Hazardous Substance Control and Emergency Response Plan

Submitted to

California Public Utilities Commission

In fulfillment of the requirements of Applicant-Proposed Measure HM-1

May 2016

Prepared by

TRC Solutions, Inc.

On behalf of

Pacific Gas and Electric Company

Introduction

This plan is submitted in response to Applicant-Proposed Measure (APM) Hazardous Materials (HM)-1 of the California Public Utilities Commission's (CPUC) Final Initial Study/Mitigated Negative Declaration (IS/MND) for the Windsor Substation Project. APM HM-1 of the IS/MND states that:

> *[A] Hazardous Substance Control and Emergency Response Plan will be prepared for the project. It will prescribe hazardous material handling procedures to reduce the potential for a spill during construction or exposure of the workers or public to a hazardous material. The plan will provide a discussion of appropriate response actions in the event that hazardous materials are released or encountered during field activities.*

Materials and waste may be considered hazardous if they are poisonous (toxic); can be ignited by open flame (ignitable); corrode other materials (corrosive); or react violently, explode, or generate vapors when mixed with water (reactive). The term "hazardous material" is defined by the State of California, Health and Safety Code, Chapter 6.95, Section 25501(o) as "any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment." In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and petroleum to the ground; thus resulting in soil and groundwater contamination. Federal and state laws require that soils with concentrations of contaminants—such as lead, gasoline, or industrial solvents—that are higher than certain acceptable levels must be handled and disposed of as hazardous waste during excavation, transportation, and disposal.

1. Hazardous Substance Control and Spill Prevention

Pacific Gas and Electric Company (PG&E) will use off-site vehicle and equipment cleaning, fueling, and maintenance stations to the extent possible. Conditions specified in the Storm Water Pollution and Prevention Plan (SWPPP) will be implemented during on-site fueling of equipment. All equipment will be maintained to avoid leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any wetlands or vernal pools. An adequate supply of drip pans, absorbent materials, and spill kits will be stored in project vehicles in the event that they are needed for a spill response or cleanup.

Equipment will be parked on site overnight with secondary containment. An equipment and vehicle storage, maintenance, and refueling area will be established to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended. There will be no overnight parking of mobile equipment within 100 feet of wetlands, culverts, or creeks. Stationary equipment (e.g., pumps, generators) used or stored within 100 feet of wetlands, culverts, or creeks will be positioned within secondary containment.

APM WQ-2 of the Final IS/MND requires PG&E and its contractors to implement construction best management practices (BMPs) related to the use of hazardous substances, as identified in the project's SWPPP. These BMPs include the following:

- WM-1, and WM-2, Material Delivery, Storage and Use: Properly locate and protect all materials on site. Mobile equipment will not be parked overnight within 100 feet of aquatic habitat. Crews shall be trained in proper materials use and cleanup procedures. Follow manufacturer recommendations and provide covers and/or secondary containment, as needed.
- WM-4, Spill Prevention and Control: Spill kits shall be located near work activities at all times.
- WM-5, Solid Waste Management: Dumpsters shall be covered at the end of the day, and during rain events.
- WM-6, Hazardous Waste Management: Store and dispose of hazardous materials properly.
- WM-7, Contaminated Soil Management: If encountered, contaminated soils shall be contained and protected away from sensitive areas until properly removed from site.
- WM-8, Concrete Waste Management: Washout should occur off site or into self-containment facilities on the truck. Washout will occur at least 100 feet from wetland or vernal pools.
- WM-9, Sanitary/Septic Waste Management: Equip facilities with secondary containment and anchors. Locate away from drainages, sensitive areas, and traffic flow.
- WM-10, Liquid Waste Management: Appropriate procedures and practices shall be implemented on site to prevent discharge of pollutants to storm drain systems and watercourses.

These requirements, as applicable, will be overseen by the PG&E Construction Supervisor and will be communicated to all construction personnel as part of a Worker Environmental Awareness Program, as described in the following section.

During construction of the project, limited quantities of miscellaneous hazardous substances—such as diesel fuel and unleaded gasoline—could be used to fuel and maintain motorized equipment and gas-powered tools. In addition to the BMPs listed previously, the Worker Environmental Awareness Program will address security measures for potential spill sources to prevent accidental spills. Workers will be informed of the contents and locations of spill response kits and the proper procedure for cleanup of small spills of hazardous substances (see Release of Hazardous Material and Waste section).

A licensed transporter will transport large quantities of transformer oil to the site for use in the substation transformers. Such transport is strictly regulated by the California Highway Patrol and Caltrans, and will not pose a significant hazard to people or the environment.

Establish and Implement a Workers Environmental Awareness Program

APM HM-3 in the IS/MND states:

> *An environmental training program will be established to communicate environmental concerns and appropriate work practices to all construction field personnel. The training program will emphasize site-specific physical conditions to improve hazard prevention, and will include a review of the Hazardous Substances Control and Emergency Response Plan and the Stormwater Pollution Prevention Plan (SWPPP).*

The PG&E Construction Supervisor is responsible for implementing the Worker Environmental Awareness Program and documenting that each worker on the project has undergone the training program. The Worker Environmental Awareness Program will also address requirements identified in APM BIO-1, APM BIO-3, Mitigation Measure (MM) B-1, APM CU-1, APM WQ-3 for all construction crews before beginning construction.

