is required to provide guidance to future procedures and evaluation of the program effectiveness.	Additional Tools None
9.3	Are there steps for the safe removal of lock, tag, and lockout devices and restarting machines or equipment?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools None



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9.4	Are machines either bolted to the floor to prevent creeping or sufficiently heavy and rigid so as to prevent dangerous vibration or securely mounted on substantial floors, benches, foundations or other adequate and safe structures?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Stationary machines shall be sufficiently heavy and rigid so as to prevent dangerous vibration and shall be securely mounted on substantial floors, benches, foundations or other adequate and safe structures.			Additional Tools None	
9.5	Are all points of operation including prime movers protected from employee access during machine operation via fixed barrier guards?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.			Additional Tools None	
9.6	Is the abrasive wheel tool rest adjusted to within an 1/8 inch and guard 1/4 inch?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Work rests shall be kept adjusted closely to the wheel with a maximum opening of 1/8 inch (0.3175 cm) to prevent the work from being jammed between the wheel and the rest, which may cause wheel breakage. The guard shall be adjusted to maximum opening of 1/4 inch.			Additional Tools BMPs	
9.7	Is an <u>eye and face</u> warning sign near where abrasive wheels are used?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
	Eye protection is required when operating an abrasive wheel. Eye protection must be provided and readily accessible to employees who operate an abrasive wheel. Readily			Additional Tools	



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<p>Guidance</p>	<p>provided and readily accessible to employees who operate an abrasive wheel. Readily accessible is defined as being near the abrasive wheel. Appropriate eye protection signs must be posted.</p> <p>The warning signs are: "Eye Protection Must Be Worn" sign and a sign regarding upper and lower guard maintenance. Wheel rating on abrasive wheels are checked during annual ESCMP but must also be checked regularly by user.</p>	<p>BMPs</p>	



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9.8	Does hand grinder have a guard over 180 degrees of the abrasive wheel?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Guards to protect the eyes and face protection is required when operating a hand grinder.	Additional Tools None			
9.9	Are machine pulleys less than seven feet from floor guarded and not allowing employee access?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	This also includes store room and garage roll-up doors and drill press pulleys.	Additional Tools None			
9.10	Are all machine guards in place (e.g. pulleys, belts, points of operation, fans, etc.) and in good condition?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	All guards shall be appropriate for the hazards involved, secured in place, constructed of substantial material and have surfaces free of hazardous projections.	Additional Tools None			
9.11	Can the operator promptly disconnect the power to machinery in case of emergency?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools None			
9.12	Are band knives and band saws guarded on the front and outer sides except for the immediate point of operation?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			



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Guidance	No additional guidance provided.			Additional Tools	
				None	
10.0 Personal Protection					
10.1	Are respirators bagged and have respirators parts (hoses, face masks, air cylinders etc.) inspected with a record kept for three years?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.			Additional Tools	
				None	
10.2	Are respirators composite air cylinders hydrotested every three years or metal cylinders hydrotested every five years?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.			Additional Tools	
				None	
10.3	Are certificates of breathing air quality available at the site for breathing air in cylinders/tanks?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	The breathing air documents that would be acceptable contain: a. Current date (within a year); b. Clearly identifies the vendor; c. States exactly what they are certifying-breathing air and has those parameters listed or referenced; and finally, d. Identifies a person from the vendor/lab who is making the claim			Additional Tools	
				None	
10.4	Are onsite di-electric gloves stored in glove bags or suitable containers, and NOT folded?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	



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<p>Guidance</p>	<p>Onsite di-electric gloves must be within usage dates, stored in glove bags or suitable containers, and NOT folded.</p>	<p>Additional Tools</p>



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11.0 Postings & Records					
11.1	Are copies of OSHA Forklift Rules posted?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Forklift rules are posted where ever forklifts are used or dispatched from.	Additional Tools			
		None			
11.2	Are copies of Article 105 of GISO posted on bulletin boards where hearing conservation is in effect?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Typically this applies to gas operations and electric generation operations.	Additional Tools			
		None			
11.3	Are no smoking signs posted for all areas where flammables or combustibles are in use or stored?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools			
		None			
12.0 Pressure Vessels					
12.1	Do air tanks with a volume of over 1 1/2 cubic feet and with a safety valve set over 150 psi have an up-to-date Permit to Operate and posted at the vessel?	In Compliance?			
		<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
	1. An Air tank having a volume of 1.5 cu ft. or less and have a relief valve do not require a permit	Additional Tools			



