UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Klamath River Renewal Corporation **Project No. 14803-001**

LICENSE SURRENDER ORDER
LOWER KLAMATH PROJECT

Health and Safety Plan

December 2022

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project
FERC Project No. 14803

Health and Safety Plan

Klamath River Renewal Corporation
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Berkeley, CA 94704

December 2022

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1.0 Introduction

The Lower Klamath Project (FERC No. 14803) consists of four hydroelectric developments on the Klamath River: J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate (Figure 1-1). Specifically, the reach between J.C. Boyle Dam and Iron Gate Dam is known as the Hydroelectric Reach. In September of 2016, the Renewal Corporation filed an *Application for Surrender of License for Major Project and Removal of Project Works,* FERC Project Nos. 2082-063 & 14803-001 (License Surrender). The Renewal Corporation filed the License Surrender Application as the dam removal entity for the purpose of implementing the Klamath River Hydroelectric Settlement (KHSA). In November of 2020, the Renewal Corporation filed its Definite Decommissioning Plan (DDP) as Exhibits A-1 and A-2 to its Amended License Surrender Application (ALSA). The DDP is the Renewal Corporation's comprehensive plan to physically remove the Project and achieve a free-flowing condition and volitional fish passage, site remediation and restoration, and avoidance of adverse downstream impacts (Proposed Action). In November 2022, the Commission approved the ALSA and issued the License Surrender Order (LSO) approving facility removal and habitat restoration.

The Proposed Action includes the deconstruction of the J.C. Boyle Dam and Powerhouse (Figure 1-2), Copco No. 1 Dam and Powerhouse (Figure 1-3), Copco No. 2 Dam and Powerhouse (Figure 1-4), and Iron Gate Dam and Powerhouse (Figure 1-5), as well as associated features. Associated features vary by development, but generally include powerhouse intake structures, embankments and sidewalls, penstocks and supports, decks, piers, gatehouses, fish ladders and holding facilities, pipes and pipe cradles, spillway gates and structures, diversion control structures, aprons, sills, tailrace channels, footbridges, powerhouse equipment, distribution lines, transmission lines, switchyards, original cofferdams, portions of the Iron Gate Fish Hatchery, residential facilities, and warehouses. Facility removal will be completed within an approximately 20-month period.

The Health and Safety Plan identifies measures related to risks, contractor coordination, site security, traffic, pedestrian management, training requirements, and accident and incident reporting that the Renewal Corporation will implement as part of the Proposed Action. The Renewal Corporation prepared 16 Management Plans to implement the DDP, and the Commission reviewed and approved these plans as conditions of its License Surrender Order. These Management Plans were developed in consultation with federal, state, and county governments and tribes.

The LSO Ordering Paragraph (DD) approves the Health and Safety Plan as filed on December 14, 2021. The Renewal Corporation now submits limited modifications to this approved plan as stated in Table 2-2. These modifications comply with the requirements in Ordering Paragraph (N). Table 2-2 herein shows the material modifications to the approved version of this Health and Safety Plan.

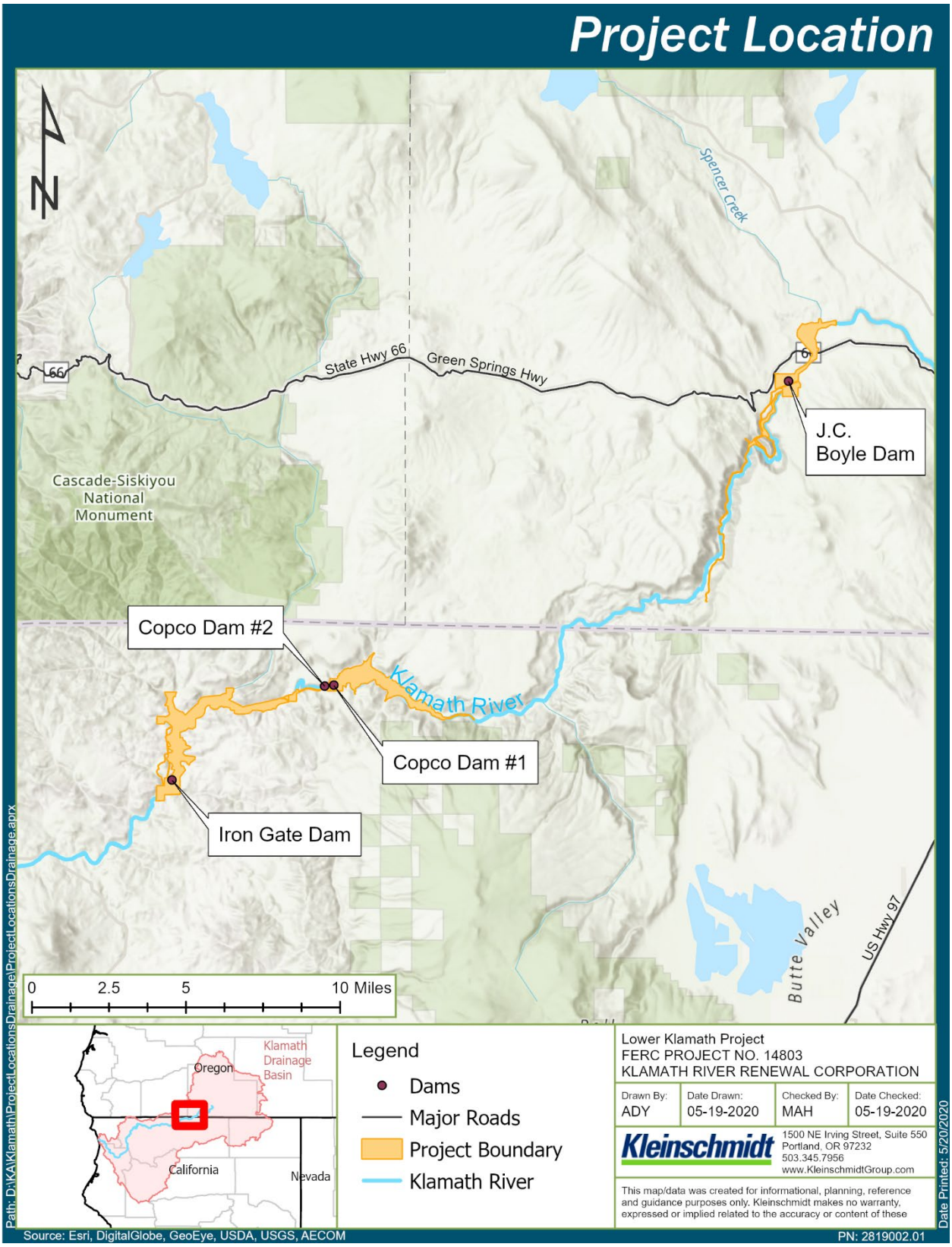

Figure 1-1. Lower Klamath Project Location

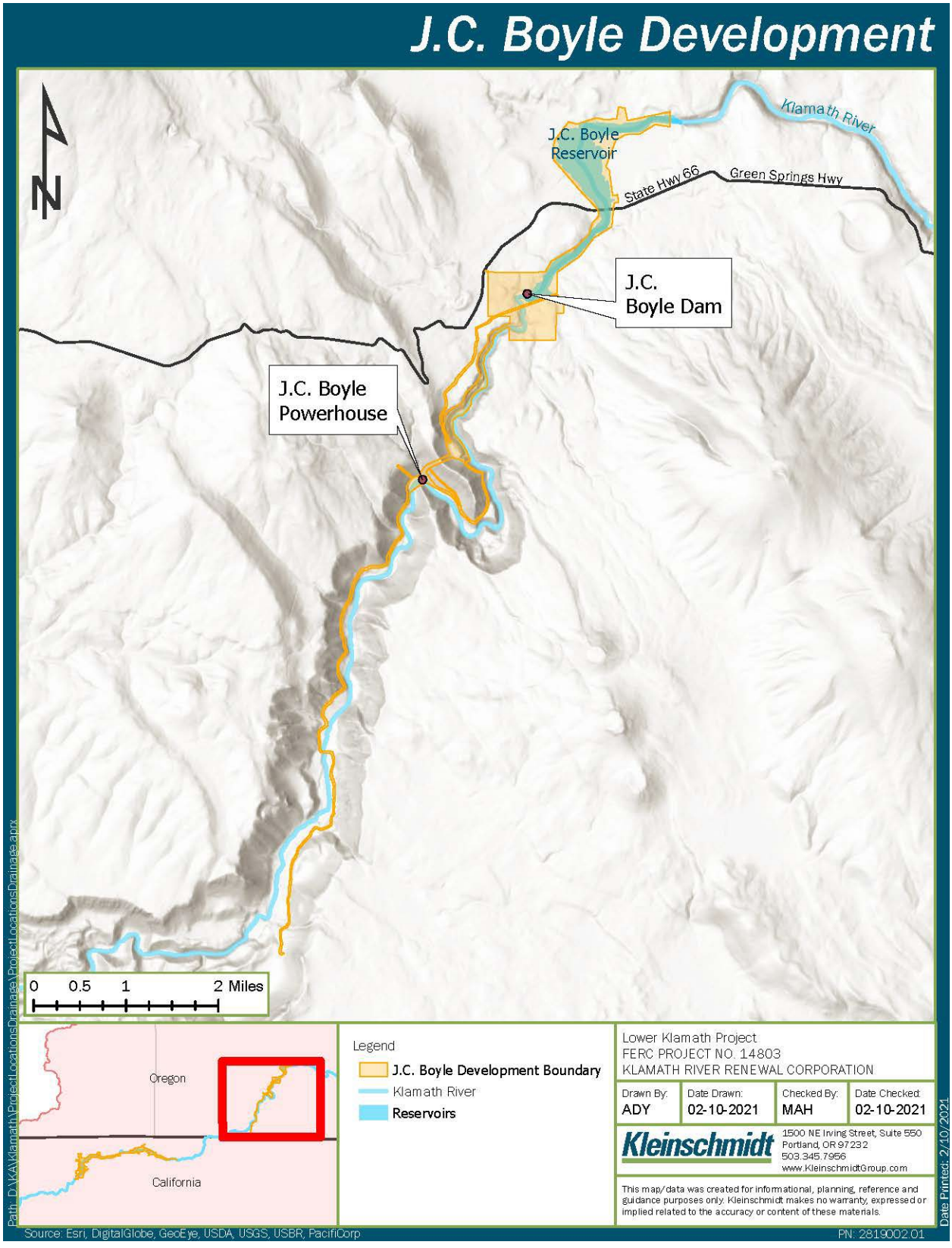

Figure 1-2. J.C. Boyle Development Facility Details

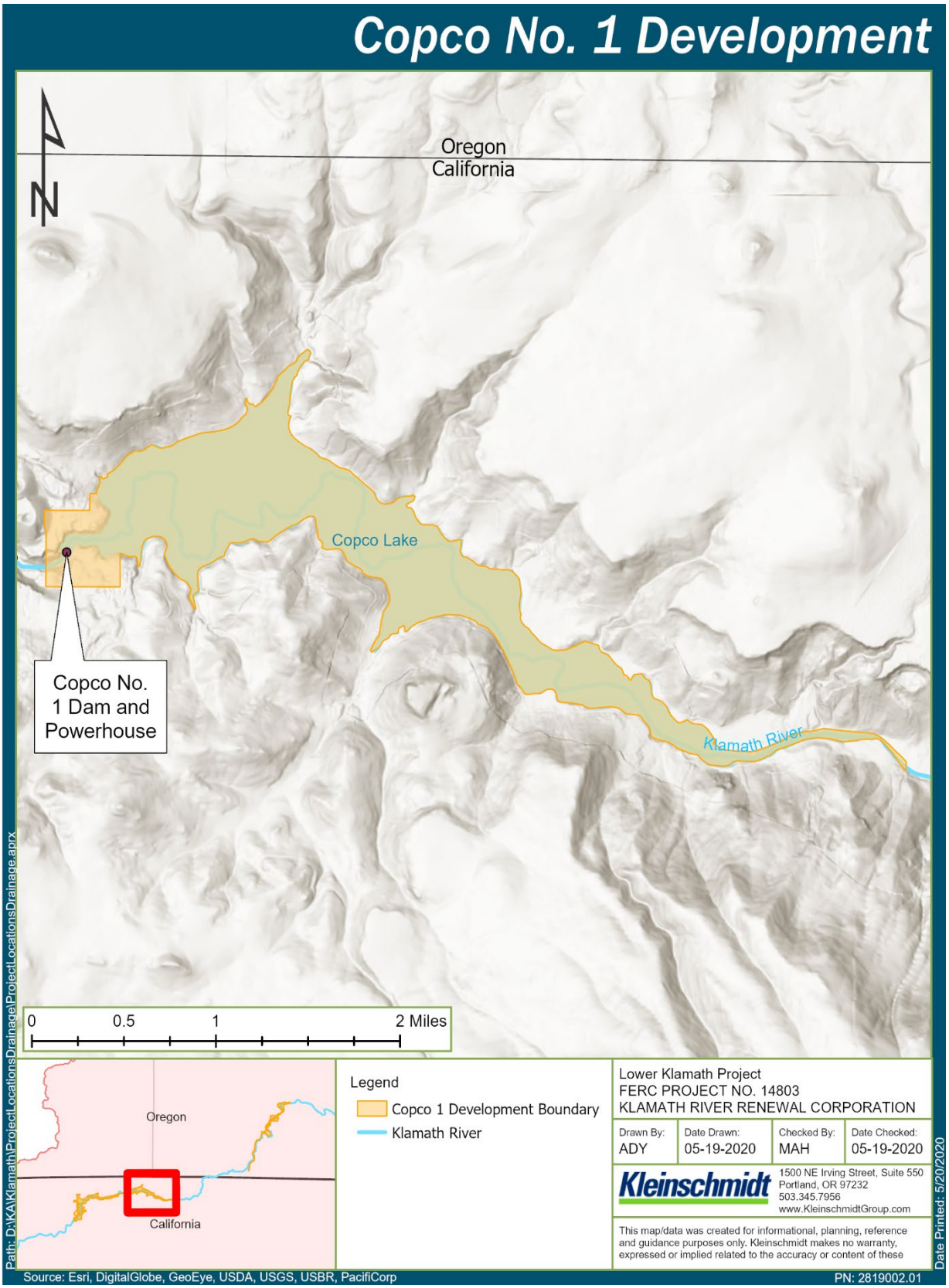

Figure 1-3. Copco No.1 Development Facility Details

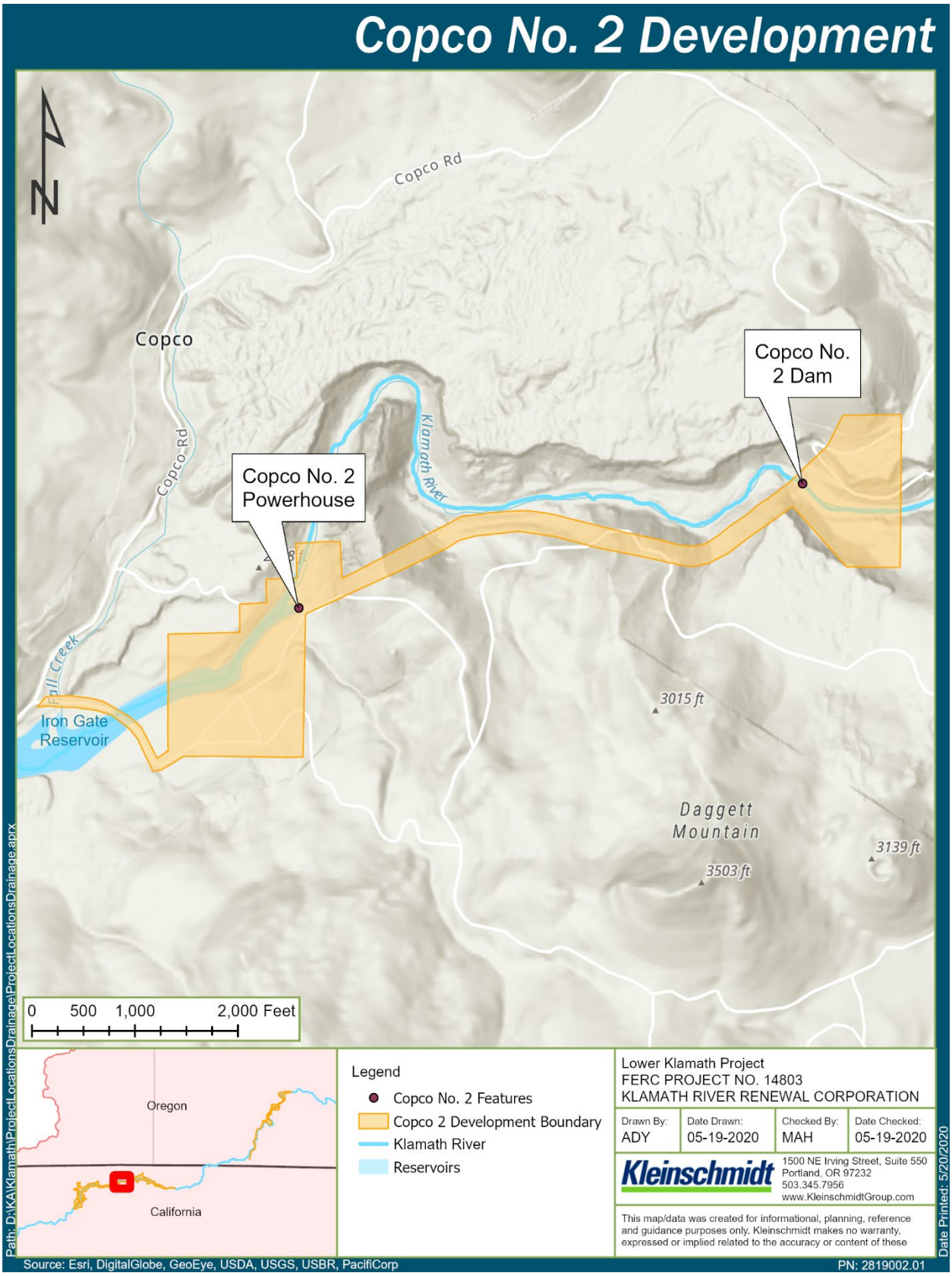

Figure 1-4. Copco No.2 Development Facility Details

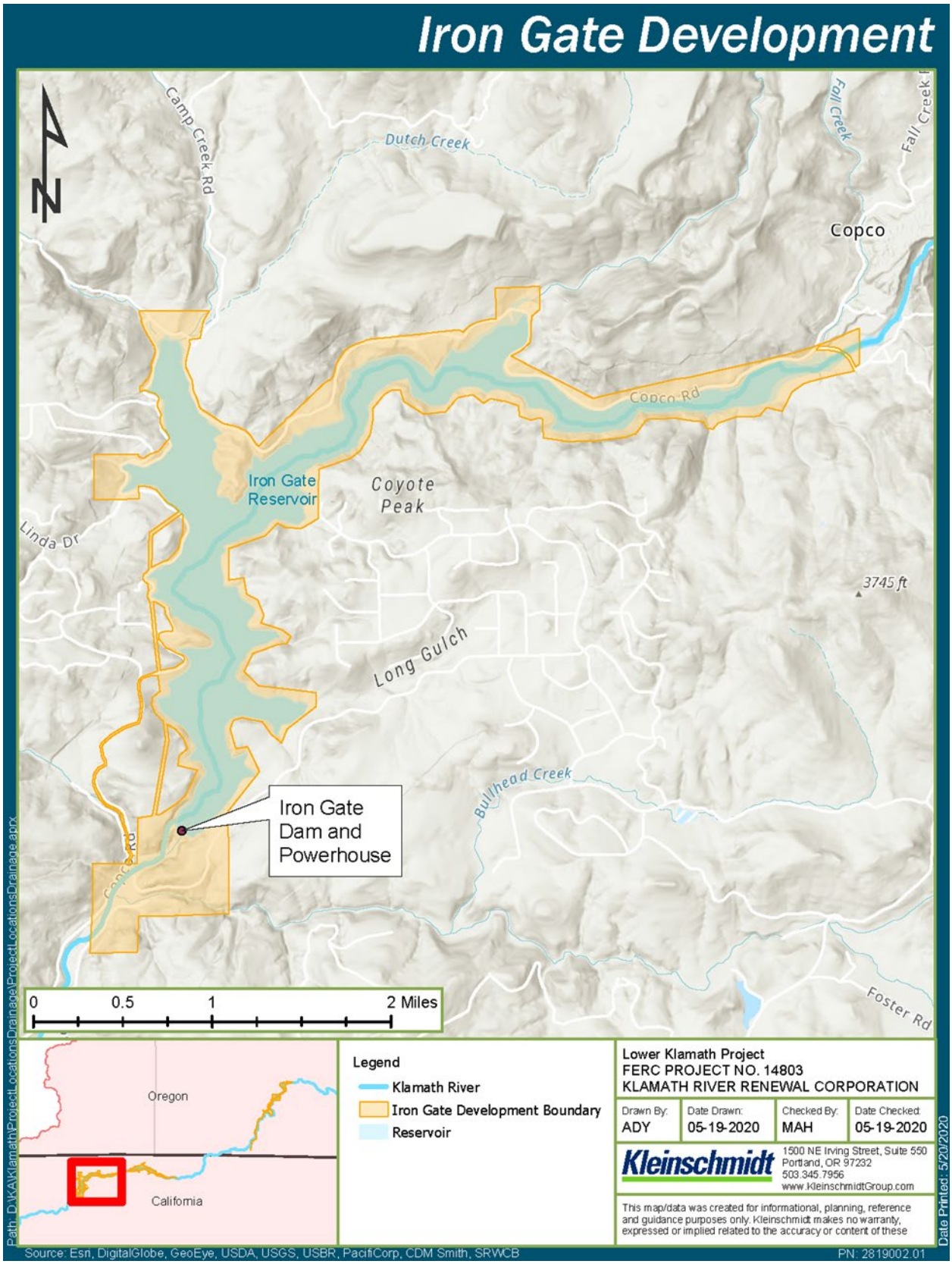

Figure 1-5. Iron Gate Development Facility Details

2.0 Regulatory Context

As described in Table 2-1, the Health and Safety Plan is one of 16 Management Plans implementing the DDP.

