

**SAN FRANCISCO PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE CONSTRUCTION
MANAGEMENT PROCEDURES**

**SECTION: SFPUC INFRASTRUCTURE
CONSTRUCTION MANAGEMENT**

APPROVED:

PROCEDURE NO: 033

DATE: 03/13/2025

TITLE: EMERGENCY RESPONSE

REVISION: 2

1.0 Policy

The Emergency Response SFPUC Infrastructure Construction Management (CM) Procedure shall be implemented during the occurrence of an emergency event. Emergency events can include natural disasters, fires, incidents, medical emergencies, an environmental release, and other impacts to public health or safety.

This SFPUC Infrastructure CM Procedure applies to all personnel working on SFPUC Infrastructure Projects during construction, so long as it does not conflict with specific SFPUC policies or the Contract under which the Work is executed.

2.0 Description

The Emergency Response Plan identifies responsible parties, provides guidance as to how to respond, and provides guidance on how to coordinate between the CM team and the Contractors. The principal representatives are the assigned Construction Safety Officer, designated SFPUC management, the RE, and the Contractor's Site Safety Representative.

The Contractor is responsible for all site safety. It is the responsibility of the CM Team to ensure the Contractor fulfills their responsibility to keep all persons on the site safe, follow all Cal/OSHA requirements, Contract Safety requirements, the applicable safety standards, or regulations for the work and/or circumstances.

The following are requirements and guidance, enforced by the City Team with the goal of ensuring the Contractor can keep all persons safe onsite:

2.1 The SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident Types and Notification Chart, which explains what to do after an Incident or Near Miss Incident (Attachment 033- 1).

2.2 The Contractor shall prepare the Site-Specific Contractor Health and Safety Plan before any work is allowed on the project site.

- 2.3 The CSO is responsible for the preparation of the Project CM Safety Plan with the assistance and guidance of the RE
- 2.4 The Emergency and Incident Response (EIR) Coordination Hierarchy provides guidance regarding how different CM and Contractor Team members coordinate after an Incident or when an emergency occurs (Attachment 033- 2).

3.0 **Definitions**

3.1 **Site-Specific Contractor Health and Safety Plan (HASP)**

A project Site-Specific Health and Safety Plan developed by the Contractor, submitted to the City Representative, and reviewed by the Construction Safety Officer, in accordance with Contract Specification Section 00 73 19, Health and Safety Requirements (see Attachment 1 - Submittal Review Responsibility Matrix). The HASP must also conform with the applicable safety standards for the work to be performed. No work can occur on the site until the Contractor has submitted their HASP, the City has reviewed the HASP, and the City has accepted the Contractor's Plan.

The Contractor is required to submit to the RE a copy of the Contractor's final Site-Specific Health and Safety Plan (HASP) certified by the Contractor's Site Safety Representative and Project Manager as required by SFPUC Infrastructure CM Procedure No. 034 Safety Reporting Procedures as well as Specification Section 00 73 19 of all Contracts. The RE then forwards the HASP to the assigned Construction Safety Officer. The submittal format and detail requirements shall be in accordance with Contract Specification Section 00 73 19 Health and Safety Requirements – 11.0 Site-Specific Contractor Health and Safety Plan (HASP).

3.1.1 The Emergency and Contingency Response Plan is a subsection of the Contractor's HASP.

3.2 **Contractor**

The Contractor is the business entity awarded the contract to perform the work to successful completion and meet the terms and conditions of the Contract.

3.3 **Construction Inspector(s)/Lead Construction Inspector**

The Construction Inspector (CI) ensures the construction work is performed and completed in accordance with the contract documents. They compare the work performed by the Contractor against approved or accepted submittals. They observe as well as inspect the work. In observing the work, the CI also checks to make certain the Contractor adheres to Contract safety requirements, Cal/OSHA standards, as well as other applicable safety requirements. They monitor the Contractor's quality process, coordinate field sampling and testing for verification of quality results as needed. The Construction Inspector also prepares daily inspection reports, compiles quality records, including deficiencies, and Non-Conformance-Notices (NCN). They also document the work through means of photographs and videos. For projects with multiple Inspectors,

Construction Inspectors assigned to a project will report to the designated Lead or Senior Construction Inspector. For smaller projects with one Inspector or a part-time Inspector, the Construction Inspector reports to the RE.

