



CONSTRUCTION LEADERS

LETTER OF TRANSMITTAL	
DATE: <b>March 2, 2015</b>	PCL JOB NO: <b>5515002</b>
ATTN: <b>Chris Barker</b>	TRANSMITTAL NO: <b>023</b>

To: **State of Vermont Agency of Transportation**  
 One National Life Drive  
 Montpelier, VT 05633-5001  
 (802) 828-0053

Re: Hartford Lateral Slide  
 Project No.: IM 091-2(79)  
 Contract ID.: 12A132

County: Windsor

PCL FILE NO: 5515002-16

WE ARE SENDING  Attached \_\_\_\_\_ Under separate cover via   **Email & SP**   the following:  
 \_\_\_\_\_ Shop drawings \_\_\_\_\_ Prints \_\_\_\_\_  Plans \_\_\_\_\_ Samples \_\_\_\_\_ Specifications  
 \_\_\_\_\_ Copy of Letter \_\_\_\_\_ Change Order \_\_\_\_\_  Other

COPIES	SPEC.	REVISION	DESCRIPTION
<b>1</b>	<b>107.07</b>		<b>Project HSE Plan</b>

TRANSMITTED for as checked below:

For approval \_\_\_\_\_ Approved as submitted \_\_\_\_\_ Resubmit   **1**   Copies for approval  
 \_\_\_\_\_ For your use \_\_\_\_\_ Approved as noted \_\_\_\_\_ Submit \_\_\_\_\_ Copies for distribution  
 \_\_\_\_\_ As requested \_\_\_\_\_ Returned for corrections \_\_\_\_\_ Return \_\_\_\_\_ Corrected prints  
 \_\_\_\_\_ For review and comment

**Remarks:**

Please return an email of this approved submittal to Erich Heymann ([ewheymann@pcl.com](mailto:ewheymann@pcl.com)) and Jeremy Mackling ([jmackling@pcl.com](mailto:jmackling@pcl.com)).

We request the review and return of this submittal within   14 days  . Please advise if this request cannot be met so we can plan accordingly.

---

By: **Erich Heymann**, Project Engineer

COPY TO: Project Files



**CONSTRUCTION LEADERS**

**SUBMITTAL NO. : 16**  
**Project HSE Plan**

<b>Item No.</b>	<b>Specification</b>	<b>Description</b>
1	107.07	Project HSE Plan

***PROJECT:***  
**HARTFORD LATERAL SLIDE**  
**PROJECT NO.: IM 091-2(79)**  
**CONTRACT ID.: 12A132**

***OWNER:***  
**STATE OF VERMONT AGENCY OF TRANSPORTATION**

***ENGINEER OF RECORD:***  
**STATE OF VERMONT AGENCY OF TRANSPORTATION**

***CONTRACTOR:***  
**PCL CIVIL CONSTRUCTORS, INC.**

**MARCH 2, 2015**

# Hartford Lateral Slide

## SITE SPECIFIC HEALTH, SAFETY, AND ENVIRONMENTAL PLAN

WHITE RIVER JUNCTION, VT

Project Number: 5515002

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Prepared By:

Larry Fortier & HLS Project Team



**CONSTRUCTION LEADERS**

PCL Civil Constructors, Inc.  
Transportation Infrastructure Group

**FEBRUARY 24, 2015 - REVISION 0**

# Signature Sheet

1. Plan Reviewer:

Name: Larry Fortier

Title: District Health Safety and Environment (HSE) Manager

Signature: 

Phone: 813-264-9500 / 813-480-2140

2. Plan Approval:

Name: Jeremy Mackling

Title: Project Manager

Signature: \_\_\_\_\_

Phone: 813-810-1142

Name: Ron Gibbens

Title: Project Superintendent

Signature: \_\_\_\_\_

Phone: 727-224-2324



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# HARTFORD LATERAL SLIDE HSE PLAN

## 1.0 FOREWORD

PCL has long acknowledged the importance of maintaining a safe and healthy work environment for all personnel and the stewardship required to maintain an effective and successful program.

This health, safety, and environmental (HSE) site specific plan applies to all on-site personnel including subcontractors and addresses the safe work practices and procedures, as well as environmental practices, which govern the work to be performed on the project. Full compliance with this HSE site specific plan, safety, and environmental laws and regulations are the minimum acceptable standards on this project.

Where there is conflict between this plan and any regulatory requirement, the more stringent will apply.

PCL expects that all personnel will work together, every day, to maintain an injury and incident free environment.

This HSE site specific plan has been developed for PCL Civil Constructors, Inc. Transportation Infrastructure Group (TIG) to assist job site management in meeting the requirements of the Company and regulatory agencies. This plan may be amended at any time by the company, as may be appropriate.

The purpose of the HSE site specific plan is to:

- Assist project personnel in the planning, organizing, control, monitoring, and implementation of corrective measures which are necessary to prevent exposures which could cause injury, illness, or negative environmental consequence.
- Enhance and maintain safety and environmental awareness of all project personnel.
- Minimize hazards to public health

## 1.1 Policy Statements

PCL has 5 HSE related policy statements:

- PCL Corporate Health, Safety, and Environmental Policy Statement
- PCL Environmental Policy Statement
- PCL Fall Prevention and Protection Policy Statement
- PCL Work Place Violence Policy Statement
- PCL Substance Abuse Program



# HARTFORD LATERAL SLIDE HSE PLAN

## PCL Corporate Health Safety and Environment Policy Statement



### **PCL Civil Constructors Inc.**

#### **Corporate Health, Safety, & Environment**

### **POLICY STATEMENT**

PCL Civil Constructors Inc. is committed to providing and maintaining a safe work environment.

We achieve this goal by providing a system of policies, procedures, and practices that encourage continuous improvement of all HSE program elements and the site-specific HSE plan.

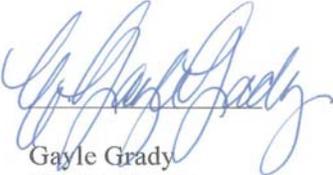
It is every employee's and subcontractor's responsibility to manage risk exposure.

As an employee or subcontractor, at all times you must guard your safety and the safety of fellow personnel by identifying, controlling, and/or eliminating known hazards that can result in personal injury or illness, equipment and property damage, or any other form of controllable loss.

As an employee or worker, you must be aware of and comply with your responsibilities under legislative, industry and company standards, including those identified in the HSE Manual and HSE Site-Specific Safety Plan. You must promptly report all unsafe acts or conditions to your supervisor(s). Supervisors are responsible for taking immediate action on problems that arise.

Fostering a safety culture requires the dedication, commitment, involvement, and participation of all employees and subcontractors. Working together will allow us to achieve safety excellence.

Date: January, 2015



Gayle Grady  
District Manager



# HARTFORD LATERAL SLIDE HSE PLAN

## PCL Corporate Environmental Policy Statement



### **PCL Civil Constructors Inc.**

#### **Corporate Environmental**

### **POLICY STATEMENT**

We are committed to the goal of conducting our business operations in a manner that protects our environment.

We achieve this goal by:

- complying with all legislative, regulatory and contractual requirements relating to the environment,
- monitoring our compliance with those requirements,
- reporting to our board of directors on our compliance with legislative and regulatory requirements,
- minimizing hazards to public health,
- taking steps to protect the environment from adverse effects of construction operations, and
- working with industry, government and workers to maintain and enhance environmental awareness.

On large, complex construction projects of substantial duration and on projects with known environmental contaminants, we take additional steps to achieve this goal by:

- appointing an environmental designate,
- providing education to project personnel, to enable them to understand and share in the responsibility for monitoring and protecting the environment,
- maintaining an effective reporting and communications system, and
- developing a project environmental action plan.

Date: January, 2015

Gayle Grady  
District Manager



# HARTFORD LATERAL SLIDE HSE PLAN

## PCL Fall Prevention and Protection Policy Statement



### **PCL Civil Constructors Inc.**

#### **Fall Prevention and Protection**

#### **POLICY STATEMENT**

PCL is committed to protect company personnel and other on-site workers from fall related injuries when working at elevated heights. To accomplish this, each PCL company through their line management team(s) will be responsible to:

We are committed to:

- Review and familiarize themselves with legislative jurisdictional requirements regarding fall prevention and protection;
- Comply with legislative jurisdictional requirements;
- Evaluate each project and compile a Site Specific Fall Prevention and Protection Plan where elevated work and fall protection is necessary;
- Provide the necessary resources, equipment and training; and
- Monitor the effectiveness of the Fall Prevention and Protection Plan.

Subcontractors/trade contractors will be responsible to compile and implement their own Site Specific Fall Prevention and Protection Plan for the work they perform. These plans should be in accordance with the applicable regulatory requirements and PCL's Site Specific Fall Prevention and Protection Plan.

All personnel are responsible for:

- Complying with the PCL Site Specific Fall Prevention and Protection Plan; and
- Reporting unsafe acts and conditions, and if necessary, taking action to see that corrective measures are implemented.

Date: January, 2015

Gayle Grady  
District Manager



# HARTFORD LATERAL SLIDE HSE PLAN

## PCL Work Place Violence Policy Statement



### **PCL Civil Constructors Inc.**

#### **Prevention of Workplace Violence Policy**

#### **POLICY STATEMENT**

PCL believes in the prevention of violence and promotes a violence-free workplace. Any act of violence committed by or against any worker or member of the public is unacceptable conduct and will not be tolerated.

We are committed to:

- providing our employees with an appropriate level of protection from the risks associated with workplace violence;
- investigating reported incidents of violence in an objective and timely manner;
- taking necessary action on acts of workplace violence; and
- providing appropriate support for victims of workplace violence.

Employees have a responsibility to:

- become familiar and comply with this policy;
- report incidents of workplace violence to their supervisors; and
- participate in work site risk assessments and implement control measures to mitigate associated risks as required.

No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.

No employee or any other individual affiliated with PCL shall subject any other person to violence in the workplace.

Date: January, 2015



Gayle Grady  
District Manager



# HARTFORD LATERAL SLIDE HSE PLAN

## PCL Substance Abuse Program Policy Statement



### PROGRAM OUTLINE

#### POLICY STATEMENT

The PCL family of companies ("PCL") is committed to employee health and safety as these are paramount to PCL. PCL is also committed to maximum productivity and cost effective operations.

PCL recognizes the problem of alcohol and drug abuse in our society and its potential to adversely impact its commitments. Accordingly, the use, possession, distribution, or presence in the body, of alcohol, illegal drugs and controlled substances, or their metabolic products, is prohibited and will not be tolerated, even when the medicinal or recreational use of certain federally mandated illegal drugs and controlled substances are permitted under state or local laws.

PCL employees shall not report to work under the influence of any illegal drug, alcoholic beverage, intoxicant, narcotic, or other substance that may in any way affect their working ability, alertness, coordination, or otherwise adversely affect the safety of the employee or others on the job. Any employee who tests positive pursuant to the procedures set forth in this Substance Abuse Program will be considered "under the influence" and in violation of the PCL's Substance Abuse Policy.

PCL employees are subject to testing and are required to test negative during alcohol, illegal drug and controlled substance testing, including marijuana taken for medicinal purposes, without limitation, in the following situations:

- Applicant testing.
- Pre-placement.
- Random and/or job site specific (where permitted).
- Reasonable suspicion.
- Post-incident.

The objective of this policy is to provide a safe, healthful, and efficient work environment for all PCL employees, business associates, and the public.

The following activities are strictly prohibited on Company premises during assigned work hours (including lunch and breaks), while performing company business, while operating equipment owned by the company or on company or client property or any job site or place of work:

- The possession, use, concealment, transportation, sale, purchase, transfer or distribution of alcohol, drugs or other controlled substances, including marijuana taken for medicinal purposes, as defined under federal, state, or local law.
- The abuse or misuse of prescription drugs.

Notwithstanding anything above to the contrary, however, medically prescribed drugs, excluding marijuana taken for medicinal purposes, may be permitted on PCL premises or work locations provided the drugs are contained in the original prescription container, are not excessive in quantity for the length of time at work, and are prescribed by an authorized medical practitioner for the current use of the person in possession. Use of legally prescribed drugs, excluding marijuana taken for medicinal purposes, in accordance with the prescribed procedure and dosage as authorized above is not grounds for disciplinary action, except that the use of legally prescribed drugs that might adversely affect the working ability, alertness, coordination, or otherwise interfere with the safety of the employee or of others, and must be reported to a drug and alcohol testing administrator (DAA), Designated Person or other authorized supervisor before reporting to work in possession of, having ingested or under the influence of such legally prescribed drug. A determination will be made, in conjunction with appropriate medical personnel, as to whether the effects of the legally prescribed drug could be hazardous to job



# HARTFORD LATERAL SLIDE HSE PLAN



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performance or safety. If so, appropriate and reasonable action will be taken to reassign or accommodate the employee or to permit the employee to take off work for a reasonable duration if necessary and appropriate.

Employee expressly agrees that PCL may make the following inspections and PCL reserves the right to question any person entering upon or leaving Company premises and to inspect any person, locker, vehicle, package, purse, handbag, briefcase, lunchbox, or other possession brought to and from its property, vehicles or worksites, including Employee's own vehicles brought to work and parked in work parking areas. This applies to all PCL employees.

Social events such as a holiday party, Company picnic, dinner meetings, open house and other similar events, are important work activities, however PCL recognizes and agrees that the consumption of alcoholic beverages at such activities may be approved and acceptable. The consumption or serving of alcoholic beverages at such events may continue, however, only where approved in advance. Each employee's voluntary attendance at such functions shall represent that employee's acceptance of full responsibility for the consequences of his/her decision to participate, including the responsibility to avoid the use of alcohol to excess, including beyond legally prescribed limits for drivers in the relevant jurisdiction. When attending after-hours social activities sponsored by PCL or its potential or existing customers, vendors, or contractors at which alcohol is served, employees must use good judgment regarding their consumption of alcohol and their conduct. Under no circumstances may an employee ever operate a company vehicle while under the influence of alcohol.

PCL's Substance Abuse Program is intended to apply broadly and in numerous different circumstances. To the extent that the Substance Abuse Program might conflict with, or that any part of this Substance Abuse Program might be unenforceable under, any applicable law or other binding authority, then that law or authority shall control and the portion of this Substance Abuse Program that is in conflict shall be deemed to be severed herefrom, and the remainder of this Substance Abuse Program shall be enforced. Likewise, to the extent that any authority might impose additional requirements upon PCL or its employees and applicants, such as, by way of example only, specific owner-imposed requirements, the requirements of a contract involving governmental agencies like the Department of Transportation or Department of Defense and/or Federal Motor Carrier Safety regulations applicable to DOT-covered drivers, or Pipeline work, then those additional requirements shall also apply.

Nothing in this Policy Statement or Substance Abuse Program shall be interpreted as creating any binding obligation upon PCL or its managers, or any company within the PCL family of companies or Joint Venture of which PCL is a party. This Policy Statement and Substance Abuse Program are not intended to modify the at-will nature of the employment relationship or create any implied contractual obligations. PCL and any company in the PCL family of companies or PCL-related Joint Ventures expressly reserve the right to terminate any employee, with or without cause, and with or without notice, at any time.

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**Shaun P. Yancey**  
President & COO  
PCL Construction Enterprises, Inc.



# HARTFORD LATERAL SLIDE HSE PLAN

## 2.0 LEADERSHIP / ADMINISTRATION AND COMPLIANCE

This section defines the **functional responsibilities and compliance** of PCL employees, as well as third party companies or individuals on this project.

Every PCL employee and subcontractor has the responsibility to perform their work in a manner consistent with legislation, industry standards, company policies, practices and procedures, as well as this HSE site specific plan.

All personnel have the authority to stop any action deemed unsafe or environmentally unsound.

### 2.1 HSE Filing System

The project will utilize the PDC for document retention. A filing system consistent with the PCL Business Guide-Operations Section 8.16. Standard Filing Index and project needs will be implemented. A standardized template is available from the district.

