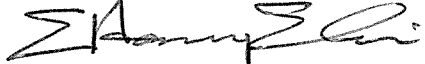


**SAN FRANCISCO PUBLIC UTILITIES COMMISSION  
WATER SYSTEM IMPROVEMENT PROGRAM  
CONSTRUCTION MANAGEMENT PROCEDURES**

<b>SECTION: WSIP CONSTRUCTION MANAGEMENT</b>	<b>APPROVED:</b> 
<b>PROCEDURE NO.: 012 TITLE: SAFETY REPORTING PROCEDURES</b>	<b>DATE: 08/06/09 REVISION NO.: 2</b>

**1.0 Policy**

All parties involved in the construction of the Water System Improvement Program (WSIP) are required to comply with the WSIP contract safety requirements, the California Code of Regulations, Title 8 (Cal/OSHA) and all applicable Federal, State and Local regulatory standards.

The WSIP Safety Approach and the Technical Specification No. 00814, Health and Safety shall be uniformly and consistently applied to all WSIP Projects.

The Construction Contractor will have full and total responsibility for the construction means, methods, techniques and all construction site safety on the project.

This procedure applies to all personnel working on the Water System Improvement Program (WSIP) to the extent that their work is affected by these WSIP Construction Management (CM) Procedures and does not conflict with specific San Francisco Public Utilities Commission (SFPUC) policies

**2.0 Description**

This procedure establishes the requirements for monitoring the Contractors' and Project CM Teams' compliance with the WSIP safety requirements, regulatory standards and the reporting of safety incidents and results.

**3.0 Definitions**

**3.1 Activity Hazard Analysis (AHA)/Job Hazard Analysis (JHA)**

A form used to identify the task and break it down into steps, identify the hazards associated with each step, and identify the control measures used for each step to protect the worker, environment and/or public. This form is also commonly referred to as Job Safety Analysis (JSA); refer to Attachment 012 – 2.

## **3.2 California Code of Regulations, Title 8 (Cal/OSHA)**

3.2.1 California Department of Industrial Relations, Division of Occupational Safety and Health, California Occupational Safety and Health Administration (Cal/OSHA) enforces California Occupational and Public Safety Laws, provides information and consultative assistance to employers, workers, and the public regarding workplace safety and health issues.

3.2.2 California Code of Regulations, Title 8 (Cal/OSHA) describes the safety and reporting requirements for work in California. Complete information and their reporting requirements are provided on their website. However, subjects of particular interest are the following regulations listed;

- Chapter 3.2 California Occupational Safety and Health Regulations
- Chapter 4 Division of Industrial Safety
- Chapter 7 Division of Labor Statistics and Research; Subchapter 1, Occupational Injury or Illness Reports and Records

## **3.3 Contractor Management Information System (CMIS)**

The WSIP CMIS is an on-line management tool for the processing of contract documents based on established construction management business processes. It serves as a tool for effective storage and retrieval of various documents generated during a construction project.

3.3.1 The Contractor submits the Safety reports and documents into the CMIS.

## **3.4 Health and Safety Plan (HASP)**

Project Site-Specific Health and Safety Plan developed by the Contractor and submitted to the Project CM for approval in accordance with Technical Specification No. 00814, Health and Safety.

3.3.1 Typical Table of Contents for Health and Safety Plan is presented on Attachment 012 – 4.

## **3.5 Incident**

Any unplanned or unexpected event that results in personal injury, property damage, or environmental release.

## **3.6 Near- Miss Incident**

Any unplanned or unexpected event that could have resulted in personal injury, property damage or environmental release, but did not result in an incident due to unplanned circumstances.

### **3.7 Project Monthly Safety Report**

A report compiled by the Project CM from statistical data provided by the Contractor and supplemented by data from the Project CM Team of hours worked by the Contractor and Project CM Team, OSHA Recordable Incidents and Incident Rate, Lost Work Day cases and Incident Rate, Lost Work Days and Days Away from Work Rate, First Aid Cases and Property Damage Incidents, and submitted to the Program Safety Manager.

3.6.1 The WSIP Program Safety Manager will compile safety information from all project Contractors and CM Teams and then produce a Monthly Regional and Program Safety Report for WSIP Management.