2. Hazardous Materials and Hazardous Waste Handling, Storage, and Disposal

Project-generated refuse, spoils, and trash (non-hazardous wastes) will be transported to the Healdsburg Transfer Station. After consolidation, the bulk of the waste will go to the Hay Road Landfill in Solano, the remainder potentially going to the Central Disposal Site in Sonoma County. Construction debris (such as concrete, asphalt and metal) will be transferred to a number of potential disposal sites in Sonoma County. Excavated soil will be temporarily stored at the substation property. If testing classifies soils as non-hazardous, they may be used as backfill on site, or at another permitted construction site. Unused soil will be disposed of at a landfill in accordance with all federal, state, and local regulations.

Most PG&E crews will be based at the Santa Rosa PG&E Service Center during construction. PG&E has construction offices, staff, refueling stations, and materials warehouses at this site. Most work crews will leave for the field and carpool from this location. Trucks and equipment that are not stored in designated areas within the substation parcel will be based or parked at the PG&E construction storage yard located at 1060 Airport Boulevard.

All hazardous materials and hazardous waste will be stored, handled, and disposed of in accordance with all applicable regulations presented in the following paragraphs and outlined in Attachment A, by personnel qualified to handle hazardous materials. Hazardous waste generated during the project will be placed in a DOT-approved container, labeled properly, and transported— under a PG&E Hazardous Waste Shipping Paper —to the designated hazardous waste consolidation area at the PG&E Santa Rosa Service Center. Hazardous waste will not be kept at the project site for more than 10 business days.

Hazardous materials used during construction would consist primarily of small volumes of petroleum hydrocarbons and their derivatives (e.g., fuels, oils, lubricants, and solvents) required for operating equipment used during construction/installation. Under California Hazardous Waste rules, containers that previously held hazardous materials are regulated and managed as hazardous waste unless they are empty (if, when the container is tipped at any angle, a continuous stream of material does not come from the opening).

The PG&E Construction Supervisor is responsible for ensuring that storage and disposal of hazardous materials and hazardous wastes comply with applicable regulations and that only qualified personnel handle such materials. The local PG&E Environmental Field Specialist (EFS) for the area has the final responsibility to oversee any identified hazardous materials and to ensure proper disposal.

Contaminated Soils or Groundwater

APM HM-4 states that if contaminated soils or groundwater due to VOCs, xylene, or other contaminants are encountered, appropriate abatement actions would be implemented in accordance with applicable regulatory requirements. MM HAZ-1 states that if contaminated soils are discovered (e.g., based on odor, or color) during grading or excavating work, samples shall be collected by an OSHA-trained technician with a minimum of 40 hours of hazardous material site work training. Laboratory data from the suspected contaminate material shall be reviewed by the contractor's Health and Safety Officer and/or PG&E's representative and they will coordinate with the appropriate regulatory agency if contamination is confirmed, to determine the suitable level of worker protection and the necessary handling and/or disposal requirements. BMP WM-7 in the project SWPPP indicates that if encountered, contaminated soils shall be contained and protected away from sensitive areas until properly removed from the site.

If excavation of hazardous materials is required, the materials will be handled, transported, and disposed of in accordance with federal, state, and local regulations. Contaminated soils will be excavated only by PG&E personnel or contractors who have received at least 40 hours of HAZWOPER training.

If contaminated soil is discovered during excavation, the PG&E Construction Supervisor will work with the local EFS to determine whether a site safety plan and agency notifications are required.

Excavated contaminated soil will be:

- Covered and underlined with continuous heavy duty plastic sheeting or tarp, secured with tires, sandbags, or other weights on approximately 10-foot centers, with seams either taped or completely covered for storage and transport.
- Inspected and monitored daily to ensure that soil is covered and not mixed with clean soil.
- Kept visibly moist with water spray during excavation and removal when soil is exposed. Water usage will be minimized to prevent runoff.
- Placed in a secure area and kept away from drainageways and other environmentally sensitive features.

Emergency Response Plan

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the California Emergency Management Agency (Cal EMA). Cal EMA coordinates the responses of other agencies, including the U.S. Environmental Protection Agency, California Environmental Protection Agency, California Highway Patrol, California Department of Fish and Wildlife, regional water quality control boards, local air districts (in this case, Bay Area Air Quality Management District), and local agencies.

Pursuant to the Business Plan Law, local agencies are required to develop "area plans" for the response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the business plans submitted by people who handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected governmental agencies and responsible parties, training, and follow up.