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<p>Guidance</p>	<p>permit. 2. An air tank having a volume of 1.5 cu ft. to 25 cu ft. with safety valve set to open no greater than 150 psi shall be inspected upon start up and given an indefinite permit. 3. Air tanks having a volume of 25 cu ft. or greater are subject to inspection every 3 to 5 years whether they are portable or stationary respectively. Permits are posted at the site of the tank.</p>	<p>BMPs</p>



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13.0 Storage And Material Handling		
13.1	Are crane controls identified for each movement?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools
		None
13.2	Is there a safety clip installed on the crane hook?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools
		None
13.3	Does the operator know if the load weights are within the capacity of the lifting device?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools
		None
13.4	Are cranes and hoist routinely inspected?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	Verify with the operating supervision at the location.	Additional Tools
		None



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13.5	Are cranes and hoist with a 3+ ton lift capacity inspected three times a year in addition to re-certified every year by an outside certifying agent with a state license?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	
13.6	Is the crane load chart clearly visible?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	
13.7	Is the rated load capacity plainly marked on lift equipment including fork lifts and slings?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	All lift equipment is required to be marked with its rated load capacity. In particular, Gas Standard 100.0155 stipulates that rope slings shall be marked or coded to show the rated capacities and shall not be used with loads in excess of their rated capacities. Synthetic web slings shall be marked or coded to show the rated capacities for each type of hitch and type of synthetic web material. Finally, that wire rope multiple leg bridle slings shall have a permanent affixed durable identification marked with the wire rope size, number of legs, rated load and reach. (See Standard 100.0155 for marking examples).	Additional Tools	
13.8	Is there a sign you can see from 12 ft. that it is unlawful to operate cranes within 10 feet of high voltage lines?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	



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13.9	Are forklifts checked and documented before use daily when used?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Forklift operators shall inspect the forklift before use on a daily bases. Attention must be given to the proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system of the fork lifts (forks, chains, cables, and limit switch). Appropriate inspection forms must be used. Contact your FSA with questions.			Additional Tools BMPs	
13.10	Are slings, chain, rope, hooks, hoists, cranes, etc., in good operating condition and synthetic web slings not stored in direct sun light when not in use?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	Synthetic web slings can be damaged and rendered unsafe after prolonged exposure to direct sunlight. See http://www.dir.ca.gov/Title8/5048.html			Additional Tools None	
13.11	Are all balcony and loft storage locations in good condition with load capacity identified?			In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments				<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	We are requiring a load limit sign with the intent of this ESCMP assessment question going back to §3241. Live Loads. ----- (a) The live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed shall have such design live loads conspicuously posted by the owner in that part of each story in which they apply, using durable metal signs, and it shall be unlawful to remove or deface such notices. The occupant of the building shall be responsible for keeping the actual load below the allowable limits. http://www.dir.ca.gov/Title8/3241.html			Additional Tools None	



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13.12	Does it appear racks are not loaded in excess of their rated capacity?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Actual load capacity must be labeled at SDG&E locations.	Additional Tools BMPs			
13.13	(SDG&E ONLY) Are audible warning devices mounted on each overhead traveling or bridge crane equipped with a power traveling mechanism (except pendant controlled)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	Each overhead traveling or bridge crane equipped with a power traveling mechanism must have an audible warning device with the exception of cranes operated from a pendant control.	Additional Tools None			
14.0 Vehicles					
14.1	Is the parking brake set on company emblemed vehicles when unattended ?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools None			
14.2	(SoCal) <u>Where applicable or posted</u> , are vehicles backed in to parking spaces?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?			
Guidance	No additional guidance provided.	Additional Tools None			



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14.3	(SoCal) Do vehicles (INCLUDING TRAILERS) display the "1-(800)-GAS-SAFE" How is my driving program" sticker?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	
Vehicles - Natural Gas			
14.4	Were the required NGV annual inspections completed within the last 12 months?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	
15.0 Welding			
15.1	Is a hot work program in place and being followed?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	
15.2	Are <u>stationary</u> welding machines grounded?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?	
Guidance	No additional guidance provided.	Additional Tools None	