Table 2-1. Lower Klamath River Management Plans

1. Aquatic Resources Management Plan	9. Remaining Facilities Plan
2. Construction Management Plan	10. Reservoir Area Management Plan
3. Erosion and Sediment Control Plan	11. Reservoir Drawdown and Diversion Plan
4. Hatcheries Management and Operations Plan	12. Sediment Deposit Remediation Plan
5. Health and Safety Plan	13. Terrestrial and Wildlife Management Plan
6. Historic Properties Management Plan	14. Waste Disposal and Hazardous Materials Management Plan
7. Interim Hydropower Operations Plan	15. Water Quality Monitoring and Management Plan
8. Recreation Facilities Plan	16. Water Supply Management Plan

2.1 Organizational Structure

The Health and Safety Plan identifies measures that the Renewal Corporation will implement to protect on-site personnel, both workers and the general public. Specifically, the Health and Safety Plan includes three sub-plans, included amongst the Appendices identified below.

- Appendix A: Klamath River Renewal Corporation Safety Policies
- Appendix B: Site Specific Health and Safety Plan
- Appendix C: Public Safety Plan

2.2 Specific Regulatory Interests

The Renewal Corporation considered the following regulatory interests in the development of the Health and Safety Plan:

- California Section 401 Water Quality Certification
- Oregon Section 401 Water Quality Certification
- Federal Power Act
- Federal Energy Regulatory Commission Final Environmental Impact Statement
- Federal Energy Regulatory Commission License Surrender Order

2.3 Modifications to the Approved Plan

The Renewal Corporation has modified the December 2021 version of this plan in the following material respects to comply with the November 17, 2022, License Surrender Order.

Table 2-2. Modifications to the Approved Plan

SUB-PLAN	MODIFICATIONS
Appendix A: Klamath River Renewal Corporation Safety Policies	• No material modifications.
Appendix B: Site Specific Health and Safety Plan	• No material modifications.
Appendix C: Public Safety Plan	• An outline of the Public Safety Plan was submitted in December 2021. The full Public Safety Plan will be submitted at a later date in compliance with Order N.

2.4 Regulatory Approval

The Renewal Corporation will implement the Health and Safety Plan as approved by the Commission in the License Surrender Order. The Renewal Corporation will obtain and report to the Commission any required approvals from other agencies.

3.0 Reporting

By April 15 of each year, the Renewal Corporation will prepare and submit to the Commission an Annual Report which will include information pertaining to implementation of the Health and Safety Plan.

Appendix A

Klamath River Renewal Corporation Safety Policies

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project
FERC Project No. 14803

Klamath River Renewal Corporation Safety Policies

Klamath River Renewal Corporation
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December 2022

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1.0 Introduction

The Klamath River Renewal Corporation Safety Policies is a subplan of the Health and Safety Plan that will be implemented as part of the Proposed Action for the Lower Klamath Project.

1.1 Purpose of the Klamath River Renewal Corporation Safety Policies

The purpose of the Klamath River Renewal Corporation Safety Policies is to establish policies and procedures to assure the safety of workers employed by Contractors which will undertake the Project Implementation Work within the Limits of Work (as defined in section 1.3).

1.2 Organizational Structure

The remainder of this Klamath River Renewal Corporation Safety Policies document follows the outline below:

- **Section 2.0: Health and Safety Policies** states the policies that the Klamath River Renewal Corporation (Renewal Corporation) will follow to assure the health and safety of workers employed by Contractors involved in implementing the Proposed Action within the Limits of Work.
- **Section 3.0: Implementation** states how the Renewal Corporation will assure that its Contractors implement its health and safety policies.
- **Section 4.0: Data Management and Reporting** states the Renewal Corporation's data management and reporting obligations under the Health and Safety Plan.

To further inform implementation activities to protect workers and the general public, in addition to this document, the Health and Safety Plan includes Appendix B: Site-specific Health and Safety Plan, which includes specific safety policies of the Renewal Corporation's Contractors, and Appendix C: Public Safety Plan, which describes public safety hazards and identifies measures the Renewal Corporation will implement to reduce the risk of injury to the public as a result of the Proposed Action.

1.3 Definitions

Contractors means the Deconstruction Contractor, Habitat Contractor, and their respective subcontractors.

Deconstruction Contractor means the contractor responsible for the deconstruction work described in the Definite Decommissioning Plan (DDP). This contractor is Kiewit Infrastructure West Co.

Habitat Contractor means the contractor responsible for the habitat restoration work described in the DDP. This contractor is Resource Environmental Solutions.

Health and Safety Officer means the Renewal Corporation's employee responsible for supervising Contractors in their implementation of the health and safety policies.

Limits of Work means the geographic area that encompasses dam removal-related activities in the Proposed Action. Except where specifically noted, the Limits of Work are within the Federal Energy Regulatory Commission (FERC) boundary associated with the Lower Klamath Project. The Limits of Work for the Proposed Action are included in the Knight Piésold 100% Design Completion Drawings (Knight Piésold 2022) and in the Resource Environmental Solutions 60% Reservoir Restoration Construction Plans (RES 2022).

Owner's Technical Representative means the engineering firm engaged by the Renewal Corporation to address technical issues that arise with the Contractors before and during Project Implementation Work. The Owner's Technical Representative is McMillen Jacobs Associates.

Project Contracts means the contracts between the Renewal Corporation and the Deconstruction Contractor and Habitat Contractor, respectively. These contracts were previously provided to the Commission by the Renewal Corporation[1].

Project Implementation Work means the work by the Contractors to implement the Proposed Action within the Limits of Work.

[1] Deconstruction Contractor Project Contract: *Project Agreement for Design, Construction, Demolition and Habitat Restoration Services in Connection with the Removal of the Lower Klamath River Dam*, FERC accession no. 20190729-5039 (Attachment E); *Contract Amendment No. 3 to the Project Agreement*, FERC accession no. 20200228-5326 (Attachment F). Habitat Contractor Project Contract: *Habitat Restoration, Maintenance, and Liability Transfer Agreement*, FERC accession no. 20200228-5326 (Attachment H).

1.4 Klamath River Renewal Corporation Safety Policies Development

Renewal Corporation consulted with its Contractors to assure that their Site-Specific Health and Safety Plans (Appendix B of the Health and Safety Plan) are consistent with and will fulfill the policies stated in this document.

1.5 Relationship to Other Management Plans

The Klamath River Renewal Corporation Safety Policies is supported by elements of the Construction Management Plan and the Reservoir Area Management Plan. So as not to duplicate information, elements from this other management plan are not repeated herein but are, where appropriate, referenced in this document.

1.6 Limitations

The Klamath River Renewal Corporation Safety Policies does not apply to activities outside of the Limits of Work, except with respect to driving as stated in Section 3.3 or as required under generally applicable laws and regulations.

2.0 Health and Safety Policies

The Renewal Corporation is committed to implementing the Proposed Action in a manner that is safe for all workers within the Limits of Work. It will implement the policies to protect health and safety consistent with occupational safety requirements under applicable federal, state, and local laws. These policies in summary form are:

- Workers will be trained to put safety first.
- Workers will put safety first.
- Workers will identify, report, and act to resolve any unsafe situations.
- Workers will help and encourage each other to act safely.

3.0 Implementation

The Renewal Corporation will implement these safety policies through its Project Contracts. It will oversee the Contractors which will implement the Project Implementation Work within the Limits of Work.

3.1 Renewal Corporation

3.1.1 Health and Safety Manager

The Renewal Corporation will designate a Health and Safety Manager, who will be responsible for oversight of the Project Contractors' implementation of the Health and Safety Policies.

3.1.2 Owner's Representative

The Owner's Technical Representative will be resident within the Limits of Work and will be responsible to:

- Inform the Renewal Corporation's visitors of basic office/site safety procedures (e.g., emergency exit procedures, known hazards).
- Have all such visitors sign a Visitor Acknowledgment form and an Assumption of Risk and Release of Liability form with hold harmless language.
- Verify that such visitors have the required personal protective equipment and have received training on how to use it properly.
- Provide brief safety training for visitors where Project, cardinal safety rules, and code of safe practices are reviewed and explained.
- Act in cooperation with each Contractor to implement work practices and procedures that comply with the Klamath River Renewal Corporation Safety Policies, applicable laws and regulations, and job site plans.
- Confirm that each Contractor has a safety and health program in effect before Project Implementation Work occurs.
- Attend weekly tailgate (or toolbox) safety meetings with each Contractor.
- Hold a monthly meeting with each Contractor for a discussion of safety problems and accidents that have occurred. A record of such meetings shall be kept, stating the meeting date, time, place, supervisory personnel present, subjects discussed, and corrective actions taken, if any, and maintained for record-keeping purposes.
- Attend "All Hands" or "Stand Down" safety meetings as appropriate to review safety inspections, findings, and corrective actions taken; discuss critical safety procedures and recent workplace incidents and celebrate safety milestones.
- Conduct periodic office safety reviews and resolve significant findings immediately.

3.2 Project Contractors

Through the Project Contracts, the Renewal Corporation requires that each Contractor is fully responsible for protecting the health and safety of workers (its own employees as well as those of all subcontractors) involved in Project Implementation Work. See Section 6.14 in the contract with the Deconstruction Contractor, and Section 6.8 in the contract with the Habitat Contractor.

3.2.1 Contractor's Preconstruction Meeting

Each Contractor will hold a preconstruction safety meeting before beginning Project Implementation Work. This meeting will be held with the Owner's Technical Representative and the Contractor's key site representatives, such as the job superintendent and job foreperson. The discussion will center on the Project plan and requirements. At that time, the Contractor will present:

- A copy of the Contractor's written company safety program,
- A copy of the Contractor's written company hazardous communication program,
- Name of the Contractor's on-site safety coordinator,
- Name of the competent person when required by federal and state regulations for excavations and scaffolding,
- A copy of the annual crane inspection (if applicable),
- Proof of qualification for operators of heavy machinery (e.g., dozers and cranes) and as required by federal, state, and local laws,
- Any additional items as required by Project Contract documents,
- Job hazard analysis, as required for each element of work,
- A copy of a certified drawing of, for example, scaffolding and excavation shoring (if applicable), and
- Equipment and safety certifications.

The Renewal Corporation will review these documents for sufficiency.

3.2.2 Contractor Safety Violation Notification

If the Renewal Corporation notifies a Contractor of any non-compliance with the Klamath River Renewal Corporation Safety Policies and/or applicable regulations, the Contractor will immediately correct the deficient conditions. If the Contractor fails to comply promptly with the directive, the Renewal Corporation (through its Owner's Technical Representative or other designated representative) may stop all or any part of the work of the Contractor. In this event, after satisfactory corrective action is taken by the Contractor, a start order is issued by the Renewal Corporation's representative. No part of the time lost due to any safety violation is subject to a claim of extension of time or for excess costs or damage by the Contractor.

Each Contractor will discipline and/or remove employees from the worksite who violate the Klamath River Renewal Corporation Safety Policies or applicable regulations.

3.2.3 Site Safety Inspection

Each Contractor will conduct general and detailed weekly inspections of the jobsite. Each Contractor will also conduct frequent and regular inspection of its work area to assure that safety requirements and practices are being enforced. These inspections include, as a minimum, the following:

- Site conditions
- Tools
- Materials
- Equipment
- Work practices
- Task performance
- Any areas that may compromise the safety of individuals or property

Discussion of all safety deficiencies and corrective action(s) will be noted at the weekly site safety meeting.

3.2.4 Emergency Response

Each Contractor will be prepared to act in response to an emergency or other safety problem as follows:

- **Site-Specific Emergency Plan:** Each Contractor will have a Site-Specific Emergency Plan before Project Implementation Work begins. The plan will describe the procedures employees will follow in the event of an emergency.
- **Accident and Incident Investigations:** Incidents and accidents will be investigated by a team that includes the immediate supervisor, Contractor's Health and Safety Manager, and Owner's Technical Representative. Outside experts may be included if needed. The team will do the following:
    - Inform the HR and legal departments and the Safety Manager as soon as the location where the accident occurred is safe,
    - Review available incident/accident documentation,
    - Interview witnesses and individuals involved in the accident/incident,
    - Visit the location, if necessary,
    - Thoroughly document how the accident/incident occurred,
    - Prepare an accident/incident report identifying the causes of the accident/incident and stating recommendations for avoiding similar accidents/incidents, and
    - Cooperate with applicable regulatory authorities.

3.3 Vehicle Operation

The Renewal Corporation's employees, and each Contractor's employees, have a responsibility not only to protect themselves when on the road but also to protect others. Each such employee who is required to drive a company car, rental car, or a privately owned vehicle for the purpose of Project Implementation Work will apply and follow the requirements below.

- Obey all traffic laws such as adherence to posted speed limits or other signage, use of turn signals, etc.
- All employees are expected to avoid confrontational or offensive behavior while driving.
- All employees are expected to always wear seat belts while in a moving vehicle being used for company business, whether they are the driver or a passenger.
- Employees must have a valid operator's license for the type of vehicle they are operating.
- Use of handheld cell phones, smart phones, mobile devices, or hands-free technology, whether personal or business-owned, to make calls while behind the steering wheel of an operating vehicle being used on company business is strictly prohibited. If a call must be made, find the nearest safe place to pull over and make the call.
- Texting or emailing is strictly prohibited while driving.
- The use of hands-free technology is strongly discouraged, but if there is an unusual incoming call, please politely hang up, finish driving, and call the person back. In unusual or emergency circumstances, ask the caller to wait while you find the nearest safe place to pull over and complete the call. If you are unable to pull over safely, you must tell the caller that you will call back when it is safe to do so and hang up.
- Engaging in other distracting activities including, but not limited to, eating, putting on makeup, reading or changing radio stations or music, is also strongly discouraged while driving, even when in slow-moving traffic.
- Use of alcohol, drugs, or other substances, including certain over-the-counter cold or allergy medications that in any way impair driving ability, is prohibited.
- Transportation of alcohol and drugs in vehicles being used on company business is prohibited.
- Do not operate a vehicle if you are drowsy or fatigued. Do not drive significantly beyond your normal working hours.
- Employees should never allow anyone to ride in any part of the vehicle not specifically intended for passenger use and/or in any seat that does not include a working seat belt.
- Employees who drive commercial vehicles or who are otherwise subject to separate rules and regulations such as those dictated by state or federal law are also expected to

adhere to all policies and regulations associated with the appropriate law or regulation that applies.

- A fire extinguisher is to be mounted in each Contractor vehicle.
- A first-aid kit is to be installed in every Contractor vehicle.
- An accident reporting kit is to be installed in each Contractor vehicle.

4.0 Monitoring and Reporting

The Renewal Corporation will monitor the Contractor's safety performance to identify training needs and ensure that workers are working in a manner that is safe for themselves and others. Records of performance are maintained for legal, insurance, and contractual purposes.

Each Contractor's monitoring and reporting program implements the Klamath River Renewal Corporation Safety Policies. These records will be collected by each Contractor and provided to the Renewal Corporation, if requested.

- **Employee feedback:** Employees are required to immediately report all unsafe conditions, work practices, and hazards that are not corrected immediately to their supervisors. Recurring conditions or practices should be reported to their supervisor.
- **Performance reviews:** Annual performance reviews of the Contractor's employees include a review of their safety performance. Individual safety training and certification needs are identified and tracked via the standard performance review process.
- **Jobsite safety reviews:** These reviews are conducted to identify and correct hazards, unsafe conditions, or improper work methods on a jobsite.
- **Accident/incident bulletins:** These bulletins are prepared during accident/incident investigations with input from the Owner's Technical Representative and then reviewed by the Renewal Corporation Health and Safety Manager.
- **Safety training:** Records include attendee names and signatures, certificates, instructor(s), date, location, an outline of content, and any available handouts.

5.0 References

Knight Piésold. 2022. 100% Design Completion Drawings. Prepared for Klamath River Renewal Project. June.

RES. 2022. Klamath River Renewal Project. 60% Reservoir Restoration Construction Plans and Design Report.

Appendix B

Site Specific Health and Safety Plan

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project
FERC Project No. 14803

Site-Specific Health and Safety Plan

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December 2022

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Appendices

1.0 Introduction

The Site-Specific Health and Safety Plan is a subplan of the Health and Safety Plan that will be implemented as part of the Proposed Action for the Lower Klamath Project.

1.1 Purpose of the Site-Specific Health and Safety Plan

The purpose of the Site-Specific Health and Safety Plan is to address risk management, contractor coordination, site security, traffic and pedestrian management, training requirements, and accident and incident reporting protocols that the Klamath River Renewal Corporation's (Renewal Corporation) contractors will implement as part of the Proposed Action.

2.0 Health and Safety Plan Summary

This is a living Plan that will be updated throughout implementation of the Proposed Action. Kiewit Infrastructure West (Kiewit) and Resource Environmental Solutions (RES), the two prime contractors of the Renewal Corporation, have very similar corporate safety cultures. This plan has been co-authored by the two companies, and both will abide by its rules and guidelines.

3.0 Policy Statement

Kiewit and RES's contractors are committed to the elimination of personal injuries, occupational illnesses, and damage to equipment and property in their operations; to the protection of the general public whenever they come in contact with work related to the Proposed Action; and, to the prevention of pollution and environmental degradation.

Kiewit and RES's management and field supervision will be required to plan safety into each work task in order to prevent occupational injuries or illnesses. Although the ultimate success of the Injury and Illness Prevention Program depends upon the full cooperation of each employee, management is responsible to see that applicable rules and procedures are established and enforced, and that effective training programs are employed.