Company procedure requires all PG&E service centers, offices, and substation properties to maintain an active hazardous procedure manual, and the Santa Rosa Service Center at 3965 Occidental Road, Santa Rosa, California, has such a manual. This Hazardous Materials Business Plan (HMBP) is updated annually or as required by the various agencies and cities. The HMBP lists all hazardous materials stored or used on PG&E properties and the existing quantities; it also describes PG&E's procedures when any hazardous materials are brought onto PG&E properties. These hazardous materials are identified, manifested per local and federal laws, and then processed or disposed of according to the procedures specified in the HMPB. PG&E's local area EFS is responsible for maintaining and enforcing the HMBP.

Release of Hazardous Materials and Wastes

Hazardous materials released could include all types of oil (e.g., lubricating oil, hydraulic oil, and insulating oil), fuels such as gasoline and diesel, antifreeze, paints, solvents, concrete waste-contaminated soils, and acids. In the event of a hazardous substance release, employees first at the scene and the PG&E Construction Supervisor are responsible for following the plan outlined below. This information will be conveyed to workers as part of the Worker Environmental Awareness Program.

Identification and Evaluation of Hazards

First employee(s) at the scene are expected to identify and report hazardous conditions and determine whether the work needs to be interrupted, as outlined below:

- Interrupt work if an imminent hazard or serious concealed danger exists.
- Restrict access to the release area (if needed).
- Report an incident/call for assistance (if needed). Provide the PG&E Construction Supervisor with the following information:
  - Name and contact number
  - Location and type of substance release
  - Source and cause of release, if known

  - Any injuries
  - Risk of fire, explosion, or other hazards
  - Corrective actions taken to stop and/or contain the release

- Notify the local fire department and police department, if needed.
- If area is safe to enter, take care of any injuries. Call 911 for ambulance or paramedic, if necessary.

Containment of Hazardous Materials

Containment of hazardous materials will be conducted only by authorized personnel using proper personal protective equipment (e.g., gloves, goggles, and aprons). General containment measures include the following:

- If safe to do so, stop the source of discharge. Techniques include:
  - For relatively small releases, apply absorbent to the surface of the release enough to absorb all the liquid.
  - For larger releases, construct earthen dikes or ditches around the release to prevent the discharge from flowing off-site or into waterways.
  - Prevent discharge into storm drains by sealing off with plastic and/or earthen dikes.
- Prevent other people or vehicles from entering the emergency area until the construction lead or designated emergency coordinator can further assess the situation.
- Should a release occur into a wetland or watercourse, measures to minimize or prevent flow or dispersion of released material downstream may include:
  - Deployment of booms, sorbent pads, or similar BMPs within the wetland or watercourse.
  - Placement of filter fabric or other suitable flow limiting devices over culvert openings to limit transport of contaminated soils or concrete waste from release site. Depending on substance released and volume, full closure of the culverts may be necessary in order to protect downstream resources.
  - Diversion of water around the area of the spill using a check dam and volume appropriate temporary diversion infrastructure (e.g., plastic drain piping, metal culvert, etc.).
  - Removal from the site of the released substance and any contaminated material as soon as possible following release.

Cleanup of Hazardous Waste Debris

After completion of cleanup, contaminated disposable protective clothing will be removed by cleanup personnel immediately and placed in an approved waste container for disposal. Gloves will be removed, and hands will be thoroughly cleaned with waterless hand cleaner or soap and water and wiped with rags and paper towels. Rags and other waste material will be placed in approved waste containers for disposal in accordance with federal, state, and local regulations.

All oil, hazardous materials, and cleanup debris recovered from a release will be considered hazardous waste unless it is demonstrated to be non-hazardous, and must be disposed of according to applicable state and federal regulations. Contact the PG&E Hazardous Waste

Coordinator, PG&E Construction Supervisor, or EFS for determination of proper waste disposal methods.

Hazardous waste release debris is considered a hazardous waste in California and is subject to all hazardous waste transportation requirements. A PG&E remotely generated hazardous waste shipping paper must be used to identify the load when transporting back to the local service center/headquarters.

Any material used to divert flow around a spill and other uncontaminated BMPs will be removed from the site following positive confirmation of cleanup. Post-event water monitoring and testing protocols will be implemented as determined by applicable permits and regulations.

Notification

The PG&E Construction Supervisor will fill out a Release Report Form and will notify the local EFS and CPUC monitor. The PG&E EFS will make the appropriate internal and external notifications for any environmental release (air, ground, or water) that must be reported to a federal, state, or local agency; any environmental release that attracts media attention; or any discover of significant historic contamination at a PG&E site.

This information must be reported verbally as soon as possible, with written follow-up notification no later than 1 work day after the incident. If a reportable quantity of material was released, immediately telephone Cal EMA and the National Response Agency. A written report must be submitted to Cal EMA and the CPUC within 30 days, as appropriate.

The PG&E Environmental Compliance Lead, PG&E Project Biologist, or Environmental Compliance Supervisor will notify the Army Corps of Engineers and California Department of Fish and Wildlife by email and phone within 24 hours of any spill/release impacting wetlands or watercourses. The communication will include the time of the spill, location, material released and volume, area of impact, actions taken in response to the spill—including notification of other agencies—and any follow-up measures yet to be implemented.