### 2.2 District Manager (Off Site)

Gayle Grady

The TIG District Manager's overall responsibilities are itemized in the HSE Manual (HSE-02-3.9). Key elements of responsibility applicable to this project include:

- Implement a zero tolerance program in accordance HSE Manual requirements (HSE-02-6.2)
- Provide resources and authority necessary to maintain compliance with regulatory and company requirements
- Verify that a PCL subcontractor screening and approval process is in place

### 2.3 District HSE Manager (Off Site)

Larry Fortier

The TIG District HSE Manager's overall responsibilities are itemized in the HSE Manual (HSE-02-3.15). Key elements of responsibility applicable to this project include:

- Assist district in evaluating HSE performance and exercising authority to maintain compliance with regulatory and company requirements
- Monitor, assess and document the performance of project HSE staff
- Conduct PSI audits
- Conduct JHA audits
- Assist with, and verify that, the information contained in the SMC is up-to-date and accurate
- Assist with the Project Specific HSE Plan preparation
- Research, evaluate, and select medical facilities and service providers to accommodate project requirements
- Assist with hazard assessments where required
- Verify that the hazard assessment process is followed within the district:
  - Verify that the CHA, Environmental Scope of Work have been completed and reviewed prior to the development of Project Specific HSE Plan
  - Verify that projects are following the Project Specific HSE Plan



# HARTFORD LATERAL SLIDE HSE PLAN

- Evaluate the subcontractor's pre-qualification:
  - Determine the degree of PCL involvement in the subcontractor's HSE efforts
  - Monitor subcontractor safety performance and verify correction and redirection as needed
- Evaluate HSE inspection reports to identify unsatisfactory performance trends
- Investigate significant incidents and/or assist in the investigation and recommend corrective actions
- Review incident investigation reports to verify accuracy, completeness, and evaluate corrective actions taken
- Verify that modified work programs are implemented within the requirements of the policy and local regulations;
- Manage claims on compensation cases and/or assist injury management coordinators;

## 2.4 Operations Manager/ Sr. Project Manager (Off Site)

**Matt Persing / Todd Schille**

The district Operations, and/or Senior Project Manager's overall responsibilities are itemized in the HSE Manual (HSE-02-3.11). Key elements of responsibility applicable to this project include:

- Implement HSE standards and procedures as stated in the HSE Manual through the hazard assessment process:
  - Participate in the CHA
  - Verify that a Project Specific HSE Plan is developed for each project
  - Verify the Environmental Scope of Work form for each successful project is complete
  - Verify an Environmental Action Plan is developed for each project
- Conduct PSI audits
- Conduct JHA audits
- Exercise authority to maintain compliance with regulatory and company requirements;
- Provide resources necessary to carry out the implementation of corrective or remedial actions arising out of significant incidents, training goals and objectives;
- Implement the process for the screening and approval of PCL subcontractors;
- Review incident investigation reports and verify that the company incident investigation process is followed
- Support corrective actions identified in incident investigations; and
- Provide adequate support and resources for all aspects of the injury management program

## 2.5 Project Manager (On Site)

**Jeremy Mackling**

The Project Manager's overall responsibilities are itemized in the HSE Manual (HSE-02-3.12). Key elements of responsibility include:

- Implement HSE standards and procedures as stated in the HSE Manual and HSEOP's
- Exercise authority to maintain compliance with regulatory and company requirements
- Verify that the hazard assessment process is followed:
  - Assist the HSE staff refine the CHA to reflect project specific hazards and control
  - Verify work plans and JHA's are commensurate with the work
- Provide sufficient resources including materials, equipment, and training to effectively:



# HARTFORD LATERAL SLIDE HSE PLAN

- Assist the HSE staff develop and implement the Project Specific HSE Plan, Environmental Action Plan and Emergency Action Plan
- Verify that project management and project supervision are familiar with and that the project is following the Project Specific HSE Plan standards
- Verify the implementation of corrective actions identified during inspections
- Participate, support and reinforce the incident investigation and reporting process, implementation of corrective actions identified and the injury management program
- The implementation of the subcontractor screening and approval process:
  - Hold a pre-job meeting to discuss subcontractor HSE performance expectations and communicate HSE requirements to the subcontractor prior to the start of the subcontract
  - Verify the Project Specific HSE Plan acknowledgement form has been signed and returned to the project management team prior to subcontractor payment
  - Review subcontractor's designated HSE personnel qualifications
  - Monitor subcontractors to verify the work is conducted in a safe, responsible and compliant manner
- Set an appropriate example for employees under their direction
- Conduct one formal inspection per month, at a minimum
- Conduct PSI audits
- Conduct JHA audits
- Verify that the SMC is being utilized, updated, that trend analysis and effective action plans are arising from them
- Participate and attend all required HSE committee meetings and when practical participate in site orientations

## 2.6 Project Superintendent (On Site)

Ron Gibbens

The Project Superintendent's overall responsibilities are itemized in the HSE Manual (HSE-02-3.16).

Key elements of responsibility include:

- Exercise authority to maintain compliance with regulatory and company requirements, building codes, construction means, methods and project specifications
- Implement HSE standards and procedures as stated in the HSE Manual
- Assist in the development, verify implementation and supervisor training of the Project Specific HSE Plan, Environmental Action Plan and Emergency Response Plan
- Set an appropriate example for employees
- Assist with the development of work plans and JHAs
- Assist supervisors with the PSI program
- Conduct PSI audits
- Conduct JHA audits
- Where practical, participate in site orientations
- Chair the project HSE committee meetings
- Prepare HSE topics/issues for meeting agendas with clients, and subcontractors/sub-trade contractors
- Review JHAs/SWPs/HSEOPs that are commensurate with the scope of work for PCL and subcontractors



# HARTFORD LATERAL SLIDE HSE PLAN

- Conduct one formal inspection per month, at a minimum Verify that corrective actions identified during inspections and audits are implemented
- Assume leadership of the emergency response team
- Assist with the implementation of the PCL subcontractor management process:
  - Participate in pre-job meeting to discuss subcontractor HSE performance expectations
  - Communicate HSE requirements to the subcontractor prior to the start of the subcontract
  - Notify subcontractors of work schedule, location, hazards, and special precautions, including the content of the Project Specific HSE Plan prior to the start of the project
  - Monitor subcontractors to verify their work is conducted in a safe, responsible and compliant manner and is in accordance with the Project Specific HSE Plan and the subcontractor's HSE Plan
- Verify the inspection, safe operation and maintenance of equipment on the project
- Lead and/or participate in the incident investigations:
  - Review incident investigation reports and verify that the company incident investigation process is followed
  - Report incidents to the appropriate client representatives as per district management directive
  - Support corrective actions identified in incident investigations

***On projects that do not have a project HSE supervisor, the project superintendent will assume or delegate the HSE supervisor's responsibilities.***

## 2.6 Project HSE Supervisor (On-site)

Larry Fortier / Dillon Cook

Where assigned the project HSE manager/supervisor/coordinator is responsible for the development, implementation, and monitoring of the Project Specific HSE Plan. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.21). Key elements of responsibility include:

- Assist project management in exercising their authority to maintain compliance with regulatory and company requirements, evaluating HSE performance, and HSE related issues
- Verify that the hazard assessment process is followed on the project
  - Review hazard assessments, work plans and JHA's for accuracy and relevance to the work being performed
  - Verify the Project Specific HSE Plan is communicated to all project personnel in orientation
  - Perform revisions to the Project Specific HSE Plan and communicates revisions to project staff so they are current as project conditions change
  - Provide coaching on the implementation and development of SWPs, HSEOPs, JHAs
  - Development of education and training programs
  - Verify that PPE standards are developed for the tasks performed
  - Evaluate HSE inspection reports to identify unsatisfactory performance trends
  - Development and implementation of the ERP
  - Verify project personnel are aware of, and have knowledge of, proper emergency procedures
  - Exercise the ERP at a frequency of no less than once per year
  - Develop Environmental Action Plan prior to distribution
  - Input the information in the SMC and verify it is up-to-date and accurate



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- Issue and circulate HSE literature to enhance and maintain awareness
- Conduct PSI audits
- Conduct JHA audits
- Develop regular reports and make recommendations for:
  - HSE performance statistics
  - the effectiveness of project HSE programs and operations
  - the occurrence of any significant HSE incident on the project
  - implementation of corrective or remedial actions arising out of significant incidents
  - the appropriateness and adequacy of resources for HSE programs ;
- Participate and attend all required HSE committee meetings. Conduct all orientations.
- Preparation of agenda and material for project HSE committee meetings and weekly HSE meetings
- Produce HSE meeting minutes to verify that meaningful information is being provided & distributed to attendees for follow up action
- Perform one formal work site inspection per week, at a minimum
- Verify the project inspections are conducted according to policy and corrective actions identified are implemented
- Investigate or assist with the HSE incident investigations
- Provide incident investigation training to project management and project supervision
- Review incident investigation reports to verify accuracy, completeness, and evaluate corrective actions taken
- Verify that employees and supervisors are trained in injury management
- Verify that modified work programs are implemented within the requirements of the policy and local regulations
- Monitor subcontractor safety performance and verify correction and redirection as needed

## 2.8 Project / Field Engineer (On-site)

**Erich Heymann / Robert McKeen**

The Project / Field Engineer assists with the implementation of the Project Specific HSE Plan commensurate with the engineering discipline. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.18). Key elements of responsibility include:

- Perform one formal work site inspection per month at a minimum
- Assist with the implementation of the Project Specific HSE Plan
- Assist with the development of safe work practices and job hazard analyses
- Assist project personnel in the assembly of detail drawings and inspection procedures
- Assist the superintendent in obtaining the necessary approvals prior to commencing construction activities such as heavy lifts or crane/man-lifts, erection, etc.
- Provide necessary technical specifications requiring approval
- Assist the superintendent in assembling detail drawings requiring a Professional Engineer's seal
- Conduct PSI audits
- Conduct JHA audits
- Take action to correct unsatisfactory health, safety, and environment performance
- Demonstrate commitment to the PCL HSE policies and goal for zero incidents



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## 2.9 Foreman

- The foreman/supervisor is responsible for promoting health, safety, and environment awareness and demonstrating to the workers, through day to day health, safety, and environment compliance. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.22). Key elements of responsibility include:
  - Take immediate action to correct unsatisfactory health, safety, or environment performance
  - Perform informal daily inspections of assigned work areas
  - Develop and maintain good housekeeping standards
  - Provide pre job safety instruction(s) to workers at the beginning of each shift and whenever new tasks are assigned
  - Hold weekly HSE meetings with workers
  - Conduct PSI audits
  - Conduct task specific health, safety, and environment orientations for new workers
  - Assist with the development of safe work practices and job hazard analyses
  - Issue appropriate personal protective equipment to workers as required
  - Report to project superintendents promptly on occurrence of any significant health, safety, and environment incident
  - Conduct a preliminary investigation upon the occurrence of an incident
  - Report results of the incident investigations to the project superintendent
  - Verify that operators complete equipment inspection checklists
  - Check that operators are qualified, fit, and authorized to operate equipment or vehicle safely;
  - Demonstrate commitment to the PCL HSE policies and goal for zero incidents

## 2.10 Workers

All workers are responsible for safeguarding their own health and safety, and the safety of fellow workers. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.25). Key elements of responsibility include:

- Understand and comply with all safe work practices, job hazard analyses, and general construction health, safety and environmental rules
- Maintain good housekeeping in their work area(s)
- Report unsafe acts and conditions to project supervision
- Comply with personal protective equipment policies
- Participate in required HSE orientations and related meetings
- Participate in the pre job safety instruction (PSI) program
- Report to project supervision promptly on occurrence of any significant health, safety, or environment incident
- Report personal injuries, no matter how minor, and obtain medical attention as required
- Cooperate with, or participate in, health, safety, and environment incident investigations as required



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## 2.11 Subcontractors / Trade Contractors

Subcontractors on PCL worksites are responsible for the safety of their workers. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.23). Key requirements include:

- Review the Project Specific HSE Plan and return the signed acknowledgement (HSE-15-01) to project management
- Understand and fully comply with the Project Specific HSE Plan, client HSE requirements, legislative jurisdictional requirements and emergency response procedures
- Attend an on-site worker HSE orientation meeting
- Provide specific hazard analysis that is commensurate with their scope of work
- Perform one formal HSE work site inspection per month, at a minimum
- Maintain good housekeeping practices in their work areas
- Provide education and training, and enforce the use of applicable PPE
- Immediately correct any unsafe conditions and acts observed in their jurisdiction
- Immediately report any unsafe acts and conditions observed outside of their jurisdiction
- Conduct HSE meetings and submit a copy of the minutes to the PCL project superintendent
- Participate in the PSI program
- Conduct PSI audits
- Investigate and report to project superintendent promptly on occurrence of any HSE incident

## 2.12 Visitors, Suppliers, and Consultants

Visitors, suppliers, and consultants are responsible for safeguarding their own health and safety and the safety of project workers. Overall responsibilities are itemized in the HSE Manual (HSE-02-3.23). Key requirements include:

- Report to the project office before entry to the project site
- Participate and comply with HSE directives received from the PCL project superintendent
- Wear appropriate PPE
- Report any unsafe acts and/or unsafe conditions to the PCL project superintendent

## 2.13 Compliance with this Site Specific HSE Plan

Compliance with company and legislated HSE standards is necessary to maintain a safe and healthy work environment. Violations will be the cause for corrective action, which may result in disciplinary action up to and including termination of employment or services contract. Under most circumstances PCL family of companies uses a progressive discipline process. However, infractions of a serious nature and some single acts of misconduct deserving discharge from employment (zero tolerance activity) will be investigated and upon confirmation, instant termination of employment will result.

### **ENFORCEMENT OF HSE RULES**

Violations of HSE rules can result in disciplinary action up to and including termination of employment. Under most circumstances this will follow a progressive discipline process that evaluates any disciplinary action history over the previous 12 month period. Infractions of a serious nature and some single acts (zero tolerance activity) of misconduct will be investigated and upon confirmation, result in termination of employment.

### **INTERPRETATION**



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The direct supervisor is responsible to conduct a complete and thorough investigation and documentation of any HSE infraction. The supervisor must use good judgment, common sense and consistency in the application of the discipline policy. The direct supervisor is responsible for the issuance of the disciplinary action, in accordance with proper consultation as outlined below:

**Salaried Employee Disciplinary Action:** The Project Manager and Project Superintendent will investigate and recommend disciplinary action involving salaried personnel to the appropriate Construction Manager Senior Project Manager, Operations Manager and/or District Manager, prior to any action being taken to ensure that we are acting in a consistent and prudent manner.

**Hourly Employee Disciplinary Action:** The Project Manager and Project Superintendent must approve any disciplinary action involving an hourly employee, in order to ensure that we are acting in a consistent and prudent manner.

The following acts of misconduct are **zero tolerance** activities and will result in immediate termination unless otherwise directed by the district manager:

- Open possession of firearms
- Criminal and/or illegal activities including but not limited to theft, vandalism, alcohol /drug possession, substance abuse (including refusal for testing) and/or threats against personnel or property
- Fighting or rough-housing
- Sleeping on the job
- Accessing a confined space without proper protection or permit
- Disregard of or failure to follow fall prevention rules
- Violation of the Lock Out/Tag Out procedures and/or legislation
- Operating equipment without authority and/or disregard of safe operating procedures
- Tampering with fire protection devices or equipment
- Willful violation of project or operations work permit
- Smoking in non-designated areas
- Unauthorized access/modification to a red flagged area or red tagged scaffold
- Failure to utilize proper sanitary facilities

Where the violation does not involve a zero tolerance activity, the following guidelines apply:

- On first offense, the employee will be given a documented warning
- On second offense, the employee will be given a written warning and/or suspension without pay
- On third offense, employee's/worker's employment may be terminated.

**PCL RESERVES THE RIGHT TO TERMINATE ANY EMPLOYEE ON A SINGLE HSE INFRACTION**

## 3.0 HSE ORIENTATION AND TRAINING

**Orientation Standard Applies to all PCL Work Sites.**

- All employees and subcontractor's workers will attend a site specific Safety Orientation prior to commencing work.



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- Every 24 months PCL employees shall receive safety refresher training in the basic orientation subject matter
- Visitor and short term worker orientations requirements are defined in the HSE Manual section 6.4.
- Delivery driver orientation requirements are identified within section 3.5 of this plan
- Project Management shall conduct all orientations

## 3.1 Worker Orientation

The minimum HSE orientation is comprised of two segments:

- Part 1: Safety Orientation Video
  - Both PCL personnel and Subcontractors are to view the PCL Orientation video
- Part 2: Site Specific Orientation
  - PCL personnel and Subcontractors will complete the HSE Orientation Quiz and Checklist found in HSE-03-01 and HSE-03-02
  - Correct answers will be reviewed and any questions will be answered in a timely manner
  - Workers who complete orientation will be issued a PCL Safety Orientation hardhat sticker
  - PCL employees transferred to the project will participate in a basic orientation consisting of:
    - Review of the PCL orientation video
    - Completion of the Orientation Quiz and Checklist
    - Review of the Project Specific HSE Plan
  - PCL employees will participate in a refresher orientation every 24 months
- Additional and project specific orientation material and/or documentation for PCL employees may include:
  - Global Harmonization System (HAZCOM) training
  - PSI Process & questionnaire
  - Fall protection
  - Employee Authorization to Stop Work
  - Emergency response procedures
  - Environmental protection
  - Voluntary Medical Questionnaire
  - Non-Mandatory Use of Respirators
- PCL Personnel will be issued the following:
  - Appropriate personal protective equipment
  - Emergency Employee ID for inside of hard hat

## 3.2 Training

Project management and supervision training will be given in the following:

- HSE Communications system



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- Incident investigation
- Inspections
- Environmental management
- Hazard identification and control
- Substance abuse policy
- Injury management

Employees will receive:

- Formal and/or on the job (OJT) training to effectively deal with the hazards of the work
- Employees will be retrained when observed working in an unsafe manner or incidents require re-training, or conditions to the work environment change
- Tool and/or task specific training

PCL supervisors will have First Aid/CPR training

## 3.3 Short Duration Workers

- Short duration work is considered less than 2 days' worth of work over the duration of the project
- If the duration and/or on site frequency of the work is anticipated to or extends beyond 2 work days a full worker orientation is required
- All short duration personnel shall be given a short duration work orientation using the Short Duration Workers HSE Orientation Checklist HSE-03-03
  - The orientation needs to be facilitated by PCL project management and include:
    - Instruction that working safely is a condition of access and disciplinary action may be taken for failure to adhere to requirements
    - Review of the project site plan and any restricted access areas
    - Attire and PPE requirements
    - Review of site specific procedures and emergency action plan
    - Hazard and incident reporting procedures

## 3.4 Visitors

Minimum requirements for visitor access to site:

Post signage at the entrance, directing visitors to the project office

Visitors are to sign in on the Visitor's sign in sheet, Inform PCL supervision of their presence, participate in the Visitor Site Orientation and complete the checklist (HSE-03-04)

Visitors will sign in and out of the Visitor Sign in sheet on a daily basis and be escorted by representatives of the host company

Host company representatives escorting visitors are to confer with PCL project superintendent prior to evaluate the work area(s) to be visited determine the extent of the hazards that may exist in the area(s) to be accessed



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The host company will orient visitor(s) by addressing subjects outlined in the Access to Project Worksite and provide any required PPE

Upon completion of the visit, the host representative will escort the visitor back to the project office to sign out

## 3.5 Delivery Drivers

With the exception of courier services delivering small parcels to the project office drivers and delivery personnel will receive an orientation:

- Concrete supplier drivers and pump operators will participate in the base orientation for subcontractors. When possible this should be completed at the supplier's facility and include all drivers employed
- Quality assurance personnel expected to be on site greater than 2 working days over the duration of the project will complete the base orientation
- Over the road truck drivers delivering to the site will be escorted by a PCL supervisor who will outline establish the specific HSE requirements particular to the location and material delivery handling

## 4.0 HSE COMMUNICATION SYSTEMS

The HSE Communication Systems are an integral part of maintain Our Goal: Zero Incidents. More importantly, these communication systems provide an additional opportunity for participation, involvement, feedback, and HSE awareness for all personnel on site.