On each project with multiple Inspectors, one Construction Inspector will be designated as a "Lead" Construction Inspector for the project team. The Lead Construction Inspector assists the RE in planning for and coordinating all inspection activities. They compile all daily inspection records, review field construction related submittals, inspecting all materials and equipment arriving on site. They monitor resolution of all quality issues. They take the lead on inspections of the project required to achieve Substantial and Final Completion. The designated Lead Construction Inspector reports to the RE.

Projects will be staffed with Inspectors capable of inspecting various specialty disciplines of Construction, as needed for the specific work activities. These disciplines may include, but are not limited to civil, pipe installation, welding, corrosion control, tunneling, mechanical, electrical, instrumentation, structural, in-factory inspections, security systems, communication systems, geotechnical, and surveying.

3.4 CM Safety Plan

The assigned Construction Safety Officer (CSO), develops a Project CM Safety Plan with the RE, to address the specific safety of the CM team for the project. The RE is required to submit to the Construction Manager (CM) a copy of the final site-specific Project Construction Management Safety Plan. A copy of the final plan should be filed by the CSO with the Infrastructure Safety Manager as well.

3.5 SFPUC Site-Specific Emergency Action and Operations Action Plan

3.5.1 Existing Facility-City

If the project work site is located at an existing manned SFPUC facility, then the Contractor's HASP, along with the City Project Construction Safety Plan, must reference as well as coordinate with the requirements of the SFPUC Site-Specific Emergency Action and Operations Action Plan.

3.5.2 Remote Area Work Sites

If the project work site is in a remote area, the RE with assistance of the CSO or other safety personnel assigned by Infrastructure Safety Manager shall prepare a Site-Specific Emergency Response guidance document for CM team members. The guidance document will be reviewed as assigned by the Infrastructure Safety Manager for consistency with other Emergency Response Plans.

3.6 Near Miss Incident

A Near Miss Incident is any unplanned or unexpected event that could have resulted in personal injury, property damage or environmental release, but does not, due to luck, chance, or other circumstances.

3.7 **Incident**

An Incident is defined as any unplanned or unexpected event that results in personal injury, property damage, or environmental release. Incidents are categorized to streamline reporting as a security incident, as an incident, a **Serious Injury Incident** or **Recordable Injury Incident**, in accordance with the guidelines shown in Attachment 033-1, SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident types and Notification Chart.

3.7.1 **Security**

A Security Incident is any Incident that threatens the security of the PUC's assets. Some examples of security incidents are Theft, Burglary, Assault, Vandalism, Loss, a Trespasser on the site, someone making threats of Kidnapping, missing person, etc.

Security Incidents must be reported to PUC Security and the assigned CSO. The RE may choose to have Security Incidents reported to the CSO and have the CSO report such Incidents to Security.

3.7.2 **Minor Incident**

A Minor Incident can be an injury that does not require medical intervention beyond first aid (no prescription medications or medical procedures required), a fire which is quickly extinguished without the aid of Fire Department personnel, working outside a permit, any Near Miss Incident, a Minor spill, release, potential regulatory violation, and/or exceeding of permissible limit.

3.7.3 **Recordable Injury Incident**

A Recordable Injury Incident, as defined by Cal/OSHA, is any injury that results in medical treatment beyond first_aid, one or more days away from work, restricted work or transfer to another job, diagnosis of a significant injury or illness, loss of consciousness, or death.

3.7.4 **Serious Injury Incident**

A Serious Injury Incident means any injury or illness occurring in a place of employment or in connection with any employment that requires inpatient hospitalization for other than medical observation or diagnostic testing, or in which an employee suffers an amputation, the loss of an eye, or any serious degree of permanent disfigurement, and/or death but does not include any injury, illness, or death caused by an accident on a public street or highway, unless the accident occurred in a construction zone.