Safety, occupational health, and environmental protection **will not be sacrificed for production**. Safety will be a core value to all employees from the production level up to the corporate office. To ensure that all employees understand this, each employee will sign a document agreeing to the following:

- I am committed to everybody's safety and well-being as a personal core value.
- I am committed to develop safety as a core value in those who work for me and around me.
- I am committed to disciplined involvement in the project.
- I am committed to maintaining a safe workplace.

4.0 Safety Responsibilities

4.1 District/Region Safety Manager

The District/Region Safety Manager is responsible for overseeing and implementing the project's corporate safety program and ensuring procedures are being followed by:

- Draft safety plan template,
- Oversee and implement corporate safety programs,
- Establish safety programs and high-level training plans for people and projects,
- Assist projects with understanding of safety rules, regulations, and applicable laws
- Conduct job visits and provide feedback to the project team on hazards identified, additional training needed, or action items requiring correction,
- Continually coach district and projects on instilling a "nobody gets hurt" mentality.

4.2 Project Manager

The Project Manager, is responsible for ensuring that the project's safety program and procedures are being followed by:

- Project Managers are the lead safety manager for each project. They will be responsible for a weekly operational safety walk. These walks will be sent into the district office and tracked each week on the Monday Safety Call,
- Project Managers that display low safety performance at the project will be asked to schedule and conduct meetings with supervisors,
- Project Managers are responsible for following up with all new hires as part of the orientation process.

4.3 Superintendent, Foreman, Staff Engineers

Superintendents are responsible for implementing the project's safety program and ensuring procedures are followed by:

- Become actively involved with the district and corporate safety programs. Attend the supervisor training modules presented by the sponsor or area manager and send verification to your sponsor,
- Consider the safety factor in planning operations. Ensure that a Hazard Analysis is completed for every operation with good crew involvement,
- Make sure to talk to each new hire, explaining the safety policies and hazards of their particular work. Utilize picture book to facilitate this. Obtain their commitment to work safe and follow all rules and policies,
- Introduce new employees to the foreman. Make them feel like part of the team.
- Make sure that the operations under your leadership have the specific PPE required to complete the work safely.

4.4 Project Safety Manager

The Project Safety Manager is responsible for ensuring that health and safety is an integral part of the management process, implementing the safety program and assuring the health and safety program is followed. The Project Safety Manager reports to the Project Manager and is responsible for the following:

- Report to work ready to perform assigned tasks by using established safe work practices and by wearing prescribed personal protective equipment,
- Comply with all safety instructions and manufacturers safety recommendations.
- Assist in the development of operation Hazard Analyses,
- Wear required personal protective equipment (i.e., a hard hat, ANSI approved safety glasses, work pants, shirt with at least 4-inch sleeves, gloves, and sturdy leather work boots or rubber boots with safety toe and steel insert are minimum required safety apparel on job sites),
- Use the proper tools and equipment for each task and use them correctly (if knowledge or proficiency with the operation or equipment is questionable, ask before it is used).
- Report all unsafe behaviors and/or conditions to the foreman or supervisor immediately. Take immediate action as appropriate if you observe something that could cause injury to a fellow worker,
- Report all incidents, near misses and injuries to a foreman or supervisor immediately, no matter the severity.

4.5 Stop Work Authority

Both Kiewit and RES authorize every employee, client, subcontractor, vendor, or visitor to have “Stop Work Authority”. If anyone witnesses an unsafe act or condition that creates an imminent danger situation, anyone can act to halt the operation in question quickly and safely until the danger can be mitigated. No one will ever be reprimanded for stopping a situation or operation in which they perceive there to be an imminent danger involved.

5.0 Orientation

Prior to new hire orientation, an applicant will first be introduced to the Business Manager who will:

1. Describe the Three-Step Orientation Process.
2. Explain the District Substance Abuse Policy and arrange for a third-party administrator drug screen in accordance with the policy.

If the applicant complies with company policy regarding substance abuse, the Business Manager will then have the new employee fill out the Employee Profile, Immigration I-9 Form, and any other company or project- required business paperwork. At this time, the employee should be given a copy of the Project Safety Rules or the Code of Safe Practices.

The Business Manager should explain that this material will be covered during the orientation by their superintendent and foreman, but it is also their responsibility to read and understand the safety requirements.

Following the Business Manager's introduction, the three steps to the orientation process will include:

STEP 1: Orientation by Superintendent/Craft Superintendent

STEP 2: Orientation by Foreman

STEP 3: Follow Up by Project Manager/Job Superintendent

A new employee is not to be sent out into the work without having been met and oriented by their superintendent.

After initial orientation on the first day of employment, each new employee will have a follow-up within a month by the Project Manager or Job Superintendent.

5.1 Kiewit New Hire Identification Program

Kiewit's statistics have revealed that many injuries happen within a new employee's first 30 days of employment. As a result, Kiewit will continue to identify all new hires with a different colored hard hat or vest, issued on their first day. This will allow supervisors and seasoned employees to recognize new employees and take time to observe their work habits and make corrections if necessary. The program will be administered as follows:

1. All newly hired and transferred craft employees to a project will be identified by a green hard hat.
2. The green hard hat will visibly display that this employee has worked on the Proposed Action for less than 30 days.

The Business Manager will maintain a record of when the new employee will be eligible to graduate to the standard Kiewit hard hat. After the 30-day identification period has elapsed, the employee will be recognized at the mass safety meeting and awarded their standard Kiewit hard hat.

6.0 General Code of Safe Practices

The following are site-specific safety rules, which require the adherence by all project contractors' employees, subcontractors and site visitors. Failure to comply with these rules will result in disciplinary action. This Document serves as an Injury and Illness Prevention Plan (IIPP), and meets or exceeds the California IIPP requirements.

6.1 General Rules

- Follow all safety rules and manufacturer's safety recommendations.
- Report to work ready to perform assigned tasks.

- NEVER WALK PAST AN UNSAFE ACT OR CONDITION. Every employee is responsible to stop any hazardous activity on the site.
- No alcohol or drugs are allowed on the project site or in COMPANY owned vehicles.
- A written Job Hazard Analysis (JHA) will be reviewed with all employees prior to starting any operation.
- Report all injuries immediately.

6.2 Housekeeping

A neat, clean job reflects directly on the workmanship of the personnel, quality of the building and the contractor(s) themselves. Many times, housekeeping is the first thing that people observe on a job and it creates a lasting impression.

Good housekeeping directly affects Safety, Quality, and Production.

- All work areas will be kept clean and free of debris at all times. It is each employee's responsibility to clean their area as they go.
- Aisles, passageways, stairs, floor perimeters, entrances and exits to the job must be kept clear of debris and tripping hazards.
- Material storage areas (including Conex boxes and gang boxes) will be kept orderly.
- Holes will be covered with a material that is capable of two times the maximum intended load, marked "HOLE" with highly visible paint, and will require positive effort to remove (such as staking or nailing a plywood cover).
- Bend nails in lumber that is being discarded and pull nails in lumber that is being stored.
- Reinforcing rods or stakes that expose people to punctures or scratches will be covered with rebar caps (square head).

Each subcontractor will be responsible to control and remove any materials or debris created by work performed by their employees. Kiewit and/or RES will notify subcontractors if materials/debris are not cleared in a timely manner (see contract for time specifications). If Kiewit or RES must clean the area, the subcontractor will be back charged in a T&M manner.

6.3 Company Equipment

- Cranes, forklifts, aerial lifts, and skiffs, etc. can only be operated by a trained and authorized operator. No one is permitted to operate a piece of equipment if they are not an authorized operator.
- Seatbelts must be worn at all times in all COMPANY owned or rented equipment and vehicles.
- The parking brake must be set and the keys must be removed whenever a COMPANY vehicle is parked.
- Avoid parking on inclines.
- Avoid backing up vehicles to the extent possible.
- Honk 3 times before backing up and 2 times before going forward.

- Chocks are required for all motor vehicles 1 ton or greater. These vehicles will have a "03" prefix number on the door.
- Personnel are prohibited from riding on loads, fenders, running boards, tailgates, or in truck beds.
- Properly equipped flaggers will be used to cross public roads with equipment.
- Shut down and lockout all equipment, large or small, before attempting to repair.
- All mobile equipment must have an operating, audible back-up alarm.
- Daily visual inspections must be performed on all equipment.
- Trailer flags will be used according to the District's Best Practices.

6.4 Ground Fault Circuit Interrupting Program

- All cords will be inspected before each use. Damaged cords will be repaired or thrown away.
- All electrical tools and equipment must be grounded or double insulated.
- When possible, equipment will have ground fault circuit interrupters (GFCIs). When this is not possible, all cords will be tested on a regular basis and the cords will be marked in accordance with the Assured Grounding Program.
- Never allow any equipment to run over a cord.
- Route cords out of the access zones.
- Cord protectors should be used at all times in high traffic zones.
- Cords are to be protected from sharp corners, edges, and crush points

6.5 Oxygen and Acetylene Rules

- Oxygen and acetylene bottles must be properly secured and in an upright position at all times. When not in use, the bottles must have caps on and be separated twenty (20) feet, or have a five (5) foot high noncombustible barrier between them.
- Flashback arrestors are required at the torch end and the cylinder end of a cutting set up.
- Only spark igniters shall be used to light a torch. The use of cigarette lighters is strictly prohibited.

6.6 Working on Uneven Terrain

Due to the nature of the site conditions, the hazard of walking on uneven terrain will be experienced. The following are controls to ensure that Slips, Trips and Falls are prevented and understood:

- Slow down – don't take more hazardous routes to save time.
- Don't hurry on slippery surfaces.
- Utilize appropriate footwear and clothing – site / task specific.
- Comply with company boot requirements.
- Be conscious of your behavior, clothing, and gear when carrying equipment / materials.
- Be present while collecting data: stand stationary and do not collect data while walking.

6.7 Vehicle Use

- Company vehicles may not be used to tow trailers or push or pull other vehicles unless required based on the driver's job duties and responsibilities. Items may not be transported on top of vehicles.
- Drivers must abide by all local, state, and federal traffic laws.
- Drivers must not operate a company vehicle if their ability is impaired by any prescribed or non-prescribed medications, alcohol, legal or illicit drugs, fatigue, illness, or injury. Employees taking any drug that recommends that they not operate machinery or that it may cause drowsiness, may not operate a vehicle for business use.
- Employees shall report to work fit for duty and free of any adverse effects of legal or illegal drugs or alcohol. This policy does not prohibit employees from the lawful use and possession of prescribed medications. Employees must, however, consult with their doctors about the medications' effect on their fitness for duty and ability to work safely, and they must promptly disclose any work restrictions that the medication/prescriptions could present to Human Resources. Employees shall not, however, disclose to the contractor underlying medical conditions unless directed to do so by their medical provider.
- Authorized company drivers are prohibited from hauling alcoholic beverages anywhere in the vehicle and/or trailer at any time.
- Employees are not permitted to use a cell phone while operating a motor vehicle on company business and/or on company time unless the device can be used hands-free. While driving, calls cannot be answered and must be directed to voicemail if your handheld device is not enabled for hands-free use. Violation of this hands-free policy will result in driving privileges being suspended for 30 consecutive business days for the first offense. Subsequent offenses will result in driving privileges being suspended permanently.
- If an employee must make an emergency call (911), the vehicle shall first be parked in a safe location.
- Drivers and passengers (if any) must properly use belt restraint systems in all cases. Failure to use seatbelts will result in driving privileges being revoked.
- Employees operating commercial motor vehicles are required to conduct a pre-trip walk-around of their vehicle before each trip and a post-trip walk-around following their trip, to check for vehicle defects or damages. Driver Vehicle Inspection Reports (DVIRs) will be completed during these walkarounds. Walk-around inspections are to include a thorough assessment of the vehicle condition as well as ensuring that there are no items in the path of the vehicle, prior to departure.

6.8 Vehicle Maintenance and Inspections

Authorized drivers operating company vehicles are expected to notify their program administrator(s) when preventative maintenance is due. Preventative maintenance such as, but not limited to, regular oil changes, lubrication, tire pressure, tire replacement, brake pad and rotor replacement, and fluid checks determine whether you will have a reliable, safe vehicle to drive and support work activities. A preventative maintenance and repair log shall be

maintained. Contractors are responsible for maintenance and inspections of their own vehicles. All vehicle maintenance must be done offsite.

6.9 Vehicle Safety Equipment

Vehicles will need to be equipped with safety equipment respective to their scopes of work:

- Copies of the Incident Reporting and Evaluation Form need to be readily available in all company vehicles.
- Please contact your Fleet and DOT Compliance Specialist and EHS&S Specialist for additional information on your vehicle's safety and emergency equipment needs.
- First Aid Kit and Fire Extinguishers.

7.0 Personal Protective Equipment

7.1 General

Project Contractors will supply, and employees and visitors are to use, all required and appropriate personal protective equipment (PPE).

The following Personal Protective Equipment (PPE) is to be issued to new employees at the time of hire:

- ANSI Z89.1 or ANSI Z89.2 approved Hard-hat
- ANSI Z87.1 or ANSI Z87(+) Eye Protection
- Class II ANSI 107-2015 or higher Reflective Safety Vest or Hi-Viz Clothing
- ANSI Cut Level 3 or Higher Gloves
- ASTM F2413-05 or higher above the ankle safety toe boots

Additional, task specific PPE is to be denoted by the Hazard Analysis and provided by the foreman or superintendent. Training on use, maintenance and care of equipment is required upon distribution of all PPE. All persons on site outside of an office environment or parking facility are required to be properly outfitted for the area.

7.2 Eye Protection

ANSI Z87.1 approved eye protection will be worn at all times when on the project. When reasonable potential exists for eye injury from bright light, or physical or chemical hazards, supplemental eye protection such as face shields, cutting goggles, and protective goggles will be issued and used. Goggles are required any time a face shield is used or when the operation or JHA dictates. Employees who wear prescription glasses will be provided with – and shall use – substantial side shields (in the case that the prescription glasses are Z-87 rated) or will be provided with over-the-glasses safety glasses, which are to be worn at all times while on the jobsite.

7.3 Hearing Protection

Kiewit and RES have a mandatory hearing protection policy for personnel. When ambient or local noise levels exceed 85 dBA hearing protection is required to be used. Normally this is in the form of earplugs or muffs, which will be available on the project. A foreman will demonstrate how to use them properly. In addition to offering earplugs, other types of protection will be offered (e.g. muffs or head band plugs) as alternatives. Personnel are encouraged to use earplugs as they offer the highest level of protection. After the noise level in the work environment has been established, the type of hearing protection required to be used should be determined by using the noise reduction rating, listed on the hearing protection device, to lower exposure to 85 dBA. PPE should be used only after practicable engineering controls, to reduce the noise levels, have been evaluated/implemented.

7.4 Respiratory Protection

Under normal work conditions Kiewit and RES personnel should not need a respirator. The site work plan should first attempt to remove the need for respirators by eliminating the hazard. For special work process such as grinding, demolition and sweeping, dust masks will be appropriate. These will be available on the project. The Kiewit Chemical Management & Chemical Use System may identify areas where more specialized respirators will be needed. Employees required to use respiratory protection shall be trained in accordance with the Kiewit Respiratory Protection Policy. Medical clearance and personal fitting of the respirator are required when the task requires the use of a respirator.

7.5 Face Protection

Face shields with goggles or Bionic Face shields with safety glasses are required to be worn for operations such as: Chipping, grinding, powder actuated tool use, jackhammering, compressed air blowpipe or high-pressure water use, or other operations mandated by the Hazard Analysis.

7.6 Hand Protection

Appropriate gloves are required 100% of the time when performing work activities. Tasks are only to be performed without gloves where safety is compromised by glove use or fine finger manipulation is needed to accomplish the activity. Non-glove required tasks shall be addressed clearly in the JHA BEFORE the work begins. Appropriate gloves are to be used during exposure to sustained heat, sparks, wet concrete, acid corrosives, or electrical exposure. Operations that involve possible vibration to the wrist area, such as jackhammering and chipping, will require the use of shock-absorbing finger, palm, and wrist protection. Such operations shall be identified in the Hazard Analysis and proper protection issued when required. Specific guidelines for the use of gloves can be found in the Best Safety Practice and Safety Policy Manual, which will be kept in the safety office. It is the superintendent’s responsibility to select the correct glove for each task and identify its use in the JHA.

7.7 Leg Protection

Chaps are required when using chain saws, chop saws (leather chaps), axes, and other operations mandated through the Hazard Analysis.

7.8 Foot Protection

All employees shall have leather, composite or safety toed, above the ankle work boots conforming to ASTM F2413-05. In the event an employee is operating equipment that has the potential to injure the foot area, such as a jackhammer or walk behind compaction equipment, supplemental strap on protection will be issued and worn. Rubber boots must have safety toes and a steel shank in the foot bed. Rubber boots worn during the placement of concrete will be taped closed at the top.

7.9 Hard Hats

Hard Hats that are ANSI Z89.1 or ANSI Z89.2 approved are mandatory for all personnel on a Kiewit or RES construction project. Both the employee's name and the Contractor's name shall clearly appear on the Hard Hat. Metal hard hats shall not be worn under any circumstances. At the discretion of the responsible Kiewit or RES Construction Manager, certain areas of the project may be exempt from this policy. This exemption is only allowed when personnel working in this area have no exposure to falling objects (i.e. installing flooring). When personnel are allowed not to wear their hard hats, the area must be well identified. Travel paths to/from the worksite may/may not have this exemption.

7.10 Special PPE

Additional task-specific PPE requirements such as high-temperature work, handling corrosive liquids, or other activities shall be reviewed with the Resident Engineer and documented in a JHA.

8.0 Hazardous Materials and Chemical Handling Operations

The purpose of the Hazard Communication Standard Cal-OSHA §5194 and Hazard Communication, OR-OSHA 437-002-0360 > 1910.1200 are to protect personnel against chemical exposures at the workplace. The intent of the law is to reduce health risks by:

1. Use of safer chemicals
2. Use of safety equipment
3. Training and informing personnel of the potential hazards.

It is the responsibility of each contractor to work within these OSHA guidelines and to protect their own personnel and subcontractors under their direct supervision. Subcontractors working on the contractor project may be required to provide documentation that they have complied with these OSHA requirements.

The Project Superintendent will coordinate all phases of the project and pre-plan for chemical use. Subcontractors are responsible for notifying the contractor of any hazardous chemicals, including herbicides, that they may be using on the project that would affect other

subcontractors' personnel or the owner operations. This will be accomplished through the chemical management system and/or coordinated at weekly subcontractor meetings on the project.

Subcontractors intending to use a product which creates a potentially hazardous atmospheric condition that may adversely affect their own or other subcontractor's personnel will be required to conduct air monitoring. They will also be required to provide documentation of OSHA/NIOSH and L&I safe levels in the work areas that may be affected by their work. Atmospheric conditions are considered to be safe when levels are at or below OSHA and L&I P.E.L.'s (permissible exposure limits). Subcontractors must inform the Project Superintendent well in advance of this type of work being performed.

This must also be identified in the subcontractor's pre-job planning/pre-task analysis form(s).

For this project, an asbestos survey may be needed for the deactivation and removal of the existing utilities due to the potential for asbestos-coated pipes. If asbestos is found, abatement will be performed.

8.1 Biological Hazards

Biological hazards that may be encountered at the project work site could include spiders, biting/stinging insects, irritant plants (such as poison oak), snakes, and wild animals. Individuals with specific allergies should inform the PM and Safety Manager of said allergies and maintain medications (e.g., epinephrine, antihistamines) as required in close proximity to their work area. Personnel will be reminded before each day's activities to be aware of these hazards and to take the necessary precautions to avoid them by adhering to safe work practices (e.g., avoid reaching into covered or dark areas or picking up rocks and other objects). Individuals with specific allergies to insects should remember to note this fact to the Safety Manager before the start of field activities.

A first aid kit will be available to treat minor insect bites and stings. First aid procedures for minor insect bites and stings include cold applications, use of soothing lotions (e.g., calamine), and for a bee sting, removal of the venom, stinger, and venom sac. If the bite or sting is from a poisonous spider or produces a severe reaction, implement the following procedures: calm the victim, preferably in a prone position, keep them from moving about, and call emergency services (911). It is essential to get the victim to a hospital immediately.