### 4.1 Project HSE Committee Meetings

The objective of the Project HSE Committee Meeting is to develop and promote environmental and safe work practices as well as make recommendations to management that will improve the health and safety of the workers on the project

- Project HSE Committee Meetings shall be:
  - Established as soon as is reasonably possible
  - Chaired by the Project Superintendent Ron Gibbens and Co-Chaired by the Project Manager Jeremy Mackling
  - Have active participation by all subcontractors
  - Participants are expected to review information from the meeting with their managers, supervisors, workers and suppliers
  - To be held once a month or when needed to solve an urgent problem
  - Kept in traditional format and sent to the district office
  - Include job site or work area inspection
  - Follow outline in HSE-04 6.3.3 for meeting format
- Committee members will include an equal number of hourly trade workers and project supervision
  - The size of the committee must be limited



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- Membership will rotate to allow as many people as possible to benefit from the experience of committee work
- Committee members' duties:
  - Chairmen - Project Superintendent - Ron Gibbens
  - Co-chair - Project Manager - Jeremy Mackling
    - Arranges date, time and place
    - Prepares agenda
    - Controls the flow of the discussion topics and makes determination on issues
  - Facilitator
    - Records, prepares and distributes minutes
    - Notifies members of meetings
    - Reports the status of recommendations
    - Writes report and correspondences
  - Committee members (PCL hourly and subcontractors)
  - Reports unsafe acts, conditions and procedures observed
  - Reports incidents and property/environmental damage
  - Review the Project Trend Analysis
  - Assists in the investigation of incidents (when necessary)
  - Assists in HSE inspections (when necessary)
  - Contributes ideas and suggestions for improvements
  - Sets an example by Influencing others to work safely and encouraging others to make suggestions

## 4.2 HSE Field Meetings

The purpose of the Health, Safety, and Environmental Field Meeting, which will be referred from here on out as HSE Field Meeting, is to provide timely information on environmental and/or safety issues which relate to the project activities.

- HSE Field Meetings will be conducted by Superintendents or the Superintendents appointee at least once a week preferably on the first workday
- Minutes of these meetings are recorded on the HSE Field Meeting form in HSE-04-02
- HSE Field Meetings shall follow the following process:
  - Review minutes of last Project HSE Committee Meeting (monthly)
  - Bring forward topics for discussion
  - Review inspections, incidents, trend analysis and action plans, first aid and emergency procedures, PPE suitable to work, safety campaigns, applicable SDS and new types of equipment and products
  - Encourage employee suggestions and discussion
  - Decide on corrective actions and follow up to verify that it has been completed
  - Discuss current HSE risks on jobsite
  - Use HSE Inspections to encourage discussion
- Guidelines for conducting HSE Field Meetings are as follows:
  - All members of the crew shall attend, print and sign the HSE Safety Field Meeting form



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- Each member must
- Anyone missing must be advised of the meeting minutes
- Topics for discussion should pertain to HSE matters only
- Meetings shall be submitted to SMC as soon as reasonably possible

## 4.3 HSE Alerts and Bulletins

- Topics for HSE alerts will include incident findings and lessons learned, industry information, off-the-job HSE issues, and injury prevention information
- These topics must be posted on job site poster board and reviewed at HSE Field Meetings

## 5.0 HAZARD IDENTIFICATION AND CONTROL

The hazard identification and control process is to be implemented and maintained throughout the course of this project.

### 5.1 Hazard Assessment Process

The following three steps should be used during any hazard assessment:

- **Step 1: Identify the hazards** - Address known hazards that could reasonably be expected to result in significant harm in their area of work.
- **Step 2: Determine who could be affected** - Consider all workers and people who are outside the construction zone, such as the public
- **Step 3: Evaluate the risks arising** from the hazards and decide whether they may be eliminated or adequately controlled.

### 5.2 Hazard Categories

- *Chemical Hazards:* Mist, vapors, fumes, gases, dusts, liquids, etc.
- *Biological Hazards:* Mold, bacteria, parasites, insects, snakes, plants, animals, etc.
- *Physical Hazards:* Noise, temperature extremes, vibrations, lasers, etc.
- *Ergonomic Hazards:* Poor work posture, improper material handling, monotony, fatigue, improper work/rest cycles, etc.

### 5.3 Construction Hazard Assessment (CHA)

- General site hazards will and controls will be identified and documented by the estimating team in Section A of the Construction Hazard Assessment form HSE-05-03 prior to the start of the project. It will then be handed off to the project team to further develop Section B and become a permanent part of this plan.
- Section B will identify specific operations requiring a Job Hazard Analysis. Any operation with a "class A" hazard following implementation of controls is to be forwarded to the HSE Director USHO for review and input.

### 5.4 Job Hazard Analysis (JHA)

The completion of a JHA by the project team is required for high risk activities identified in the CHA to verify that hazards and risks associated with a specific task are identified and appropriate



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controls are implemented prior to execution of the task. **All hazards identified must be evaluated based on the frequency of the activity and the “potential outcome” of an incident.**

- The superintendent in charge of the operation is to verify that a Job Hazard Analysis (JHA) commensurate with the scope of work has been developed and received any required review/approval prior to the operation starting
- Form HSE-05-04 is to be used for JHA's and is to identify pre and post control risk ratings
- JHAs are living documents and are to be updated, revised, reviewed and approved as additional hazards are identified or conditions change
- The JHA is to consider and address Life Saving Absolutes:

## Lifesaving Absolutes

 <p>Protect yourself, your materials, and your tools against a fall when working at heights.</p>	<p><b>FALL PROTECTION</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>	 <p>Obtain proper authorization before entering a red flagged area or confined space.</p>	<p><b>DANGER TAPE / CONFINED SPACE</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>
 <p>Follow safe driving rules of the road.</p>	<p><b>VEHICLE TRAFFIC</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>	 <p>Follow safe rigging and lifting practices.</p>	<p><b>RIGGING / HOISTING</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>
 <p>Protect yourself and others when operation or working near heavy equipment and vehicles.</p>	<p><b>HEAVY EQUIPMENT / DELIVERIES</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>	 <p>Take all required precautions before entering a trench or excavation.</p>	<p><b>TRENCH / EXCAVATION</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>
 <p>Verify isolation from potential energy and comply with Lock Out / Tag Out procedures before work begins.</p>	<p><b>LOCK OUT / TAG OUT</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>	 <p>Identify high hazardous work activity. Use PSI, JHA and Daily Meeting to address and communicate concerns.</p>	<p><b>CRITICAL / COMMUNICATION</b></p> <ul style="list-style-type: none"> <li><input type="radio"/> Check if this hazard exists with this scope of work.</li> <li><input type="radio"/> Check if controls have been reviewed and are adequate in the JHA.</li> <li><input type="radio"/> Not Applicable</li> </ul>

The superintendent is responsible to verify controls and signify such on the form

- The JHA is to be communicated to all workers prior to the start of the operation
- JHAs will be signed off by project team/workers
- The JHA is to also consider and address
  - Occupational Health
  - Hygiene
  - Ergonomic factors and controls



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The project manager must notify the District Manager and District HSE Manager of all activities that include hazards classified as severity level 4 (major) following the implementation of control measures specified in the JHA. District Manager's approval is required prior to proceeding.

Under certain circumstances special evaluation of a JHA is required by the District Construction Engineer and the District HSE Manager. Some examples of such reviews are:

- man baskets suspended by a crane
- engineered lifts
- activities required by legislative jurisdictional requirements and/or PCL policies.

#### **JHA Reviews and Audits:**

- JHA reviews are to be completed by the supervisor of the operation on a regular basis and not to exceed monthly review and when any new worker joins the crew
- The Superintendent overseeing the activity is required to formally document JHA audits on a quarterly basis
- Project Manager is to verify audits have been completed and JHA's are updated and communicated as identified by audit findings

## **5.5 Pre-Job Safety Instruction**

A documented program designed to assist supervisors, workers, and subcontractors in the application of hazard identification and control measures of where their work is being performed. PSI books will be provided to the crews, an example is located in.

- At a minimum, one person per the crew is required to complete a PSI and review it with the crew prior to beginning the task
- PSIs are to be conducted:
  - At the start of any shift
  - At the beginning of a new task
  - As the workplace activities or environment changes
- Steps to complete a PSI:
  - Assemble workers involved in the work
  - Identify the scope of the work being performed
  - Identify actual and potential hazards
  - Identify appropriate controls for each hazard
  - Document the scope of work, actual hazards and controls
  - Workers in the crew must review and sign the PSI form
  - Review same PSIs after lunches and/or breaks. Record the time and Initials of when PSI was reviewed.
- PSI audits:
  - Will be conducted by project management staff /project supervision during the work day to commend, correct, and coach proper completion of a PSI. The PSI audit consists of review of documentation, observation, and interview at the task location.
  - Information gathered can be recorded on the back of the PSI or directly input to the PDC by electronic means
  - Thirty (30) percent of all PSIs completed in the field will be audited.



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## 5.6 Safety Data Sheets (SDS)

- An inventory list of all chemicals must be maintained on-site and located in the SDS binder
- A copy of the SDS binder will be maintained at the jobsite office
- All employees will be notified of the SDS location during new hire orientation, HSE Field Meetings, and when new products are introduced
- The Chemical Inventory List in will be completed as new products are brought to site and will be located in the front of the SDS binder / file
- SDS will be made available to all employees
- MSDS Online service is available to the project through <https://msdsmanagement.msdsonline.com/company/5BDA1747-A271-4564-A465-E59EC6FB22F1>

## 5.7 Hazard Reporting Procedures

- Employees and subcontractors are to report hazards to management and/or supervision
- Employees are to immediately correct hazards when they are able to do so without jeopardizing themselves and report any potential hazards not removed to their supervisor
- Supervision should note hazards on their weekly inspections as well as actions taken to correct and eliminate
- Action plans will be developed by the project team to address the trends

## 5.8 Employee Information and Training

- Project management and supervision will receive formal training in Hazard Identification and Control
- JHAs and Safe Action Plans will be addressed with crews at the Project wide HSE Meetings, HSE Field Meetings and at PSIs
- Site specific training will be tailored to the needs of the project

## 6.0 Inspections and Audits

The project is to be informally inspected on a daily basis and formally on weekly basis. Whenever possible formal audits are to be completed using a mobility platform such as I-pad or tablet.

- Project management will establish a procedure and/or schedule for formal inspections.
- At a minimum a monthly formal inspection will be conducted by:
  - Project Manager
  - Project Superintendent
  - Superintendent
  - Project Engineer
  - Field Engineer
  - Subcontractor Supervision - Preferably accompanied with PCL supervision
  - HSE staff (where assigned will complete a formal inspection weekly)
- Prior to a formal inspection, management is to review the most recent formal inspection and verify that correction action has taken place.
- All noted deficiencies are to be entered on HSE-06-01 HSE Inspection Checklist as well as in the PDC/SMC. Inspection completed on I-pads and/or tablets link directly to the PDC/SMC



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- The SMC Hazard Coding System is to be used to identify the hazard category and subcategory. (The use of “other” is to be minimized. Contact the HSE Manager for assistance in classification)
- Inspections are to be reviewed and signed by project management
- Project management is responsible to verify that corrective actions are completed.

## 6.1 Governmental Inspections

- Inspectors from regulatory agencies will be permitted to inspect company facilities and projects, without obstruction, provided they have the appropriate authorization and identification
- Project superintendent must notify the district HSE manager immediately if an inspector from a regulatory agency indicates that he/she will be conducting an inspection
- Opening conference must be held prior to start of inspection
- Close out conference must be held once the inspection has been completed
- Copies of regulatory inspections must be sent to the district office
- Inspection will be entered into SMC as “Government” inspection

## 7.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment is to meet the requirements of:

- applicable legislative jurisdictional requirements
- PCL HSE policies
- PCL HSEOP's

### 7.1 Mandatory basic PPE Requirements:

- **Hardhats**
  - Must meet legislative jurisdictional requirements
  - Metal hardhats and hardhats that are damaged, altered or have holes are not acceptable
  - PCL personnel are to wear hard hats with the company logo and employee name
  - Hard hats are to be worn in accordance with manufacturer's requirements. Only head apparel designed to be worn under a hard hat will be allowed
  - Emergency Sticker shall be placed inside the hardhat identifying; name, emergency contact number, point of contact, and any medical issues
- **Eye/Face Protection**
  - All PCL employees will be issued and required to wear approved, close fitting safety eyewear while outside of an office environment, construction equipment, or vehicle cab.
  - Visitors, subcontractors, owner representatives, and vendors/suppliers will comply with this requirement also.
  - Face and eyewear must include side shields and be kept in good repair.
  - Safety glasses shall meet the requirements of ANSI Z87, Practice for Occupational and Educational Eye Protection (sunglasses are not allowed).



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- If a worker cannot wear safety glasses, as documented by a physician's note, alternate arrangements must be made to verify effective protection. Employees and visitors requiring prescription eyewear must wear glasses with frames and lenses meeting ANSI Z87 specifications or wear protective eyewear over their corrective lenses. (PCL employees are encouraged to utilize the purchase program with Lenscrafters that provides a reduced fee)
- Dark tinted lenses may not be worn in enclosed buildings or structures, on dull overcast days or at night. Amber, indoor/outdoor, and blue lenses (or others as specified in the JHA/PSI) may be used in lieu of clear lenses in low or artificial light conditions.
- Double Eye Protection shall be used when engaged in operations such as welding, burning, grinding, chipping, overhead drilling, powder actuated tool use, air cleaning/blow pipe use, pressure washing, or chop saw or chain saw use. Other tasks creating the potential for eye/face hazards will be appropriately addressed in the JHA/PSI.

## Approved Double Eye Protection

- General applications:
  - UVEX Bionic or equivalent and safety glasses
  - Face shields and high impact goggles sealed wraparound style eyewear



- Welding cutting and burning:
  - Welding hood and safety glasses
  - Welders must wear eye protection of the correct color density to protect against a variety of light, heat, metal particles, sparks and slag hazards. Safety glasses will also be worn under a welding helmet.





# HARTFORD LATERAL SLIDE HSE PLAN

- Double eye protection providing a shade 5 protection level or better will be used during torch cutting operations. Either the face or eye protection must provide shade 5+ protection.
- Respiratory Protection:
  - Full face respirator or powered air purifying respirator (PAPR) hood and safety glasses (refer to HSEOP-12 Respiratory Protection for additional requirements)
  - The use of a full face respirator or loose fitting PAPR hood also suffices as double eye protection. Safety eyewear suitable to the application must be utilized under flip up PAPR hoods, but are not necessary under full face respirators.



= OK



+  = OK

- Concrete operations (e.g. handling a concrete pump hose) subject the handler to eye/face hazards where glasses alone may prove inadequate. In these cases, mesh face shields *and* safety glasses or standard face shields with peel offs *and* safety glasses should be used.



Or



+



= OK

- Employees whose presence is required in close proximity to tasks requiring additional eye protection and who cannot be protected by engineering controls will wear the same level of protection as the worker performing the task.

## Removal of double eye protection

- Prior to removing eyewear, workers should effectively dust themselves off to reduce the potential for injury.

- **Hand Protection**

- Gloves suitable to the intended task are to be worn at all times while on the project site
- Fingerless gloves or removal of gloves is permitted while manipulating approved tablets



# HARTFORD LATERAL SLIDE HSE PLAN

- **Footwear**
  - All employees are required to wear safety toe boots of leather or substantial synthetic material that comply with ASTM F2413 – 11.
  - Boots should have at least a 6-inch upper to protect the ankles
  - Lace up boots are preferred to slip on style as they provide greater support
  - Specialized footwear required for tasks with additional hazards are to be identified in the JHA and reinforced through the PSI
- **Clothing**
  - Sleeveless shirts and shorts are not acceptable. (T-shirt with standard sleeve 4 inch minimum)
  - Do not wear loose clothing or jewelry where they may create a hazard
  - Refer to HSEOP-28 Heat stress Prevention and HSEOP-29 working in Cold Environments for additional guidance
- **Hearing Protection**
  - Will be required if the noise level exceeds 85db
  - A selection of hearing protection must be readily available for employees use

**NOTE: Personal Protective Equipment and gloves need not be worn in offices, lunchrooms and washrooms or change rooms**

## 7.2 Special Personal Protective Equipment (Site Specific)

Includes but is not limited to:

- Personal fall arrest equipment
- Full body harness (body belts are prohibited)
- Lanyards
- Positioning lanyards
- Retractable lanyards
- Rope grabs
- Respiratory protection includes disposable respirators (dust masks)
- Welding / cutting protection
- Legging protection
- Metatarsal protection

## 7.3 Service and Maintenance

- Service and maintenance of PPE will be consistent with the manufacturer's recommendations
- PPE found to be damaged is to be taken out of service immediately, pending a competent persons inspection
- All PPE removed from service for repair will be tagged as "Out of Service" and will not be returned until repaired and inspected by a qualified person
- Employee owned PPE must be approved by project management prior to use



# HARTFORD LATERAL SLIDE HSE PLAN

- All personally owned equipment must meet PCL PPE standards and pre-use inspection requirements
- Personally owned fall arrest protection systems will not be accepted

## 7.4 Inspection Program

- PPE is to be visually inspected before each use
- Fall arrest equipment is to be inspected by a competent person on a quarterly basis and identified with the appropriate period designation:
  - Green January, February, March
  - Orange April, May, June
  - Red July, August September
  - Yellow October, November, December
- Personnel are to be educated and trained to the proper use, care, and maintenance of all PPE
- PPE requirements will be reviewed with employees at orientation, PSI's and HSE Field Meetings

## 8.0 EMERGENCY RESPONSE / CRISIS MANAGEMENT PLAN

This plan outlines specific responsibilities of PCL employees in the event of an emergency or crisis situation.