Follow-Up Actions

Follow-up actions may include the following:

- Decontaminate all equipment or other contaminated surfaces.
- Restock all emergency release control equipment and supplies to maintain the inventory listed.
- Critique release response actions to identify measures that would avoid future incidents and improve the efficiency of future release clean-up actions.
- Address any follow-up measures from agency notification of a spill.

Documentation

Reportable oil releases and hazardous materials releases must be carefully documented so that sufficient information is available to appropriate agencies. The Construction Supervisor will send a copy of the completed Release Report to the appropriate PG&E EFS and will file the original in the project records.

Document Retention

Records and test reports will be retained with the project files for a minimum of five years (after five years, records should be archived). Documentation that should be retained includes site diagrams, laboratory test reports, emergency costs, accident report forms, hazardous waste shipping papers, spill release reports, and hazardous waste manifests.

The HMBP and other company standard procedure guidelines specify detailed retention requirements for all project records, plans, and reports.

3. Operation and Maintenance Procedures

All hazardous materials and hazardous wastes will be stored, handled, and disposed of in accordance with all applicable regulations presented in Attachment A, by personnel qualified to handle hazardous materials. Hazardous waste generated during the project will be placed in an approved container, labeled properly, and transported—using a hazardous waste shipping paper—to the designated hazardous waste consolidation area (the Santa Rosa Service Center). Hazardous waste will not be kept at the project site for more than 10 business days.

Should a spill occur during project operations, the procedures outlined in Section 2 will be followed.

Attachment A
PG&E Hazard Identification, Evaluation and Control Procedure

HAZARD IDENTIFICATION, EVALUATION AND CONTROL PROCEDURE

Purpose	This procedure specifies the minimum requirements for identifying, evaluating and controlling all hazards. It allows for serious concealed dangers, and imminent, existing, or potential hazardous conditions to be identified and reported—directly or anonymously—without fear of reprisal. Compliance with this procedure is required in USP 22.
Applicability	This procedure applies to all organizations in the company.
Requirements	
Organization	Each organization implements this procedure by: • assigning roles and responsibilities (Attachment 1) • following the procedure steps • communicating the procedure • maintaining procedure documentation • validating procedure implementation.
Safety, Health & Claims	Safety, Health and Claims is responsible for: • supporting implementation • maintaining the procedure • responding to serious concealed dangers and systemic hazards.
Corporate Security	Corporate Security is responsible for responding to imminent hazards and serious concealed dangers pertaining to the accessing and/or inspecting of work areas used by employees for personal convenience (e.g. lockers, desks, etc.).
Definitions	**Frequency:** An estimate of the probability or likelihood of a loss occurring as a result of a hazard (see Attachment 5 – Risk Ranking Methodology). **Hazardous Condition:** Any existing or potential condition that can result in death, injury, illness, or property damage. This includes impacts on employees, the public and the company. **Imminent Hazard:** Any existing or potential condition or act that can result in death or serious physical

	harm before the situation can reasonably be eliminated or mitigated through routine hazard controls.
	Responsible Individual(s): Employee(s) identified and held accountable by the organization for fulfilling specific responsibilities.
	Outcome: The loss that can result from a hazard (see Attachment 5 – Risk Ranking Methodology).
	Reasonable Risk: A judgment as to what specific probability of injury or loss is to be considered acceptable using the following tools in that decision: federal and state standards; current company and department policies, standards and rules; the Code of Safe Practices; and the organization's values.
	Risk: An evaluation and rating of the hazard based on its frequency and severity (see Attachment 5 – Risk Ranking Methodology).
	Serious Concealed Danger: A hazard that results from normal utility operations; poses a substantial probability of death, great bodily harm or serious exposure to a hazardous substance; and is not readily apparent to the individual likely to be exposed.
	Severity: An estimate of the potential loss (see Attachment 5 – Risk Ranking Methodology).
Organization Requirements	To implement this hazard identification, evaluation and control procedure each organization must:
1. Assign Roles and Responsibilities	Directors are responsible to implement the procedure by accomplishing the specified tasks or assigning to responsible individual(s). Attachment 1 – Delegation Matrix summarizes the procedure tasks. If any or all of the tasks are delegated, use it or another documented method to identify, by job title, employees assigned to fulfill specific responsibilities
2. Follow Procedure	A. Identify hazards