## **4.0 Responsibilities**

### **4.1 Contractor**

The Contractor is fully and totally responsible for all construction site safety.

4.1.1 The Contractor produces and submits a HASP, AHA's/JHA's, documented safety inspections, project monthly safety statistics, training records, incident reports and other safety reports, plans and certifications as required by Federal, State and local regulations.

4.1.2 The Contractor shall provide a site safety orientation for each employee and trained safety personnel for daily inspections of all work on the site and the regulatory required site safety meetings.

### **4.2 Project Construction Manager ( Project CM)**

The Project CM ensures that all documentation and reporting for safety is submitted by the Contractor as required by Technical Specification No. 00814, Health and Safety of the Contract.

4.2.1 The Project CM will produce and submit to the Program Safety Manager a Project Safety Plan for the CM Team, and ensure that all Project CM Team members comply with the CM Project Safety Plan and applicable regulations.

4.2.2 The Project CM will submit the Contractor's and CM's Project Monthly Safety Statistical Report and Incident Reports to the Program Construction Safety Manager, Regional Project Manager (RPM), and Regional Construction Manager (RCM) for review.

4.2.3 The Project CM will provide support to the Contractor and the Program Safety Manager in investigations of all project safety incidents.

4.2.4 The Project CM is responsible for the SFPUC internal and external distribution of Incident Reports to others in compliance with Technical Specification No. 00814, Health and Safety.

### **4.3 Program Safety Manager**

The Program Safety Manager with the assistance of the Regional Safety Manager(s);

- (a) Monitor the compliance of the Contractor and the Project CM Teams with the WSIP Safety Approach document and Contract requirements;
- (b) Assist with analysis and investigation of safety incidents;
- (c) Provide an overview of the WSIP Safety Approach document requirements at Pre-Bid and Pre-Construction Meetings and provide orientation to each Project CM and Contractor Management Teams;
- (d) Conduct and document a Pre-Construction Safety Review Meeting with the Project CM Team and the Contractor to review the requirements for HASPs and Hazard Assessment observations;
- (e) Summarize and provide Program-wide Analysis to WSIP Management of safety statistics and reports provided by the Project CM to the RPM and RCM.

### **4.4 Regional Safety Manager (s)**

The Regional Safety Manager(s);

- (a) Conducts review of the Contractor's and CM Consultant's compliance with the contract terms relating to safety as set forth in the WSIP Safety Approach document;
- (b) Maintains records of safety compliance and effectiveness;
- (c) Assists in the investigation of safety incidents;
- (d) Reports to the Program Safety Manager.

## **5.0 Implementation**

### **5.1 Safety Approach Implementation**

5.1.1 The Regional PM / Project Manager (PM) and Project Engineer (PE) will ensure safety and health requirements are included in each Contract specification, including the identification of pre-existing, site specific safety hazards in accordance with Technical Specification No. 00814, Health and Safety.

5.1.2 The Program Safety Manager will provide an overview of the Safety Approach and requirements at the Pre-Bid Meeting and at the Pre-Construction Meeting.

- 5.1.3 Prior to any work beginning on the project site, the Program Safety Manager will provide the Project CM Team and Contractor's supervisory staff with project specific orientation training, including safety approach requirements, specification information, safety documentation requirements, AHA/JHA/Incident reporting, and an overview of Cal/OSHA Compliance requirements.
- 5.1.4 The Contractor will prepare and submit to the Project CM all required Safety Plans, AHA's/JHA's, Hazard Assessments in compliance with the Contract.
- 5.1.5 The Project CM will prepare and submit to the Program Safety Manager a Project Specific Safety Plan that addresses the Safety requirements for the Project CM Team that complies with the WSIP Safety Approach document and all responsibilities of the Project CM for safety oversight.
- 5.1.6 During construction, the Contractor will conduct Safety Tailgate Meetings per CAL/OSHA Regulatory Requirements and other Safety and Health Meetings and training relevant to the specific types of work at the project site for all employees and staff.
- 5.1.7 The Project CM will advise and take actions as necessary to correct any observed project safety hazards that pose danger to life or health and document and notify the RPM and Program Safety Manager of any such actions.
- 5.1.8 The Project CM will maintain and enforce the Contractor's requirements for incident notification and contract safety submittals.