The project will have the appropriate emergency contact numbers readily accessible, a site layout drawing indicating site access points for emergency equipment and vehicles, employee muster points and location of emergency equipment such as first aid and fire extinguishers.

This plan shall be the topic of tailgate meetings, employee orientation, and job start meetings. An evacuation drill will be conducted at least annually to evaluate the efficiency of the Emergency Response Plan.

TIG Tampa District Manager, Gayle Grady, is designated as the company spokesman. Therefore, all media inquiries to other persons must be courteously declined and referred to Gayle Grady. Head office personnel may be contacted for assistance if appropriate.

### Crisis Management Plan

A crisis is defined as a significant disruption of one or more PCL company's normal activities that may stimulate media coverage and/or public scrutiny.

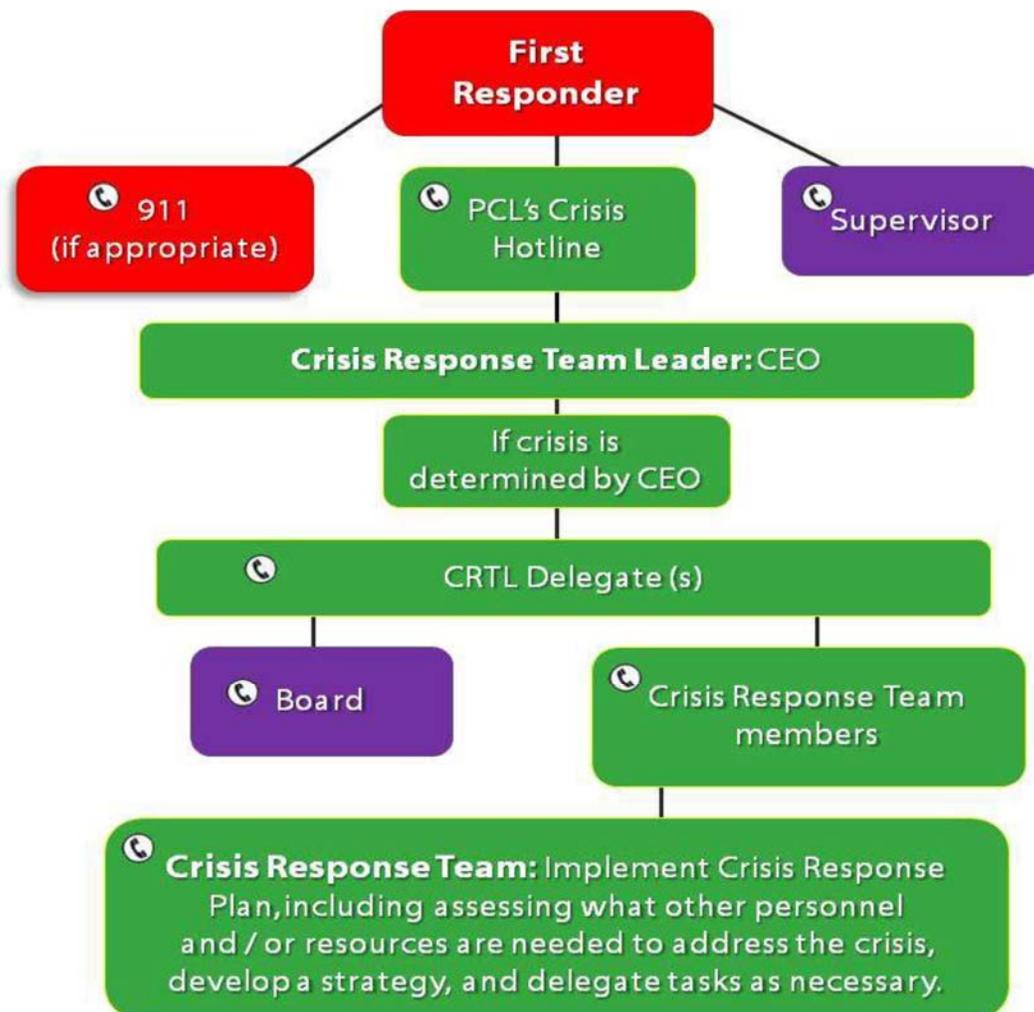
In the event a crisis or a potential crisis, as defined by this plan, arises suddenly from an unanticipated event or incident, the persons identifying the event or situation must take the following actions in the following order:

**In the event of a crisis or potential crisis involving an injury, potential injury or physical danger, or a fatality to any person:**



# HARTFORD LATERAL SLIDE HSE PLAN

- Step 1:** Call 911 immediately and report the event or situation to local law enforcement and other appropriate governmental authorities.
- Step 2:** Refer to HSE 08 and follow that procedure.
- Step 3:** Take any safe and appropriate measures to assist any injured persons and to assure the safety of any endangered persons through eliminating any continuing unsafe conditions.
- Step 4:** Call PCL's Crisis Hotline at **1-866-910-9070** to report the event or situation. The Crisis Hotline personnel will take over primary responsibility for making contact with the senior executives responsible for addressing crisis situations.
- Step 5:** Contact your immediate supervisor to report the event or situation.
- Step 6:** Be available to receive further communications and direction from Crisis Response Team members; and/or your supervisor. It is crucial that First Responders maintain open phone and electronic lines of communication to ensure the availability of additional necessary information to the members of the Crisis Response Team.
- Step 7:** Take time to document the event or situation in writing to the best of your ability and then secure this information. You will be asked to provide this information to the Crisis Response Team within a short time following your initial report.





# HARTFORD LATERAL SLIDE HSE PLAN

**In the event of any crisis or potential crisis not involving an injury, potential injury or physical danger, or a fatality to any person Follow Steps 4 through 7 above.**

**This crisis communication plan will only be initiated upon decision by district management as defined by the above description**

- District HSE Manager Larry Fortier (813-480-2140) will be alerted by the project to any event that may be deemed as a crisis. Information will be forwarded to Gayle Grady and senior off site managers as required.
- District Manager Gayle Grady or her designate will prepare the key message statement in consultation with USHO operations.

If possible communications to district employees will precede their learning of the issue or event through the media. Gayle Grady is responsible to communicate the facts of the crisis to district employees as soon as reasonably possible to keep employees updated. The communication will be the same message that is prepared on the key message statement as the media.

Gayle Grady or her designate will be the media spokesperson and will consult with USHO to determine whether a proactive or reactive media strategy is instigated

The following will be communicated to all personnel so they are aware of the procedure. If an employee is approached by the media, the employee shall:

- Be courteous
- Explain that the company procedure is to provide information in a timely and accurate fashion
- Direct inquiries to the district manager and/or appointed spokesperson

## **8.1 Roles and Responsibilities**

### **Employees**

- Workers are to participate and follow emergency response procedures
- Workers must respond immediately to instructions from first aid attendants, supervisors, and emergency response agency personnel
- Before any worker starts work on this project, they are to be orientated to this HSE site specific Emergency Response Plan
- If employees witness an accident, they are to do the following:
  - Immediately call for PCL supervision
  - The appropriate emergency response agency will be called by PCL supervision (fire, police, ambulance/911)
  - Disperse personnel to the muster area(s) as directed by PCL supervision
  - Await the arrival of emergency response personnel at designated area as directed by PCL supervision
  - Direct emergency response personnel to the appropriate area or escort emergency services to appropriate area as required.



# HARTFORD LATERAL SLIDE HSE PLAN

- If approached by the media, employees shall:
  - Be courteous and explain that the company policy is to provide information in a timely and accurate manner
  - Direct inquiries to the District Manager, Gayle Grady. The district manager is PCL's Spokesperson and is to answer all media inquiries

## **Project personnel trained in first aid and CPR**

- Will be assigned, as needed, to the Emergency Response Team
- Will respond to the Project Superintendent, Ron Gibbens
- Will follow all commands given by the Project Superintendent Ron Gibbens

## **Subcontractor personnel**

- Will immediately notify Project Superintendent Ron Gibbens of any emergency event
- Will identify trained CPR/First Aid personnel
- Will follow all commands given by the Project Superintendent Ron Gibbens
- If there is a catastrophic event:
  - Report to PCL Project Supervision
  - Subcontractor supervision will direct their personnel to the muster area
  - Take a head count of their personnel for accountability
- Subcontractor personnel are to be trained and orientated to this project's site specific Emergency Response Plan

## **Project Superintendent – Ron Gibbens**

- At the start of this project, the Project Superintendent is to:
  - Review and understand the procedures outlined in this plan
  - Ensure that members of this project's supervisory staff know the procedures outlined in this plan
  - Assign duties to the other project supervisors, in accordance with this plan
  - Assumes responsibilities for all aspects of this plan
  - Of utmost importance, the Superintendent assumes leadership and control of any emergency situations that arise and ensures:
    - The emergency response plan is implemented
    - As soon as is reasonably possible, the Superintendent (or his designee) is to notify the TIG Tampa District Manager, Gayle Grady and the District HSE Manager Larry Fortier of any emergency event and kept informed of the situation
    - The safety of all personnel is maintained by means of work stoppage, evacuation, worker counts, maintenance of site security, etc.
    - Appropriate steps are taken to limit loss or damage to property or equipment and that corrective action, if applicable, is taken as soon as possible
    - Work is resumed when the emergency subsides or when directed by supervisor
    - The Project Superintendent is to ensure the availability of first aid equipment stationed on this project



# HARTFORD LATERAL SLIDE HSE PLAN

- For emergencies arising after normal work hours the project superintendent Ron Gibbens will be notified

## Foremen

- Will be knowledgeable of the Site Emergency Response plan
- Assist the Project Superintendent (team leader) in the event of an emergency
- Will affirm that any new or transferred employees are aware of the procedures to follow during an emergency
- Assist in control of worker safety and site security
- Provide assurance that all personnel are accounted for

## Project HSE Supervisor – Larry Fortier / Dillon Cook

- Will develop and implement the ERP
- Be knowledgeable and understand this plan
- Assessed on a regular basis through audits and inspections
- In the event of a catastrophic situation:
  - Will consult with project and district management to determine and make the appropriate notifications to regulatory agencies
- After an emergency, is responsible for:
  - Investigating, reporting and recommending future preventative action plans
  - Reporting to the various government regulatory agencies or environmental protection agencies
  - Reporting to the District HSE Manager and/or US HSE Director

## Operations / Senior Project Manager–Matt Persing / Todd Schille

- Will provide suitable resources and support for project management
- All media relations will be channeled through the District Manager or designated appointee

## 8.2 Emergency Evacuation / Response Procedures

### Bomb Threat

If receiving a bomb threat via phone, you should follow the PCL Bomb Threat Checklist throughout the duration of the phone call. When the conversation ends, you should immediately contact the Project Superintendent Ron Gibbens.

- If receiving a bomb threat via mail:
  - Do not handle the package or envelope
  - Immediately contact the Project Superintendent Ron Gibbens
- Ron Gibbens shall be the individual who calls 911
- For emergencies at the PCL Site office, the location is:

**Junction Marketplace Unit 2  
1011 N. Main Street, White River Junction, VT 05001**



# HARTFORD LATERAL SLIDE HSE PLAN

- After Ron Gibbens has been notified, and 911 have been contacted, the evacuation of all personnel shall take place
- In addition, the District HSE Manager Larry Fortier (813-480-2140) is to be contacted,
- **Assembly Area for the PCL Site Office:**
  - **Junction Marketplace front parking lot**
- Ron Gibbens and Dillon Cook will report the head count to Larry Fortier

## Evacuation Procedures Site Office

- If it determined that 911 needs to be called, the person making that decision is responsible for making the call
- All employees will exit and gather at the established Emergency Muster Area established.
- Dillon Cook will take the site attendance list as well as the visitor sign-in sheet to verify who is in the field, off site or in the office.
- At the Muster Location, Ron Gibbens and Dillon Cook will go through the evacuation attendance list and visitor sign in sheet to make sure everyone has been accounted for
- Also posted next to this plan is the Emergency Crisis Contact Phone List. Should an emergency arise, contact the appropriate agency and delegate a person to go meet the emergency responders
  - In addition, the TIG Tampa Office should be contacted (813) 264-9500.
  - During the emergency situation, all of PCL Supervision will keep in contact via cell phones
  - Ron Gibbens will notify employees when it is safe to return to the jobsite

## Evacuation Procedures Jobsite

- Ron Gibbens assumes Project Control as the Team Leader. He calls or designates someone to call 9-1-1 if needed.
- Ron Gibbens will notify all employees, superintendents, foremen, and visitors that there has been an emergency situation.
- All work shall be stopped
- All loads shall be lowered if possible
- Equipment and energy sources shall be shut down
- All employees, superintendents, foremen, and visitors are to evacuate the jobsite and gather in the nearest Emergency Muster Area.
  - **Muster Area 1 (M 1) – I-91 Northbound Northeast abutment**
  - **Muster Area 2 (M 2) – I-91 Northbound Southeast abutment**
  - **Muster Area 3 (M 3) – I-91 Southbound Northwest abutment**
  - **Muster Area 4 (M 4) – I-91 Southbound Southwest abutment**
  - **Should the nearest muster area be unreachable, proceed to the next muster area**
- Ron Gibbens will manage muster areas 1. He will be responsible to get the headcount for all PCL employees and subcontractors. He will designate a



# HARTFORD LATERAL SLIDE HSE PLAN

salariied supervisor to manage muster area 2 and report headcount to Ron Gibbens. All subcontractors will report their headcounts to Ron Gibbens, Project Superintendent.

- Foremen are responsible for employees on crew and for entire crew meeting at appropriate muster location.
- If it has been determined (by head counts) that an employee has been unaccounted for, and cannot be contacted, the Fire Department will immediately be notified and PCL Supervision is to assist with the Fire Department is needed.
- During the emergency situation, all of PCL Supervision will keep in contact via Cell Phones.
- Project site security measures shall be established in the area as necessary to keep non-essential people sufficiently away from the emergency.
- Ron Gibbens will notify employees when it is safe to return to the jobsite.

## Fire

- The first PCL Superintendent or Foreman on the scene needs to assess the situation to determine if the fire can be contained with a Fire Extinguisher or if 911 should be called. For all fires LARGER than a TRASH CAN, call 911 for emergency assistance
- If it is determined that 911 needs to be called, the person making that decision is responsible for making the call
  - The site address for **I-91 Bridge Improvements** is:  
**Junction Marketplace Unit 2**  
**1011 N. Main Street, White River Junction, VT 05001**
- The person responsible for calling Emergency Fire Response is to stay on the line with 911 until Emergency Fire Response arrives on site
- The next PCL Superintendent or Foreman on site is to take charge as Incident Commander and assign the following responsibilities:
  - Evacuating the site. All employees are to muster to the primary muster area in the PCL site yard (unless this is where the fire is located), if this is the case employees will evacuate to the cemetery immediately adjacent to the back of the site yard
  - Assign someone to meet the Emergency Fire Response Personnel at ground response location and inform them of the location of the fire
    - Once Emergency Fire Response Personnel have arrived onsite, provide full cooperation and assistance as needed

## Man Down/Medical Emergency Procedure

- All Foreman and Superintendents will have a Cell Phone on them at all times
- The first PCL Superintendent or Foreman on the scene needs to assess the situation to determine if 911 should be called
- If it is determined that 911 needs to be called, the person making that decision is responsible for making the call



# HARTFORD LATERAL SLIDE HSE PLAN

- The person responsible for calling Emergency Response is to stay on the line with 911 until Emergency Response arrives on site
- The next PCL Superintendent or Foreman on site is to take charge as Incident Commander and assign the following responsibilities:
  - Controlling the scene. Making sure the scene is safe for employees and that there is clear access available for Emergency Response Personnel to assist the injured employee
  - Controlling the crowd. Keep all employees not involved in the emergency away from the scene
  - Notify Traffic Control Supervisor to have clear access for the arrival of Emergency Response Vehicles
  - Assign someone to meet the Emergency Response Personnel at the ground response location to lead them to the emergency scene
- Once Emergency Response Personnel have arrived onsite, provide full cooperation and assistance as needed

## Spill or Hazardous Release Emergency Procedure

- All spills are to be reported immediately to Jeremy Mackling.
- Notifications also need to be made to site superintendent, Ron Gibbens.
- Ron Gibbens will evaluate the condition and determine if the Emergency Response Team needs to be notified
  - If the Emergency Spill Response Team needs to be notified, the Team Leader, Ron Gibbens, will notify the rest of the Spill Response Team
  - Ron Gibbens will also notify Jeremy Mackling as well as Larry Fortier 813-480-2140
  - Safety Data Sheets for the product(s) involved in the spill shall be obtained from the MSDA Online service <https://msdsmanagement.msdsonline.com/company/5BDA1747-A271-4564-A465-E59EC6FB22F1> and/or through the District HSE Manager, Larry Fortier in the PCL District Office. Upon review of the SDS sheets, PCL management shall determine whether or not an evacuation is necessary and what PPE is required.
  - If an evacuation is necessary, The following agencies will need to be contacted:
    - The National Response Center 1-800-424-8802
    - The Vermont Department of Environmental Conservation 802-828-1138
      - After hours emergency 800-461-5005

### VTDEC Spill Response Team

Phone Numbers			
Office Hours Reporting	24 Hour Reporting	National Response Center	FAX (office hours)
802-828-1138 ☎	800 641-5005 ☎	800 424-8802 ☎	802-828-1011 ☎

- If an evacuation is **not** necessary, the initial area shall be flagged off so no traffic or workers are allowed to enter the area
- Spill kits, located at PCL connex or work location, site main office, equipment shall be utilized to help contain the spill



# HARTFORD LATERAL SLIDE HSE PLAN

- The Team Leader shall coordinate with the State Department of Environment for proper disposal of contaminated soil, absorbent pads, etc.