8.1.1 Poison Oak and Stinging Nettle

The best method to avoid a skin rash from contact with Poison Oak or Stinging Nettle plants is avoidance. Every effort should be made not to enter an area where the plants are growing. If avoidance is not possible, many methods can be used to protect the skin from the Poison Oak irritant oil (urushiol). Pre- and post-contact wipes should be available at all times to protect and clean the skin from contact with the oil. A skin cleanser (Technu® or equivalent) should be available for use in shower and to wash clothing. If the team member is especially sensitive to

exposure, disposable Tyvek suits should be worn if working in an area with a lot of brush, and a camp shower can be kept onsite to clean skin areas with possible exposure with skin cleanser.

8.1.2 Snakes

The snakes of most concern are Pacific rattlesnakes. An act of “prudent avoidance” is recommended when confronted by any snake. The use of a heavy high-top work boot and long pants will help reduce the severity of the consequences if bitten. When working in habitat or areas with high rattlesnake traffic, snake gaiters shall also be worn. However, care must be taken in all field activities; constant attention and awareness should be given to the possibility of snakes being present. If a worker is bitten by a snake, all personnel will cease work activities, leave the area, and seek medical care for the affected person immediately.

8.1.3 Ticks

When in an area suspected of harboring ticks, the following precautions can minimize the chances of being bitten by a tick:

- Use tick repellents; such as permethrin for clothing and DEET for skin.
- Perform tick checks throughout the day while in tick habitat. Inspect head and body thoroughly when you return from the field.
- Remove any ticks by grasping them with a tick key or tweezers; do not squeeze or crush the tick. Save the tick in a canister for identification in case you become ill.

8.1.4 Cyanobacterial Toxin Exposure Minimization and Avoidance Measures

Unhealthy algae blooms are present in reservoir waters at the site. The algal blooms look like green, blue-green, white, or brown foam, scum, or mats floating on the water. Advisory notices are posted at the site to warn the public of the existence of these harmful bacteria. It is advised that those with respiratory disease or compromised immune systems avoid areas where the algae exist.

While there have been no documented cases of human illness associated with blue-green algae in California, studies around the world show that recreational exposures to toxic blue-green algae might result in eye irritation, allergic skin rash, mouth ulcers, vomiting and diarrhea, and hay fever-like symptoms.

Control measures shall include avoidance where possible; low boat speeds to avoid water splashes and mists (no more than 10 mph); if weather changes and choppy water is observed, stop and reassess risk; and use of nitrile gloves (with cut resistant inner gloves) by staff involved with sucker tagging activities. All staff working on or around water should practice good hygiene, such as washing hands and any other exposed areas with soap and water following work activities.

8.2 Hazardous Waste

Wastes identified as hazardous in accordance with 40 CFR, Part 261 Subparts C & D must be segregated and managed separately from other waste streams. The hazardous waste on-site will be stored in labeled drums within the hazardous materials Conex. Typical hazardous waste streams from removal from existing structures generated at the Project may include:

- Paint
- Solvents
- Epoxies and Hardeners

8.3 Universal Waste

Universal waste will be stored and managed onsite by Kiewit Infrastructure Co. at the hazardous waste Conex; please reference the Hazardous Materials Waste Disposal Plan. There will also be labeled collection containers for dry cell batteries and fluorescent bulbs at the office. Examples of universal wastes include:

- Mercury containing devices
- Dry cell batteries
- Fluorescent bulbs
- Pesticides
- Aerosol containers and compressed gas cylinders

8.4 Non-Hazardous Waste

Non-hazardous waste must be organized and separated according to waste characteristics. The non-hazardous waste storage containers should be labeled with the name of the product on the container. During construction, the primary waste generated will consist of the following waste streams:

- General trash
- Scrap wood
- Scrap metal
- Used oil
- Used oil filters
- Used antifreeze
- Oily rags
- Concrete cure
- Form oil
- Concrete waste (liquids and solids)
- Sanitary waste
- Excess Soil/Rock

8.5 Special Waste

Special waste must be stored separately from other wastes. Examples of special wastes that may be encountered during the project include:

- Asbestos Containing Material
- Petroleum Contaminated Soil (Spill Debris)

For more information, please reference the Waste Disposal and Hazardous Materials Management Plan.

8.6 Spill Prevention Control and Countermeasure Plan

All employees that work on the Proposed Action will review the Waste Disposal and Hazardous Materials Management Plan with the designated Project Environmental Coordinator. This plan will show the location of all hazardous material within the project and the locations where spill cleanup materials are located.

Spill Kit stations will be located close to the source of potential leaks/spills. If spill cleanup supplies are needed, the environmental team can provide direction to the nearest spill kit and answer any questions about using the materials. All oily debris resulting from the cleanup, including used spill kit material must be stored in a labeled container. All regulatory state reporting and/or federal notification requirements will be followed.

9.0 Training

9.1 Project Formal Safety Training

Each Project will develop a training program as part of the Plan. The Project will maintain a training log at the jobsite for past and future training. The training program will include the following elements as a minimum:

1. Supervisor and Foremen Training

This training is intended for foremen, engineers, and above. Attendance is required of all such employees. This training shall be conducted at least once per month and can be combined with the weekly Foreman’s Safety Meeting.

2. Hands-on Tool Training

The superintendent and foreman will conduct hands-on tool training for employees in their crew. This training is important to show employees the safe way to use tools and equipment and should identify any unsafe uses and behaviors that the crew can watch for and prevent. Each employee should show their proficiency in operating the tool(s) during the training. Tool training should be conducted at least once per month.

3. Competent Person Training

Many operations require a competent person either performs or supervises the work. By definition, a competent person is one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. The following standards require a competent person:

- Lead
- Asbestos
- Personal Protective Equipment
- Rigging
- Welding and Cutting
- Electrical
- Scaffolds and Stair Towers
- Fall Protection
- Cranes, Hoists, Conveyors
- Excavations
- Concrete
- Steel Erection
- Demolition
- Blasting and Explosives
- Ladders
- Toxic and Hazardous Substances

9.2 Driver Training

Only drivers authorized by the contractor may operate a contractor company vehicle. Contractors are responsible for training their employees on driving responsibilities.

All contractor and contracted employees operating non-commercial motor vehicles must meet the minimum requirements listed below:

- Must possess a current and valid operator’s license for the class of vehicle being operated.
- Must have at least three years of experience in operating the class of vehicle to be operated.
- The driving records (moving violations and accidents) of drivers of company vehicles must be acceptable. Driving records of all drivers will be checked at least annually via the company’s background and MVR provider (DATCS).

Drivers of RES company vehicles are required to complete a formal defensive driving course within six (6) months of employment, unless the driver provides evidence that they took such training within the previous three years. Contractors must ensure drivers are trained and

certified prior to mobilizing to the work site and training records must be available to RES upon request.

The training required may vary based upon the employee's job role and/or vehicle type. Examples include construction field specific courses, electronic logging device training for CDL/DOT drivers, basic automotive care, etc.

10.0 Meetings

10.1 Mandatory Meetings

The following safety meetings are mandatory:

- Monthly Mass Safety Meeting
- Weekly Supervisor and Foreman Safety Meeting
- Daily Safety Toolbox Meetings and Stretch and Flex
- Post-Serious Accident or Serious Near Miss Mass Meeting
- Subcontractor Safety Meetings

10.2 Daily Safety Snapshot Meeting/Toolbox Meeting

Preparation of Daily Safety Meetings on the part of each foreman is mandatory. Completed reports are to be documented in a Foreman Book. The most important function of these meetings is to involve everyone in promoting safety awareness. Every effort must be made to encourage all participants to ask questions, and more importantly, make suggestions.

10.3 Project Safety Meetings

All meetings start out with a safety discussion.

MEETING TYPE	WHEN MEETING OCCURS	WHO ATTENDS
Daily Safety Snapshot	Every day at the start of the shift	Individual crews with Staff
Weekly Toolbox/Safety Report Review	Time of review is at the discretion of the foreman or superintendent	Individual crews with staff; cover information from the Weekly Safety Meetings and Safety Report
Mass safety meetings	Once a month at the start of the shift	All project personnel, including subcontractors
Weekly Supervisor/Craft Safety Meeting (Safety Team/Committee)	Superintendent safety meeting; Foreman Safety Meeting before the start of the shift	Subcontractors shall attend
Pre-Activity Meeting	At the start of each new operation (Hold Point per QMP)	Project Manager, General Superintendent, Superintendents,

MEETING TYPE	WHEN MEETING OCCURS	WHO ATTENDS
		Subcontractors, Sub. Safety Monitors, and Foremen, as necessary

11.0 Safety Inspections

Ongoing safety inspections of the work and work methods is an integral part of a successful safety program and are the direct responsibility of field supervision. Safety inspection will both be visually-made and documented in the form of safety audits. Each craft person and supervisor are responsible to inspect and correct deficiencies that may lead to unsafe acts or conditions. Project safety audits, equipment safety inspection logs, incident reports, and all reports covering the implementation of Health and Safety Plan on the Project Site shall be maintained and made available for review upon request.

1. Project Construction Manager / Job Superintendent Safety Walk: The Project Construction manager / Job Superintendent should walk the site weekly. During this walk, safety should be a major focus.
2. Superintendent Safety Walk: Each Superintendent should walk their work operations regularly throughout the day. During this walk, safety should be a major focus.

Additionally, the superintendents will be scheduled to perform a safety walk with their findings reported at the weekly superintendent safety meeting. The superintendent will be accompanied by an engineer, foreman, a non-foreman craft worker, a client representative, and the Craft Safety Ambassador (CSA).

11.1 Regulatory Inspection

Unannounced inspections by regulatory agencies are possible. When a Compliance Officer visits the job, they should be directed to the Project Safety Manager or Site Manager/Job Superintendent before starting the inspection.

12.0 Work Packages

Safe and efficient operations all start with a complete and accurate work package. Good work packages demonstrate knowledge and understanding of the work and allow the contractor to complete activities without sacrificing safety or quality. As in all contractor processes, safety is the first element to be planned and assessed in the work package.

12.1 Hazard Analysis

A hazard analysis is one of the most important elements in any safety program. It is contractor policy to have a written hazard analysis for each work operation. The contractor will not begin

any operation without a thorough hazard analysis that has been reviewed and signed by the crew.

12.2 Operation-Specific Hazard Analysis

A hazard analysis is best prepared when planning for each work activity. Superintendents with the Foreman and their crew will be involved in the preparation, review, and revision of each hazard analysis. Superintendents are responsible to ensure that a proper and work-wise hazard analysis is completed for each work activity. The hazard analysis is a good tool to train the crew whenever the work operation starts or is changed, and to use with new crew members.

As a rule, the following factors should be incorporated (not all inclusive) into each hazard analysis:

- Access/Egress
- Crush Points
- Operational Big Risks
- Work Conditions
- Housekeeping
- PPE
- Fall Hazards/Preventative Measures
- Stored Energy
- Water Safety
- Ergonomic Risks
- Hazardous Materials
- Overhead Power Lines
- Protection of Public
- Tools
- Nighttime Operations

A Hazard Analysis must be prepared for the use of high-risk tools, such as; air operated tools, table saws, weed burners, etc. Many other tools or small pieces of equipment should be included in this regard. To assist in overcoming language barriers, photos of specific hazards, such as crush points, should be considered for inclusion within in the body of the hazard analysis for the highest probability hazards. An example Hazard Analysis included in Appendix A.

Hazard Analyses are dynamic tools and should be reviewed and modified on a regular basis. As a minimum, hazard analyses shall be:

- Reviewed with crew participation prior to the start of any operation.
- Reviewed anytime a new crew member is added. New Hire crewmembers shall review full operations JHA before beginning work.
- Reviewed when a new hazard is identified.

- Reviewed and revised if necessary, following an incident or near miss.
- Revised whenever an operation is changed.
- Reviewed one week into a repetitive operation and least bi-weekly thereafter.
- Reviewed each time an intermittent operation resumes.

13.0 Zero Tolerance and Disciplinary Action

13.1 Zero Tolerance

Zero tolerance begins by following the First Rule of Safety, which is “NEVER WALK PAST AN UNSAFE ACT OR CONDITION—STOP AND CORRECT IT!” If all employees do not follow this very simple rule, it demonstrates a lack of commitment to the Safety Program. Everyone has the responsibility to be constantly aware of potential hazards and to take appropriate action when hazardous conditions exist.

13.2 Disciplinary Action Policy

A disciplinary policy has been incorporated so that consistency is maintained throughout the organization when disciplinary action is necessary. The purpose of the Safety Plan is to channel all safety activities toward the zero injury goals. Achievement of this goal can only be obtained through the efforts of all employees. All employees will be subject to disciplinary action if they violate district safety standards and/or safety rules.

All employees must take responsibility for ensuring a safe workplace. Everyone working on the project has a duty to themselves and their coworkers to:

1. Work safely and,
2. Correct or report any unsafe behavior or condition when it is observed. This teamwork will allow us to reach zero injury goals.

Furthermore:

- There will be no tolerance for anyone working in an unsafe manner or allowing anyone else to work in an unsafe manner.
- There will be no tolerance for anyone creating an unsafe condition or allowing an unsafe condition to exist without taking appropriate action.
- There will be no tolerance for anyone that causes injury to another person.
- There will be no tolerance for anyone damaging company equipment, tools, or another person’s property when the damage could have been avoided by following proper procedures.
- There will be no tolerance for anyone that does not report an injury immediately when it happens.
- There will be no tolerance for anyone not properly tied off or implementing a fall protection system when at four feet or greater.

Whenever discipline is administered, proper documentation of the action should be maintained in the employee's personnel file. The documentation should state what policy was violated, the level of disciplinary action administered and any other factual comments the supervisor wishes to note relative to the incident.

Each project will maintain a tracking sheet identifying the individuals that have been held accountable for safety violations.

14.0 Accident Investigation and Reporting

Incident investigation is a necessary and effective technique for preventing future or recurring incidents. The only positive result from an incident is the opportunity to determine their causes and develop a course of action to eliminate them. It is essential that all incidents be investigated and reported.

Incident causes are more complex than a simple combination of unsafe behaviors and conditions. Unsafe conditions are often the surface evidence of deeper, more complex causes. When trying to uncover these true or underlying causes, the role and involvement of management practices, the worker, the machine, the method, and the work environment all must be considered.

The contractors must emphasize to all employees that a failure to report an injury immediately, no matter the severity, can result in termination. Incidents always turn out worse for the employee and the company when they go untreated. Foremen, if told of an injury, must first inform the superintendent and second, have the employee initial the timecard indicating that they were injured.

The incidents that are required to be reported immediately are:

- Any incident (bumps, bruises, scratches, scrapes, strains, sprains) no matter how minor, including Near-Misses and First Aid cases.
- Near-Misses: Any event that if it happened 100 times, one of those times would result in injury, equipment damage, or property damage.
- Recordable Injuries.
- Public injuries requiring medical attention.
- Property (personal or real) damage.
- All Company vehicle incidents.
- All marine casualties or incidents.

Spill Reporting - All persons likely to discover a spill of fuel or hazardous materials have been instructed to immediately contact their on-site supervisor and the Environmental Manager. All attempts will be made to contain the spill by utilizing spill equipment available on-site. If a spill cannot be contained, the appropriate outside emergency response contractor should be

contacted immediately. The Environmental Manager or alternate will notify the required contacts immediately. The Environmental Manager will complete a spill incident report within Kiewit's or RES's internal system and send a copy to the client within 24 hours of being notified of the spill.

14.1 Injury Reporting and Record-Keeping Procedures

All injuries, including first aid cases, will be documented on the Injury Tracking Log and maintained by the Business Manager or Project Safety Manager. Additionally, all Recordable injuries will be properly classified and logged on the OSHA 300 Log/L&I Log within seven (7) calendar days of the injury. The First Aid Log shall be submitted to the District/Region Safety Department at the end of each month.

Each project will maintain a separate file of all timecards that have been checked "injured" by an employee. The District/Region Safety Manager shall periodically review the timecards to ensure the proper checklist has been performed and the injury is classified correctly.

Anytime an injury is entered onto the OSHA 300 Log or L&I Log, it must be reviewed and signed by the Project Manager to ensure the injury was classified correctly on the log.

14.2 Project Manager/Job Superintendents/Foreman Responsibilities

- Report all incidents immediately by calling the District Safety Manager
- If an employee needs to be taken for medical treatment or evaluation, the District Manager (Kiewit) or General Manager (RES) must also be called.
- Conduct a post-incident review of the Hazard Analysis with the Craft Superintendent, Foreman, and the injured employee as soon as possible after the incident. Revise and conduct retraining as needed.
- Interview supervisors that have incidents or safety violations in their crew and discuss their behavior and commitment to working safely.
- Conduct a post-incident reconstruction and take digital photos.
- Depending on the severity and lessons to be learned, a Mass Safety Meeting with the entire jobsite in attendance may be held to inform all employees.
- Develop an "Incident Alert" but do not distribute from the project. The District Safety Department will review and distribute an alert to all projects and the Home Office Safety Department.

14.3 Subcontractor Accidents

Subcontractor accidents and serious near misses on contractor work need to be reported and investigated using the procedures used for Contractor incidents/accidents and as required in the Subcontract Agreement. In some cases, the Contractor may have to correct any unsafe conditions or acts that led to the accident or near miss.

The most important thing to remember is that if there is a subcontractor accident or near miss, the Project Manager and General Superintendent must be notified immediately. The

subcontractor monitor will be responsible for obtaining the required information and may assist the subcontractor with the investigation. All investigation materials must be turned over to the General Superintendent no later than 12 hours following the incident.

14.4 Automobile Accident Reporting and Investigation

- In the event of an accident or animal strike, the driver (if capable) shall move the vehicle out of harm's way (if operable) to the side of the roadway, preferably to an area with limited or no vehicle traffic flow.
- Following an accident, all occupant(s) must don their Class 2/3 safety vest and warning lights before exiting the vehicle. Additionally, reflective triangles shall be placed behind the vehicle with ~75 feet spacing between each, only if safe to do so.
- Regardless of severity, all incidents involving two or more parties or other property must be reported to the police. Contact law enforcement and emergency services for all injuries.
- Contact your EHS&S Specialist, supervisor, and Fleet and DOT Compliance Specialist to report the incident, for all incidents.
- Exchange information (name, address, telephone number, vehicle identification number, and driver's license number) with all parties involved in the incident/accident. Document the incident scene with photos.
- In the event other involved parties are not willing to exchange information, wait for law enforcement to arrive. Document as much information as possible about the other vehicle(s) such as license plate numbers, make, model, color, identifiable damages, etc.
- Obtain statement (preferably written) from all witnesses at the scene. If they are willing, have all witnesses provide their contact information.
- Complete an Incident Reporting and Evaluation Form within 24 hours of the incident occurring and send to your EHS&S Specialist, Fleet and DOT Compliance Specialist, and supervisor. Photos and other supporting documents shall also be sent.
- The Fleet and DOT Compliance Specialist and an EHS&S Professional will conduct the incident investigation.
- Contractors must report all vehicle incidents on site to EHS&S team within eight hours.

15.0 Confined Spaces

The purpose of the Confined Space program is to assure that all personnel are properly trained, equipped, and supervised when entering a confined space. Most confined space accidents are caused by personnel not recognizing work areas as confined or hazardous.

All confined spaces will be classified as either: Full-Permit, Alternate Entry, or Non-Permit.

Supervision is encouraged to consult with a Kiewit safety representative and/or project owner (host employer) when planning for an entry.

Rescue procedures for confined spaces will be determined on a case-by-case basis and all employees involved in confined space rescue will be trained on the conditions and all safe procedures in rescue operations prior to assignment. In some cases, Kiewit will provide specialized outside contractors to assist in localized and immediate rescue response dependent on complexity of rescue scenarios.