## **5.2 Incident Reporting**

- 5.2.1 Any employee of the Contractor or member of the Project CM Team involved in or witnessing a Near-Miss Incident or a Safety Incident must report it to their Supervisor immediately.
- 5.2.2 The Contractor must immediately notify the Project CM and, within 24 hours, conduct an investigation and submit an Incident Investigation Report (Attachment 012-1) to the Project CM within 48 hours of the event. A copy of Incident Investigation Reports involving SFPUC employees will be provided to the RPM and the Deputy Director of Construction.
- 5.2.3 The Contractor must complete and submit to the Project CM a root cause analysis of the Incident or Near-miss Incident within ten (10) working days of the event.
- 5.2.4 Any member of the Project CM Team may stop the Contractor's work if a safety hazard is observed that poses an immediate danger to life or health. The Project CM will notify the Regional PM, RCM and Program Safety Manager and document the incident within 24

hours for submission and review to the Regional PM, RCM, Program Safety Manager and Contractor.

### **5.3 Safety Reporting**

- 5.3.1 The Contractor must maintain project safety audits, reports, records and logs on the project site for review by the Project CM or Program Safety Manager.
- 5.3.2 The Contractor shall submit Weekly Safety Inspection Reports to the Project CM.
- 5.3.3 The Contractor shall submit Project Monthly Safety Statistical Reports to the Project CM.
- 5.3.4 The Project CM will incorporate monthly safety statistics of the Project CM Team with the Contractor's safety statistics and submit a Project Monthly Safety Report on the Contractor safety performance of the overall project to the Program Safety Manager.
- 5.3.5 The Program Safety Manager will compile the data from all Project Monthly Safety Reports and provide the Regional PM with a Monthly Report of safety statistics and significant Incidents and Contractor safety performance for the region, and an overall program-wide report to WSIP Management.

### **5.4 Agency Visits**

All contacts with Cal/OSHA or other compliance agencies concerning any WSIP Construction Program Projects must be reported IMMEDIATELY to the concerned SFPUC WSIP Regional CM and Regional PM, as well as, the Program Safety Manager and Regional Safety Managers.

"Contacts" include all Cal/OSHA discussions, meetings, visits, phone calls, e-mails, notifications, correspondence, etc. pertaining to WSIP Construction Projects.

### **6.0 Other Procedural Requirements**

- CM Procedure No. 025     Emergency Response
- CM Procedure No. 038     Site Security

### **7.0 References**

- California Code of Regulations, Title 8 (Cal/OSHA)
- Technical Specification No. 00814, Health and Safety
- WSIP Construction Management Plan
- WSIP Safety Approach Document
- CM Procedure 025, Emergency Response

## **8.0 Attachments**

- 012 - 1 Incident Investigation Report
- 012 - 2 Activity Hazard Analysis (AHA)/Job Analysis (JHA) – Typical
- 012 - 3 Project Monthly Safety Report – Typical
- 012 - 4 Contractor Health and Safety Plan (HASP), Table of Contents – Typical
- 012 – 5 Documents Distribution List for CMP No. 012
- 012 – 6 Revision Control Log

**Attachment 012 - 1**  
**Page 1 of 2**  
**Incident Investigation Report**

SFPUC SUPERVISOR'S ACCIDENT INVESTIGATION REPORT				
DIVISION/BUREAU	WORK GROUP	OSHA Case No. if recordable <i>(from Form 5020)</i>		
Where did accident occur? <small>(i.e., 750 Phelps, or Automotive Shop Bay 2)</small>	Date Of Accident	TIME	AM PM	Date Reported
PERSONAL INJURY		PROPERTY DAMAGE		
Injured Employee's Name	Age	Property Damaged		
Job Class, Title	Time in Position			
Type of Injury <small>(i.e., sprain, or cut)</small>	Part of Body Injured	Type of Damage		
Object/Equipment/Substance That Caused Injury		Object/Equipment/Substance That Caused Damage		
Date & Time <i>DWC Form 1</i> Provided to Employee				
<b>DESCRIPTION</b>	Describe Clearly How the Accident Occurred: (Attach Motor Vehicle Accident Report for All Motor Vehicle Accidents)			
<b>ANALYSIS</b>	What Acts, Failures to Act, or Conditions Contributed Most Directly to This Accident?			
	What are the Basic or Fundamental Reasons for the Existence of these Acts or Conditions?			
FUTURE ACCIDENT CLASSIFICATION		LIKELIHOOD OF ACCIDENT RECURRENCE		
<input type="checkbox"/> Major <input type="checkbox"/> Serious <input type="checkbox"/> Minor		<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>PREVENTION</b>	What Actions Will Be Taken To Prevent Reoccurrence?			