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15.3	Are electrodes removed from holders when not in used and electric power off when unattended?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools None
15.4	Are fuel gas valves open 1 1/2 turns or less?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools None
15.5	Are regulators designed for correct service and pressure?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools None
15.6	Are friction lighters only used?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?
Guidance	No additional guidance provided.	Additional Tools None
15.7	Are arc welder cables in good condition (no frays or missing insulation)?	In Compliance? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
Corrective Actions/ Comments		<input type="checkbox"/> New Action? <input type="checkbox"/> Previous Action?



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<p>Guidance</p>	<p>Electrical tape is not considered a patch.</p>	<p>Additional Tools</p> <p>None</p>



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E) GAS STORAGE O&M POLICIES AND PROCEDURES:

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104.08	Silica Dust Exposure Control Plan	2017-06-21
107.0287	GMI Gasurveyor - Combustible Gas Indicator (CGI)	2016-03-28
107.0322	Impacto Bar Maintenance Procedures	2017-06-27
107.0331	Radiodetection RD8100 Locator	2017-08-17
167.0231	Corrosion Monitoring	2017-10-26
167.0233	Corrosion Coupon Removal	2017-10-26
223.0032	Incident Evaluation Process on Gas Systems	2017-10-05
223.0103	Aerial Leakage Surveys	2017-11-14
224.101	Storage Well Design	2017-07-18
224.102	Drilling Storage Wells	2017-07-18
224.103	Well Workover	2017-07-18
224.104	Well Isolation	2017-07-18
224.105	Coiled Tubing	2017-07-18
224.106	Well Integrity Inspection	2017-07-18
224.107	Blowout Contingency Plan	2017-07-18
224.108	Well Record Keeping	2017-07-18
224.109	Abnormal Operating Conditions - Underground Storage	2017-07-18
224.110	Wellsite Security and Safety	2017-11-09
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224.113	Gas Sampling - Underground Storage	2017-10-12
224.114	Geological and Engineering Design	2017-10-12
224.115	Inspection of Third Party Wells	2017-10-25
224.117	Start-Up and Commissioning - Storage Wells and Reservoirs	2017-11-02
224.118	Plugged Well Inspections	2017-10-24
INFO-1736	To Re-emphasize Weld and PE Sample Chain of Custody	2017-10-25
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CRMP6	Gas Control Management of Change	2016-10-19
GC1	Gas Control Emergency Plan	2017-09-28
PA-1	Public Awareness Plan	2017-08-04



ALISO CANYON SAFETY PLAN

F) ALISO CANYON LOCAL O&M PROCEDURES:

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ALISO CANYON SAFETY PLAN

LOCAL STATION BINDERS

Storage Fields Aliso Canyon

Document Title	System Instruction Number	Local System Instruction Number
TDC Start and Stop Procedure		233.66-A
TDC Fire System - Hazardous Energy Control Lockout Procedure		233.66-B
TDC Cooling Fan Lockout Tagout Procedure		223.25-A-173-1
K.V.S. Compressor Start and Stop Procedure		223.5701-B
KVS Compressor - Hazardous Energy Control Lockout Procedure		234.01-AC
Remove Power Cylinder Head		223.58-A / 1-303-A
Remove Power Piston		223.58-A / 1-304-A
Remove Power Cylinder		223.58-A / 1-305-A
Install Power Cylinder		223.58-A / 1-306-A
Install Power Cylinder Head		223.58-A / 1-307-A
Install Power Piston		223.58-A / 1-308-A
Removal and Replacement of Compressor Cylinder		223.58-A / 1-309-A
Check Compressor Rod Runout		223.58-A / 1-310-A
Removal of Compressor Piston		223.58-A / 1-312-A
Installing Compressor Piston		223.58-A / 1-313-A
Check Timing of the Altronic II-CPU Ignition System for KVS Main Compressor Units		223.58-A / 1-314-A
Checking Connecting Rod Bearing and Piston Bushing Clearance by the Bump Method		223.58-A / 1-315-A
Checking Crankshaft Deflection		223.58-A / 1-316-A
Checking Crosshead Clearance		223.58-A / 1-317-A
Removing, Inspecting, and Replacing Compressor Packing		223.58-A / 1-318-A
Inspecting Turbocharger — KVS Units		223.58-A / 1-319-A
Changing Compressor Valve		223.58-A / 1-320-A
Servicing Hydraulic Valve Lifters		223.58-A / 1-322-A