Steps	B. Evaluate hazards C. Control hazards D. Evaluate controls
A. Identify hazards	Employees are expected to identify and report hazardous conditions and decide if the work needs to be interrupted. Employees have the authority and responsibility to interrupt work. Interrupt work if an <u>imminent hazard or serious concealed danger</u> exists. Once work is interrupted, responsible individual(s) must be immediately notified (If a third-party is involved, refer to SH&C Procedure 104 - Observed Hazards Notifications).
	If the work does not need to be interrupted, employees are expected to evaluate, control, and evaluate the controls within the scope of their knowledge, skills, training and authority. Reporting Requirements — Employees who identify hazardous conditions are to report them either: • Directly to responsible individual(s), either during or at the end of the work shift. The information is documented on a standardized Hazardous Condition Report Form and submitted for evaluation, control, and evaluation of controls. • Anonymously — contacting the Compliance and Ethics Hotline at 1-888-231-2310 or submitting a standardized Hazardous Condition Report Form.
B. Evaluate hazards	Evaluate the hazard by: 1. Determine/estimate the frequency of a loss occurring as a result of the hazards. 2. Determine/estimate the severity of the hazards—a determination of the potential loss that could result from the hazards. 3. Determine the level of risk presented by the hazards (based on frequency and severity). Prioritize the hazards. Review all available documentation to obtain additional information about the hazard to be evaluated. At a

	minimum, the following should be considered: • Job Safety Analysis • Inspections • Investigations • Industrial hygiene monitoring After the level of risk has been determined, prioritize the hazards according to the risk rating to determine the order in which they will be controlled.
C. Control hazards	Responsible individual(s) will: • inform employees of identified hazardous conditions and any control measures taken to eliminate or reduce them • use engineering solutions, administrative actions, or personal protective equipment (PPE) to control hazards
D. Evaluate controls	The evaluation shall ensure that the control(s): • Are controlling the hazard • Continue to be effective without creating additional hazards Controls should be periodically evaluated: • Critical hazards should be evaluated at least every six months • Moderate hazards should be evaluated at least annually • Minor hazards should be evaluated every other year
3. Communicate and Follow-up	Responsible individual(s) inform employees regarding: • how, when, and to whom hazardous conditions are to be reported • how to stop a job and when a job can be resumed This procedure should be communicated as part of new employee orientation, whenever an employee transfers into the organizations, and annually to maintain general employee awareness.
4. Trains for Skills and Knowledge	There are no regulatory-mandated skills or knowledge required for the hazardous conditions reporting procedure.
5. Maintains	Responsible individual(s) file, update and retain, for at least

Procedure Documentation	three (3) years, the following: • standardized hazardous condition report forms • documentation that communication has been delivered to employees regarding the hazardous condition reporting procedure Records identified in the Guide to Record Retention must be maintained for the period specified.
6. Validates Procedure Implementation	Responsible individual(s) periodically verify this procedure has been implemented in their organization. To validate implementation responsible individual(s) verify that: • roles and responsibilities have been assigned, communicated to employees, and employees are held accountable to these responsibilities • employees have been communicated to regarding the hazardous condition reporting procedure • submitted hazardous condition report forms for completeness and ensure that actions have been taken to evaluate, control and evaluate the controls; as well as to identify systemic safety, health and/or operational deficiencies • tracking and trend analysis is conducted to identify hazard trends or patterns.
Safety, Health and Claims Requirements	Safety, Health and Claims is responsible to:
1. Support Implementation	Provide consultative assistance to organizations to aid in the implementation of the hazardous condition reporting procedure.

2. Measure and Evaluate Implementation	Beginning 120 days after the effective date of this procedure, organizations are subject to an audit of the following: • method used to assign roles and responsibilities and that this has been accomplished • standardized Hazardous Condition Report Form used to document hazardous conditions and that it is being used • communication medium used to inform employees of the hazardous condition reporting procedure and that the information has been delivered • criteria used to recognize employees for reporting hazardous conditions • analysis used to determine if the hazards are systemic safety, health and/or operational deficiencies.
3. Maintain Procedure	Review and update this procedure within the time frame specified.
4. Respond to Serious Concealed Dangers and Systemic Hazards	Analyze reports of serious concealed dangers and systemic hazards, investigate as appropriate, and, if warranted, make appropriate agency notification.
Corporate Security Requirements	Corporate Security is responsible to:
1. Respond to Imminent Hazards and Serious Concealed Dangers	Analyze reports of imminent hazards and serious concealed dangers pertaining to the accessing and/or inspecting of work areas used by employees for personal convenience (e.g. lockers, desks, etc.), and investigate as appropriate.

References	• Pacific Gas and Electric Company Policy, Compliance and Ethics, Employee Conduct, and Conflicts of Interest • Pacific Gas and Electric Company Policy, Safety and Health • Safety, Health and Claims, USP 22, Safety and Health Program • Safety, Health and Claims, Procedure 101, Property Damage and Third Party Injuries • Safety, Health and Claims, Procedure 104, Observed Hazard Notification: Third Parties • Safety, Health and Claims, Procedure 202, Incident Notification, Investigation and Analysis • Safety, Health and Claims, Procedure 204, Tracking and Trend Analysis
Contact	Safety Health and Claims Helpline Internal: 8-223-8700, option 3 External: (415) 973-8700, option 3 Serious concealed danger notification: Internal: 8-223-8700, option 1 External: (415) 973-8700, option 1
Issued by	Mark C. Hughes Director - Safety, Health and Claims
Review Date	The next review of this procedure by SH&C is scheduled for May 2013.
Attachments	1. Delegation Matrix: Hazardous Condition Reporting Procedure 2. Flowchart: Hazard Identification, Evaluation and Control Procedure 3. Flowchart Hazard Identification, Evaluation and Control Procedure 4. Hazardous Condition Report Form 5. Risk Assessment 6. Job Safety Analysis