15.1 Confined Space

1. An area that is large enough and so configured that a person can bodily enter to perform assigned work.
2. An area that has limited or restricted means of access and egress.
3. An area is not designed for continuous human occupancy.

If any one of the three components listed above is absent, the space being evaluated is not “confined” by definition and this program does not apply.

Traditional confined spaces include tanks, manholes, pits, vaults, vessels, cooling towers, scrubbers, and elevator shafts. However, there are many other confined spaces that exist or may be created on a construction project. These may include, but are not limited to, walkable ceiling areas, raised floors, and building foundation spaces.

15.2 Permit-Required Confined Space

A Full-Permit Required Confined Space means any confined space that has one or more of the following characteristics:

15.2.1 Hazardous Atmospheres

An atmosphere which exposes personnel to a risk of death, incapacitation, impairment of ability to escape unaided from a permit space, injury, or acute illness from one or more of the following:

1. An atmospheric oxygen concentration below 19.5% (deficient) or above 23.5% (enrichment);
2. A flammable gas, vapor, or mist in excess of 10% of its lower explosive limit (LEL);
3. An airborne concentration of a substance that exceeds the dose or permissible exposure limit (PEL) specified by an OSHA standard or L&I requirement;
4. An airborne combustible dust at a concentration that meets or exceeds its lower explosive limit (a condition in which dust obscures vision at a distance or 5 feet or less); or
5. Any atmospheric condition recognized as immediately dangerous to life or health (IDLH).

15.2.2 Engulfment Potential

The confined space contains material that is a liquid or a flow-able solid substance that has the potential for engulfing an entrant. Engulfment hazards may cause death or serious harm through drowning, suffocation, strangulation, constriction or crushing.

15.2.3 Internal Configuration

The confined space has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.

15.2.4 Other Recognized Safety and Health Hazards

The space contains other recognized serious safety or health hazards that can inhibit an entrant's ability to escape unaided.

15.3 Alternate-Entry Confined Space

Any space that has only an actual or potential hazardous atmosphere, but through evaluation it is determined that continuous air monitoring and mechanical ventilation are sufficient to maintain safe entry. An outside attendant and detailed rescue plan are not required to enter this type of confined space.

15.4 Non-Permit-Required Confined Space

Any confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazards capable of causing death or serious physical harm. Natural ventilation is sufficient to maintain a safe atmospheric environment.

A Confined Space Evaluation Form is the first step that must be taken in order for personnel to enter a confined space. This form is required to be completed by the Entry Supervisor. Once complete, the form will be turned into the Kiewit Project Superintendent for review, authorization, and filing. This form documents the Entry Supervisor's logic and thought process regarding the hazard category associated with the space they are requesting to enter.

Kiewit has developed a permit system to enter a "Full-Permit Required Confined Space" or "Alternate Entry Confined Space" Safely. The appropriate permit must be completed by the Entry Supervisor (i.e. employer rep., foreman, crew chief). The Entry Supervisor is the person responsible for authorizing entry and overseeing entry operations. The permit must also be signed by the Kiewit Project Superintendent, or designee, prior to any work taking place inside a confined space.

When conditions within a confined space change (i.e. gas monitor alarms, ventilation stops, unauthorized entry by others) employees are to STOP WORK IMMEDIATELY, EVACUATE THE SPACE, CANCEL THE PERMIT and CONTACT THE ENTRY SUPERVISOR. Re-entry is not to take place until the space goes through another formal evaluation process and a new permit is issued.

The Kiewit Project Superintendent shall coordinate entries with the project owner (host employer) and associated subcontractors. Supplemental permits/programs may be required for

the work that is being performed (i.e. non-electrical hot work, lock-out/tag- out, chemical use, energized electrical).

All expired confined space permits, evaluation forms and safety plans shall be retained in jobsite files.

The Confined Space Entry Program and related procedures shall be reviewed annually by the Corporate Safety Director.

The Entry Supervisor shall ensure that all personnel involved in the job have been trained in confined space entry. The Entry Supervisor shall also ensure that all personnel are trained explicitly in their assigned confined space responsibilities and be re-trained whenever there is a change in those responsibilities (i.e. entry supervisor, attendants, entrants, and rescue personnel, as applicable). The Entry Supervisor shall certify that the training has been accomplished. The certification shall include at a minimum the names of the personnel that received the training, the signature of the trainer(s) and the date of the training.

The Entry Supervisor shall discuss the roles and responsibilities with each of the authorized entrants, attendants and rescue personnel. See list below identifying these responsibilities. Also, a reference guide checklist is located in the Kiewit Safety Manual: “Authorized Entrants, Attendants & Entry Supervisors Checklist”. Additionally, verification with local rescue/emergency services must be made regarding their availability. Minimum training/duty requirements shall include the following:

15.4.1 Authorized Entrants

- Know the hazards.
- Know how to use all equipment – air monitoring/testing and rescue/non-entry retrieval.
- Understand the necessity of maintaining communication with attendant for monitoring and evacuation purposes.
- Understand the necessity to alert the attendant whenever conditions change in the confined space.
- Understands evacuation procedures and emergency response procedures.

15.4.2 Attendants

- Know the hazards.
- Know behavioral effects that entrants may be exposed to in the confined space.
- Maintain responsibilities of attendant remaining outside the confined space until relieved.
- Understand the necessity of maintaining communication with entrants for monitoring and evacuation purposes.
- Understand activities inside and around the confined space to ensure that there are no physical or hazardous exposures.
- Understand evacuation procedures, emergency response procedures and effective communication with the 3rd party rescue service.

- Conduct non-entry rescues.

15.4.3 Entry Supervisors

- Know the hazards.
- Understand permit procedures.
- Understand all activities inside and around the confined space.
- Understand entry procedures.
- Understand monitoring procedures.
- Understand safety rescue procedures.
- Understand emergency response procedures.
- Coordinate entries with project owner and subcontractors.

Any questions or concerns regarding confined space work should be immediately referred to the Kiewit Project Superintendent and/or the Kiewit Safety Department.

See Appendix C.

16.0 Fall Protection

It is Kiewit's and RES's policy to consider any location where a worker is exposed to a fall of four (4) feet over land or twenty-five (25) feet over water or greater as hazardous. Dangerous conditions, such as working over vertical protruding rebar, over or near water, over live traffic, or near high voltage electrical wires, require increased protection.

16.1 Application

Fall prevention and fall protection are two terms frequently used to explain the means to control fall hazards. Proper fall prevention controls a hazardous situation and greatly reduces the chance of employee exposure to a fall. Fall protection follows recognition that a hazardous condition cannot be fully or adequately eliminated and, therefore, fall arrest equipment is used.

Considering these basic principles, approach the planning of the leading or unprotected edge work that is four (4) feet or more above a lower level based on these alternatives in descending order of desirability:

1. Perform work at grade, preventing the need for fall protection.
2. Secure the work area by a scaffold and guardrail system, eliminating the need for further protective measures.
3. Perform work with a motion-restraint system that prevents the employee from traveling to the leading edge or unprotected edge of the work.
4. Use a "personal fall arrest system" (PFAS), which will prevent an employee from experiencing a free fall of over four (4) feet in the event of a fall.

16.2 Equipment Rules and Methods

A written fall protection work plan will be reviewed with crew for any operation that requires personnel to work four (4) feet or more off the ground or lower level.

16.2.1 Leading Edge

- Definition: Applications where the fall arrest system is anchored such that the SRL line would result in the cable going over an edge.
- Requirement: Leading Edge/Sharp Edge/Foot Level rated SRDs are required.
- Specifically stated in the fall protection work plan, and
- Approved by a Project Manager.

16.2.2 Foot Level Tie Off

- Definition: Any situation where the fall arrest anchor point is below the D-ring. Requirement: Job Sponsor Approval
- A top rail, mid rail and a toe board must be on all walkways or scaffolds over four (4) feet high. (Top rail heights are 39" to 45" per OSHA, 42" +/-3"; mid rail height is 21"; and toe boards are 4" high (nominal).

When a fall protection system is required, employees will be provided with a COMPANY issued and approved full-body harness and SRD. Employees are not permitted to use any personally-owned fall protection equipment.

Employees are responsible to inspect their personal fall protection equipment and the system they tie off to prior to each use. A competent person (foreman) must inspect all fall protection once per month.

No more than one connection shall be placed on one “D” ring at a time.

Soft stops shall be used at all times when using a self-retracting device (SRD).

Leading edges shall be protected with softeners.

While an attempt will be made to protect all exposed edges four (4) feet or greater, in certain circumstances that may not be practical. In those circumstances, a warning line set up 15 feet (6 feet in a leading-edge situation) back from the edge or 100% fall protection will be utilized to protect against a fall.

Fall protection and fall protection work plan is required when working in boom lifts.

Transfer at height from an aerial lift must be approved by the District Safety Manager.

The use of fall protection shall be provided at the top of all retaining wall terraces, culverts, and buried stone arch structures in accordance with Standard 1910.29 of the Occupational Safety and Health Administration Standards.

See Appendix B.

16.3 Overhead Work Permit

Overhead Work Permits are to be completed when there is an exposure to falling or dropped objects from overhead work operations. These plans are to be completed with crew involvement and signed off by the operations superintendent. The intent of this plan is to develop solid physical controls and work practices to avoid overhead work hazards.

17.0 Excavation and Trenches

Kiewit and RES will perform excavation activities in compliance with OSHA regulations.

17.1 General

The following general requirements will apply for all trenching and excavation work on the project:

- A Competent Person, as defined by OSHA or applicable state regulatory agency, shall inspect and determine the required safeguards for working in the trench. Safeguards include sloping the slides, trench boxes or other approved protective measures.
- A Competent Person is one who is capable of identifying existing and predictable hazards in the work area that pose a threat to employees, and who has authorization to take prompt, corrective measures to eliminate those hazards. A Competent Person must have specific training in and be knowledgeable about soil analysis, use of protective systems, and requirements of the standard.
- All trenches 4 feet or more in depth are to be shored, sloped, or shielded to protect workers. The depth of the excavation is to be measured at its greatest vertical dimension.
- No sidewalk or structure shall be undermined unless shored.
- All trenches will be classified by the Competent Person through the use of a manual and visual test, unless classified as Type C.
- A detailed hazard analysis will be performed by the Superintendent and reviewed by the Competent Person. All employees working in or around the excavation or trench will be trained on the work procedures and hazards of the excavation.
- Excavated material shall be placed no closer than 2’ from the edge of the trench.
- Equipment must not be allowed closer than 2’ from the edge of the trench. Any equipment working in the area must be kept at a distance sufficiently far enough from the trench so as not to induce vibration near the trench that could lead to a possible collapse.
- Prior to any excavation the utility location procedures must be followed, which includes underground utility pothole spacing and frequency.
- In trenches deeper than 3’, a non-conductive ladder with a 3’ walkthrough or ramp shall be provided for entry and exit of the trench so that no more than 25’ of travel is required to reach it.
- Daily inspections of the excavation shall be made by the competent person and must include adjacent areas to ensure that conditions remain safe. Water will not be allowed to accumulate in an open trench.
- All excavations over 20 feet in depth and requiring a protective system must be designed by a registered professional engineer.
- Any rented protective system, such as a trench box or shoring system, will be inspected by the Competent Person. The manufacturer’s Tabulated Data for the system will be kept on site.
- During excavations, air monitoring will be conducted as needed
- Temporary fencing or barricade will be placed at all open trenches and excavations when unattended. If permanent fencing or barricade is in place, a best effort must be made to keep it in place until the end of the operation or project. If permanent fencing or

barricade cannot be kept in place, then a temporary fencing or barricade must be used in its place.

See Appendix F.

18.0 Equipment Operation

18.1 Daily Visuals

Equipment safety relies mainly on the safe operation by employees and must be monitored continuously. In order to maintain equipment in safe working order, operators are required to complete a Daily Visual Inspection of their equipment at the beginning of each shift and document any deficiencies. All supervisors are responsible for inspecting equipment, reporting defects, and following up to ensure equipment is being operated safely.

Unsafe operation of equipment or trucks will not be tolerated. New employees must be thoroughly checked for competence by the responsible superintendent and foreman before they are allowed into normal operations. Equipment abuse and metal to metal contact will be handled in the same manner as safety infractions and may result in termination.

18.2 Designated Operator

The use of the company designated operator policy will be strictly adhered to. Because of the risk of serious accidents in the use of forklifts, manlifts, cranes or other types of hoisting equipment, including personnel lifts, only an AUTHORIZED OPERATOR, and trainees under the direct supervision of an authorized operator, or qualified maintenance and test personnel are authorized to operate this type of equipment. This also applies to salaried employees.

Only authorized operators will be allowed to operate aerial lifts, forklifts, manlifts, cranes, or other types of hoisting equipment. Persons operating aerial lifts shall also be authorized. Authorized operators shall be in possession of their authorized operator card whenever operating assigned equipment.

18.3 Equipment Rules

Equipment shall always be operated in compliance with manufacturers requirements for maintenance, operation, and safety and with the lights on, including rotating beacons.

All equipment will be provided with seatbelts. It is mandatory for the operator to wear it while operating the equipment (unless the equipment does not have a roll overprotective structure).

Any time an operator leaves the cab of their equipment, all appliances are to be grounded and the equipment will be shut off. The operator will perform a Daily Visual Inspection prior to operating the unit.

All equipment, including short-duration, outside rental equipment, will be equipped with all required safety equipment, including fire extinguishers, articulation straps or springs, and seat belts if equipped with a roll overprotective structure.

18.4 Subcontractors and Equipment

Subcontractors may operate their own equipment under the Authorized Operator Program outlined in their safety plan. Subcontractors that request to operate Kiewit or RES equipment shall be required to undergo Kiewit's or RES's Authorized Operator Training.

18.5 Swing Radius Guarding

Kiewit will install swing radius guards or otherwise barricade the swing area to prevent entry on all crawler and lattice boom truck cranes.

Swing radius guards will barricade access into the crush points of the crane and rotating superstructure. In addition to these guards, it is necessary to barricade the areas where the counterweight swings within 2 feet of any object or structure. This rule also applies to rubber tired and crawler type excavators.

Removal of swing radius guards will be permitted for equipment in transit only and must be reinstalled when in its working location.

The guards create an exclusion zone. This exclusion zone applies to all persons. The only time a person may enter the exclusion zone is when the crane is not moving, swinging, or hoisting, and the crane operator has acknowledged your presence and has granted access. Trainees and maintenance personnel may be within the exclusion zone after receiving authorization from the operator.

If anyone is within the exclusion zone when the operator is required to activate the crane, that person shall be warned and move into the clear (outside of the zone) prior to any movement (including hoisting). The operator is responsible to visually verify this either by walking around the machine or physically observing the person in the clear.

The operator, foreman and superintendent retain responsibility for assuring compliance with this policy. Additionally, all persons working with or around the crane will be informed of this policy prior to assignment.

18.6 Wheel Chocks

The use of wheel chocks reduces the potential for equipment and/or vehicle runaway incidents.

Each Kiewit motor vehicle identified with the prefix "03" or higher equipment number will be equipped with and utilize a wheel chock or blocking device whenever it is parked or left unattended.

18.7 Backing

All vehicles with an obstructed view to the rear shall be equipped with an adequate audible warning device at the operator's station and in an operable condition or only be backed up when an observer signals that it is safe to do so. Operable alarms must be audible above the surrounding noise level and no less than 15 feet from the rear.

Before backing, the driver must determine that no one is in the backing zone and reasonably expect that no one will enter the backing zone. If employees are in the backing zone or it is reasonable to expect that employees may enter the backing zone, an observer must first signal that it is safe to back up or an operable mechanical device must provide the equipment operator a full view of the rear.

18.8 Audible Alarms

All bi-directional machines, such as rollers, compactors, front end loaders, bulldozers, and similar equipment, shall be equipped with a horn, distinguishable from the surrounding noise level, which shall be operated as needed when the machine is moving in either direction. The horn shall be maintained in an operable condition.

18.9 Pinch Points

If sufficient clearance from potential pinch points cannot be maintained, barricades shall be installed to isolate the hazardous area. To protect against workers being exposed to the hazardous pinch/crush point area between the rotating superstructures and non-rotating object or surface:

- Workers shall approach the hazardous pinch point area only after informing the operator of their intent and receiving acknowledgment from the operator that the operator understands their intention.
- All mechanical equipment shall be stopped while any worker is in the hazardous pinch point area.
- Trained spotters can be used in conjunction with barricades but not to replace the barricades.
- These warning systems shall be continuous from hard point to hard point.

See Appendix D.

19.0 Traffic Control Plan

19.1 Traffic Management Plan and Traffic Incident Management Plan

Prior to any traffic control being performed a Traffic Management Plan (TMP) and Traffic Incident Management Plan (TIMP) will be prepared.

The Traffic Management Plan (TMP) will provide for safe and orderly vehicular movements and be prepared in accordance with the contract documents and include:

1. Descriptions of planned traffic phasing
2. Procedures for coordinating with jurisdictions and stakeholders
3. Methods and frequency of inspection for traffic control
4. Response times and methods to maintain traffic control devices
5. Procedures to obtain approval from applicable jurisdictions
6. Procedures for public communications
7. Identification of the Traffic Control Supervisor (TCS) and Traffic Control Manager (TCM)
8. The identification of personnel responsible for establishing and maintaining traffic control devices.
9. Procedures for inspection and documentation when traffic control devices are in place.

The Traffic Incident Management Plan (TIMP) will be prepared in accordance with the contract documents and include:

1. Methods for incident detection
2. Procedures to coordinate with local authorities
3. Notification processes
4. Emergency action plan

20.0 Electricity

No personnel or equipment may work within 20 feet of High Voltage Power Lines (50,000 volts or less). For lines over 50,000 volts minimum clearance shall be 10 feet plus 0.4 inch for each 1,000 volts over 50,000 volts. Only licensed or authorized personnel may work on electrical systems.

The Kiewit Lockout/Tagout and Electrical Hot Work Procedures must be followed for work on electrical equipment.

20.1 Electrical Hot Work

As with all safety concerns, first attempt to eliminate hazards by engineering and/or administrative controls. Lock-out/tag-out procedures are to be implemented as the primary means of protection, if at all possible. This program is not to be used as a convenience. The goal is to eliminate, or at a minimum reduce, the risk when performing electrical hot work on projects.

All electrical hot work must be authorized by the onsite Kiewit superintendent. On some projects, owner authorization must also be obtained prior to performing electrical hot work. Authorization will be allowed only after an electrical hot work plan has been completed and reviewed.

The personal protective equipment, training, supervision, and permit system/form will follow IBEW/NECA guidelines. Following these guidelines and Federal/State regulations are minimum expectations and must be pre-authorized by the Kiewit Superintendent prior to the start of work.

20.2 Electrical Equipment Program

Purpose: To assure all electrical equipment is maintained in safe working condition to prevent electrical shock. The two acceptable methods to maintain electrical equipment in safe working conditions are:

1. Use of Ground Fault Circuit Interrupters (GFCI)
2. An Assured Equipment Grounding Conductor Program (AEGCP)

When an Assured Equipment Grounding Conductor Program is implemented, written records must be maintained on the project identifying all equipment that passed the test and the last date it was tested. A competent person must be designated to supervise, monitor and/or administer this program. A qualified person will inspect electrical equipment 240 volt or above.

Equipment that must be tested includes tools, cords and receptacles that are not part of the fixed or permanent wiring system.

Methods to test cords and tools: cords and tools may be tested with a Volt/OHM meter; and/or cords may be tested with a 3-light plug in continuity tester.

Equipment must be tested and labeled with a color code system at least quarterly:

- White: January through March
- Green: April through June
- Red: July through September
- Orange: October through December

Equipment must also be checked daily.

Any equipment that is found to be defective or not marked according to this program must immediately be taken out of service and tagged to preclude use until it is properly repaired.