A Serious Injury is also referred to as a Reportable Injury as such an injury must be reported to Cal/OSHA immediately but no later than 8 hours after the employer knows or with diligent inquiry would have known of the death or serious injury or illness.

Work-related injuries, illnesses and deaths caused by the

commission of a Penal Code violation are no longer excluded from the definition of "serious injury or illness".

A serious exposure is now defined as an exposure to a hazardous substance that occurs as a result of an incident, accident, emergency, or exposure over time and is in a degree or amount sufficient to create a realistic possibility that death or serious physical harm in the future could result from the actual hazard created by the exposure.

If an ambulance is called, Cal/OSHA should be called as there is a high potential of a Serious Injury. If the Injury is later deemed as not a Serious Injury, there are no consequences for notifying Cal/OSHA. Alternately, an Injury which does not appear to be a Serious Injury for which an ambulance is called, and Cal/OSHA is not called may likely result in a citation.

3.8 Construction Safety Officer (CSO)

A member of the City Team who is trained through OSHA qualified courses, recognized boards, associations, and/or an OTI (OSHA Training Institute) who applies the most appropriate construction safety standards along with the Contract Safety requirements. The CSO is authorized to review Contractor safety submittals, including the Contractor's HASP. This person also ensures that other City team members work safely and meet safety requirements, such as facilitating required tailgates every ten (10) days, ensuring required PPE is used for tasks onsite, etc.

3.9 Infrastructure Safety Manager

An Employee who is trained through OSHA qualified courses, recognized boards, associations, and/or OTI (OSHA Training Institute) who applies the most appropriate construction safety standards, experienced in Construction processes as well as the hazards which may result from such processes. The Infrastructure Safety Manager provides support for the Construction Safety Officers, through resources, Contract means of Safety enforcement, or other means of guidance. The Infrastructure Safety Manager also procures and/or coordinates any needed training or required PPE for Employees. The Infrastructure Safety Manager works in partnership with Health and Safety (HR) to implement consistent safety policies which meet or exceed the minimum standard of the Cal/OSHA requirements, to help reduce and minimize construction incidents. The Infrastructure Safety Manager is the owner of Specification Section 00 73 19 template, updating as needed.

3.10 Personal Protective Equipment (PPE)

The Contractor shall define task specific PPE requirements and provide these PPEs for all Contractor personnel in compliance with all applicable laws, rules, regulations, and standards. PPE minimum requirements shall be in accordance with Article 14.0 Personal Protective Equipment (PPE) of Contract Specification Section 00 73 19 and Cal- OSHA requirements.

For City Employees, the City shall provide the required PPE for the site, in compliance with all applicable laws, rules, regulations, standards, and

Contractor requirements.

For Consultant personnel, their employer shall provide the required PPE for the site, in compliance with all applicable laws, rules, regulations, standards and Contractor requirements.

3.11 Resident Engineer (RE)

The RE manages the project construction contract, supervises, and directs the performance of the CM team and ensures conformance to established policies and procedures for the management of the project.

3.12 Site Safety Representative

An appointed Contractor Employee, who is, Authorized to make Safety corrections, implements the Contractor's Safety Program, at minimum, successfully completed an OSHA-30 hour Construction Safety and Health course from an Authorized Trainer, has been First Aid/CPR trained within the past two (2) years in a course that was not solely online, and formally safety trained in any other Construction discipline specific to the project scope (e.g. if the scope has Confined Space work, the SSR must be Confined Space entry or entry supervisor trained, etc.). Dependent on size or scope, there may be an experience in Construction Safety requirements. For all projects valued by the Engineer's estimate over \$10,000,000, the Contractor's Site Safety Representative (SSR) must have no other duties other than the Safety of the project site(s). For projects valued by the Engineer's estimate over \$100,000,000.00 must be OSHA-500 trained instead of OSHA-30.

3.13 Emergency Equipment

The Contractor shall provide the required emergency and first aid equipment to be utilized for the project. Emergency equipment minimum requirements shall be in accordance with Article 15.0 Emergency Equipment of Contract Specification Section 00 73 19 and Cal/OSHA requirements.