ATTACHMENT 1
DELEGATION MATRIX
Hazard Identification, Evaluation and Control Procedure

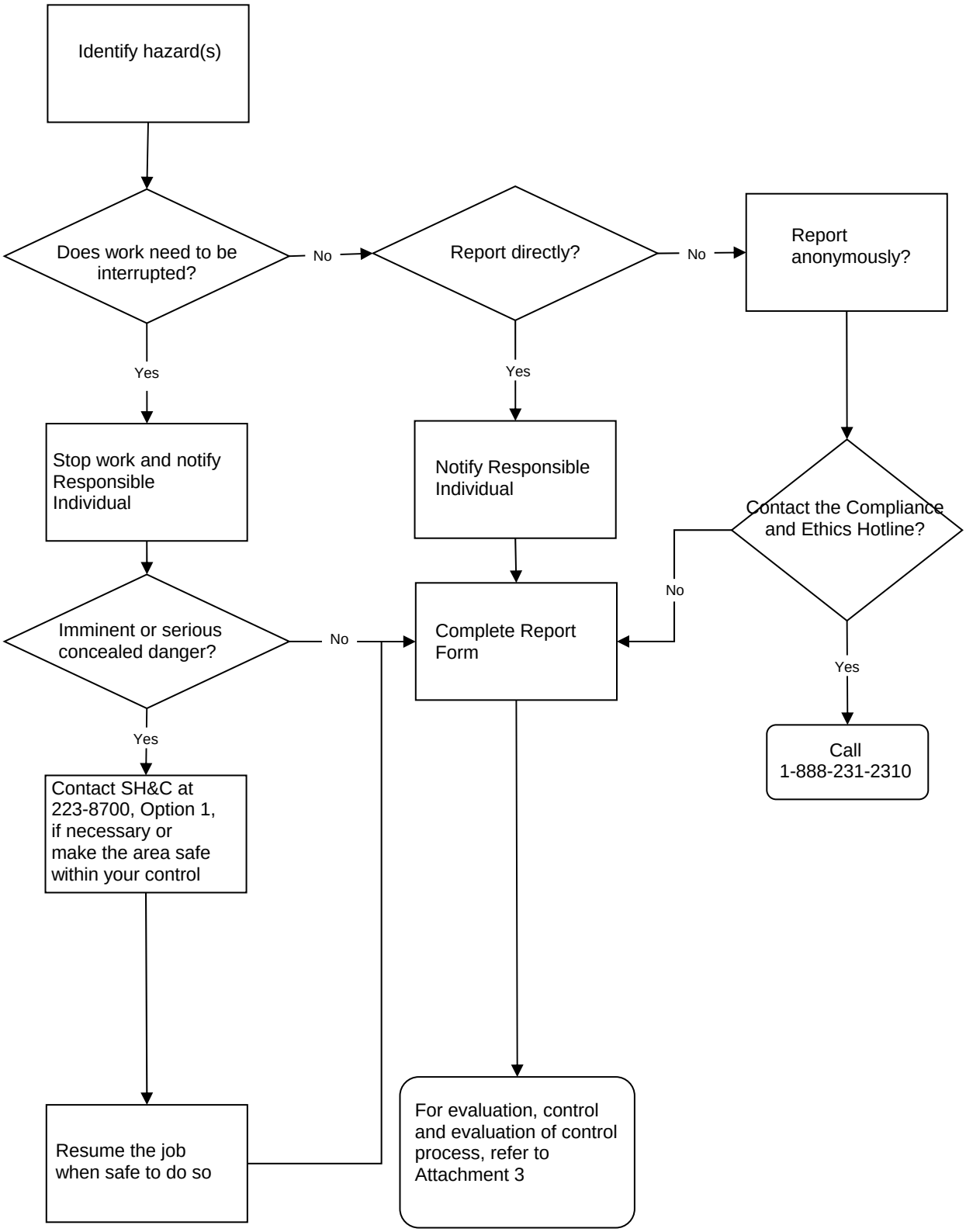
The procedure tasks identified below are necessary for implementation of this procedure. Directors only need to complete this form (or another documented method) if they are delegating any or all of these tasks to responsible individual(s) within their organization.

Directions: Identify, by job title, who is responsible for each task. In some cases, a group or team may be assigned. If this happens, be sure to specify the team name (e.g. Safety Committee Team).