## Spill Response Team:

Team Leader: Ron Gibbens / Dillon Cook

Photographer: Erich Heymann / Robert McKeen

## Traffic Related Emergency Procedure

- This emergency procedure is to go in effect whenever an incident occurs on the roadways on this project
- Depending on the severity of the incident, the first PCL Supervisor on the scene shall make the determination if 911 is needed to respond to the incident
- The first person on the scene needs to stay at the scene until Emergency Response Personnel arrive
- All incidents, regardless of how minor, must immediately be reported to Dillon Cook
- The Supervisor shall then immediately notify the Project Superintendent Ron Gibbens and the Project Manager, Jeremy Mackling of the incident. Regardless of the severity of the incident these two individuals must be notified.
- The HSE Supervisor will then notify the District HSE Manager Larry Fortier 813-480-2140
- If Emergency Response Personnel are contacted, PCL Supervision shall provide full cooperation and assistance if needed

## Transient or Sharps Encounters Emergency Procedure

- If you observe a transient accessing/putting themselves in harm's way on our construction site (i.e. climbing stair towers, walking into excavations, etc.) You are to immediately approach the individual and attempt to escort them off site. If the transient is resistant, you must directly notify your immediate Supervisor. If your Supervisor deems it necessary to call the Police, he/she is to do so.

*\*Since most encounters will be in the field and there is no physical address, look for your nearest cross-streets or access points.*

- If you encounter a **sharp/needle** in the field you are not to touch the sharp/needle, but to directly notify your immediate Supervisor. The Supervisor in charge of the crew will then contact: Ron Gibbens
- Flag off the area to keep all employees, including the public, away from the sharp/needle until it has been properly disposed of

## Adverse Weather Conditions

- Weather will be tracked and monitored by project supervision



# HARTFORD LATERAL SLIDE HSE PLAN

- If lightning strikes within five (5) miles of the project site, Ron Gibbens will determine any work stoppage and evacuation from the structures
- Typically storms and severe weather conditions have significant advance warning. Project management will implement establish and implement a site specific plan for these events
- Other than flash floods high water levels can be anticipated and a protection plan for equipment and facilities will be implemented
- Earthquakes and tornados have little to no advance warning. Project management will establish and communicate immediate response action on a regular basis

### 8.3 CPR and First Aid Personnel for this Project are:

Ron Gibbens

Dillon Cook

First Aid personnel should be responding within 4 minutes of notification

### 8.4 Emergency Response Team

#### Emergency personnel and their responsibilities:

The superintendent assumes the role of the Incident Commander - for this project is Ron Gibbens

#### The Incident Commander will:

- Assess the situation and respond accordingly
- Direct the First Aid/Emergency Response Team
- Maintain communications with emergency personnel

#### Emergency Response Team

- Will be identified at the start of the project
- Trained on responsibilities and roles when activated
- Trained in First Aid as well as CPR certified
- Take direction from the Incident Commander

#### ERT members are identified below and will be assigned the following tasks:

- Jeremy Mackling or Erich Heyman will control access in and out of the site
- Ron Gibbens or Dillon Cook will meet and direct emergency response vehicles
- Dillon Cook or Robert McKeen will photograph the scene

#### Evacuations

- Ron Gibbens will be staged at the muster area and getting a head count of all personnel

### 8.5 Nearest Medical Facility and Driving Directions

<i>CLINIC</i>	<i>HOSPITAL</i>
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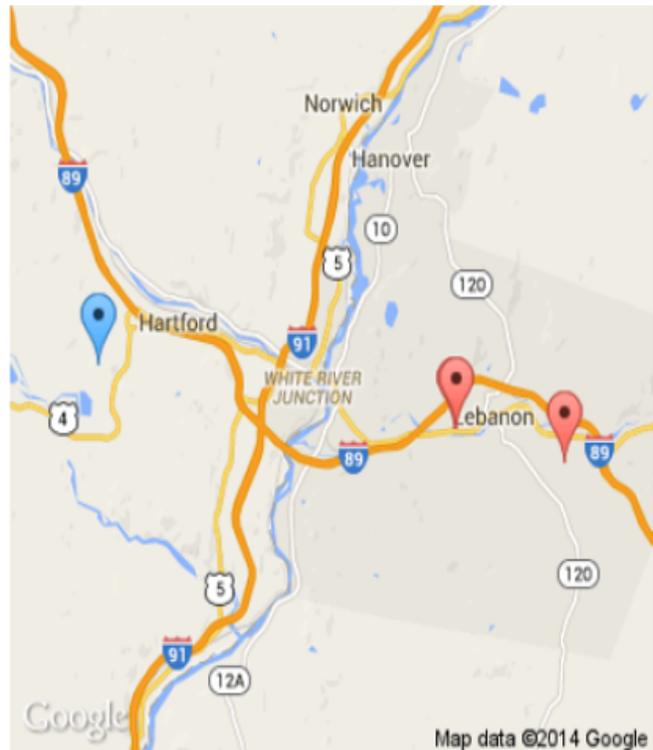
# HARTFORD LATERAL SLIDE HSE PLAN

<p><b>Phillip Collins</b> <i>Occupational Medicine</i> 127 Mascoma Street Lebanon, NH 03766 603-448-7459</p> <p><b>Community Care Center</b> <i>Primary Care Clinic</i> 5 Alice Peck Day Drive Lebanon, NH 03766 603-448-3122</p>	<p><b>Alice Peck Memorial Hospital</b> 119 Mascoma Street Lebanon, NH 03766 603-443-9508</p>
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Collins, Phillip, M D  
Phillip Collins M.D.  
*Occupational Medicine*  
127 Mascoma St  
Lebanon, NH 03766  
603-448-7459

Community Care Center  
*Primary Care Clinic*  
5 Alice Peck Day Dr  
Lebanon, NH 03766  
603-448-3122

† Alice Peck Day Memorial Hospital  
*Hospital: General/Acute Care*  
119 Mascoma St  
Lebanon, NH 03766  
603-443-9508





# HARTFORD LATERAL SLIDE HSE PLAN

## 8.6 Emergency Contacts

### Civic Emergency Telephone Numbers

Organization	Number
Police Services – Non Emergency	802-295-9425
Fire Department – Non Emergency	802-295-3232
Medical Services (Ambulance)	911

### Utility Emergency Telephone Numbers

Organization	Number
Natural Gas –	
Electrical Power –	
Public Works Dept.	802-295-3622

### Local Hospitals

Name	Address	Number
Alice Peck Memorial Hospital	119 Mascoma Street Lebanon, NH 03766	603-443-9508

### District Office

Name	Office	Fax	Cellular	Home
Gayle Grady	813-264-9500	813-264-6689	727-639-8138	
Matt Persing	813-264-9500	813-264-6689	813-415-1070	
Todd Schille	813-264-9500	813-264-6689	813-267-4193	
Larry Fortier	813-264-9500	813-264-6689	813-480-2140	

### Media (Optional)

Name	Office	Fax	Cellular	Home

### Federal, Provincial/State and Local Municipalities

Name	Office	Fax	Cellular	Home
VT Dept of Environment	802-828-1138			
Windsor County Sheriff	802-457-5211			
Emergency Communications Center	802-295-9425			
VT Department of Emergency Management	800-347-0488			

### Subcontractors

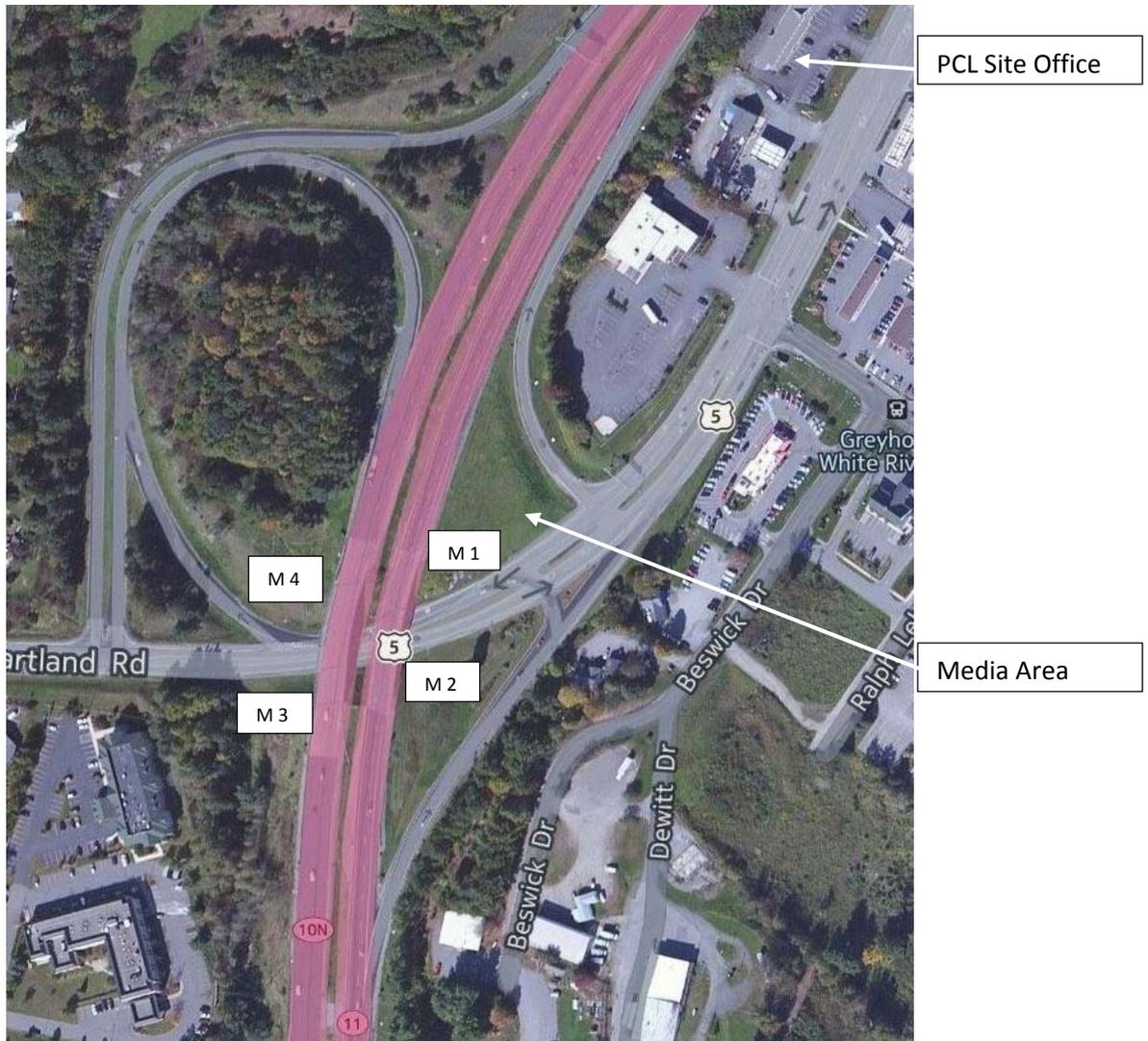
Name	Office	Fax	Cellular	Home



# HARTFORD LATERAL SLIDE HSE PLAN

## 8.7 Site Plot Plan

The site plan is to be addressed with emergency response agencies (police, fire, ambulance). A large version of the site plot plan is posted onsite in the trailers and available at site notice board(s).



- Everyone onsite will be made aware of the plan and the location of equipment and resources on the project, such as telephones, fire extinguishing equipment, first aid equipment, and muster areas. Plan will be covered at orientation and periodically at Weekly HSE Meetings

### Entrance to project site:

- All visitors must sign in at the PCL office.

### Phones:

- Supervisor in most cases will have cell phone on person

### Fire Extinguisher/Fire Fighting Equipment:



# HARTFORD LATERAL SLIDE HSE PLAN

- Refer to site plot plan for locations (note: all fire extinguishers may not be identified)
- Note: Field Office trailers as well as all connex tool sheds will have fire extinguishers staged in a location that is highly visible and labeled with a placard
- Each Supervisor will have a fire extinguisher available in their PCL company truck

## **In the event a helicopter has to be landed:**

- Designated area will be determined by emergency medical personnel

## **Muster Area:**

- The primary muster area is: **Muster 1 East abutment**
- Secondary muster area is: **Muster 2 West abutment**
- **If the above (2) Muster areas are not accessible use Muster 3 and Muster 4**
- Refer to site plot plan for all locations
- The designated media assembly area will be in the area North of US 5 and East of I-91 NB as shown on the Plot Plan.

## **First aid kits:**

- Will be maintained on site
- First Aid Stations are located at the Field office
- 1 First Aid kit shall be located in the Superintendent's truck at all times

## **Regular and After Hours**

- Ron Gibbens, Jeremy Mackling and Dillon Cook will be notified of any emergency that occurs after regular hours of work
- Ron Gibbens, Jeremy Mackling and Dillon Cook will take appropriate measures to handle the emergency that occurs.

## **9.0 SECURITY**

### **9.1 Site Security Evaluation Beginning of the project**

- A thorough evaluation of the site will be conducted, identification of possible security breaches or ways of entry will be recorded and a control plan will be developed
- The material storage will be strategically placed to reduce the chance of theft
- As warranted a security service may be hired to be on site during off-work hours when repair material is in place

### **9.2 Project Security Program**

- Any equipment used for cutting (with the exception of cylinders) will be stored inside a secured location after hours and on weekends



# HARTFORD LATERAL SLIDE HSE PLAN

- Products of importance will be stored in a secured area so that access cannot be completed without a key
- The use of surveillance cameras, lights or beacons will be determined by the Project Management Team prior to the start of the project
- Theft and vandalism
- Report to local police immediately
- Report to District HSE Manager as soon as reasonably possible
- Parking for employees will be designated by the supervisor for each operation, locations will be defined in the associated work plan
- Where possible fencing will be placed around the jobsite and public access restricted by the use of gates, barrier walls, and signage
- Any member of the public is required to sign in at the PCL Office Trailer prior to being on site to prevent access to unauthorized personnel
- Gates shall be locked when not in use and opened only when required

## 9.3 Signage

### **Required, but not limited to:**

- No Trespassing
- Hazard warning signs
- Entry identification signs
- Emergency Contact Information
- Visitors are to Report to the Job site office
- Restricted areas
- Authorized personnel only
- Hard hat and specialized PPE area
- And any additional signage identified by the project management team

## 9.4 Tool and Equipment Control

PCL tools and equipment are to be clearly marked and identified

### **Foremen and Supervision are responsible:**

- For the control of tools and equipment issued to their crew
- Tool inventories are to be conducted by the foreman
- Deficiencies are to be brought to the attention of supervision

### **Mobile equipment parking:**

- Shall be arranged so that the equipment cannot be tampered with
- Keys are not to be left in the equipment
- When parking equipment, take into consideration fueling operations



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## Employee parking

- Employees shall park in designated areas away from work zone
- PCL does not take responsibility for any damaged personal vehicles that are parked outside of the designated work area

## 9.5 Key Control

The Project Superintendent, Ron Gibbens, (or his appointee) is responsible for key control

- Keys are to only be issued to supervisory personnel
- An inventory and signature system will be set up to control keys
- This includes vehicle and equipment keys
- Spare keys are to be stored in a locked cabinet
- Keys are not to be left in unattended equipment

## 9.6 After Hours Activities

All project employees and subcontractors that return to the project after hours or on the weekends must be authorized to do so by the project superintendent or operations appointee

## 9.7 Shipping, Receiving, and Material Control

- Robert McKeen is responsible to oversee and coordinate receiving, shipping, and controlling materials on site.
- Shipper/Receiver must be aware of the company procedure for shipping, receiving, and control of packing slips.