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Inspecting and Cleaning Compressor Building Basement		223.58-A / 1-323-A
Cleaning and Inspecting Heater Treaters		AC-FLD-HT-100
Operation of Thermal Fluid Heaters H-416, H-417 & H-418		223.58-A / 1-326-A
Taking a Well out of Service for Maintenance or Wire Line Work Aliso Canyon		223.58-A 1-327-A
Cleaning of Odorant Contaminated Parts, Tools, and Pipefittings Using Household Bleach		223.58-A 1-328-A
GOPS Event for Aliso Canyon Storage Facility		AC-ELEC-GOPS-100
Torquing and Inspection of Threaded Fasteners at Compressor Stations - Transmission and Storage	223.0245	
Starting and Stopping Compressors K-51A and K-51B		223.70-AC
Starting and stopping K-50		223.80-AC
Starting and stopping Porter Compressor Plant Units		223.90-AC
Aliso Canyon Emergency Shutdown System (ESD)		2402.13A
Starting and Operating Generator Units — Normal Operations		223.64-A
Generator Unit Panels (No number available)		1-124-A
Gas Detector in Compressor Buildings — Calibration of General Monitors Model S104		1-125-A
Add Odorant to Storage Tanks at Dehy #1, Dehy #2 & PCP		1-126-A
Dehy 1 Contactor C-1 Lock Out Tag Out Procedure		223.25-A-171.1
Dehy 1 Glycol Exchangers Lock Out Tag Out Procedure		223.25-A-172.1
V-215 Hazardous Energy Control Lockout Procedure		223.25-A-174-1
V-193A Hazardous Energy Control Lockout Procedure		223.25-A-175.1
SGP Storage Y-Tank Lock Out Tag Out Procedure		223.25-A-114-1
SGP Storage Tank T-67 Lockout Tagout Procedure		223.25-A-111-1
SGP Storage T-99 Lock Out Tag Out Procedure		223.25-A-112-1
SGP Tank T-101 Lock Out Tag Out Procedure		223.25-A-101-1
SGP Tank T-102 Lock Out Tag Out Procedure		223.25-A-102-1
Main Centrifugal Gas Compressor Unit Maintenance	223.0330	
Main Reciprocating Gas Compressor Unit Operation — Transmission	223.0275	
Compressor Station Equipment — Isolation for Maintenance or Alterations	223.0250	
Compressor Station Fire Protection Systems	223.0240	
Valve Maintenance — Transmission	223.0215	
Pressure Relief/Pressure Limiting Devices Testing/Inspection — Transmission	223.0345	
Pressure Vessel Inspection	223.0045	



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Investigation of Failures — Local Distribution Services and Transmission Facilities	223.0030	
Field Procedure — Emergency Incidents — Transmission	183.0110	
Main Reciprocating Gas Compressor Maintenance — Transmission	223.0280	
Aliso Canyon Infrared Methane Leak Detection System Procedures		AC-FLD-FLMM-100
Aliso Canyon Well Pressure Monitoring Policies and Procedures		AC-FLD-PT-100
ALISO CANYON – MAIN STATION ESD SYSTEM SIMULATED TEST		AC-STA-ESD-101
ALISO CANYON – GENERATOR ESD SYSTEM TEST		AC-GEN-ESD-101
EDC START AND STOP PROCEDURE		AC-EDC-COMP-100



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G) ELECTRICAL REGULATION POLICIES AND REQUIREMENTS:

1. **CALIFORNIA GENERAL ORDER 95:**

i. <http://docs.cpuc.ca.gov/PUBLISHED/Graphics/162158.PDF>

2. **CALIFORNIA GENERAL ORDER 128:**

i. http://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/52591.htm

3. **CALIFORNIA GENERAL ORDER 165:**

i. <http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&DocID=78606034>

ii. Inspection Cycle Table below:

Table of Distribution Inspection Cycles (Maximum Intervals in Years)