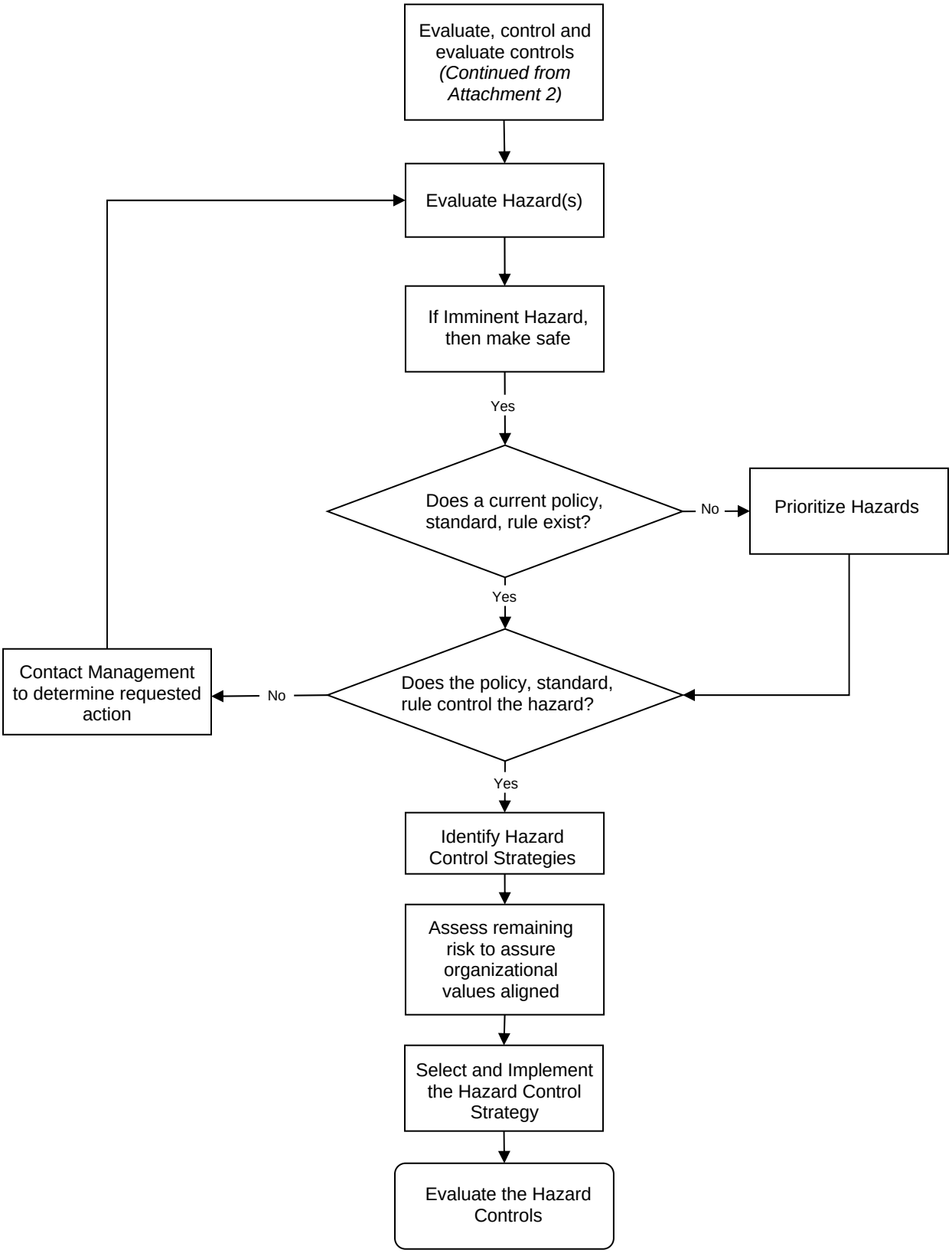
Procedure Tasks	Job Title(s)
Procedure Steps: ***A. Identify Hazard***	
□ Who is responsible for identifying hazards?	
□ To whom are hazardous conditions reported?	
B. Evaluate Hazard	
□ Who is immediately notified if there is an imminent hazard or serious concealed danger?	
□ Who takes immediate action to remove employees from the area, except those qualified and needed to control the situation?	
□ Who accesses and/or inspects work areas or other company assets, including those that employees have been permitted to use for personal conveniences (e.g. lockers, desks, etc.), when appropriate, ensuring concurrence with Corporate Security?	
□ Who immediately notifies Safety, Health and Claims of a serious concealed danger?	
□ Who notifies responsible organizations outside of the immediate department (E.g. Human Resources, Communications, Environmental Services, etc.) when appropriate?	
□ Who approves resumption of work once the hazard has been eliminated or reduced?	

□ Who determines the standardized Hazardous Condition Report Form to be used within the organization?	
C. Control Hazards	
□ Who provides employees with the necessary safeguards to eliminate or reduce the hazard?	
D. Evaluate Controls	
□ Who analyzes submitted Hazardous Condition Report Forms for evaluation, control and evaluation of controls?	
□ Who identifies submitted hazardous condition report forms for systemic hazards and/or operational deficiencies?	
□ Who notifies Safety, Health and Claims of systemic hazards?	
□ Who conducts tracking and trend analysis to identify hazard trends or patterns?	
□ Who follows up to ensure success?	
Communication and Follow-Up	
□ Who informs employees of the identified hazardous conditions and control measures taken?	
□ Who recognizes employees for reporting hazardous conditions?	
□ Who communicates the hazardous condition reporting procedure?	
□ Who maintains the hazardous condition documentation?	
□ Who validates that the procedure has been implemented?	