**Attachment 012 - 2**  
**Page 1 of 2**  
**Activity hazard Analysis (AHA) /Job Analysis (JHA) – Typical**

**INSTRUCTIONS FOR COMPLETING A CODE OF SAFE PRACTICE**

- DEPARTMENT /DIVISION:** Enter the department/bureau name for which this CSP will apply.
- WORK GROUP:** Enter the work group name for which this CSP will apply.
- DATE PREPARED:** Enter the date this CSP was prepared or updated.
- TASK:** Describe the task that will be performed.
- HAZARDS:** Place a check in all the boxes that apply to hazards encountered while performing this task.
- DESCRIBE:** List any additional detail that is needed to identify the hazards present while performing this task.
- PERSONAL PROTECTIVE EQUIPMENT and OTHER SAFETY EQUIPMENT:**  
Place a check in all the boxes that apply to the PPE and Other Safety Equipment necessary to protect employees while performing this task.
- SPECIFY STEPS TO COMPLETE TASK and RELATED CONTROLS:**  
List the steps to complete the task this CSP covers and include the ways employee will be protected from injury. The information should be clear and detailed, such that employees will know the specific safety requirements.

**Attachment 012 - 2**  
**Page 2 of 2**  
**Activity hazard Analysis (AHA) /Job Analysis (JHA) – Typical**

**San Francisco Public Utilities Commission**  
**Code of Safe Practices**

Division: \_\_\_\_\_ Department: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

Location and Crew: \_\_\_\_\_

Task: \_\_\_\_\_

Approved By and Date: \_\_\_\_\_

Hazards:	Describe:	
<input type="checkbox"/> Chemicals <input type="checkbox"/> Confined Space <input type="checkbox"/> Cumulative Trauma <input type="checkbox"/> Electrical <input type="checkbox"/> Fire <input type="checkbox"/> Heat Stress <input type="checkbox"/> High Pressure <input type="checkbox"/> High Work/Falls	<input type="checkbox"/> Hot Work <input type="checkbox"/> Infectious Materials <input type="checkbox"/> Lifting <input type="checkbox"/> Materials Handling <input type="checkbox"/> Moving Machinery <input type="checkbox"/> Noise <input type="checkbox"/> Slips <input type="checkbox"/> Other	

**Personal Protective and Other Safety Equipment:**

<b>Eyes</b> <input type="checkbox"/> Chemical Goggles <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Face Shield & Goggles <input type="checkbox"/> Other – Describe: _____	<b>Body</b> <input type="checkbox"/> Gloves <input type="checkbox"/> Work Shoes/Rubber Boots <input type="checkbox"/> Coveralls <input type="checkbox"/> Hard Hat	<b>Respiratory Protection</b> <input type="checkbox"/> Half-Face Air Purifying Respirator with Appropriate Cartridge <input type="checkbox"/> Self Contained Breathing Apparatus <input type="checkbox"/> Emergency Escape Respirator <input type="checkbox"/> Dust/Mist Mask
<b>Hearing</b> <input type="checkbox"/> Ear Plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Other – Describe: _____	<b>Ventilation</b> <input type="checkbox"/> Exhaust Fan <input type="checkbox"/> Blower Fan <input type="checkbox"/> Other – Describe: _____	<b>Fall Protection</b> <input type="checkbox"/> Safety Harness and Lanyard <input type="checkbox"/> Self-Retracting Lifeline (SRL) <input type="checkbox"/> Portable Anchor Type: _____
<b>Air Monitoring Equipment</b> <input type="checkbox"/> Four Gas Meter    How Many?: _____ <input type="checkbox"/> Five Gas Meter    How Many?: _____ <input type="checkbox"/> Other – Describe: _____	<b>Confined Space Retrieval</b> <input type="checkbox"/> Tripod or UCL <input type="checkbox"/> SRL/Winch Combination Unit <input type="checkbox"/> Safety Harness <input type="checkbox"/> Ladder	