	Patrol		Detailed		Intrusive	
	Urban	Rural	Urban	Rural	Urban	Rural
Transformers						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Pad-mounted	1	2	5	5	---	---
Switching/Protective Devices						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Pad-mounted	1	2	5	5	---	---
Regulators/Capacitors						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Pad-mounted	1	2	5	5	---	---
Overhead Conductor and Cables						
Overhead Conductor and Cables	1	2 ¹	5	5	---	---
Street lighting						
Street lighting	1	2	x	x	---	---
Wood Poles under 15 years						
Wood Poles under 15 years	1	2	x	x	---	---
Wood Poles over 15 years which have not been subject to intrusive						
Wood Poles over 15 years which have not been subject to intrusive	1	2	x	x	10	10
Wood poles which passed intrusive inspection						
Wood poles which passed intrusive inspection	---	---	---	---	20	20



ALISO CANYON SAFETY PLAN

- 1) **Patrol inspections** in rural areas shall be increased to once per year in Extreme and Very High Fire Threat Zones in the following counties Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura. Extreme and Very High Fire Threat Zones are designated on the Fire and Resource Assessment Program (FRAP) Map prepared by the California Department of Forestry and Fire Protection or the modified FRAP Map prepared by San Diego Gas & Electric Company (SDG&E) and adopted by Decision 12-01-032 in Phase 2 of Rulemaking 08-11-005. The fire-threat map is to be used to establish approximate boundaries and Utilities should use their own expertise and judgment to determine if local conditions require them to adjust the boundaries of the map.

Note: This General Order does not apply to Cathodic protection systems associated with natural gas facilities.

Note: For the purpose of implementing the patrol and detailed inspection intervals in the Table above, the term “year” is defined as 12 consecutive calendar months starting the first full calendar month after an inspection is performed, plus three full calendar months, not to exceed the end of the calendar year in which the next inspection is due. A required inspection may be completed any time before the expiration of the associated inspection interval using this definition of “year,” but not after. The completion of an inspection starts a new inspection interval that must be completed within the prescribed timeframe using this definition of “year.” However, inspection intervals may be extended by up to six months in areas where the Governor of California or the President of the United States has declared an emergency or a disaster following a major earthquake or other catastrophe using the procedure set forth in Decision 13-06-011 issued in Rulemaking 08-11-005. The extension shall not exceed six months from the date that an emergency is declared or the date that a disaster is declared, whichever is earlier.

Note: For wood pole intrusive inspections, the term “year” is defined as a calendar year.

4. **NFPA 70: NATIONAL ELECTRICAL CODE (NEC)**

5. **CAL FIRE; POWER LINE PREVENTION FIELD GUIDE:**

- i. <http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fppguidepdf126.pdf>

H) **CAL/OSHA:**

- i. <http://www.dir.ca.gov/samples/search/query.htm>



ALISO CANYON SAFETY PLAN

I) LA COUNTY FIRE DEPARTMENT REGULATIONS:

1. HAZARDOUS MATERIALS PROGRAM:

- i. California Health and Safety Code, Division 20, Chapter 6.95, Article 1
- ii. California Code of Regulations, Title 19
- iii. California Fire Code, Title 24, Part 9, Chapter 27, Sections 2701.5.1 and 2705.2

2. CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM:

- i. California Health and Safety Code, Division 20, Chapter 6.95, Article 2
- ii. California Code of Regulations, Title 19

3. HAZARDOUS WASTE GENERATOR PROGRAM:

- i. California Health and Safety Code, Division 20, Chapter 6.5, Articles 1-13, Section 25100
- ii. California Code of Regulations, Title 22, Division 4.5, Chapters 10, 11, 12 and 31

4. ABOVE GROUND PETROLEUM STORAGE TANK PROGRAM:

- i. California Health and Safety Code, Division 20, Chapter 6.67, Section 25270



ALISO CANYON SAFETY PLAN

J) SOCALGAS JOBSITE SAFETY MEETING CHECKLIST:

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ALISO CANYON SAFETY PLAN

Southern California Gas Company	Jobsite Safety Meeting Checklist
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Instructions: Meeting Conductor review applicable items on this checklist with the attendees, mark all items that are relevant and are reviewed in this meeting with an "X" on the box next to each item, and obtain names and signatures of each attendee. This checklist is not intended to replace any Company Safety Procedures. This material/information, as well as all federal, state, and local rules that apply, will be followed.