## 10.0 ENVIRONMENTAL ACTION PLAN

### 10.1 Responsibilities

#### District HSE Management

- Complete the Environmental Scope of Work & Environmental checklist for the successful project
- Verify that the Environmental Action Plan has been developed and reviewed prior to distribution

#### Project HSE Management

- Develop and approve the site-specific Environmental Action Plan prior to mobilization
- Identify special and/or hazardous materials that may require implementation of:
  - HSEOP-16 Asbestos abatement
  - HSEOP-17 Lead Based Paint Abatement
  - HSEOP-21 Silica Protection
- Revise the Environmental Action Plan as project conditions change

#### Project Supervision

- Participate in the development of the Environmental Action Plan



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- Review, implement and maintain the standards in the Environmental Action Plan
- Make workers in their area of responsibility aware of the standards in the Environmental Action Plan

## 10.2 Contract Review

- The Chief Estimator is to conduct a review of the project specifications
- This review shall lead to the development of the:
  - Environmental Scope of Work
  - Environmental Checklist
- The Environmental Scope of Work and the Environmental Checklist:
  - Shall be reviewed with the Project Management Team
  - Review will be conducted prior to start of construction activities

## 10.3 Consultants Reports

Consultant reports will be added as necessary

## 10.4 Legislation Standards

See District HSE Management for requirements

## 10.5 Permits and Licenses

Copies of required permits will be filed within PDC section 30-1-D

- General Permit 3-9020 For Stormwater Runoff From Construction Sites

## 10.6 Project Environmental Designate

Environmental Designate for this site is: Dillon Cook

- Environmental Designate is to have at a minimum completed PCL training:
  - COC 101 - Code of Conduct Environmental Responsibility
  - ENV 106 - Environmental Management - Designate
- Environmental Designate responsibilities:
  - Provisions outlined in the Environmental Project Checklist
  - Implementation of the Environmental Action Plan
  - Implementation of other environmental requirements that may become necessary throughout the course of this project
- Environmental Designate is to have a thorough understanding of the following:
  - Environmental Action Plan
  - Emergency Response Plan
  - Environmental Scope of Work
  - Environmental Checklist for Bidding, Contract and Field Operations
  - Environmental Project Checklist



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## 10.7 Environmental Project Checklist

The Environmental Project Checklist completed by the District is a pre-bid assessment that may require updating as conditions change. Maintenance of the checklist will be a function of the Environmental Designate.

## 10.8 Chemical Products Information

- **The Chemical Inventory List will be completed and located in the SDS binder**
- A list is to be maintained and kept current
- Safety Data Sheets (SDSs) are to be available to all personnel
- Ordering Chemicals:
  - SDS for that product is to be requested
  - Add to the site SDS list
  - Once received, the SDS is to be placed in the manual
- A copy of the SDS and list will be maintained at the job site office.
- The project may also utilize the MSDS Online service  
<https://msdsmanagement.msdsonline.com/company/5BDA1747-A271-4564-A465-E59EC6FB22F1> ( in emergency situations)
  - All employees are to be notified of the locations:
    - During new hire orientation
    - In HSE Field Meetings
    - Whenever a new product or substance is introduced into the work site

## 10.9 Spill Prevention Plan and Response Plan

### Communications

- Report all spills to the Superintendent
- The Emergency Response Team shall respond
- The Superintendent will notify emergency response agencies:
- Notify police, fire and district personnel
- Be prepared to notify others on the Emergency Contact List
- If emergency response agencies are needed:
- Personnel responsible for directing emergency vehicles will be dispatched

### Evaluation of Hazards

- Evaluate the hazards of the spill upwind from the contaminated area(s)
- The evaluation is to include the identification of:
  - Potential health risks
  - Physical risks
  - Environmental hazards
  - Hazardous vapors
  - Presence of electrical, thermal or mechanical energy sources which could act as ignition sources
- Review the SDS as it provides spill response recommendations

### Spill Details



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- Provide the following information when reporting a spill:
- Location
- Name of spilled substance
- Volume (actual or estimate) spilled
- Total quantity involved
- Refer to potential of additional spillage
- Source of the spill or leak
- Hazards involved
- Size of the area affected by the spill
- Injuries or personnel requiring medical attention or rescue
- Time of spill
- The cause of the incident (if known)
- Current weather conditions
- Whether fire or explosion hazards are present

## **Spill Station / Spill Containment Kit**

- Spill Containment Kit(s) are located at each connex on the project and should have the following items:
- PPE
- Absorption socks, pillows, sheets and booms
- Over pack barrel
- Neutralizers
- Other items that may be needed and available on site:
- Shovels
- Pails and/or buckets
- Plastic bags

## **Communications**

- If a spill occurs, the Emergency Response Team should evaluate the situation and hazard(s) before proceeding. The following is to be considered:
- Ensure the proper identification of the spilled substance
- Check the SDS for appropriate PPE and other control measures
- Weather conditions which could affect the contaminated area.
- Evacuation
- Cordon off and secure the contaminated area
- Equipment/materials required to control spill area
- PPE required to protect personnel
- Containment to minimize contaminated area
- Extinguish or remove sources of ignition
- Stopping leak or spill at source
- Place dams of absorption materials to prevent further spread



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- Photograph contaminated area

## **Clean-up Operations**

- Varies, depending on situation and circumstances, but generally consists of:
- Extract/transfer spilled material into tanks or barrels
- Extract/transfer contaminated soil, material or water into tanks and drums
- Place damaged drums or containers into over packs
- Extraction and transfer of used absorbents into drums
- Placement of labels on drums
- Proper storage of materials or substances
- Photographs verifying cleanup of the affected area

## **Disposal of Hazardous Waste**

- Samples of the waste are to be analyzed
- The analysis is needed for transportation and disposal purposes
- This is to be done by a certified lab
- Obtain waste disposal permit if required
- Transfer by a licensed hauler to an approved waste site

## **Hazardous Waste Manifest**

- Carefully check manifest for accuracy and completeness

## **Restoration of Contaminated Area**

- Contaminated areas are to be restored back to pre-spill conditions
- Conditions shall be acceptable to legislated standards or owner's satisfaction

## **Decontamination**

- Remove residual equipment used during containment and cleanup
- Decontamination may require isolation areas and/or shower facilities

## **Reports / Records**

- Environmental spills are to be entered into the PDC/SMC via hardcopy or electronically via mobility platform
- If initially completed on hard copy the written report is to be appended to the electronic file
- Documents should include, but are not limited to, the following:
  - Any waste manifests
  - Chain-of-custodies
  - Transporter and disposal license
  - Environmental Spill Report and lab analysis

All records will be maintained on-site for the duration of the project



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Restock - The Spill Containment Kit is to be restocked with all items used during the spill response

## 10.10 Waste Management

Principles of Reduction, Reuse, Recycling, and Recovery (4Rs) are to be applied. Waste reduction should be considered before anything else.

### Reduction

- Purchase materials and products in bulk to reduce container waste
- Or purchase smaller amounts to avoid having to dispose of expired materials
- Improve material receiving, storage, movement and handling practices to reduce loss

### Re-use

- Used thinner can be reused as a wash thinner to clean equipment
- Filtered backwash water may be reused without further treatment in operations requiring a lower quality of water (dust control)

### Recycling

- Encourage the use of recycled material
- Excess steel and concrete will be recycled

### Recovery

- Wastes generated may contain "recoverable substances" that could be recovered and then recycled or reused

### Non-Hazardous Waste Management

- Every effort is to be made to practice the principles of the 4Rs
- Not only will Reduction, Reuse, Recycling and Recovery benefit the environment, but it also has the potential to be a profit center for the project

### Hazardous Waste Management

- Waste Assessment
- Conduct a site-wide inventory of all products brought onto this project
- Obtain SDSs for these products
- Use the SDS to ensure the product will not become hazardous waste
- When ordering products, inform the supplier/distributor to send a SDS
- Consider product substitution if the product is identified as hazardous
- If a product could become a hazardous waste, consider storage issues

### Hazardous Waste Characteristics

- Any solid waste that exhibits one or more of the following characteristics is automatically be considered hazardous:



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- *Ignitability*: A liquid waste with a flash point below 140 degrees (60 degrees C)
- *Corrosives*: A liquid waste that has a pH of 2.0 or less or 12.5 and above
- *Reactivity*: A waste that readily undergoes violent changes of any kind (detonation), reacts violently with water, generates toxic air concentrations when mixed with water or generates hydrogen sulfide or cyanide when exposed to pH conditions between 2 and 12.5
- *Toxicity*: Requires a lab test procedure to determine

## **Storage / Handling of Hazardous Waste**

- Arrangements will be made by project management
- Consultation will be utilized as needed
- Notify the District HSE Manager

## **On-Site Container Management and Labeling**

- Containers are to be in good condition
- No severe rust
- No sharp-edged creases or dents
- No bulging heads caused by over pressuring containers
- No severe structural defects
- Waste must be compatible with the container
- Waste placed in any container must be chemically compatible with:
  - All other waste in the same container
  - Any residuals remaining in an unwashed/un-rinsed container
- The container itself:
  - Must be kept closed at all times except while adding or removing wastes
  - Funnels left in the container opening are considered a violation
- Ignitable or reactive waste must be at least 50 ft. from the property line
- Containers must be managed to reduce the possibility of ruptures or leaks
- Do not stack containers
- Do not store containers where they could be damaged by vehicle
- Do not overfill
- containers Ground containers which contain flammables or combustibles

## **Handle with equipment designed for that purpose**

- The container must be labeled properly when first used
- Packaging/labeling prior to transport
- When ready, transport wastes to a disposal facility
- A company equipped to handle such waste shall be used
- Ensure the contractor is properly licensed, bonded and equipped

## **Copies**

- All chain-of-custodies



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- Lab analysis and permits retained
- Copy retained on-site
- Copy sent to the District Office

## 10.11 Posting of Signs

- Signs visible from at least 25 ft. are to be posted
- Signs are to be in English and Spanish, if needed.
- Should read "Unauthorized Personnel Keep Out."
- Other signs may be necessary depending on local codes

## 10.12 Communication System

- All on-site employees are to be aware of this plan by the following:
- Orientation
- Job Specific Assignment
- HSE Field Meetings
- Project HSE Committee Meetings

## 10.13 Environmental Emergency Plan

Listed personnel are to be trained on the Environmental Action Plan

- **Incident commander responsibilities:**
- Ron Gibbens, Project Superintendent assumes the role of the Incident Commander
- **Personnel and their responsibilities:**
- Will communicate between field and emergency response agencies
- Dispatch personnel to their pre-determined positions
- Once the emergency response vehicles have arrived at the scene, personnel directing the vehicles will maintain security at the gate

### **Emergency Response Personnel and their responsibilities:**

- Are to respond to the area of the environmental incident
- Take direction from the Incident Commander
- The following personnel will be the core of the Emergency Response Team:
  - Dillon Cook/Larry Fortier
  - Ron Gibbens
  - Erich Heymann
  - Robert McKeen
  - Jeremy Mackling

## 10.14 Communication Procedure

Notifications of an environmental incident will be made by the Superintendent

### **When making notifications, state the following:**

- The nature of the incident



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- Location
- Evaluation of the extent of the incident
- Other comments pertinent to the incident

## 10.15 Evacuation Procedure

The primary means of evacuation notification will be made by the site superintendent

### Upon notification of evacuation:

- All work in the area of the incident is to cease
- The Superintendent will make an assessment
- Determine whether equipment and energy sources in the area of the incident are to be shut down
- Affected employees are to proceed to the emergency assembly area
- Once there, supervision is to take a head count
- Members of the Emergency Response Team will report to the location of the incident
- Site security is to be established

## 10.16 Environmental Audits / Inspections by PCL Personnel

Formal Inspections are to be conducted on a monthly basis and/or as required by project specifications

- Documentation
- Use the PCL Environmental Inspection report to record environmental inspection
- Environmental inspections will be entered into the SMC for this project

The PCL Environmental Inspection is to be

- Reviewed and signed off by project management
- Copy to files

## 10.17 Audits / Inspections by EPA

- When on-site to conduct business, EPA personnel shall be directed to the Superintendent
- EPA personnel are to be orientated prior to entering onto the site
- Superintendent will escort the inspectors while on the project
- Upon notification that an inspector is onsite, Notify District HSE Manager, Larry Fortier(813) 480-2140, immediately

## 10.18 Storm Water Pollution Prevention Plan (SWPPP) or EPSC

- A detailed Storm Water Pollution Prevention Plan shall be established prior the beginning of site work
- Silt Fences, hay bales, and retention basins will be used to control storm water erosion and sedimentation
- PCL shall strictly enforce the SWPPP policy with all on site personnel
- Concrete waste



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- Concrete trucks are to wash out in designated areas only
- Allow at least 100 feet from storm drains, open ditches, streets and streams

## 11.0 SUBCONTRACTOR SAFETY PROGRAM

PCL fully expects Subcontractors while on site to **actively** participate in the Health, Safety, and Environmental programs on the project.

Subcontractors shall fully understand that this document is a living document and changes to this plan, which can affect the site, personnel and all work being done can take place and that those changes that take place shall be adapted by all as needed.

### **Subcontractors are required to:**

- Administer their own safety program
- Submit a copy of their site specific safety plan
- Have a site safety plan that meets the minimum requirements of the PCL HSE Manual or agree to adopt the content of the PCL HSE manual
- Submit copies of JHA's for high risk work
- Submit copy of specific preventative plans as requested
- Submit site specific fall prevention plans as required

### **Subcontractors must also comply with the following:**

- Applicable government standards and regulations
- Client requirements/programs that may be specified
- The PCL project HSE site specific plan

### **Subcontractors shall:**

- Designate representative to enforce their HSE Program
- Designate competent person and competent worker

## 11.1 Personal Protective Equipment (PPE)

Subcontractor supervision is responsible for verifying that their employees are provided with and use the appropriate PPE as required and as needed

### **Mandatory basic PPE requirements are as follows:**

#### **Hardhats**

- Metal hardhats and hardhats that are damaged, altered or have holes are not acceptable
- Must meet legislative jurisdictional requirements
- Only head apparel designed to be worn under a hard hat will be allowed

#### **Eye/Face Protection**



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- To be worn at all times
- Eye protection must have ANSI Z87 stamped on the frame of the glasses
- Side shields shall be utilized with prescription construction rated glasses
- Face shield must be worn in addition to eye protection when flying debris is present

## Hand Protection

- Gloves suitable to the intended task are to be worn at all times while on the project site

## Footwear

- Is to be of leather or substantial synthetic material and comply with ASTM F2413 – 11.
- Boots should have at least a 6-inch upper to protect the ankles
- Lace up boots are preferred to slip on style as they provide greater support
- Specialized footwear required for tasks with additional hazards are to be identified in the JHA and reinforced through the PSI

## Clothing

- Sleeveless shirts and shorts are not acceptable

## 11.2 Additional PPE that may be required on Site

List includes but is not limited to the following:

- Full body harness when fall exposures exist
- Body belts are prohibited
- Lanyards and rope grabs
- Respiratory protection (includes dust masks)
- Hearing protection
- Welding/cutting protection
- Legging protection

## 11.3 Incident Reporting for Subcontractors

- Notify PCL of all Near Misses
- Notify PCL of all Incidents / Accidents as soon as is reasonably possible
- Notify PCL of all vehicle, equipment, or property damage
- Notify PCL of all injuries
- Conduct a formal investigation of all Incidents / Accidents.
- Submit copy of report to PCL's supervision within 48 hours.
- Serious Incidents will have a preliminary review within 4 hours of the occurrence and a formal review within 48 hours

## 11.4 Safety Inspections

- Inspect work areas daily to ensure compliance
- Shall be conducted by a competent person designated by the subcontractor



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- Non-compliance issues are to be corrected as soon as reasonably possible
- If corrective actions are not taken written notification will be sent to the owner of the subcontractor
- Subcontractor supervision is strongly encouraged to participate in project inspections with PCL supervision
- Subcontractors are required to conduct one (1) formal inspection of their area(s) of responsibility at least monthly, or more frequently if required by regulations.
- Documentation of formal inspection shall be submitted to PCL supervision

## 11.5 PCL Site HSE Orientation

**All subcontractor personnel are to be:**

- Orientated prior to starting work on this project, by PCL Supervision
- Sign and submit orientation checklist and questionnaire
- Trained on the hazards of the project

## 11.6 Safety Meetings

**Shall complete Pre-Job Safety Instruction (PSI) prior to starting each daily task**

- Submit copy of PSI to PCL Supervision
- May use their own program, as long as it meets PCL's PSI requirements

**Weekly HSE Field Meetings are to be held**

- Copies of the meeting minutes are to be submitted to PCL
- Or attend PCL Job Site Weekly HSE Meeting

**Attend Project monthly HSE Meetings,**

- Subcontractor participation/non-participation will be noted
- Address issues and hazards

## 11.7 Worksite Monitoring

PCL will monitor the subcontractor's work areas for compliance. **This may include a review of:**

- Records
- Maintenance logs and attendance at new worker safety orientations
- PSIs
- JHAs
- Weekly HSE Meetings
- Project HSE Committee Meetings

## 11.8 Statistical Reporting

**Subcontractors shall submit a report detailing the following on a weekly basis:**

- Employees on-site per day



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- Total man-hours per week and to date
- Number of first aids per week and to date
- Number of recordable incidents per week and to date
- Number of work days lost per week and to date
- Number of incidents (Near Misses) per week and to date

## 11.9 Emergency Response

Subcontractor supervision will review and become familiar with the overall project Emergency Response Plan and subcontractor supervision will communicate this plan to all of their employees.

**If an emergency situation arises, subcontractor supervision will be responsible:**

- For the safe evacuation of their personnel to assembly areas
- Head counts shall be taken and reported to PCL's Project Superintendent
- In the event one of your personnel is injured the same response plan shall still take place
- Subcontractor Supervision is to assist with gathering witnesses

An evacuation drill will be conducted once a year to evaluate the efficiency of the Emergency Response Plan

## 11.10 Housekeeping

- There will be a daily cleanup of all work areas and the trash generated from that day's activities
- All aisles and walkways will be kept free of debris
- No materials stored next to leading edges

## 11.11 Critical Lifts / Engineered Lifts

Critical lifts with mobile cranes can be extremely hazardous and require special care and attention. The TIG Crane procedures will apply to all hoisting activities associate with the project.