21.0 Demolition

Potential hazards, impacts, and controls for demolition work must be considered when developing a project safety plan. On large and/or difficult demolition projects, a demolition specific pre-job planning meeting should be conducted. The Project Superintendent; Subcontractor Representative; Kiewit and/or RES Safety Department Representative, and/or

Operations Manager should be present at this meeting. There are several key issues to consider when approaching demolition.

21.1 Structural Considerations

Are the areas or elements to be demolished of structural integrity? Original plans should be reviewed and if there is any doubt a structural engineer should be contacted for a professional opinion.

If demolition is of a structural nature a specific plan must be developed based on the recommendations of a professional engineer.

21.2 Public Protection

Considerations should be made, and precautions taken to protect the public from any demolition process that could endanger them. At a minimum, the following should be evaluated: noise, vibration, dust/mists, traffic control, site access and sidewalk superintendent.

21.3 Owner-Occupied

Considerations must be taken to protect building occupants from any potential demolition hazards. It is critical that the building representative be directly involved in pre-planning meetings.

21.4 Airborne Contaminants

A survey should be conducted of the planned demolition areas to identify any potential asbestos, lead or other potentially harmful products that could create an airborne contamination potential.

If the survey indicates the presence of potential items such as asbestos or lead, then specific procedures will be written into the project safety plan including use of specialty contractors and approved disposal methods. Notification Letters should be referenced and used where appropriate. (Sample letters on Hypro Safety - Safety Resources - Asbestos or Lead)

The building owner should be a resource in this area and in many cases, has the responsibility for removal and disposal of harmful products.

21.5 Energy Sources

Potential sources of live or stored energy must be considered prior to demolition activities. This would include Electrical, Mechanical, Kinetic and Chemical Energy, Gravity, Thermal, Hydraulic, and Pneumatic. A survey must be conducted to determine if there are any energy sources that could be harmful to personnel and/or property. If such sources are identified, methods must be planned and initiated to control them.

Lockout/tagout procedures should be followed in that case. Again, a building representative must be involved in identification, location, and control of all energy sources.

21.6 Personal Protective Equipment

Demolition activities presents a high potential for eye, hand, foot and respiratory type of injuries. Special attention should be given to providing and assuring wearing of adequate PPE during demolition work process.

21.7 Housekeeping and Fire Protection

Housekeeping is very important during demolition work process. Methods should be developed for effective flow and control of waste materials. Consideration should be given to recycling of materials as an environmental and cost-effective issue. Fire protection must also be considered. If cutting and burning is a method of demolition, the use of Hot Work Plans should be evaluated.

22.0 Crane and Rigging

The intent of Crane & Rigging Safety Procedures is to ensure all crane operations are performed in a safe manner. All crane work must be pre-planned to assure the safety of the process. A site-specific crane management plan is required prior to crane operations starting on the project. The plan must address the hazards and risks specific to the crane operations on the project and include steps to mitigate the hazards and risks.

The Project Superintendent is responsible for ensuring that the project has a Site-Specific Crane Management Plan in accordance with these statements.

The Corporate Crane Manual should be referenced in order to create the site-specific Crane Plan. All crane operators will be designated by district crane manger, NCCCO certified and trained to all Kiewit and District crane procedure policies.

Due to the seriousness of crane safety procedures any operator or supervisor who violates these procedures will be subject to immediate disciplinary action up to and including termination or debarment from all Kiewit Construction projects; whichever is appropriate.

23.0 Fire Protection and Hot Work Plan

A fire on any part of the Proposed Action could be devastating. The intent of fire protection is to prevent the potential for a fire. If a fire should start, all personnel need to know how to minimize potential damage. Fire prevention is a function of planning, organization, housekeeping and safe work practices by all personnel.

A fire cannot occur unless 4 conditions exist:

- Combustible Materials
- Heat Source
- Oxygen
- Chain Reaction

Combustible materials, heat sources, and oxygen are always present on a construction site. To prevent or extinguish a fire one of these four conditions must be removed.

The most important element under personnel control is good housekeeping. Keep combustible materials picked up and stored in dedicated areas away from ignition sources. Loose materials or debris will not be tolerated on the project. This is everyone’s responsibility.

The next element under personnel control is ignition sources. Work that could be an ignition source such as welding and cutting WILL require a "HOT WORKPLAN."

Fire extinguishers will be provided by the contractor in “general areas” throughout the project. Subcontractors who create an ignition source are required to provide an adequate number, size and type of portable fire extinguishers. Personnel should be trained to identify and use the appropriate fire extinguisher and when to call for professional assistance.

Emergency Fire Procedures and Medical Services will be posted at the project office. All personnel should be familiar with these emergency procedures.

Local Fire Service providers should be contacted during the initial phase of the project. They should be familiar with the location of the project. They will pre-plan for: access into the job site, types and quantities of combustibles on site and any other information critical to their efforts. In many cases the fire department will also provide emergency rescue and medical services.

It will be critical that required levels of fire protection to the facility are maintained, including emergency access, fire alarms and sprinkler systems.

See Appendix E.

24.0 Ladders, Scaffolds, and Mobile Elevating Work Platform

Ladders, Scaffolds & Lift Units are pieces of equipment that are used frequently on construction projects. They are all intended to provide safe access to work at elevations. When used correctly they are safe and efficient. Incorrect use of the equipment can cause serious injury. It is important to plan and select the most effective type of equipment for the job to be performed at elevation.

Equipment inspections and maintenance are a critical part of safety prevention. All motorized equipment used to support Kiewit's or RES's operations will be inspected early in the shift prior to use. The primary person responsible for conducting the daily visual inspection will be the person operating the equipment. The equipment group will perform routine maintenance on all equipment to ensure that safety prevention measures are clean and in proper working order.

The primary hazard when using these types of equipment is falling.

24.1 Ladders

- Inspect all ladders to ensure they are in safe working condition before each use. If the ladder isn't safe immediately remove it from service and mark it as unsafe. Remove it from the project before the next shift.
- Ladders must have a competent person inspect a ladder for visual defects periodically and after any occurrence that could affect safe use.
- Ladders must be secured against accidental movement when in use. This means:
    - All ladders must be tied off at top and secured from displacement at the bottom when in use.
    - It must be set on a stable base.
    - It must be set at a safe climbing angle. A safe climbing angle is about 75°. A 'Rule of Thumb': when standing on the first rung and extending arms out straight in front you, grab the rungs. The base of the ladder should be positioned 1/4 of the height from the vertical plain.
    - While climbing a ladder your hands may only be used for that purpose. Approved climbing methods are hands placed rung to rung or sliding the siderails.
    - For short duration use (one person - one short task) it is not required that the ladder be tied off. However, it must be set in a secure position, with an additional person to hold its base.
    - When working from a ladder, if your work position requires that your shoulders be outside the side rails, you are in an unsafe position. Move the ladder or get another type of equipment to do the job.
    - Side rails shall extend at least 36" above the landing. If this is not practical, grab rails must be provided.
- Gang ladders should not be used to access levels over 24 feet. Stair towers should be used in high traffic areas. Job site-made ladders cannot exceed 30 feet.
- Ladders used for access must extend at least 3 feet above the top landing.
- All work done over 25 feet from the ground/floor that requires the use of both hands will require the use of a full body harness and SRD.
- Any work that requires wearing respirators or handling of pressure equipment shall not be performed from a ladder more than 25 feet above the surface.
- Ladders need to be secured with 9-wire (or larger). The anchorage for the ladder must be structurally sound. When securing at top, tie at side rails around beam, not in middle of rung.

- When working from ladders near or above a window, wall opening or guardrail, fall protection equipment may be necessary.
- Face the ladder at all times.
- Stepladders must be used in the open position with braces in the locked position.
- When using a stepladder, never stand above the second rung from the top.
- If using a ladder in a high-traffic area or a blind spot, use a barricade around the work area.

24.2 Scaffolds

- Any scaffold that will exceed 20 feet requires approval of the Kiewit superintendent prior to erection. Drawings or scaffold plan will be submitted for review.
- Scaffold erectors will be required to follow Kiewit fall protection procedures. When 100% fall protection is not feasible, a fall protection plan must be submitted to the Kiewit superintendent. (Any exceptions will be discussed and authorized by the Kiewit Construction Manager.)
- All scaffolding will be erected and maintained in accordance with state OSHA standards.
- Never erect a scaffold within 20 feet of high voltage power lines (50 volts or less). For over 50 volts minimum clearance shall be 10 feet plus 0.4 inch for each 1,000 volts.
- Use of a scaffold by multiple contractors must be approved by the Kiewit superintendent. Each contractor will be responsible to inspect and ensure the scaffold is in safe condition prior to any of their personnel working on the scaffold. These types of systems should be erected by a scaffolding company and inspected daily by the Kiewit superintendent.
- Scaffolding will be inspected for safe conditions on a daily basis by a competent person. The contractor responsible will maintain a daily inspection log on the project.
- Green tags shall be used to show inspected scaffolds.
- A safe means of access must be provided to upper levels of the scaffolding. Access to scaffolding should follow the applicable OSHA standards.
- All suspended scaffolds require independent safety lines for each person. Personnel must use a full body harness when working from any suspended scaffold.
- Scaffold towers, single section, or rolling scaffolds must not exceed a 4 to 1 base to height ratio. Nor shall any section of the scaffold exceed a 4 to 1 ratio without structural bracing. A 3 to 1 ratio is required for aluminum.
- Cantilevered or outrigger scaffolds must have documentation to demonstrate safe loading conditions.
- Mobile scaffolds without proper fall protection (guardrail and handrails) will require additional fall protection (harness and lanyard).

24.3 Mobile Elevating Work Platform

Only trained and authorized personnel are permitted to operate aerial lift platform. A qualified person should conduct personnel training.

A qualified person would be a manufacturer’s representative or an individual who has received training from a manufacturer’s representative.

Documentation is required to demonstrate at least the following basic operator requirements. Documentation may be in the form of a wallet sized operators' card or on a Kiewit Safety Meeting form. For Kiewit personnel, records of such training will be documented on the Kiewit Training Log.

Aerial lift training will include: instruction on safe operation of aerial lift through documented qualified individual hands-on practical training, emergency rescue procedures, and instruction on Daily Visual Inspection (DVI) requirements to inspect for damage to equipment which may impose a safety or environmental risk.

25.0 Power Tools and Equipment

Working on a construction project, individuals may be required to operate and work around power tools and equipment. These tools and equipment must be operated in a safe manner. Initially, each tool or piece of mechanical equipment comes with a manual or safe operating instruction. Many times, these manuals are maintained in the office or tool lock-up area.

Before personnel are assigned to operate a power tool, they will be trained by foreman/supervisors to make sure they are familiar with its safe operation. They may be familiar with safe operating procedures from past experience. However, some equipment will be new or unfamiliar. Employees will be trained on all tools before use.

26.0 Hazardous Energy Control – Lock-out/Tag-out

26.1 Lock-out/Tag-out

All equipment will be shut down, de-energized and/or immobilized prior to performing maintenance or repairs. The employee who will perform the maintenance or repair will place "DO NOT START" tags and locks at the control box or main switch in accordance with the following. If more than one employee is working on the equipment, multiple locks must be utilized. Individual locks for each employee are required.

All employees involved with the locking and tagging out of energized equipment will be trained in the site-specific Lockout/Tagout Program before work is to begin.

26.2 Electrical

All electrical equipment involving the use of disconnect switches as a source of power for their operation will be turned off, locked out in the "OFF" position, locked and tagged.

After the equipment has been locked out and tagged, the employee will attempt to start the equipment to ensure that the proper switch has been locked out and the equipment will not start.

26.3 Pneumatic and Hydraulic

All pneumatically or hydraulically driven equipment shall be shut down by turning off the supply, bleeding the system, locking and tagging the valve, rendering the equipment inoperable.

After the equipment has been locked out and tagged, the employee will attempt to start the equipment to make sure that the proper switch and valve were locked out and the equipment will not operate. Also test to make sure the equipment will not operate from residual pneumatic or hydraulic pressure.

26.4 Mobile or Vehicular Equipment

When a keyed switch controls the ignition, the key shall be placed in the “OFF” position, removed, and the switch tagged.

Vehicles not equipped with a keyed ignition switch shall be tagged with a “DO NOT START” tag at the starter button or switch and the battery shall be disconnected.

26.5 Additional Requirements

Each employee shall have their own lock with one key. After locking out, employees will place the key in their pocket.

No employee shall remove a lock, lockout device, or “DO NOT START” tag other than their own. In the event an employee leaves the equipment and forgets to remove the lock and tag, the employee is required to return to the equipment and remove the lock and tag.

Any deviations from this policy must have a task specific Hazard Analysis and work plan approved by the Project Manager. Violations of this policy will not be tolerated and are cause for immediate termination

See Appendix G.

27.0 Heat Illness Prevention Program

A Heat Illness Prevention Program shall be setup to provide a safe and healthful working environment and protect Kiewit and RES employees who are exposed to temperature extremes, radiant heat, humidity, or limited air movement. The policy, training, and procedures for the Heat Illness Prevention Program are detailed in the following subsections.

27.1 Policy

The workplace will be evaluated to determine if employees are at risk from Heat Related Illness during temperature extremes or hot weather while working. When the temperature in the work area exceeds 80 degrees Fahrenheit, shaded areas shall be set up and maintained as close as

practicable to the area in which employees are working. (When the temperature does not exceed 80 degrees Fahrenheit, shade or timely access to shade shall be available). At 95 degrees Fahrenheit or higher, high heat procedures shall go into effect. In an event of heat-related emergency, refer to the job site specific Emergency Response Management Plan.

The following are common heat related hazards:

- Heat and Humidity are typically highest during the months of June, July, August, and September.
- Reflected heat from pavement/concrete decks.
- Radiated heat from equipment, cutting torches, welding.
- Heavy clothing and PPE.
- Specific job duties such as flagging formwork, digging, etc.

27.2 Training

If it is determined that employees are at risk, they will be trained on how to prevent heat related illness, the symptoms of heat related illness and procedures to take if symptoms of heat related illness are present. This training will be done through the indoctrination process, mass safety meetings, toolbox talks, 2-Minute Minders, and on-site specific training.

27.3 Water and Access to Shade

Shaded areas will be made available for employees working in the heat when the temperature exceeds 80 degrees Fahrenheit through covered areas, canopies, under bridges, trees, air-conditioned work vehicles, etc.

These shaded areas will be utilized for breaks. Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating. Such access to shade will be permitted at all times. An individual employee who takes a preventative cool-down rest shall (1) be monitored and asked if they are experiencing symptoms of heat illness; (2) be encouraged to remain in the shade; and (3) not be ordered back to work until any signs or symptoms of heat illness have abated, but in no event less than 5 minutes in addition to the time needed to access the shade.

If an employee exhibits signs or reports symptoms of heat illness while taking a preventative cool-down rest or during a cool-down rest period, the employer shall provide appropriate first aid or emergency response. These shaded areas will provide enough shade to accommodate all employees on recovering or rest periods as well as those on meal breaks so that employees can sit in a normal posture fully in the shade without having to be in physical contact with each other. These shaded areas will be located as close as practicable to the area in which employees are working.

Water will be provided and made readily accessible in sufficient quantity to provide one quart per employee per hour for the entire shift. Employees will be encouraged to drink small quantities of water frequently. Sweating more than usual during the performance of work may

mean drinking more water if necessary. The water will be fresh and cool and provided free of charge to employees. It will also be located as close as is practicable to where the employees are working.

27.4 High-Heat Procedure

A high heat procedure will be implemented if the temperature equals or exceeds 95 degrees Fahrenheit. The following measures will be taken, at the very least:

- Ensuring effective and direct communication between employees working in the heat and their direct supervisor
- Effective observation of employees for symptoms of heat illness with regular communication, direct supervision of 20 or fewer employees at one time, or the implementation of a buddy system in which no employee works on their own without direct and consistent communication abilities

In addition, supervisors will be trained and allowed to summon emergency medical services in the event of a heat illness event. Employees will also be reminded to drink plenty of water throughout their work shift, and a pre-shift meeting will be conducted before the commencement of work reminding employees of the high-heat procedure, encouraging employees to drink plenty of water, and to remind employees of their right to take a cool-down rest when necessary.

27.5 Emergency Response Procedures

27.5.1 Effective Communication

The contractors will ensure that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor or emergency medical services when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable. If an electronic device will not furnish reliable communication in the work area, the contractor will ensure an alternate means of summoning medical services is available.

27.5.2 Responding to Signs and Symptoms of Possible Heat Illness

If a supervisor observes, or any employee reports, any signs or symptoms of heat illness in any employee, the supervisor shall take immediate action commensurate with the severity of the illness. If signs or symptoms are indicators of severe heat illness (such as, but not limited to, decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, or convulsions), personnel will implement emergency response procedures.

An employee exhibiting signs or symptoms of heat illness shall be monitored and shall not be left alone or sent home without being offered onsite first aid and/or being provided with emergency medical services in accordance with the employer’s procedures.

27.5.3 Emergency Medical Services

In the event of an employee exhibiting signs or symptoms of heat illness that necessitates emergency medical services, a supervisor or their designee will contact emergency medical services and, if necessary, transport employee to a place where they can be reached by an emergency medical provider.

In the event of any emergency, the contractor will ensure that clear and precise directions to the work site can and will be provided as needed to emergency responders.

27.5.4 Acclimatization

All employees shall be closely observed by a supervisor during a heat wave. A “heat wave” means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days. Also, any employee who has been newly assigned to a high heat area shall be closely observed by a supervisor for the first 14 days of employment for any signs of heat acclimatization-related stress.

28.0 Hearing Protection

28.1 Purpose

The purpose of the hearing conservation program is to avoid employment-related hearing loss.

It has been determined that sound levels of 90 decibels (dB) over an 8-hour period on a daily basis may cause hearing loss. To prevent hearing loss, a hearing conservation program will be initiated whenever employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) sound level of 85 dB measured on the A-scale weighting at slow response, or, equivalently, a noise dose of fifty percent.

Hearing protectors will be provided to all employees and should be worn whenever an employee cannot converse in a normal voice at arm’s length. Double hearing protection may be required during operations until noise monitoring results show that it is not required. Double Hearing Protection will be mandatory when operating equipment in excesses of 100db regardless of duration, i.e. chainsaws, concrete saws etc.

Training for all employees will include:

- The effects of noise on hearing
- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use and care
- The purpose of audiometric testing and an explanation of the test procedures
- The right to access of records.

Actual noise exposure at the jobsite will be determined using sound level meter.

29.0 Respiratory Protection

The use of respiratory protection equipment poses physiological and psychological hazards to employees; therefore, the first obligation as an employer is to avoid situations where employees are required to use this equipment. This is accomplished through the use of engineering controls such as ventilation at the source by either capturing or exhausting atmospheric hazards, enclosure of the hazardous area, performing hazardous work on off shifts, and/or substitution of less hazardous materials. Experience has shown that most atmospheric hazards associated with construction work can be controlled in this manner. If, following best efforts to control these hazards through hazard controls, the atmospheric hazards remain at levels at or above established limits, then this Respiratory Protection Program will assure that contract operations comply with the requirements of this program.

Operations, which may require the use of respiratory protection, may include, but not be limited to the following:

- Grinding, chipping, sawing, or drilling concrete
- Welding/cutting of coated surfaces
- Abrasive blasting
- Use of chemicals or solvents
- Working within confined areas

29.1 Voluntary Respirator Use

Supervisors should anticipate that employees will, at times, request to use respirators even though control measures have reduced the specific contaminant levels below permissible limits. OSHA standards allow for the voluntary use of filtering facepiece type respirators in these cases, without requiring a written program. Voluntary use of tight fitting, air-purifying respirators requires at least the Medical Evaluation and Cleaning and Disinfecting portions of a written program to be implemented.

Employees voluntarily using filtering facepiece respirators are required to be clean shaven at all times to assure proper fit and seal.

29.2 Respirator Selection

Respirator selection is determined by the type and quantity of the respiratory hazard present, the degree of protection required, and tolerance of the employees as determined from the Medical Questionnaire and/or Physician/Licensed Health Care Professional (PLHCP). The degree of hazard may be determined by historical data in the case of distinctly similar operations in the past, or through atmospheric testing.