4.0 Responsibilities

4.1 Resident Engineer (RE)

The RE manages the project construction contract, supervises, and directs the performance of the CM team and ensures conformance to established policies and procedures for the management of the project.

4.2 Construction Safety Officer (CSO)

The CSO oversees the Contractor's and CM's compliance with contract Safety requirements, Cal/OSHA standards, and other applicable Safety standards. The CSO is also responsible for the safety of the CM Team. The CSO maintains safety compliance records and assists in the investigation of safety incidents.

The CSO reports to the Infrastructure Safety Manager.

4.3 Contractor

The Contractor is responsible for Safety and Health on the construction

site(s).

- 4.3.1 The Contractor is responsible for preparing and submitting, for the City's acceptance, a Site-Specific Contractor Health and Safety Plan (HASP). The Site Safety Representative (SSR), as an approver of the HASP, is responsible for implementing the Contractor's Safety Program and HASP on project, which includes an Emergency and Contingency Response Plan. Depending on the size and/or location, the Contractor's HASP may include evacuation procedures, which should coordinate with facility procedures, if applicable.

4.4 Site Safety Representative (SSR)

The SSR coordinates the Contractor's emergency response activities with the CSO and RE.

- 4.4.1 The SSR qualifications, role, and responsibilities shall be in accordance with Contract Specification Section 00 73 19, which is dependent on the value, size, and complexity of the project.
- 4.4.2 The SSR shall notify and coordinate site emergency responses. They also handle site security with the Contractor Site Security Monitor in accordance with CM Procedure No. 035, Site Security.

5.0 Implementation

(Reference Attachment 033-1 and Attachment 033-2.)

5.1 Types of Emergencies

- 5.1.1 During the construction activities, health and safety incidents or other emergencies may occur. Incidents are classified as either **Serious Injury Incidents, Recordable Injury Incidents, Security Incidents**, or a Minor Incident.
- 5.1.2 In the event of a **Serious Injury Incident**, the CSO and RE are required to notify the listed Safety Manager per the contact matrix in the SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY Construction Incident types and Notification Chart Attachment 033-1. The Contractor is required to notify Cal/OSHA immediately (and no later than 8 hours).
- 5.1.3 In the event of a **Recordable Injury Incident**, the Contractor is required to notify the Contract's City Representative. The RE and/or CSO are required to notify as delineated in the SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident Types and Notification Chart Attachment 033-1.
- 5.1.4 In the event of a Security Incident, the Contractor is required to notify the Contract's City Representative. The RE and SO are required to notify as delineated in the SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident Types and Notification Chart Attachment 033-1.
- 5.1.5 In the event of a Minor Incident, the Contractor is required to notify

the Contract's City Representative. The RE must inform the CSO, who in turn is required to notify as delineated in the SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident Types and Notification Chart Attachment 033-1.

- 5.1.6 These emergency responses may require personnel to evacuate the work site or shelter in place per the applicable safety plan and/or instructions from the RE, SCO, and Contractor.
- 5.1.7 Contractor must ensure where there is more than one employer/Contractor, on a single construction project or on a given construction site, each employer is responsible to ensure the availability of emergency medical services for its employees, that there are a suitable number of appropriately trained persons to render first aid/CPR, in accordance with CCR8 §1512.

5.2 Emergency Response Plan

The project specific Emergency Response Plan should follow, at a minimum, the guidelines set forth by the Contract Specification Section 00 73 19, Cal-OSHA §3220 and §3221. To implement, the following should be provided by both the City and Contractor:

5.2.1 For the City Team:

- 5.2.1.1 The CSO, with the guidance of the RE and CM, is the Emergency Coordinator and has overall responsibility for coordinating actions with support from the SSR.
- 5.2.1.2 All must be trained before implementing the emergency action plan.