Critical lifts are identified as:

- Any lift in excess of 80 percent of the machine's maximum rated capacity at the maximum required radius
- Lifts requiring the coordination of multiple crane working in unison
- If the lift is determined to be an engineered lift or critical pick, and engineered lift study will be performed and stamped by a professional engineer. It is then reviewed by the Rigging Superintendent of the designate. And engineered lift plan included elevation and plan view, rigging details, lift analysis, and all details of the lift including configurations and clearances.
- A PCL Critical Lift Pre-lift Meeting Checklist (or equivalent) shall be completed with the personnel and supervision involved in the lift, and is reviewed at the pre-lift meeting. The Rigging Superintendent shall attend that meeting and sign off to release the lift

## 11.12 Compliance with PCL Site Specific HSE Plan

Compliance with these health and safety guidelines and the owner's policies is mandatory to maintain a health and safe work place and to provide ongoing safety and respect to all parties.



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Non-compliance with this document or PCL site policies may result in suspension or termination of the subcontract.

To this end, PCL has developed a system of discipline to deal with infractions to the policies outlined within this manual. The disciplinary action is to follow the employer's policies and procedures. At a minimum disciplinary action is to follow the guidelines below:

- On the first offense, the worker will be given a documented verbal warning
- On the second offense, the worker will be given a written warning and/or suspension
- On the third offense, the worker's is to be removed from site

**NOTE THAT CERTAIN SAFETY VIOLATIONS MAY RESULT IN IMMEDIATE REMOVAL FROM THE SITE**

**PCL RESERVES THE RIGHT TO MANDATE THE REMOVAL FROM SITE ANY EMPLOYEE ON A SINGLE HSE INFRACTION, WITH OR WITHOUT PRIOR NOTICE**

## 12.0 PREVENTATIVE MAINTENANCE

### 12.1 Tools and Equipment

It is the responsibility of the Project Superintendent to verify the maintenance of tools and equipment assigned to their project. All tools and equipment will be used and maintained in accordance with the manufacturers specifications. All tools and equipment shall be looked after by all PCL Supervisors.

#### Tools

- Shall be inspected prior to use
- Shall be inspected daily
- Only tools right for the task shall be used
- Only hand tools that are in good condition and that are the right tool for the job should be used
- Damaged and/or defective tools are to be removed from service

#### Equipment

- Only qualified operators are to operate tools
- Where required equipment operators are to be certified and shall have certifications available
- Go through a visual verification from Superintendent
- Authorized operators are the ***only*** employees allowed to operate equipment
- Unauthorized operators will receive disciplinary action, up to and including termination
- All equipment in use on this project will be inspected prior to use
- Supervision is to verify that inspection periods specified in the maintenance manuals are adhered to while the equipment is stationed on the project
- A 10 lb ABC fire extinguisher is to be located on all heavy equipment
- All other equipment shall have a fire extinguisher on board as dictated by the manufacture



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- The fire extinguisher is to be inspected monthly
- Keys are not to be left in the ignition of unattended equipment after normal work hours

## 12.2 Temporary Electrical Equipment Inspections

### Daily Visual Inspections

- Any equipment connected by cord and plug shall:
- Be visually inspected, before each day's use, for external defects
- Equipment found defective must be tagged and removed from service

### Testing

- The following shall be tested to assure electrical continuity is maintained through all equipment grounding conductors and their connectors:
- All 120 volt, single phase, 15 and 20 ampere receptacles
- 120 volt flexible cord sets
- 120 volt equipment connected by cord and plug which are not a part of the permanent wiring of the building or structure

### Testing Intervals

- Testing identified above is to be performed:
- Before equipment is returned to service following repairs
- Before equipment is used after an incident and where there is reason to believe that damage could have occurred
- Intervals not to exceed three (3) months and identified with the period color code marking:
- January – March = Green
- April – June = Orange
- July – September = Red
- October – December = Yellow

**Note: Only qualified personnel will be allowed to make repairs, installations and conduct maintenance on electrical equipment.**

## 12.3 General Electrical Requirements

### Where maintenance or servicing work is to be performed:

- Lockout/tag out procedures are to be followed
- The lockout/tag out procedures are to be specific to the operations or conditions

### When working in the vicinity of overhead power lines:

- Unless otherwise approved by district management no crane or boomed equipment may not come within 20 feet of lines carrying up to 350kV
- Control measures and/or procedures will be established in accordance with jurisdictional requirements and identified in the operation specific JHA



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- Signage shall be posted to warn personnel
- If power lines are known to be greater than 350kV, the nominal distance is 50 feet

## **Call for utility locate before:**

- Digging
- Sawing
- Drilling
- Excavating the ground

## **12.4 Vehicles**

Vehicles assigned to this project are to be used for business purposes only

### **Company vehicles**

- Operated lawfully and safely at all times
- The use of company vehicles is prohibited when the driver is fatigued or has consumed alcoholic beverages or drugs causing impairment
- Vehicles are to be inspected and maintained on a regular basis
- Seatbelts are to be worn at all times
- Whenever possible vehicles are to:
  - Park so that the first movement is forward
  - Park a minimum of 100 feet from mobile equipment operations
  - Utilize strobe and/or other appropriate warning lights when working near live traffic

### **Incident Reporting**

- Report to the Project Superintendent
- Report to the District HSE Manager
- Do not volunteer information nor respond to specific questions unless asked by the police
- Do not sign any papers or accept blame

### **Emergency Equipment to be supplied with each vehicle:**

- A First Aid Kit
- A 2 ½ lb ABC fire extinguisher
- Flares or reflective devices

## **12.5 Fuel Storage**

- Fuel Storage will be locate in a secondary containment with drain hole plugged
- All portable containers are to be properly labeled
- A maximum of 20 gallons of fuel in portable containers is permitted in pick ups
- Portable containers are to be inspected on a daily basis
- Containers are to be stored properly with spill containment in mind
- Flammable materials are not to be placed near waste oil containers, under or adjacent to energized high voltage lines



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- Any spill shall be reported to PCL Supervision as soon as reasonably possible
- Plastic or other non-conducting portable containers are not to be used. Plastic fuel cells supplied with and use for outboard motors are permitted for that purpose only.
- Fuel storage areas are to be posted as “No Smoking” areas and signed of that warning. Warning signs are to be prominently visible from all approaches.

## 12.6 Fire Protection

All subcontractors are to have their own appropriate fire suppression equipment on-site. Fire extinguisher use shall be reviewed in orientation.

All trailers on-site are to be equipped with fire extinguishers

Fuel storage areas are to have a minimum 20 lb. fire extinguisher immediately available

All combustion type motors and all “hot work” must have a fire extinguisher immediately available

### **Every person on-site must know:**

- How to use fire extinguishers
- Where the extinguishers are located
- Understand it is a volunteer effort to put out a fire

## 13.0 INCIDENT INVESTIGATION

The purpose of an investigation is to determine cause(s) and provide ways and means to prevent a recurrence. All project supervisors are to complete Incident Investigation Training. This training will consist of either HII-102 and/or HII-112 as listed in the College of Construction. Incident Investigation kits are to be kept on-site for the duration of the project.

- Supervision is responsible for conducting accident/incident investigations
- The point is to find facts, not faults
- Supervisors are reminded to focus on how and why the event occurred, rather than who should be blamed

### 13.1 Incident Types

#### **Incident**

- An undesired event that results in harm to people in the form of a fatality, lost time injury, modified (restricted) work, medical aid, process interruption or environmental interference.

#### **Serious Incident**

- Any incident that causes death, life threatening, lost time or debilitating injury or illness

#### **Near Miss**



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- An unplanned, unwanted event that might have resulted in personal harm, property damage or loss

## 13.2 Reporting

### **Report all:**

- Injuries
- Property, equipment, or vehicle damage
- Environmental issues
- Near misses

### **Incidents shall be reported as follows:**

- Workers are to report incidents to project supervision immediately
- Project supervision is to report incidents to project management as they become aware of them
- Project Management is to report incidents to district management as soon as is reasonably possible

### **The Project Superintendent is responsible for:**

- Investigating
- Documenting incidents
- The implementation of appropriate corrective measures

## 13.3 Required Investigations

### **The following shall be investigated:**

- Incidents
- Near Misses
- Property, equipment, or vehicle damage
- Injuries
- Environmental spills

### **If an incident results in an injured employee that needs medical treatment:**

- The Project Manager, Jeremy Mackling, is to be notified as soon as is reasonably possible.
- The Project Manager Jeremy Mackling and/or the Project Superintendent Ron Gibbens will notify the District HSE Manager Larry Fortier by telephone as soon as practical following the incident.
- All injured employees are to be taken to the clinic/hospital by a designated employee, preferably a supervisor

Corrective action(s) are to be implemented as soon as is reasonably possible. The Project Superintendent is ultimately responsible for the implementation of the corrective actions.

### **Forward the following to the District HSE Manager:**



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- Incident Investigation Reports
- Subsequent doctor's notes
- All other related documentation

**If the injury results in a Medical Aid, Modified Work or Lost Time, the following is required:**

- Supervision in charge of the injured employee will complete an Incident Analysis/Lessons Learned for review and distribution
- The District HSE Manager is to be consulted on the format and contents of the narrative

**Supervision in charge of the injured employee:**

- Will personally address the District HSE Manager with regards to:
- The injury event
- The implementation of corrective actions taken
- Corrective action taken will be addressed in the HSE Field Meetings and changed in all Work Plans if necessary

## 13.4 Incident Classification

**All incidents will be classified under one of the following classifications:**

### *Incident Classification A*

- An event that results from a condition or practice that is likely to cause permanent disability, loss of life or body part, or extensive loss of structure, equipment or material

### *Incident Classification B*

- An event that results from a condition or practice that is likely to cause serious injury or illness resulting in temporary disability, or property damage that is disruptive but not extensive

### *Incident Classification C*

- An event that results from a condition or practice that is likely to cause minor (non-disabling) injury or illness or non-disruptive property damage

## 13.5 Incident Documentation

**All incidents and near misses will be documented in accordance with the requirements of HSE-13**

## 14.0 Injury Management

### 14.1 Roles and Responsibilities

#### **Project Management**

- Provide employees and supervisors training regarding injury management program
- Implement modified work programs within the requirements of the policy and local regulations



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## **Project Superintendent**

- Report all work related injuries to the project HSE supervisor before outside treatment is sought, except in cases of emergency or after hours work related incident
- Identify suitable modified work for injured employees that do not jeopardize the wellbeing of the injured worker or others

## **Project HSE Supervisor**

- Monitor return to work programs
- Assist in the identification of suitable modified work duties that do not jeopardize the wellbeing of the injured worker or others
- Be the initial liaison with medical practitioners for the rehabilitation or return to work plans

## **Workers**

- Immediately report all injuries to their supervisor
- Participate in the modified work program
- Notify treating health care providers that modified work is available
- Notify project HSE supervisor regarding medications, medical appointments, and work restrictions
- Notify project HSE supervisor regarding any problems or concerns with modified work

## **14.2 General Requirements**

- Project staff will receive training in the proper care of injured workers
- Injuries requiring medical attention must use following administrative procedures:
  - Project HSE Supervisor initiates the Medical Treatment Memorandum
  - Memorandum along with injured worker is sent to hospital
  - Injured worker is accompanied to the medical facility

## **14.3 Modified Work**

- PCL will make every reasonable effort to provide modified work to any employee unable to perform their regular duties
- Modified work shall be meaningful, suitable, and productive

## **14.4 Modified Work Offer**

- Modified Work Offer shall be consistent with requirements outline in HSE-14-05
- Any refusal of Offer will be investigated by interviewing employee and documenting the reasons for not participating in the modified work program
- Once placed on modified work, staff will monitor employee and track progress
- Daily record of work activities will be completed and submitted weekly per HSE-14-06
- When medically able of returning to work, the HSE supervisor shall inform workers compensation



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- Supervisor will continue to monitor progress of employee
- Key stakeholders are to be informed of any change by project HSE supervisor

## **15.0 Behavioral Safety Observations**

This project has a forecasted workforce of less than 50 and a duration of 8 months. This project will not meet the mandatory implementation of the Behavioral Safety Observation requirement as outlined in HSE-16.



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## 16.0 SAFE WORK PRACTICES

### 16.1 Floor Openings

- All openings will be guarded in order to prevent injury
- Protection will consist of guardrails complete with top rail, mid-rail, and toe boards for larger openings
- Floor openings may be covered rather than guarded with rails
- All guardrails will be properly secured to prevent accidental dislodgement
- Covers may be used where applicable, typically for smaller openings
  - All opening covers must be strong enough to support twice the anticipated loads to be imposed on them
  - All opening covers must be secured to prevent accidental dislodgement
  - All openings greater than 12 in. x 12 in. will have perimeter guarding or covering.
  - All 4 in. by 4 in. holes or larger will have the plywood covers made
  - All plywood used to cover holes shall be marked with the word "Hole"
  - Prior to cutting holes on the job, proper protection for the hole must be provided to protect the workers
  - Perimeter guarding or covers will not be removed without the approval of the supervision
  - When the cover is removed, a temporary guardrail must be in place or an attendant is to be stationed at the opening to warn personnel
  - Toe boards shall be utilized to protect materials from falling to a lower level

### 16.2 Wall Openings

- All openings will be guarded in order to prevent injury
- Protection will consist of guardrails complete with top rail, mid-rail, and toe boards
- All guardrails will be properly secured to prevent accidental dislodgement
- Each employee working on, at, above or near a wall opening from which there is a drop to a lower level 6 ft. or more shall be guarded by:
  - The use of a guardrail system
  - Use of personal fall arrest system or fall restraint

### 16.3 Ladders

- Used per manufacturer's recommendations
- Tied off at the top and bottom
- Top to extend 3 feet above platform
- Secured at higher elevations as not to be blown off structures
- Inspected by a competent person quarterly and marked or tagged with the current color coding
- Removed from service if defects or damage is identified
- Have clear access/egress to and from ladder
- Step ladders must be fully opened with spreader arms locked
- The top two rungs of a step ladder are not to be used as a step
- The use of fiberglass ladders of job built wooden ladders is required. Metal ladders are not permitted



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- Personnel working on ladders near an opening must be protected from openings below
- Ground shall be clear of debris
- Quarterly inspection denoted by color code:
  - Green: January-March
  - Orange: April- June
  - Red: July- September
  - Yellow: October- December

## 16.4 Scaffolds – General Requirements

For additional information see the PCL HSEOP-15, Scaffolding

- Erected per manufacturer’s requirements
- Tagged with inspection tags
  - Green – Access to all
  - Yellow – Requires precautionary measures before access
  - Red – No access authorized
- Inspected and recorded daily by a competent person
- Safety plan for erecting and dismantling must be available
- Scaffolds over 6 feet in height shall have handrails on all open sides
- Cross braces or guardrails are not to be used as access or egress
- Base plates shall be used at **all** times
- Safe access and egress shall be available and maintained at all times
- Build in scaffold ladders shall be used for access and egress
- All employees erecting and dismantling scaffolding will utilize appropriate fall protection
- Toe boards shall be installed on 100% of the scaffolds exterior portions
- Flagging or barricade shall be established to prevent entry underneath scaffolding

### Working from scaffolds:

- Must have been trained in accordance with standards
- Competent person must be present during use
- All personnel are required to inspect scaffolding prior to use
- No material or tools shall be thrown from scaffolding

## 16.5 Ramps, Runways, and Platforms

- All ramps will be built at a 20 degree angle or less
- Cleats or traction mats will be used to reduce the possibility of slips
- Any runways or ramps over 4 feet in height will be protected on each side with a guardrail
- Any walking/working surface platform above 4 feet will have guardrails
- If guardrails on platforms are not feasible, workers will be in fall protection
- All ramps, runways, and platforms will be kept free from debris
- All ramps and runways will be a minimum of 18 inches wide
- Do not over load with people or materials



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## 16.6 Elevating Work Platforms

For additional information see the PCL HSEOP-26, Aerial Work Platform

- Only trained and competent workers will be permitted to operate aerial work platforms
- Operator will perform a pre-use check of the equipment prior to operation
- Aerial work platforms are to be loaded and used in accordance with manufacturer's specifications
- No one will be permitted to stand on the toe board, mid-rails or upper rails
- Be sure to check below the platform before lowering

## 16.7 Fall Protection

For additional information see the PCL HSEOP-24, Fall Protection

### **Working from scaffolds:**

- Must have been trained in accordance with standards
- Competent person must be present during use
- All personnel are required to inspect scaffolding prior to use
- No material or tools shall be thrown from scaffolding

### **Working from swing stages**

- Swing stages are to be installed and operated in accordance with manufacturer's specifications
- Structural steel or its equivalent in strength will be used for the outrigger beam
- Prior to use, all connections should be inspected by a competent person
- All wire rope will be inspected periodically to ensure good condition

### **Working beside unprotected openings and edges**

- From unprotected sides and edges 6 feet or more above lower levels, personnel shall be protected from falling by:
  - Guardrail systems
  - Safety net systems
  - Personal fall arrest systems or fall restraint
- Controlled Access Zone Plan detailed and approved by District HSE Manager
- Any unprotected openings will be guarded by guard rails or covers
- Any time these methods cannot be used, personal fall protection will be worn
- If engineering controls are not feasible to prevent the fall, fall protection equipment becomes the last line of defense

### **Harness and shock absorbing lanyards**

- Fall protection is used to reduce the risk of injury that can occur when a worker falls from one level to another
- Fall protection is used to reduce the risk of injury that can occur when a worker falls from one level to another.