Information regarding the appropriate protection for an operation is outlined in the Safety Data Sheet (SDS) for the substance. Before use in the field, all respirator types listed below require employee medical evaluation, fit testing and training. Cleaning and maintenance programs are also required and addressed later in this program.

29.3 Medical Evaluation

The use of respiratory protection equipment imposes physical burdens on the user. The weight of the equipment, the increased effort of breathing through a filter, temperature and humidity, carbon dioxide buildup in the mask etc. all make wearing respirators stressful. Therefore, OSHA standards require a medical evaluation or examination of each employee who will be required to use a respirator and before a fit test can be performed.

When the use of respiratory protection equipment is anticipated, the Project Manager or a designee shall obtain the services of a Physician or Licensed Health Care Professional, (PLHCP). The PLHCP must be familiar with and be able to fulfill the requirements of the standard and be accessible to employees. The Proposed Action may utilize the service provided by 3M to complete this step. http://respexam.com/.

29.4 Fit Testing

Every employee required to use a tight-fitting respirator must pass a fit test using the respirator type approved by the PLHCP. Although several test methods are available, the QLFT using irritant smoke is the most practical choice for a construction site. Project Managers shall assure all-necessary personnel, facilities, and supplies are available for performance of fit testing as required. Assure availability of a selection of appropriate respirators. Employees must be "afforded a selection of respirators of various sizes and models from which to pick the most acceptable." This requirement includes accommodating those employees who use corrective eyewear. Assure that a fit test is performed for each employee required to use a respirator, at least annually. Assure availability of testing equipment and respirator cleaning supplies as appropriate to comply with the program.

29.5 Record-keeping

OSHA and L&I standards require the retention of documentation regarding programs and medical evaluations associated with respirator use. These records shall remain in project files following closeout of the job.

30.0 Native Seed Collection and Invasive Exotic Vegetation Control

30.1 General

RES will oversee and coordinate the seed collection program. The safety and wellbeing of the crew members will be RES' main priority. All controls will be in place to ensure a safe and effective method to complete the task. All aspects of this Health and Safety Plan will be strictly

followed per state and federal regulations. Specific work activities will follow all state and federally mandated regulations in ensuring that employees are protected.

Safety protocols specific to native seed collection and invasive exotic vegetation (IEV) control are covered under the following sections addressed in this plan:

- Section 6.6 – Working on Uneven Terrain
- Section 6.7 – Vehicle Use
- Section 6.8 – Vehicle Maintenance and Inspection
- Section 6.9 – Vehicle Safety Equipment
- Section 8.1 – Biological Hazards
- Section 9.2 – Driver Training
- Section 14.4 – Auto Accident Reporting and Investigation
- Section 27.0 – Heat Illness Prevention Program
- Section 31.1 – Working Over or Near Water

See Appendix H.

31.0 Marine Safety

31.1 Working Over or Near Water

All employees working over or near water (within 6 feet), where the danger of drowning exists, must wear the issued U.S. Coast Guard approved buoyant work vests or Type III Personal Floatation Devices (PFD). Generally, this is not required when working inside a platform protected with a standard guardrail system. At the job superintendent's discretion, work performed within a standard guardrail system may require the use of buoyant work vests.

Work vests and life jackets must be inspected prior to and after each use. Should any defects that would alter their strength or buoyancy be found, it should be brought to the foreman for replacement. When working from a fall protection system or when guardrails are installed, work vests or life jackets may not be required.

30-inch (minimum) ring buoys with at least 90 feet of 600-pound capacity line shall be provided and readily available for emergency rescue operations at least every 200 feet along the water's edge.

The lifesaving skiff shall be immediately available where employees are working over or adjacent to water. The skiff shall be maintained with a motor in working order, equipped with the minimum of a boathook (or pike pole), T-top paddle (or oar), and ring buoy with 90 feet of 600-pound capacity line. The Crew Foreman is responsible to ensure the skiff is equipped with these materials each day before work begins.

Anytime a fall hazard over water exists that exceeds 25 feet, a properly designed fall protection system will be utilized. Personal floatation devices may be utilized if there is an unobstructed fall to the water that is 25 feet or less, and the water below is 10 feet or greater in depth.

31.2 Access

Proper access must be maintained from derricks to the dock, between barges, and from boats to barges. Extension, step, and job-built ladder access should be avoided as a permanent access to barges, piers, docks, and crafts. If ladders are the only option, they must be secured at the top and at a pitch of 1:4. Never use a ladder in the horizontal position. Commercially available aluminum gangways are a good solution for access between barges. Keep gangways clean and free of debris, cords, hoses, and mud. Gangways must be well lit. Secure the top end of the gangway at all times while in use. Inspect all access daily and repair as required.

Planning for all operations must include an access plan. Keep spare access gangways on hand for replacement purposes and unforeseen needs. Each derrick should have a minimum of one permanent access ladder fixed on a side, two ladders would be more appropriate for certain jobsite and work locations. Pocket ladders built into barges and hanging ladders are not to be used as permanent method of access. Tires are never a proper form of access to floating equipment.

Access to the barges and floating plants must be limited to authorized personnel. The marine superintendent may authorize visitor's tours, but the parties must be escorted by a superintendent or designated crewmember.

31.3 Skiff Operations

There are three different types of skiffs that are operated and maintained within Kiewit and RES's project areas. Single engine work skiffs, single engine safety skiffs, and double engine work/survey boats.

Designated operators will run all crafts only. A site-specific authorized operator's license will be issued and kept on the operation at all times while operating said skiff craft. Local state and government boater operator educational requirements must also be met for an employee to be a legal authorized operator.

A designated safety skiff is required on all construction areas where employees are working on or above water. Per OSHA and L&I requirements, a designated safety skiff/rescue boat must be capable of being launched by a single person and able to reach the individual(s) needing rescue within 3-4 minutes. The Safety Skiff shall be equipped with the following items:

- Paddle with T-Top
- Life ring with 90 feet of throw rope
- 1 – 10lb ABC rated fire extinguisher
- Boat Hook or Pike Pole

- Anchor with line
- Working outboard with fuel
- Picking attachments on the skiff with bridle (do not use Molly's for picking skiffs).
- Handrail (Bailey Rail)
- Skiff capacity stenciled (or welded) on the side of the skiff
- Waterproof emergency box containing:
    - First-Aid Kit
    - Flares
    - Air Horn

The stated requirements above also apply to all double engine work/survey skiffs.

All derrick barge skiffs will be equipped to be a designated safety skiff. The designated safety skiff may be used to transport people from shore to the crane and back again, but it is not to be used as the primary work skiff. If work is to be performed out of a skiff, then a second skiff is required. It is the responsibility of the crane crew to keep the outboard on the safety skiff in good running condition.

At a minimum all work skiffs must be equipped with the following items:

- Paddle with T-Top
- 1 – 10lb ABC Rated Fire Extinguisher
- Skiff capacity stenciled (or welded) on the side of the skiff
- Handrail (Bailey Rail)
- Boat Hook or Pike Pole
- Working outboard with fuel

Construction activities that are working over the water but not in the water are still required to have a designated safety skiff ready for deployment at all times. Inflatable rafts may be substituted for aluminum skiffs at the District Safety Manager's approval. Rafts must be stored in a location where they can be easily launched in an emergency, if used in lieu of a standard safety skiff.

See Appendix I.

31.4 Man-Overboard Procedures

Heightened awareness of man-overboard issues is mandated by the weather conditions and strong currents. Man-overboard risks will be substantially reduced by the following measures. Use proper fall protection and PFDs while working near and overwater.

Crew working within areas that are protected by properly designed, constructed, and maintained guardrails may not be required to wear life jackets. All access ramps between barges will have

handrails. Persons transiting between areas that are protected by guardrails and open barge decks will be required to wear life jackets 100% of the time.

30-inch minimum ring buoys with at least 90 feet of 600+ pound capacity line shall be provided and readily available for emergency rescue operations at least every 200 feet along the water's edge.

A lifesaving skiff shall be immediately available where employees are working over or adjacent to water. The skiff shall be maintained with a motor in working order, equipped with a boathook and pike pole, ring buoy with 90' of rope in a rope bag, and a fire extinguisher. The derrick barge foreman is responsible to ensure the skiff is equipped with these materials each day before work begins.

Use of the buddy system; Crew members must work in direct visual and radio contact with the foreman or crane operator at all times. If direct visual contact is not feasible, two persons must work together on deck. A minimum of two people will work together when working on deck at night.

If someone goes overboard, the following emergency procedure will be followed:

Throw a life ring (bitter end of the line attached on board) to the person overboard. DO NOT JUMP IN AFTER THE PERSON; THE BEST WAY TO SAVE A PERSON OVERBOARD IS TO BE AVAILABLE TO CALL FOR HELP. One crewmember must maintain visual contact with the person overboard at all times. If possible, throw a ring buoy with a strobe light to the person or as close to the person as possible, as this will help locate them. Launch the lifesaving skiff and, taking a minimum of two people in the skiff, recover the swimmer. When approaching a person in the water, approach from downstream so that the current brings the swimmer to the boat. Do not underestimate the efforts required to haul someone into the boat. Get help to haul the person aboard.

31.5 Night Marine Operations

Night operations while working in or around or adjacent to water present a unique set of hazards to personnel. All crews working on night operations near or on the water will utilize the "buddy system" 100% of the time. All PFD's will be outfitted with water activated strobe lights and whistles for visual and audible location identification of a downed employee.

The Superintendent will ensure that the night operations work plan and Hazard Analysis addresses the safety issues of working at night. The plan and Hazard Analysis will address, but not be limited to, the following items:

- Reflectivity
- Illumination
- Communications

- Emergency procedures

31.6 Fall Protection over Water

When working over or near water (Piers, Wharves, Quay Walls, Barges, Aerial Lifts, Crane Supported Work Platforms, etc.) PFDs are required for all work unless fall protection is used to eliminate the water hazard.

When working over or near water and the distance from the walking/working surface to the water's surface is 25 feet or greater fall protection is required.

When working over water at a height of less than 25 feet and the water depth is less than 10 feet, the potential fall has an obstruction, or hazards from currents, intakes, machinery or barges, etc. are present, fall protection is required.

When working over water at a height of less than 25 feet, the water depth below the walking/working surface is 10 feet or greater, and the potential fall is unobstructed fall protection is not required. PFDs are required 100% of the time when working in these conditions.

31.7 Diving Operations

Diving will be subcontracted but Kiewit will work side by side with the diving subcontractor in all aspects of the safety program. All Subcontractors shall submit a copy of their Site-Specific Safety plan to Kiewit to be reviewed by the Project Manager, Project Safety Manager, and Subcontractor Monitor before any work commences. All Subcontractor Accident Prevention Plans will be kept on site such that they are available for review throughout the life of the Proposed Action and updated as changes are made. Diving subcontractors will be given a copy of the Health and Safety Plan and Safety Policy Manual at the pre-job safety meeting. All employees shall go through orientation provided by the Kiewit Project Safety Manager and Subcontractor Monitor. The obligation of all contractors and/or subcontractors to comply with applicable statutory safety and health laws, regulations and rules will be covered as well as the Kiewit specific safety policies and procedures that will be required by contract. Subcontractors will be advised that they have the sole and complete obligation to provide a safe and healthful working environment for employees and other persons at the project site, including the traveling public, who may be exposed to the work.

31.8 Tow Lines and Barge Lines

Never stand in the bight, adjacent or in line with a mooring or tow line, or any line that is under strain. Derricks will be equipped with good quality barge lines at the start of the Proposed Action. Inspect the barge lines and replace as required. Ensuring that all floating equipment is equipped with adequate mooring lines is the project's responsibility and a job cost (including replacement costs of worn-out lines). The foreman, derrick operator, and deck engineer are responsible for seeing that barges are properly secured and that the barge lines are in good condition. Special precautions shall also be taken to identify the location of spud and deck winch lines. All permanent wire rope lines on the deck of a barge shall be marked with yellow paint.

Communication with the crew members both pre-planned (JHA) and while barges are moving, is vital to the safety of employees working around deck lines.

31.9 Swing Radius and Crush Points

The derricks that are scheduled for the Proposed Action have adequate clearance between the bottom of the counterweight and the deck to avoid tail swing hazards. Deck gear will be laid out to avoid problems with crush points and tail swing. Do not place equipment or materials on deck that can interfere with the swing radius of the counterweight. Crew shall not access the operators cab without establishing contact with the operator and obtaining permission to enter. Stairways up to the rotating bed shall be kept chained off and marked as a restricted entry area.

31.10 Lights, Lighting, and Shapes

All derricks have boom lights. Light towers will be used as necessary to provide additional lighting on the barge deck and in the adjacent work area as needed. Provide adequate lighting at all access locations. All derricks, barges, and bridge caissons must be equipped with proper lights and day shapes. All barges will have lights on all four corners at night in addition to the navigation lights on the Gantry. Buoys must be lighted with steady white lights at night. All lights shall be checked for proper operation every day.

31.11 Communication

All derrick barges and other work boats are equipped with a VHF radio that can be used in any emergency situation.

31.12 Emergency Procedures

Training shall be conducted for all persons working around the water of the proper procedures to follow in case of an emergency.

Each derrick barge and other work boats (and marine jobsite) will be equipped with a VHF radio. Unless the person overboard is recovered immediately, call 911 to have an emergency response team sent to the jobsite.

Be prepared to detail the exact location and heading of the person overboard and emergency responders on the local conditions of the barges, weather, etc. Follow the directions of the Emergency Responders. Notify the job superintendent of the emergency immediately.

All marine jobsites shall have a more in depth and specific emergency procedure for person overboard written into their site-specific Accident Prevention Plan. This shall be reviewed with all employees working on site.

31.13 Notice to Mariners

Per US Coast Guard regulations, proper notice to mariners must be issued prior to moving onsite and updated with changes to the mooring plan. Kiewit and RES management is responsible for issuing the notice to mariners.

31.14 Wake-Watch Guidelines

When a shore crane is used to hoist work onto floating equipment, or when a floating derrick is hoisting onto a land-based structure or another barge, there is potential for passing boat traffic to have a safety impact. Movement due to the wake can catch workers off guard with serious potential. If the operation has obvious potential for injury or equipment damage an employee shall be designated as spotter to watch for any wake producing marine traffic. “NO WAKE ZONE” signage should be used if conditions dictate at the worksite.

31.15 Public Safety

Keep proper navigation lights in place on buoys, barges, work boats and bridge structures. Maintain proper notice to mariners. Be aware of private vessels transiting the area. Be prepared to call vessels via VHF radio and give them five blasts on the air horn if they are entering the work zone.

Posting signs on the deck of barges is the proper way to warn the public of submerged anchor wires or other hazards and warn them to stay clear – 500 feet. Posting of “Construction Zone” signs should also be used to warn the general boating public of jobsite hazards.

32.0 Electrofishing Safety

The purpose of this program is to establish uniform rules and regulations throughout the company to educate applicable employees in the safe practices of using backpack electrofishing equipment. This program must be available to any employee who may participate in backpack electrofishing upon hiring, and a copy will be supplied to any employee upon request.

32.1 Policy

It is RES’ policy to provide a safe and healthful working place for all employees. The company has recognized the duty to take every reasonable effort to ensure the safety of employees while conducting backpack electrofishing surveys. In this regard, every employee whose job it is to use the backpack electrofishing unit (electro fisher) will be thoroughly informed of the potential hazards associated with the equipment and trained to perform their job in a safe manner.

32.2 Responsibilities

- It is the responsibility of executive management to support the use of all practical means to implement this program.

- It is the responsibility of the Regional EHS&S Representative to coordinate all company-wide efforts in implementing this policy.
- Company managers and supervisors are responsible for enforcing this policy.
- Managers and supervisors will accept the administration and enforcement of this program as an operational responsibility.
- It is the responsibility of the Electrofishing Lead (defined below) to ensure that safe practices are followed while operating the equipment.
- It is the responsibility and duty of each employee to comply with the safety standards promulgated under this program and applicable rules and regulations.

32.3 Training and Certification

- The “Electrofishing Lead” is the lead electrofishing equipment operator for a given sampling event. The Electrofishing Lead must meet the requirements of National Marine Fisheries Service (NMFS) Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (NMFS 2000) and/or the applicable state or federal permit requirements.
    - The “Fish Crew Lead” is experienced with fish sampling, identification, handling, and leading field crews. The Fish Crew Lead and Electrofishing Lead can be the same individual.
- All members of the crew must be certified in CPR/First Aid.
- The Electrofishing Lead or the Fish Crew Lead must go through 40 hours of documented inhouse stream sampling experience, working with an experienced Fish Crew Lead. See attached document titled “RES Electrofishing Stream Sampling Training Log.”
- Employees who are assisting in electrofishing operations must be briefed on potential hazards associated with using backpack electrofishing equipment before the sampling event begins. Crew members must complete and sign the Job Hazard Analysis (JHA) before participating in electrofishing activities. In addition, tailgate safety meetings will take place daily prior to the start of work.

32.4 Equipment

- Equipment used is a Halltech HT-2000 backpack electro fisher (with a lithium battery), or equivalent backpack electrofishing unit, and dip nets with a non-conductive pole.
- The Electrofishing Lead will follow guidelines in the NMFS (2000) and all applicable state and federal permits required to conduct the sampling event.
- During months when no sampling is occurring, follow the manufacturer’s guidelines for long-term storage. For HT-2000 Lithium-Ion batteries, store them in a charged state (about 40% fully charged) in a cool, dry place (Halltech 2013).
- Before each sampling event, the Electrofishing Lead will inspect the equipment to make sure there are no exposed or frayed wires or any other damage to the backpack electro fisher.

32.5 Specialized Clothing

- Non-breathable chest waders, such as PVC-lined waders or neoprene waders, are required in the stream while the electro fisher is on. In addition, all chest waders must be fastened with a belt.
- Rubber gloves, such as lineman's gloves, must be worn by anyone in the crew that is operating in the stream.
- Proper footwear must be worn to reduce the risk of slipping in the stream. Felt sole wading boots may be required when working around slippery cobble.
- If water deeper than hip deep, a personal flotation device is required for all crew members.

32.6 Hazards

a) Bodily harm can be caused by bodily contact with energized electrodes or contact with water within the radius of the electric field. To minimize risk associated with electrofishing, the following measures shall be taken (From the MBSS Sampling Manual 2018):
    - If an employee has a history of heart issues or has a pacemaker, they must consult with a physician on whether they are fit to participate in electrofishing sampling events.
    - Only personnel designated by the Fish Crew Leads should operate the backpack electrofishing units, if they have received the approved training required.
    - To minimize the amount of body surface area potentially exposed to electric shock, normal wading gear should be chest waders. Only non-leaking wading gear should be used during electrofishing – if a leak is discovered, wading gear should be changed, and the leaking gear repaired or replaced prior to the next use.
    - Bare wire portion of the cathode (rattail) or the anode should never be touched while the unit is in operation.
    - Electrofishing should only be conducted when a minimum of three persons are present at a site. In the event of electric shock, this provides for one person to administer CPR while another seeks medical assistance. Use of a portable phone or two-way radio is also recommended as an effective means to summon emergency medical care if necessary. In addition, contact EHS&S and the employee's supervisor as soon as it is safe to do so.
    - If the Fish Crew Lead determines the stream conditions at the time of the site visit present an abnormal risk of electric shock, they will determine that the site is not sampleable, and sampling will be conducted at an alternative site or canceled in that reach.
    - Prior to each use, electrofishing gear should be verified to be in safe working condition by the Electrofishing Lead. This verification should include examination of external wiring and electrical connections.
    - In cases where two electrofishing units are used or barge electrofishing is employed at a site, extra care should be taken to ensure that unit operators

maintain an awareness of all personnel in the water. In addition, unit operators should maintain adequate spacing between units to minimize the risks of shock from both electric fields in the event a crew member slips or falls into the water, or the discharge of one anode completing the switch circuit for another.