5.2.2 For the Contractor, they need to develop:

- 5.2.2.1 Procedures for emergency evacuation, including type of evacuation and exit routes.
- 5.2.2.2 Procedures to account for all employees after emergency evacuation has been completed.
- 5.2.2.3 Procedures to be followed by employees performing rescue or medical duties.
- 5.2.2.4 The preferred means of reporting fires and other emergencies.
- 5.2.2.5 The names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan. All must be trained before implementing the emergency action plan.
- 5.2.2.6 To prevent fires:
 - 5.2.2.6.1 Potential fire hazards are properly handled, and storage procedures are followed. Potential ignition sources (such as welding, smoking and others) and their control procedures are followed.

The types of fire protection equipment or systems are in place which can control a fire involving them.

5.2.2.6.2 Provide names or regular job titles of those responsible for maintenance of equipment and systems installed to prevent/control ignitions or fires.

5.2.2.6.3 Provide names or regular job titles of those responsible for the control of accumulation of flammable or combustible waste materials.

5.2.2.6.4 Regarding housekeeping, the Contract shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.

5.2.2.7 All must be trained before implementing the emergency action plan.

5.2.3 For Contract work occurring at existing facilities, the plan must coordinate with the existing facility plan.

5.2.4 Emergency Coordinator is responsible for contacting the Emergency Management Services (EMS – local Fire Fighting authority, Ambulance, Police, etc.), Environmental Construction Compliance Manager (ECCM) and/or others depending on the nature of the emergency event.

5.3 Emergency Response Coordination and Action

5.3.1 The RE, with the guidance of the assigned Construction Safety Officer, prepares the CM team's CM Safety Plan consistent with the SFPUC Site-Specific Emergency Action and Operations Plan.

5.3.2 The Contractor, with the guidance of the SSR, prepares the Contractor's Health and Safety Plan (HASP).

5.3.3 For projects occurring within existing facilities, all CM team members shall follow the SFPUC Facility Emergency Action Plan.

5.3.4 If the project work site is located at a remote work area, then the CMB Manager may determine the organizational chain-of-command for emergency response. Unless notified otherwise and relieved by senior management, the CSO is the designated SFPUC job site Emergency Coordinator, refer to Attachment 033-2.

5.3.5 When work site emergency response is required, the CSO shall assume the role of Emergency Coordinator with support from the SSR and the responsible SFPUC Emergency Representative, refer to Attachment 033-1 and 033-2.

6.0 **Other Procedural Requirements**

CM Procedure No. 034 Safety Reporting Procedures

7.0 **References**

7.1 **Contract Specifications**

Specification Section 00 73 19 Health and Safety Requirements (SFPUC Infrastructure CM Program PLA Projects between \$5 to \$100 Million Version)

Specification Section 00 73 19 Health and Safety Requirements (SFPUC Infrastructure CM Program PLA Projects over \$30 Million Version)

Specification Section 00 73 19 Health and Safety Requirements (SFPUC Infrastructure CM Program Non-PLA Projects under \$5 Million Version)

Specification Section 00 73 19 Health and Safety Requirements (SFPUC Infrastructure CM Program PLA Projects over \$100 Million Version)

7.2 **SFPUC Infrastructure CM Procedures**

No. 034 Safety Reporting Procedures

No. 035 Site Security

7.3 **Others**

SFPUC Infrastructure CM Plan, Section 2.2.2, Safety

SFPUC Infrastructure CM Water System, Emergency Response and Recovery System, November 2006