Project Name:	
Project Location:	
Meeting Date:	
Meeting Conducted by (Name):	

Emergency Contact Name (Primary)	
Emergency Contact Phone Number (Primary)	
Emergency (from Station) Contact Name (Secondary)	
Emergency (from Station) Contact Phone Number (Secondary)	

Local Medical Emergency Centers:

<input type="checkbox"/> Hospital Name	Northridge Hospital Medical Center / Facey Medical Group Urgent Care	
<input type="checkbox"/> Hospital Address	18300 Roscoe Blvd, Northridge / 19950 Rinaldi St., Porter Ranch	
<input type="checkbox"/> Hospital Phone Number	(818) 885-8500 / (818) 403-2400	

<p>Station Orientation:</p> <p><input type="checkbox"/> Control Room, Restroom, Canteen</p> <p><input type="checkbox"/> Parking</p> <p><input type="checkbox"/> Smoking Areas</p> <p><input type="checkbox"/> Sensitive Areas</p> <p><input type="checkbox"/> Disposal</p> <p><input type="checkbox"/> Staging Areas</p>	
---	--

<p>Station Emergency Facilities and Equipment:</p> <p><input type="checkbox"/> Station Exits</p> <p><input type="checkbox"/> First Aid Kits</p> <p><input type="checkbox"/> Eye Wash</p> <p><input type="checkbox"/> Fire Extinguishers</p> <p><input type="checkbox"/> Public Phone</p> <p><input type="checkbox"/> Stretchers</p>	<p>Emergency Evacuation Plan:</p> <p><input type="checkbox"/> Evacuation and Assembly Areas</p> <p><input type="checkbox"/> Evacuation Procedures</p>
--	--

Hazardous Material Notices:

- PROPOSITION 65 WARNING:** Contractor, its employees, subcontractors, agents, permittees, invitees, and representatives assigned to perform, review or audit the Work will be exposed at the job site to chemicals and substances known to the State of California to cause cancer, birth defects or other reproductive harm or toxicity. Contractor warrants that it has advised or will advise its personnel and will advise and require its subcontractors to advise their employees assigned to perform Work that they will be exposed to substances known to the State of California to cause cancer, birth defects or reproductive harm or toxicity.



ALISO CANYON SAFETY PLAN

Southern California Gas Company	Jobsite Safety Meeting Checklist
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Lead, as well as other metals including but not limited to arsenic, cadmium and chromium, are commonly present in paint at varying concentrations in painted surfaces. Therefore, as an employer, you are expected to comply with all applicable regulations for protection of workers and environment, including but not limited to Cal/OSHA, prior to and during disturbance or removal of lead or other metal containing paint. Lead, arsenic, cadmium and chromium VI are substances known to the State of California to cause cancer /or birth defects and other reproductive harm.

Personal Protective Equipment:

- Clothing/Gloves/Hard Hats
- Respiratory Protection
- Eye/Face Protection
- Hearing Protection
- Foot Protection
- Flagging/Flotation Vest
- Barricades
- Traffic Cones/Lights

Company Policies:

- No Liquor/Drugs/Firearms
- Harassment
- Violence
- Standard of Conduct

Station Special Requirements:

<input type="checkbox"/> Regulations (Explain)	All applicable Federal, State, OSHA and local regulations apply.
--	--

- Speed Limit
- Housekeeping/Sanitation
- Cell Phone Usage
- Vehicles may not be left running, when driver is not in vehicle

Following Certificates Are Required For This Project:

- Op Qual USE PAGE 3 of 3 to provide OP-Qual information
- Use of Tools/Equipment
- Crane/Fork Lift Operations

Following Procedures Are Required For This Project:

- Confined Space Entry
- Tie-in/Lockout/Tagout
- Fire Watch

Following Permits/Authorizations Are Required For This Project:

- Fire/Hot Work
- Under Ground Service Alert

Attendees below acknowledge that He/She have been present during this safety meeting:

Attendee Full Name (Print):	Company Name (Print)	Signature	Date



ALISO CANYON SAFETY PLAN

Southern California Gas Company	Jobsite Safety Meeting Checklist
---------------------------------	----------------------------------

Contractor employees and Company employees who are Op-Qual'd and/or certified are required to carry their cards while on the job and MUST present it to Company representative for verification prior to starting work.¹

Company representative must fill required information below by witnessing the card, DO NOT accept copies or letters as a substitutes for original card.