**Specific Procedures:**

**WSIP PROJECT SAFETY PROGRAM  
MONTHLY PERFORMANCE REPORT**

	<u>Recordable Cases</u>		<u>Recordable Rates</u>		<u>Days Away Work Cases</u>		<u>Days Away Work Rate</u>		<u>Total Project Man-hours</u>	
	<u>MTD</u>	<u>YTD</u>	<u>MTD</u>	<u>YTD</u>	<u>MTD</u>	<u>YTD</u>	<u>MTD</u>	<u>YTD</u>	<u>MTD</u>	<u>YTD</u>
Contractor	0	0	N/A	N/A	0	0	N/A	N/A	0	
Construction Manager Staff	0	0	N/A	N/A	0	0	N/A	N/A	0	
Subcontractors	0	0	N/A	N/A	0	0	N/A	N/A	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>N/A</b>	<b>N/A</b>	<b>0</b>	<b>0</b>	<b>N/A</b>	<b>N/A</b>	<b>0</b>	<b>0</b>

Additional Project Safety Reporting Information:

	<u>MTD</u>	<u>YTD</u>
First Aid Cases:		
Near-miss Reports:		
OSHA Citations:		
Property Damage Incidents:		

1. Definitions
2. Recordable Cases – all incidents requiring medical attention beyond first aid
3. Recordable Rate – Number of cases x 200,000 / man-hours
4. DAW Case – all incidents resulting in days away from work
5. DAW Rate – Number of cases x 200,000 / man-hours

**Attachment 012-4**  
**Page 1 of 3**  
**Contractor Health and Safety Plan (HASP)**  
**Table of Contents – Typical**

**NOTE:**

*A typical HASP is provided to assist the Contractor in developing a WSIP Site-Specific Health and Safety Plan for the project. This information is for guidance only and is not intended to be utilized as Contractor's sole source for development of a Project HASP, refer to additional notes below.*

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**Section 1    Introduction**

- 1.1    Project Background
- 1.2    Project Objectives

**Section 2    Scope of Work**

- 2.1    Scope of Work
- 2.2    Health and Safety Plan Application
- 2.3    Emergency Response

**Section 3    Contractor Organization Roles, Responsibilities and Coordination**

- 3.1    Key Contractor Personnel
  - 3.1.1    Construction Manager
  - 3.1.2    Construction Superintendent
  - 3.1.3    Site Safety Representative
  - 3.1.4    Emergency Response Coordinator
- 3.2    Key Project Construction Management Personnel
  - 3.2.1    Project Construction Manager
  - 3.2.2    Regional Safety Manager
  - 3.2.3    Program Safety Manager

**Section 4    HASP Plans and Guidelines**

- 4.1    Site Risk Analysis
- 4.2    Safety Systems Analysis
- 4.3    Specific Activity Hazard Analysis (AHA)
- 4.4    Hazards Communication
- 4.5    Site Audits/Inspections
- 4.6    Discipline and Enforcement
- 4.7    Critical Lift Plans

**Attachment 012-4**  
**Page 2 of 3**  
**Contractor Health and Safety Plan (HASP)**  
**Table of Contents – Typical**

**Section 5**    **HASP Procedures, Training and Orientation**

- 5.1 Contractor Weekly Safety Meeting Requirements
- 5.2 Contractor Workers Daily Task Safety Planning
- 5.3 HASP Procedures
- 5.4 Job Task/Safety Analysis Training
- 5.5 Special Training Programs
  - 5.5.1 Hazardous Materials
  - 5.5.2 Hazardous Waste
  - 5.5.3 Confined Space/Underground Work
  - 5.5.4 Trenching and Shoring
  - 5.5.5 Crane Inspection/Heavy Lifts
  - 5.5.6 Fall Protection
  - 5.5.7 Work in Operating Treatment Plants
- 5.6 OSHA 10/30 – Hour Outreach Program
- 5.7 Training Documentation and Record Keeping