Cal-OSHA Emergency Action Plan §3220

Cal-OSHA Emergency Medical Services §1512

Cal-OSHA Emergency Action Plan §3220

Cal-OSHA Fire Prevention Plan §3221

8.0 **Attachments**

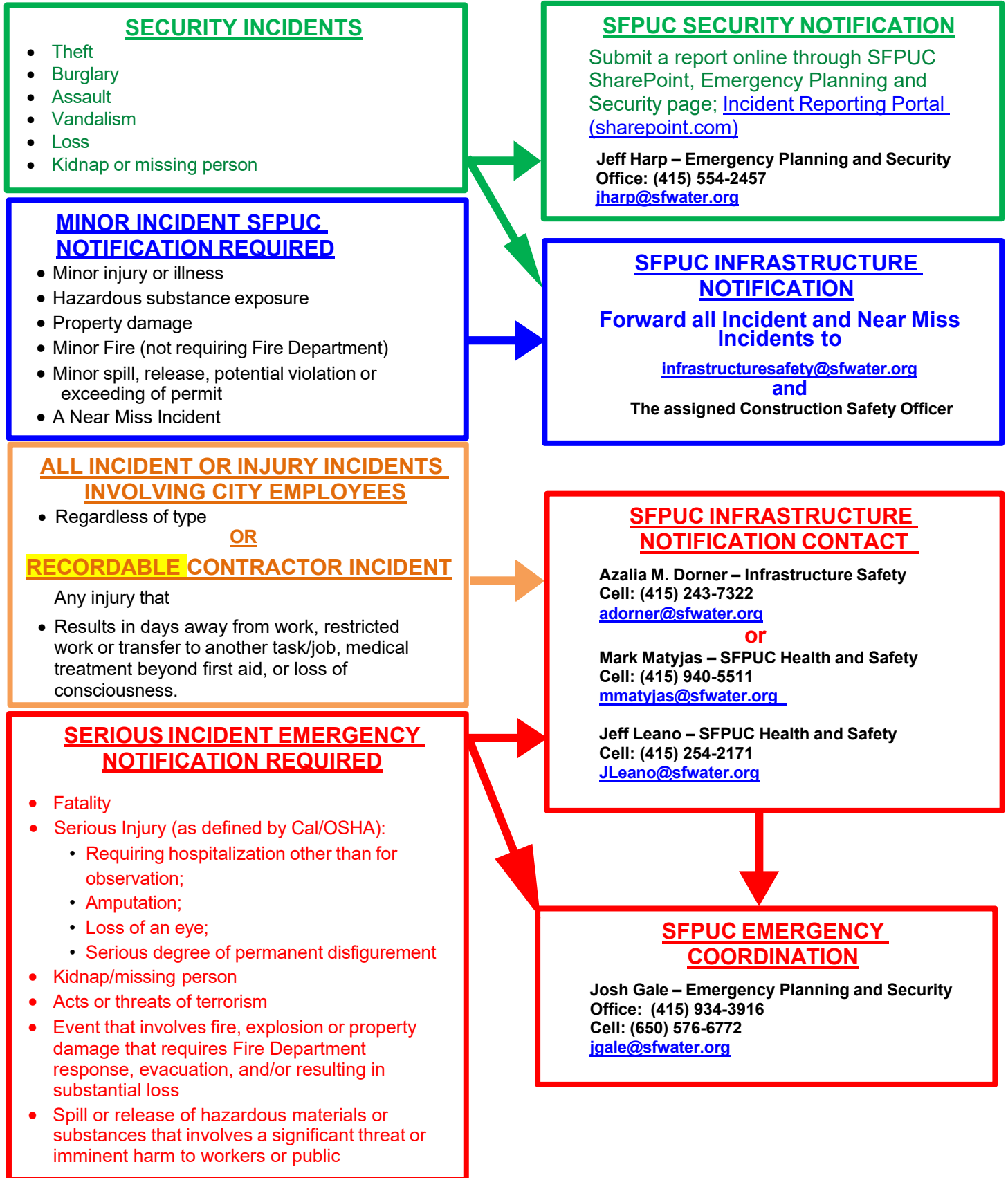
033-1 SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS Construction Incident Types and Notification Chart.