Op-Qual'd Person's Name ¹ (as it appears on the Op-Qual card):	
Op-Qual'd Person's Card Number (as it appears on the Op-Qual card):	

Check below the appropriate Task that is required, for person named above, in this project:

Task ID	Description	Date Qual	Card Inspected by	Card Inspection Date
<input type="checkbox"/> 1.1	Install Pipelines in a Ditch			
<input type="checkbox"/> 1.2	Maintain Min. Cover Over Pipe			
<input type="checkbox"/> 1.3	Conduct Abandonment of Pipe			
<input type="checkbox"/> 2.1	Examine pipe when exposed			
<input type="checkbox"/> 2.2	External Protective Coating			
<input type="checkbox"/> 2.11	Insp. For internal corrosion			
<input type="checkbox"/> 2.14	Gen and localized corrosion-Trans			
<input type="checkbox"/> 3.1	Leak testing non-welded joints			
<input type="checkbox"/> 3.2	Testing reinstated service lines			
<input type="checkbox"/> 5.1	Locate & Mark buried pipelines			
<input type="checkbox"/> 5.2	Inspect & standby to protect pipe			
<input type="checkbox"/> 6.1	Tapping lines under pressure			
<input type="checkbox"/> 7.1	Purging pipelines			
<input type="checkbox"/> 10.1	Identify leak, flaw/damage to Line			
<input type="checkbox"/> 10.2	Repair imperfection, damages			
<input type="checkbox"/> 10.3	Field repair welds			
<input type="checkbox"/> 10.4	Field repair leaks			
<input type="checkbox"/> 10.5	Testing of Repairs on Trans. Lines			
<input type="checkbox"/>				
<input type="checkbox"/>				

Contractor employees and Company employees who are Certified are required to carry their cards while on the job and MUST present it to Company representative for verification prior to starting work.

Company representative must fill required information below by witnessing the card, DO NOT accept copies or letters as a substitutes for original card.

Certified Person's Name (as it appears on the card):	
Contractor ID Number (as it appears on the card):	

Check below the appropriate Qualification that is required, for person named above, in this project:

Qualification	Due Date	Next Test	Card Inspected by	Card Inspection Date
<input type="checkbox"/> SMAW HS				
<input type="checkbox"/>				
<input type="checkbox"/>				

¹ Attach additional copies of page 3 for additional op-qual d/certified persons.



K) ALISO CANYON TRAINING COURSES:

- * GOPS Review
- * Violence in the Workplace Prevention
- * Hazardous Materials Business Plan
- * Natural Disaster or Major Emergency Employee Instructions
- * Storm Water Pollution Prevention
- * Smith Defensive Driving
- * Discrimination and Harassment Free Workplace
- * Personal Protective Equipment
- * Spill Prevention Control and Countermeasure (SPCC) Plan
- * Heat Stress
- * Fire Drill Evacuation / Fire Permits / EAP
- * Hazardous Energy Control Program
- * Preventing Back Injuries
- * Insect Bite Prevention
- * Ladder Safety
- * Emergency Incidents – Underground Storage Wells
- * Preventing Hand Injuries
- * Low-Voltage Electrical Safety Program
- * Confined Space Operations
- * Abnormal Operating Conditions
- * Grounding & Bonding Flammable Liquid Containers
- * IIPP Review
- * Eye Safety
- * Field Ergonomics
- * Forklift Operating & Training
- * Respiratory Protection
- * Hazardous Waste Generators
- * Security Awareness
- * Emergency Plan
- * Medic First Aid & Blood borne Pathogen Awareness



ALISO CANYON SAFETY PLAN

- * Hearing Conservation
- * Orion 4 Gas Monitor Training
- * Hazcom – Product Approval Process
- * SIMS Lifting Options and Techniques
- * Safety in Motion
- * Arc Flash Training
- * Fall Protection
- * Asbestos
- * Release Reporting Awareness
- * DOT Hazardous Materials Transportation