**Section 6**    **Emergency Management Planning/Injury Reporting**

- 6.1 Emergency Response
- 6.2 Emergency Management Coordination
- 6.3 Injury Reporting
- 6.4 Incident Investigation/Root Cause Analysis
- 6.5 First Aid/Competent Persons
- 6.6 Medical Treatment Locations

**Section 7**    **Record Keeping, Reporting, Posting and Communications**

- 7.1 Record Keeping Requirements
- 7.2 Reporting Requirements
- 7.3 Posting Requirements
- 7.4 Communication Requirements

**Attachment 012-4**  
**Page 3 of 3**  
**Contractor Health and Safety Plan (HASP)**  
**Table of Contents – Typical**

**Section 8 Health and Safety Requirements**

- 8.1 Health And Safety Requirements and Applicability
- 8.2 OSHA Requirements
- 8.3 Cal - OSHA Requirements
- 8.4 Project Specific Requirements
  - 8.4.1 Lockout/Tagout Process
  - 8.4.2 Facility Site-Specific Safety Procedure

**Section 9 Medical Qualifications, Surveillance and Protection**

- 9.1 Medical Qualifications and Surveillance
- 9.2 Personal Protective Equipment (PPE)
- 9.3 Hearing Conservation
- 9.4 Respirator Protection
- 9.5 Controlled Substances and Smoking
- 9.6 Other Contractor Site-Specific Safety, as required

**Section 10 Security Requirements**

- 10.1 Site Security

**References (partial listings)**

- OSHA 1910 General Industry Standards
- OSHA 1926 Construction Standards
- Owner Site and Industrial Security Requirements
- Contract Technical Specification 00814, Health and Safety
- Contract Technical Specification 00819, Site Security

**Notes:**

- (a) *The Contractor is reminded to develop the Site-Specific Safety requirements in coordination with the owner's facility site specific safety procedures (if applicable with OSHA and WSIP Health and Safety regulations and policies.*
- (b) *The Contractor should amend the HASP as required in support of any additional Health and Safety requirements or changes in condition that mandate changes/modifications to the project Site-Specific HASP.*

**Attachment 012- 5**  
**Documents Distribution List for CMP No. 012**

The following personnel listed (by project position or responsibility) for Documents Distribution is a general guideline for specific CM Procedure. It is the responsibility of the Administration / Document Control Specialist (ADCS) to confirm and as necessary revise this list as appropriate for the specific project needs. The Office Engineer shall approve these distribution changes.

**The guideline for hard copy document distribution is follows:**

1. Individual, without CMIS access, who attended a specific project meeting;
2. Individual, without CMIS access, who was mentioned or designated for action in a specific project meeting;
3. Individual, without CMIS access, who has management oversight responsibilities to ensure the implementation or completion of project action.

**SPECIAL REPORTS:**

- **Project Monthly Safety Reports**
- **Incident Reports**
- **Weekly Safety Inspection Reports**
- **Agency Visit Reports**

**DISTRIBUTION:**

**Project Field Personnel – Information Only, Not Distribution**

- Project CM\*, Operations Representative, ADCS  
\* Project CM is responsible for Incident Report distribution to others

**Construction Management Bureau**

- Deputy Director of Construction
- Regional CM

**Program CM Consultant**

- Program CM Consultant Advisor
- Program Safety Manager

**Project Management Bureau**

- Regional PM

**Engineering Management Bureau**

- None

**Others**

- None



**Attachment 012- 6**  
**Revision Control Log**

<b>Revision No.</b>	<b>Revision Date</b>	<b>What changed?</b>
Rev 2	August 6, 2009	<ul style="list-style-type: none"><li>• Added Section 4.2.4</li><li>• Added Sections; 4.2, 4.3 and 4.4</li><li>• Revised Attachment 4; reduced pages to 3</li><li>• Added Attachment 5; Documents Distribution List</li><li>• Added Attachment 6; Revision Control Log</li></ul>
Rev 1	June 17, 2009	<ul style="list-style-type: none"><li>• Section 5.4; added Agency Visits Reporting Requirements</li></ul>
Rev 0	March 20, 2009	Signed