033-2 Emergency and Incident Response Coordination Hierarchy

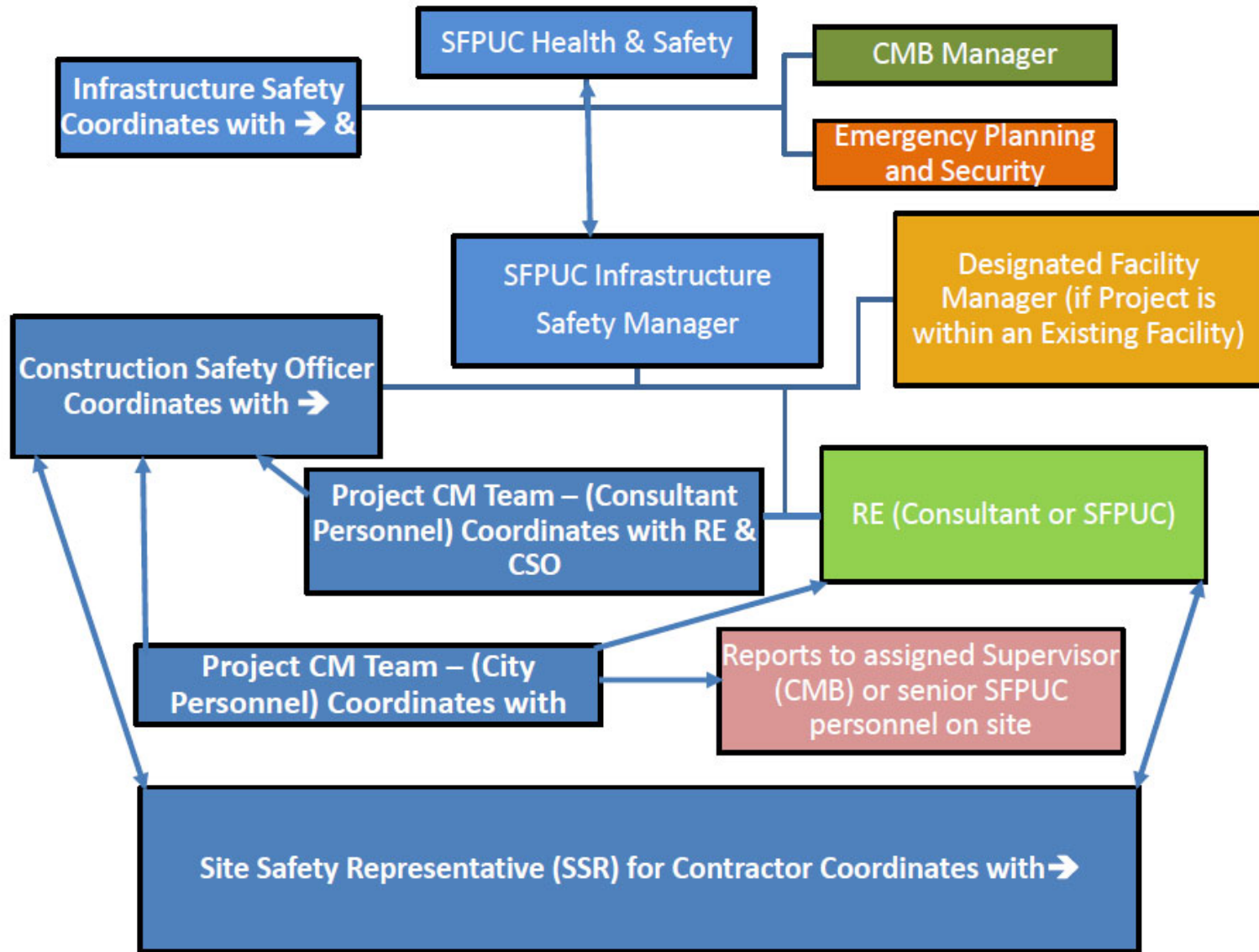
033-3 Revision Control Log

Attachment 33-1

SFPUC CONSTRUCTION HEALTH & SAFETY/SECURITY INCIDENTS
Construction Incident types and Notification Chart



**Attachment 033 – 2
Emergency and Incident Response Coordination Hierarchy**



**Attachment 033 - 3
Revision Control Log**

Revision No.	Revision Date	What changed?
Rev 2	3/13/2025	Titles matched to attachments Definitions used added Safety reporting and responsibilities clarified Paragraphs reformatted for subject and hierarchy Attachment 1 contacts updated Attachment 2 streamlined
Rev 1	6/7/19	<ul style="list-style-type: none">• Minor format changes;• Revision Control Log updated.
Rev 0	11/14/16	Signed