ATTACHMENT 2
Flowchart: Hazard Identification, Evaluation and Control Procedure



ATTACHMENT 3
Flowchart: Hazard Identification, Evaluation and Control Procedure



ATTACHMENT 4

(name of organization)

Hazardous Condition Report Form

NAME: If anonymous, check here:☐		**DATE OF REPORT:**
LOCATION OF HAZARD:		

Please provide details of your observation:

Description of hazardous condition (I.E., What, When, Where, and How):
What job task was being done when the hazardous condition was identified?
What was the immediate corrective action taken?
What action do you recommend for permanent correction?
What was the final corrective action taken?

TO BE COMPLETED BY MANAGEMENT REPRESENTATIVE

Management Representative Receiving this Report:		
Name:	**Organization:**	**Date:**
Referred for evaluation and control to:		
Name:	**Organization:**	**Date:**

Attachment 5
RISK RANKING METHODOLOGY

ANY TYPE OF NON-COMPLIANCE IS UNACCEPTABLE. OUR INTENT IS TO FOCUS OUR IMMEDIATE ATTENTION ON THE MOST CRITICAL ISSUES (IN DESCENDING ORDER) TO ENSURE THAT WE HAVE ADEQUATE CONTROLS IN PLACE TO PREVENT OR MITIGATE OCCURRENCES THAT COULD LEAD TO NON-COMPLIANCE.

SEVERITY ASSESSMENT

1	Minimal administrative impact; instantly correctable.
2	Minimal late fees/fines imposed; inconvenience.
3	Physical damage to equipment; incurs repair/replacement costs; impacts operations.
4	Impacts operations for more than one day; customer/client dissatisfaction.
5	Halts operations in department(s); correctable health/environmental impact.
6	Non-reversible health/environmental impact; substantial financial loss (recoverable).
7	Imminent threat to life; non-recoverable financial losses.

FREQUENCY ASSESSMENT

H	**Probable** – The future event(s) are likely to occur (probability is 80% or more).
M	**Reasonably possible** – The chance of the future event(s) occurring is > than remote, but < than probable.
L	**Remote** – The chance of the future event(s) occurring is slight (probability is 20% or less).

RISK

1	Serious safety or regulatory threat. MUST BE COMPLETED 0-14 DAYS.
2	Moderate potential to harm human health or the environment. MUST BE COMPLETED 0-30 DAYS.
3	Administrative in nature. MUST BE COMPLETED IN 0-90 DAYS.
4	If action to correct finding takes more than 90 days, it is either 1) depending on funding or 2) it is a process improvement/process management initiative.

STRATEGY

Risk	L	M	H
7	7	7	7
6	6	6	6
5	5	5	5
4	4	4	4
3	3	3	3
2	2	2	2
1	1	1	1

Frequency →

	Monitoring frequency:
CRITICAL	Bi-annually
MODERATE	Annual
MODERATE	Annual
MINOR	Annual
MINOR	Every 2 years (random)

(Follow up reviews performed six months after initial audit.)

All stages require high-level oversight and commitment, authority delegation, establishment of standards, procedures, or other documented work aids, training and communication, assessment and monitoring, performance management (accountability and consequences), and corrective action. High and medium-high areas require additional levels of documentation and review.

Attachment 6
Job Safety Analysis

Purpose

This document provides guidelines and step-by-step instructions for each organization to perform a Job Safety Analysis. This guideline can be used to identify workplace hazards and controls and is referred to in USP 22.

Prepare to Conduct JSA

- Determine what jobs need to be analyzed.
- Identify responsible person or group to conduct JSA.
- Review forms to document the analysis.
- Review process and intent with team.

Conduct JSA

- List all tasks for the job on the worksheet.
- Identify existing hazards and any potential hazards for each step.
- When identifying hazards focus on: hazards associated with routine job / task steps, hazards that may occur when things go wrong, hazards due to unexpected environmental forces, hazards associated with unplanned situations
- Brainstorm controls for each hazard.
- List all proposed hazard control options on the right-hand column of the JSA / TSA Worksheet adjacent to each identified hazard.

Evaluate, Select, Implement and Re-evaluate Hazard Controls

- Determine the hazard controls, and how they will be implemented.
- Hazards and hazard controls that affect other departments need to be communicated to those departments.
- Ensure that controls eliminate the hazard, and no new hazards are created.

Communicate Analysis Results

- Communicate to any employees who may be affected.

Maintain Documentation

- File and retain for at least three (3) years.
- Training records and materials need to be retained by the local organization or HR Learning Services, if they conduct the course. Maintain the most current records until subsequent training takes place.

Job Safety Analysis Worksheet

Date:	Job Number:	Job/Task:
Job Location:	Emergency Plan Location:	
Foreman:	Supervisor:	
Crew Members:		

Activity	Potential Hazards	Controls Taken