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- Critical components of fall protection are:
  - Harness
  - Shock absorbing lanyards (fall arrest only) or lanyards
  - Locking snap hooks and connection hardware
  - Each component of fall protection should be inspected visually prior to each use and every 1/4<sup>th</sup> of the year by competent person
  - Quarterly inspection denoted by color code:
    - Green: January-March
    - Orange: April- June
    - Red: July- September
    - Yellow: October- December

## **Procedures and use of fall protection equipment:**

- Anchor point load rating of 5000 lb. minimum
- Anchor point height in relation to the person wearing fall protection equipment for fall arrest (i.e. highest point possible, limit free fall distance to 6 ft.)
- Swing and impact prevention, should the wearer fall (fall arrest only)
- Vertical lifeline type and material
- Rope grab device

## **Anchor points for personal fall protection equipment procedures:**

- Criteria for existing structures
- Overhead anchor points shall be less than 30° from worker to prevent swing and pendulum effect after fall
- Static load limitations
- Horizontal lifeline systems
- Existing conditions and static load limitations of existing structures intended for fall protection
- Compatibility of permanent anchors with fall protection equipment

## **Lifelines**

- Horizontal fall protection systems must be engineered
- Must be installed in accordance with manufacturer's or P.E.'s specifications
- Self-Retracting Lifelines for use at leading edge required to be designed for that purpose
- Verify all Self Retracting Lifelines applicable for horizontal and/or vertical use

## **Rope grabbing devices**

- The purpose of a Fall Protection Work Plan is to protect construction workers from the risks of injuries due to falls when working at elevated heights These devices are intended to stop a worker from falling in the shortest distance possible
- This device can also be used as fall restraint which physically keeps the worker away from the exposed edge



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- The rope grab needs to be attached to an anchor point that can withstand the force of a worker falling
- Stairway openings are to be protected by standard railings on all sides, except at the stairway entrance
- Every open sided floor platform or surface 6 feet or more above adjacent ground level shall be guarded by standard railing or equivalent
- Every flight of stairs with four or more risers is to have standard stair railings or standard handrails as specified in OSHA's standards

## Fall protection plan

The purpose of a fall protection plan is to protect construction workers from the risks of injuries due to falls when working at elevated heights. **100% fall protection is required on this project.**

Fall protection plan shall be provided prior to starting work from which a fall of 6 ft or more can occur. Fall protection plan must include, but is not limited to:

- Fall hazards expected in each work area
- Fall protection system or systems to be used in each area
- Procedures to assemble, maintain, inspect, use and disassemble
- Procedures for the rescue of a worker
- Methods of providing overhead protection

All workers shall utilize fall protection at heights of 6 ft or more. Fall protection can be accomplished using:

- A guardrail around the work area
- Fall restraint equipment
- Fall arresting devices
- Life-Line Rope "Grab" Mechanical rope "grab" devices are intended to stop a worker falling along the lifeline in the shortest distance possible
- Most of these devices operate on a "cam" action or roller principle
- The device "grabs" securely onto the lifeline a predefined speed of movement

## 16.8 Compressed Gas – General Information

- All compressed gas cylinders must be clearly marked
- All cylinders shall be upright and secured at all times
- All cylinders shall be provided with safety caps
- Do not accept delivery of any cylinders not capped
- All empty cylinders must be secured
- All cylinders shall have a flash arrest installed on the gauge end
- Cylinders must be in rated cart and capped before being hoisted

**During storage:**



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- Acetylene and fuel gas cylinders shall be separated from oxygen cylinders:
  - By a minimum of twenty (25) ft
  - Or by a non-combustible barrier at least five (5) ft high with a fire resistant rating of at least one-half (1/2) hour

## **While in use:**

- All oxygen and acetylene cylinders shall be firmly secured:
  - On a special carrier intended for this purpose, with an attached fire extinguisher

## **16.9 Compressed Gas Welding and Cutting**

- Equipment such as leads, torches, regulators, gauges and hoses should be inspected before each use and be in good condition
- Be equipped with flash arrestors at both the torch end and gauges
- Any combustibles in the area should be removed prior to starting
- A cart with means to secure the tanks will be used to transport cylinders
- Proper eye and face protection will be worn while welding and cutting
- A fire extinguisher should be present at the cutting and welding operation
- Post work inspection of the work area for any sparks, embers, or smoldering

## **16.10 Cylinder Storage**

- All cylinders shall be stored and used in a secured vertical position
- Storage areas shall be well marked and located as designated by PCL
- All cylinders must be removed from the work area and properly stored

## **16.11 Temporary Heat**

- Open fires shall **not** be permitted on this project
- All wood, tarps and blankets shall be made of fire retarding materials

### **All heating equipment shall be:**

- Wired
- Piped
- Operated in accordance with all applicable Codes and Regulations

## **16.12 Temporary Electrical Equipment**

- Electrical power boxes and disconnects are to be labeled or marked
- Tools are not to be lifted, lowered or disconnected by their cord
- Temporary lighting must have guards over the bulbs
- Broken or burned out lamps are to be replaced immediately
- Guards, barricades and/or warning signs must be provided to prevent:
  - Employee contact with un-insulated "live" electrical components or temporary wiring
- Area around panel boxes and disconnects:
  - Shall be free and clear of obstructions



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## 16.13 Storage and Handling of Propane and Other Chemicals

- When propane tanks are in use, a fire extinguisher needs to be near the operation
- Cylinders will only be filled by trained personnel
- Propane storage will not be in or near stairways and exits used for egress
- Storage of tanks will be done to minimize tipping and stored up right
- All tanks will be secured up right
- All tanks will have protective collars
- Any hazardous chemicals will be stored according to local legislation
- No smoking/flammable signage around storage areas
- Fire resistant cabinets will be used to hold flammable chemicals
- Fire extinguishers will be located near the storage areas

## 16.14 Welding

- Where required all contractors performing welding, burning/cutting operations shall submit their safety plan prior to commencement of work
  - All welding burning/cutting operations shall be in accordance with OSHA required by State and Local Codes and Regulations
  - Hot work permit shall being obtained by project management
  - Fire Extinguisher shall be present at all times
  - Fire watch may be required when there is a high risk of flammability or at the discretion of project management

## 16.15 Forklifts

- No modifications will be made without written consent from the manufacture
- All nameplates, tags, stencils, or marks identifying stability of the forklift should be in place and readable
- The forklift will not be permitted to lift people
- Equipment will be removed from service if not in safe working condition
- All repairs will be made by an authorized and qualified person

### Personnel using forklifts shall:

- Be trained
- Use safety belts
- **Conduct daily equipment inspection** according to manufacturer's instructions prior to use and report and correct all defects
- Maximum load limits must be observed at all times
- Make sure there is no excess lint, oil, and grease
- Allow no riders or unauthorized people on the forklift
- Operate a safe distance away from edges of excavations or steep changes in grade
- Will remain in control of the forklift at all times and will remain in the seat when there is a load elevated on the forks



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## 16.16 Hand and Power Tools

- Inspected prior to use
- Tagged out of service and turned into supervision if damaged or defective
- Tools shall only be utilized by authorized person

## 16.17 Powder Actuated Fastening Tools

- User must be trained in the use of the specific tool
- User must ensure area behind shot is clear and material will take the shot applied
- A procedure for the disposal of unused shot cartridges will be approved by project supervision

## 16.18 Noise

- Noise created during construction process may produce or have adverse effects upon workers and others in the area.
- All efforts must be made to reduce, eliminate noise that could be above 85dBa.
- Where noise levels cannot be reduced to or below legislated levels personnel will wear PPE appropriate to the exposure

## 16.19 Housekeeping

- **Daily** housekeeping prevents dust and debris from accumulating
- Eliminates potential tripping hazards in the work zone.
- Lunch trash shall be removed daily
- PCL has adopted a policy where workers must keep their areas free of excess debris and reused on a daily basis, or as they move to another area
- Garbage bins will be provided for designated waste and monitored closely
- All hazardous chemicals must be properly disposed of
- Check with the site Superintendent prior to disposal of any hazardous waste
- Workers are to keep tools, extension cords and materials in an orderly fashion
- Work areas are to be maintained

## 16.20 Drugs and Alcohol

This PCL project is a “Drug Free Workplace” and maintains a structured substance abuse program. Under that program employees are subject to all provisions of that policy and program. Testing may include pre-employment/pre-assignment (for transferred employees), random, post incident and reasonable suspicion. The possession of or consumption of alcohol, illegal drugs or the misuse of prescription drugs is strictly prohibited.

Employees found to be in breach of the substance abuse policy and program will be subject to disciplinary action including termination. Subcontractors and their workers failing to abide by these requirements are subject to removal from the site.

## 16.21 Confined Spaces

For additional information see the PCL HSESOP -13, Confined Space Entry

**A confined space is defined as an area that:**



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- Is enclosed or partially enclosed
- Is not designed or intended for continuous human occupancy
- Has limited or restricted means of entry or exit
- Is large enough and so configured that a worker could enter and perform assigned work

**No work shall be permitted in a confined space (manholes, pits, tanks, duct, etc.) until the following has been determined:**

- Atmosphere is free of hazardous concentration of flammable or toxic vapors
- Air levels are adequate, at minimum 19.5% oxygen
- Prior to **each** entry and during the work tests shall be conducted made at regular intervals determined by the operations and supervision

**Where the atmosphere in a confined space has been found to be hazardous:**

- No entry shall be made
- Area has been thoroughly vented
- Confined space has been found to be safe on re-testing
- Confined entry test logs shall be maintained at the work location and copies provided to PCL Construction Company
- Approved respiratory protection
- Lifelines

**A confined space entry permit must be:**

- Completed
- Signed
- Posted at the point of entry
- All confined spaces must be identified and labeled properly
- All confined spaces must be coordinated with PCL supervision

## 16.22 Excavation and Trenching

**Any trench or excavation will require the use of HSEOP-05-01 Excavation/Ground Disturbance Permit.**

For additional information see the PCL HSESOP -05, Trenching and Excavation

**Greater than four (4) feet in depth:**

- Shall have a safe means of access/egress within 25 feet of employees working in the excavation or trench
- The access/egress point (ladder) shall be properly secured and extend a minimum of thirty-six (36) inches above the landing platform
- The landing platform shall prevent slip, trip, and fall hazards
- Shall have an approved means to eliminate the potential of a wall collapse (i.e., trench box, sloping, shoring, etc)



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- Shall be protected from falls by the following, but not limited to:
  - Guardrail systems
  - Fences
  - Barricades
  - And/or an approved personal fall protection system

As conditions warrant at **any** depth, air quality monitoring must be performed prior to and during excavation and trenching activities

Personnel working within an excavation or trench must have been trained

Excavation/Trench Inspection shall be completed prior to access

**The excavation/trench will be inspected daily by a competent person and documented using the Daily Trench and Excavation Checklist (attached)**

## 16.23 Workers Right of Refusal

- PCL management, contractor supervisors and workers all share responsibility for identifying and recommending corrective action respecting situations which are, or could be, unsafe
- Workers have the right and the responsibility to refuse unsafe work
- Workers that find unsafe conditions are required to inform their immediate supervisor or a PCL supervisor immediately
- Persons in positions of authority, who are informed of unsafe situations, or become aware of them directly:
  - Are required to initiate positive corrective action at once
  - Or are to refer the matter immediately to the next level of supervision
  - Take no retaliatory or punitive action against the worker reporting the unsafe condition

## 16.24 Mobile Cranes

Mobile cranes will be operated in accordance with manufacturer's specifications and procedures, jurisdictional regulations, PCL Procedure HSEOP-03, Mobile Cranes and the most current revision of the TIG Crane Procedures.

## 16.25 Critical Lifts

For additional information see the PCL HSEOP-03, Mobile Cranes

- Before attempting lifts in this category, project management must arrange for a properly documented lifting procedure. These procedures must be prepared/reviewed by a competent person
- **The Critical Lift Pre-Lift Meeting Checklist (attached) will be completed prior to the lift**
- Critical Lifts with mobile cranes can be extremely hazardous and require special care and attention
- Critical lifts are identified as any lift in excess of 80 percent of the machine's maximum rated capacity at the maximum required radius or lifts requiring the coordination of multiple crane working in unison



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## 16.26 Stretch and Flex

Stretching keeps employees alert and ready for the task at hand and in the long run, it will contribute to reducing the potential for a work injury

Taking time to stretch helps employees mentally prepare themselves for the tasks they are about to perform as well as physically preparing their muscles for work

- Begin stretching with your body in a relaxed neutral position
- Hold each stretch for a count of ten to fifteen seconds and do not bounce during the stretch
- Have relaxed breathing and do not hold your breath
- Stretch and flex exercises are described on the PSI booklet

## 16.27 Heat Related Illness

During the months of May to September, our workplace will be evaluated to determine if employees are at risk from heat related illness during temperatures extremes and hot weather while working.

PCL supervisors will be trained to recognize the signs and symptoms of heat related conditions and their initial handling procedures

During the months of May to September heat illness awareness will be provided during all new worker orientation

**Training in the following topics will be provided to all supervisory and non-supervisory employees:**

- Environmental and personal risk factors for heat illness
- Procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness
- The importance of frequent consumption of water
- The importance of acclimatization
- The different types of heat illness and the common signs and symptoms of heat illness
- The importance of immediately reporting to the employer or designee symptoms or signs of heat illness
- Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary
- Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by medical service personnel
- How to provide clear and precise directions to the work site

**All Supervisors will be trained on the following topics:**

- The information provided for employee training
- Procedures the supervisor will follow to implement controls as determined by the employer
- Procedures the supervisor will follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures



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## Controls for reducing heat exposure:

- Work/rest regimen
- Starting jobs earlier and ending earlier to avoid the hot times of the day
- Provision for gaining access to shade
- Identifying the onset of heat related symptoms and the methods used to cool employees off

## Provisions for water

- An adequate supply of potable drinking water will be available at all times
- The project superintendent Ron Gibbens will be established procedures for cleaning and security of drinking water containers
- PCL will allow employees an opportunity to drink at least one quart of drinking water per hour while under any of the outdoor temperature action levels
- Employees will be notified of the location of drinking water and encouraged to drink

## 17.0 HSE OPERATING PROCEDURES (HSEOP)

HSE Operating Procedures outline procedures and guidelines for work activities which may be performed on PCL projects. They have been compiled to assist in making appropriate decisions when work requirements fall within the categories in this publication. Not all sections included in this publication apply to the work to be performed on this project.

Additionally, circumstances or situations may dictate the need for local, specialized and/or client driven procedures that will require customization of the enclosed procedures.

Program elements include:

- Section # 1 Introduction to HSE Operating Procedures
- Section # 2 Tower Cranes
- Section # 3 Mobile Cranes
- Section # 4 Personnel & Material Hoists
- Section # 5 Trenching & Excavation
- Section # 6 Hazard Communication & WHMIS
- Section # 7 Control of Hazardous Energy
- Section # 8 Propane
- Section # 9 Swing & Non-Swing Type Earthwork Equipment
- Section # 12 Respiratory Protection
- Section # 13 Confined Space Entry
- Section # 14 Diving
- Section # 15 Scaffolding
- Section # 16 Asbestos Abatement
- Section # 17 Lead Abatement
- Section # 18 Waste Management
- Section # 19 Bloodborne Pathogens



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- Section # 20 Demolition
- Section # 21 Silica Protection
- Section # 22 Mold Guidelines
- Section # 23 Preventing Violence in the Workplace
- Section # 24 Fall Protection
- Section # 26 Aerial Work Platform
- Section # 27 Hydrotesting
- Section # 28 Heat Stress Prevention
- Section # 29 Working in Cold Environments
- Section # 30 First Line Breaks
- Section # 31 Electrical Safety
- Section # 32 Flammable & Combustible Liquid Storage & Handling
- Section # 33 Flagging & Barricades

## **FREQUENTLY USED SAFETY AND ENVIRONMENTAL FORMS**

HSE-03-01 Orientation Checklist

HSE-03-02 Orientation Quiz

HSE-03-03 Short Term Worker

HSE-03-04 Visitor Orientation Checklist

HSE-04-01 HSE Committee Meeting Minutes

HSE-04-02 HSE Field Meeting Minutes

HSE-05-04 Job Hazard Analysis (JHA)

HSE-06-01 HSE Inspection Checklist

HSE-13-01 Incident Report Form ABC

HSE-13-02 Near Miss Form ABC

HSE-13-03 Witness Statement

HSE-15-01 Project Specific HSE Plan Acknowledgement

HSEOP-03-03 Critical Lift Pre-lift Meeting Checklist

HSEOP-03-04 Crane Daily Pre-Operation Checklist

HSEOP-05-01 Excavation Ground Disturbance Permit

HSEOP-05-04 Daily Trenching & Excavation Safety Checklist

HSEOP-09-02 Pre-operation Checklist (Swing/Non-swing Earthwork Equipment)



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HSEOP-10-02 Hot Work Permit

HSEOP-12-01 Respiratory Protection Training & Fit Test Record

HSEOP-12-06 Using Respirators When Not Required

HSEOP-13-01 Confined Space Entry Permit

HSEOP-15-01 Scaffold Tag

HSEOP-20-01 Demolition Safety Checklist

HSEOP-25-01 Cutting Disc Approval Form

HSEOP-26-01 Aerial Work Platform Daily Checklist

HSEOP-26-02 Exiting & Entering Elevated Aerial Work Platform

HSEOP-33-01 Barricade Tag

**Refer to the HSE Manual, HSEOP's or contact the HSE department for operational/task specific forms**