- When wearing waders or other PPE that add additional layers, employees are at a greater risk of heat-related illness or injury while working in high temperatures. If you notice that you or someone else is experiencing signs of dehydration, heat illnesses or other ailments, contact EHS&S after providing appropriate first aid/care to the affected individual. If the nature of the illness calls for taking the employee to the doctor or calling 911, do so after surveying the scene and making sure the scene is safe. For more information on working during high temperatures, refer to Section 27. To prevent heat-related illness or injury during electrofishing, proper work/rest measures must be taken:
    - While electrofishing in temperatures exceeding 90°F, it is recommended that after every 50 minutes of work, the crew takes a 10-minute break outside of their waders and other PPE. During this break, the crew should have the opportunity to hydrate.
    - In cooler temperatures, crews should take a break after every hour of work, or as they see fit.

See Appendix I and Appendix J.

33.0 Drawdown and Sediment Evacuation Safety

33.1 General

The safety and wellbeing of the crew members will be RES' main priority. All controls will be in place to ensure a safe and effective method to complete the task. All aspects of this Health and Safety Plan will be strictly followed per state and federal regulations. Specific work activities will follow all state and federally mandated regulations in ensuring that employees are protected.

Safety protocols specific to the drawdown and sediment evacuation work are covered under the following sections addressed in this plan:

- Section 6.7 – Vehicle Use
- Section 6.8 – Vehicle Maintenance and Inspection
- Section 6.9 – Vehicle Safety Equipment
- Section 8.1 – Biological Hazards
- Section 9.2 – Driver Training
- Section 14.4 – Auto Accident Reporting and Investigation
- Section 27.0 – Heat Illness Prevention Program
- Section 31.0 – Marine Safety
- Section 32.0 – Electrofishing Safety

See Appendix I and Appendix J.

34.0 Tributary Channel Alignment Work Safety

34.1 General

The safety and wellbeing of the crew members will be RES' main priority. All controls will be in place to ensure a safe and effective method to complete the task. All aspects of this Health and Safety Plan will be strictly followed per state and federal regulations. Specific work activities will follow all state and federally mandated regulations in ensuring that employees are protected.

Safety protocols specific to the Tributary Channel Alignment work are covered under the following sections addressed in this plan:

- Section 6.7 – Vehicle Use
- Section 6.8 – Vehicle Maintenance and Inspection
- Section 6.9 – Vehicle Safety Equipment
- Section 9.2 – Driver Training
- Section 14.4 – Auto Accident Reporting and Investigation
- Section 27.0 – Heat Illness Prevention Program
- Section 31.0 – Marine Safety
- Section 32.0 – Electrofishing Safety

See Appendix I and Appendix J.

35.0 Revegetation: Restoration and Monitoring Safety

35.1 General

The safety and wellbeing of the crew members will be RES' main priority. All controls will be in place to ensure a safe and effective method to complete the task. All aspects of this Health and Safety Plan will be strictly followed per state and federal regulations. Specific work activities will follow all state and federally mandated regulations in ensuring that employees are protected.

Safety protocols specific to revegetation restoration and monitoring work are covered under the following sections addressed in this plan:

- Section 6.6 – Working on Uneven Terrain
- Section 6.7 – Vehicle Use
- Section 6.8 – Vehicle Maintenance and Inspection
- Section 6.9 – Vehicle Safety Equipment
- Section 8.1 – Biological Hazards
- Section 9.2 – Driver Training
- Section 14.4 – Auto Accident Reporting and Investigation
- Section 27.0 – Heat Illness Prevention Program
- Section 31.0 – Marine Safety

- Section 31.1 – Working Over or Near Water

36.0 References

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[NMFS] National Marine Fisheries Service. 2000. Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act. Santa Rosa, California. Available: https://www.fisheries.noaa.gov/webdam/download/107907218

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Appendix A

Job Hazard Analysis

HAZARD ANALYSIS

DATE PREPARED: PREPARED BY:

OPERATION:

STEP BY STEP PLAN:

1.
2.
3.
4.
5.
6.

Access Identification

Location	Type

Ergonomic Risks

Lifting	☐
Repetitive Motion	☐
Vibration	☐
Awkward Position	☐

Strategic Risks	Evident Risk	Needs Special Planning
Equipment	☐	☐
Exposure to Falls	☐	☐
Confined Space	☐	☐
Traffic	☐	☐
Trenching / Excavation	☐	☐
Lock-Out / Tag-Out	☐	☐
MSDS Attached	☐	☐
Utilities	☐	☐
Electrical	☐	☐
Critical Lift Plan	☐	☐
On the Spot Lift Plan	☐	☐
Steel Erection	☐	☐
Night Work	☐	☐
Falsework / Shoring	☐	☐
Other Safety Risks:	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐

Unique PPE	Required
Cutting Goggles	☐
Faceshield	☐
Leather / Kevlar Chaps	☐
Respiratory Protection	☐
Toe / Foot Guards	☐
Ear Plugs / Muffs	☐
Life Vest / PFD	☐
Welding Hood	☐
Welding Leathers	☐
Other PPE: _____	☐
Other PPE: _____	☐
Other PPE: _____	☐
Other PPE: _____	☐
Other PPE: _____	☐
Other PPE: _____	☐

Superintendent:

Prepared and Reviewed by:

Name	Signature

Foreman:

	Step 1:	Step 2:	Step 3:
WHAT IS THE WORST THAT COULD HAPPEN?			
PREVENTION PLAN (Focus on Behaviors)			
HOW ARE YOU MOST LIKELY TO GET HURT?			
PREVENTION PLAN (Focus on Behaviors)			
OTHER RISKS TO BE AWARE OF?			
PREVENTION PLAN (Focus on Behaviors)			

	Step 4:	Step 5:	Step 6:
WHAT IS THE WORST THAT COULD HAPPEN?			
PREVENTION PLAN (Focus on Behaviors)			
HOW ARE YOU MOST LIKELY TO GET HURT?			
PREVENTION PLAN (Focus on Behaviors)			
OTHER RISKS TO BE AWARE OF?			
PREVENTION PLAN (Focus on Behaviors)			

Appendix B

Fall Protection Work Plan and Fall Protection Guide

FALL PROTECTION WORK PLAN

FALL PROTECTION WORK PLAN

Operation: **Date:**

1) Identify the fall hazards to be controlled with this plan:

2) Can some or all of the fall hazard(s) be reasonably eliminated by using FALL PREVENTION methods? Check all that apply:

- ☐ Standard Guardrail (Top rail, mid rail and toe board)
- ☐ Manufactured Guardrail System
- ☐ Restraint Line
- ☐ Scaffolding
- ☐ Scissor Lift
- ☐ Caged Ladders or Landings
- ☐ Other (Specify below)

_____

2a) If all fall hazards cannot be removed through Fall Prevention methods and Fall Arrest Equipment is needed, STOP HERE. Written approval from the General Superintendent or above is needed to move beyond this point.

_____
General Superintendent or Above

3) All consideration must be made to utilize a Fall Arrest anchor point that is above the height of the user's D-ring. If ALL anchorpoints in the system are above the users D-ring, move to section 4.

3a) If anchorage above the user's D-ring cannot be achieved, STOP HERE. Written Job Sponsor approval is needed to move beyond this point.

_____
Job Sponsor / First Level of offsite management

4) Does the operation require an employee(s) to transfer at heights (the use of an aerial lift to gain access to an elevated work area where a fall exposure is present)? If no, then proceed to section 5.

4a) If a transfer at heights is necessary for the operation, STOP HERE.

Written Project Manager Approval is needed to move beyond this point.

_____
Project Manager

5) System components (Check all that apply)

- ☐ Improvised Anchorage Point(s) - 5,000# Capacity
- ☐ Certified / Engineered Anchor Point(s) - Attach Engineering to this Workplan
- ☐ Approved Anchor Point(s) has/have been Inspected by: _____
- ☐ Horizontal Lifeline - Attach Engineering or Manufacturer Data to this Workplan
- ☐ Safety Nets
- ☐ Manlift
- ☐ Other Equipment or Engineered Components (STOP HERE, See Safety Manager)
- ☐ Self Retracting Lifeline (Select one)
  - ☐ Nano-Lok Edge
  - ☐ Rebel SRL-LE
  - ☐ UltraLok Edge
  - ☐ Smart Lock SRL-LE
  - ☐ Other (STOP HERE, See Safety Manager)
- ☐ Beam Straps w/ built in softener
- ☐ Softeners for sharp edges
- ☐ Ladder Climbing Safety Device

NOTE: Only Self Retracting Lifelines listed in the check boxes above may be used on this project.

6) Describe how the members of this operation will rescue a fallen, unconcsious worker within 10 minutes.

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FALL PROTECTION WORK PLAN

7) Fall Clearance Calculation

For Directly Overhead Applications use the following formula.

MAD| Maximum Arrest Distance +
HS| Harness Stretch (1') +
SF| Safety Factor =
FC| Required distance between worker's feet and closest obstruction below.

For below D-ring applications and swing fall scenarios, refer to users instruction manual for fall clearance charts.

MAD is a number given by the manufacturer. It includes the onset of a fall, braking distance, and deployment of the shock absorber.

HS = 1'

SF is determined by the manufacturer. DBI Sala = 1.5'.

8) Sketch of Fall Arrest Plan, including all system components listed in section 5

9) I understand the hazards of this operation and have received necessary training & instruction on the items described in this plan.

Name:	Date:					
Name:	Date:					
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Name:	Date:					
Name:	Date:					
Name:	Date:					
Name:	Date:					

The plan described must be inspected daily to verify that the installation and use of ALL system components is correct.

If at any time the system does not match the installation or use of the described plan, the operation must be stopped until:
1) An investigation is completed as to why the system and installation do not match.
2) Corrections are made to the installation and use of the system so that it reflects what is on the described plan.
3) The described plan is changed to reflect the current installation and use of the system.

Any instance where the plan is changed, everyone utilizing the system must understand the changes and new instructions before work continues.

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Appendix C

Confined Space Training Plan and Confined Space JHA

ALTERNATE ENTRY CONFINED SPACE PERMIT

CONTRACTOR: _____ **DATE:** _____

SPECIFIC WORK AREA: _____ **JOB NAME/#:** _____

PURPOSE OF ENTRY : _____ **DURATION:** _____
(START - STOP TIMES)

1	CONFINED SPACE EVALUATION FORM HAS BEEN COMPLETED?	Yes ☐	
2	PRE-TASK SAFETY PLAN SUBMITTED TO HOFFMAN SUPERINTENDENT PRIOR TO BEGINNING OF WORK?	Yes ☐	
3	EMPLOYEE(S) INVOLVED ARE CONFINED SPACE TRAINED?	Yes ☐	
4	MSDS & CHEMICAL USE PLAN SUBMITTED AND APPROVED PRIOR TO ENTRY (Whenever atmospheric or other chemical hazards are introduced)?	Yes ☐	N/A ☐
5	SOURCE ISOLATION AND LOCK-OUT/TAG-OUT IN PLACE?	Yes ☐	N/A ☐
6	REQ'D PPE: _____	Yes ☐	N/A ☐
7	ENTRY SUPERVISOR & ENTRANT (S) UNDERSTAND THEIR ROLES & RESPONSIBILITIES?	Yes ☐	
8	SPACE IS FREE OF NON-ATMOSPHERIC HAZARDS (i.e., ENGULFMENT, INTERNAL CONFIGURATION, EXPOSED/ENERGIZED ELECTRICAL)?	Yes ☐	
9	POTENTIAL ATMOSPHERIC OR JOB INTRODUCED HAZARDS ARE CONTROLLED BY PROPER VENTILATION? (i.e., WELDING, PAINTING, COATING, SANDBLASTING, GRINDING CONCRETE, CHEMICAL RESIDUAL)	Yes ☐	N/A ☐
10	WILL CONTINUOUS AIR MONITORING & MECHANICAL VENTILATION ALONE BE SUFFICIENT FOR SAFE ENTRY?	Yes ☐	
11	ATMOSPHERIC TESTING COMPLETED PRIOR TO ENTRY/BUMP TEST PERFORMED?	Yes ☐	
12	MECHANICAL VENTILATION SYSTEM IN OPERATION?	Yes ☐	
13	IN EVENT OF EMERGENCY CALL #: _____		
14	ADDITIONAL/NOTES COMMENTS: _____		

QUESTIONS 1-12 ABOVE MUST BE ANSWERED WITH A "YES" or "N/A" RESPONSE
IF THIS IS NOT POSSIBLE, THIS SPACE CANNOT BE ENTERED UNDER ALTERNATE ENTRY PERMIT

CONTINUOUS ATMOSPHERIC AIR MONITORING RESULTS
(DOCUMENT READINGS ONCE EVERY HOUR – MINIMUM)

SUBSTANCE	PERMISSIBLE ENTRY LEVEL	PRE-ENTRY	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	TEST 7
OXYGEN	**19.5 - 23.5%**								
LEL	**10%**								
HYDROGEN SULFIDE	**10 PPM**								
CARBON MONOXIDE	**35 PPM**								
OTHER TOXIC									
TIME									
CONDUCTED BY									

AIR MONITORING EQUIPMENT (MAKE, MODEL, SERIAL/UNIT NUMBER): _____

METHOD OF VENTILATION: _____

AUTHORIZED ENTRANTS: _____ _____ _____ _____

ALTERNATE ENTRY CERTIFICATION BY ENTRY SUPERVISOR: I am familiar with the special requirements and conditions under which a full-permit required confined space may be entered under alternate entry procedures. I verify that all necessary pre-entry steps have been taken. I verify that the space is safe for entry.

ENTRY SUPERVISOR AUTHORIZING ENTRY UNDER ALTERNATE ENTRY PERMIT:

PRINT NAME _____ SIGNATURE _____ DATE _____

REVIEWD BY **KIEWIT-PROJECT SUPERINTENDENT (OR DESIGNEE):**

PRINT NAME _____ SIGNATURE _____ DATE _____

MUST BE POSTED AT ENTRY OR BE READILY AVAILABLE FOR REVIEW UPON REQUEST

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Chapter 33c: Confined Space

FULL-PERMIT REQUIRED CONFINED SPACE ENTRY PLAN

CONTRACTOR: _____ **DATE:** _____

SPECIFIC WORK AREA: _____ **JOB NAME/#:** _____

PURPOSE OF ENTRY : _____ **DURATION:** (START / STOP TIME) _____

1	CONFINED SPACE EVALUATION FORM HAS BEEN COMPLETED?	Yes ☐		
2	PRE-TASK SAFETY PLAN SUBMITTED TO HOFFMAN SUPERINTENDENT PRIOR TO BEGINNING OF WORK?	Yes ☐		
3	EMPLOYEE(S) INVOLVED ARE CONFINED SPACE TRAINED?	Yes ☐		
4	MSDS & CHEMICAL USE PLAN SUBMITTED AND APPROVED PRIOR TO ENTRY (Whenever atmospheric or other chemical hazards are introduced)?	Yes ☐	N/A ☐	
5	SOURCE ISOLATION AND LOCK-OUT/TAG-OUT IN PLACE?	Yes ☐	N/A ☐	
6	ARE THERE ADDITIONAL PERMITS NEEDED? (i.e. HOT WORK, ENERGIZED ELECTRICAL)	Yes ☐		No ☐
7	REQ'D PPE: _____	Yes ☐	N/A ☐	
8	ENTRY SUPV, ATTENDANT, & ENTRANT(S) UNDERSTAND THEIR ROLES & RESPONSIBILITIES?	Yes ☐		
9	CLEAR COMMUNICATION BETWEEN ENTRANT(S) AND ATTENDANT? _____	Yes ☐		
10	NON-ATMOSPHERIC HAZARDS PRESENT? ☐ EXPOSED/ENERGIZED ELECTRICAL ☐ INTERNAL CONFIGURATION ☐ ENGULFMENT ☐ OTHER:_____	Yes ☐		No ☐
11	POTENTIAL ATMOSPHERIC OR JOB INTRODUCED HAZARDS ARE PRESENT & CANNOT BE CONTROLLED BY MECH. VENTILATION? (i.e., WELDING, PAINTING, COATING, SANDBLASTING, GRINDING CONCRETE, CHEMICAL RESIDUAL) DESCRIBE:_ _____	Yes ☐	N/A ☐	No ☐
12	CONTINUOUS AIR MONITORING & MECHANICAL VENTILATION IN PLACE?	Yes ☐		
13	ATMOSPHERIC TESTING COMPLETED PRIOR TO ENTRY/BUMP TEST PERFORMED?	Yes ☐		
14	IN EVENT OF EMERGENCY CALL# : _____			
15	RESCUE PLAN/EQUIPMENT: ☐ NON-ENTRY RESCUE/TRIPOD ☐ ENTRY RESCUE/3RD PARTY TEAM			
16	IS AT LEAST ONE (1) MEMBER OF RESCUE TEAM CPR/FIRST AID CERTIFIED?	Yes ☐		
17	SIMULATED PRACTICE RESCUE WITHIN THE LAST 12 MONTHS?	Yes ☐		

ADDITIONAL NOTES/COMMENTS: _____

CONTINUOUS ATMOSPHERIC AIR MONITORING RESULTS

(DOCUMENT READINGS ONCE EVERY HOUR – MINIMUM)

SUBSTANCE	PERMISSIBLE ENTRY LEVEL	PRE-ENTRY	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	TEST 7
OXYGEN	**19.5 - 23.5%**								
LEL	**10%**								
HYDROGEN SULFIDE	**10 PPM**								
CARBON MONOXIDE	**35 PPM**								
OTHER TOXIC									
TIME									
CONDUCTED BY									

AIR MONITORING EQUIPMENT (MAKE, MODEL, SERIAL/UNIT NUMBER): _____

METHOD OF VENTILATION: _____

AUTHORIZED ENTRANTS: _____ _____ _____ _____

OUTSIDE ATTENDANT: _____ _____ _____ _____

ENTRY SUPERVISOR AUTHORIZING ENTRY UNDER FULL-PERMIT:

PRINT NAME _____ SIGNATURE _____ DATE _____

REVIEWD BY KIEWIT-HOFFMAN PROJECT SUPERINTENDENT (OR DESIGNEE):

PRINT NAME _____ SIGNATURE _____ DATE _____

MUST BE POSTED AT ENTRY OR BE READILY AVAILABLE FOR REVIEW UPON REQUEST

Rev: 07/14

Chapter 33d: Confined Space

Authorized Entrants, Attendants & Entry Supervisors Checklist

Authorized Entrants (If Yes, Initial)	**Initial Entrant 1**	**Initial Entrant 2**	**Initial Entrant 3**
Knowledgeable on potential hazards	_____	_____	_____
Knows how to use equipment including air testing, ventilators, rescue, PPE	_____	_____	_____
Aware of communication, emergency and evacuation procedures	_____	_____	_____
Knows to alert attendant of unusual conditions or changes in space	_____	_____	_____

Attendants (If Yes, Initial)	**Initial Attendant**
Knowledgeable on potential hazards	_____
Knows how to use equipment including air testing, ventilators, rescue, PPE	_____
Knows potential behavioral affects of entrants that may indicate problems	_____
Maintains an accurate count of entrants	_____
Understands need to stay outside space without distractions until relieved	_____
Aware of communication, emergency and evacuation procedures	_____
Understands interior and exterior of space and how to minimize safety and health hazards	_____
Knows how to summon outside rescue	_____
Understands when and how to conduct non-entry rescues	_____

Entry Supervisor (If Yes, Initial)	**Initial Supervisor**
Knowledgeable on potential hazards	_____
Understands the permit procedures	_____
Understands interior and exterior of space and how to minimize safety and health hazards	_____
Knows how to use equipment including air testing, ventilators, rescue, PPE	_____
Understands entry procedures	_____
Aware of safety and rescue procedures	_____
Knows emergency response, communication and evacuation procedures	_____
Knows how to coordinate entries with owner and subcontractors	_____

Rev: 04/14

Chapter 33e: Confined Space

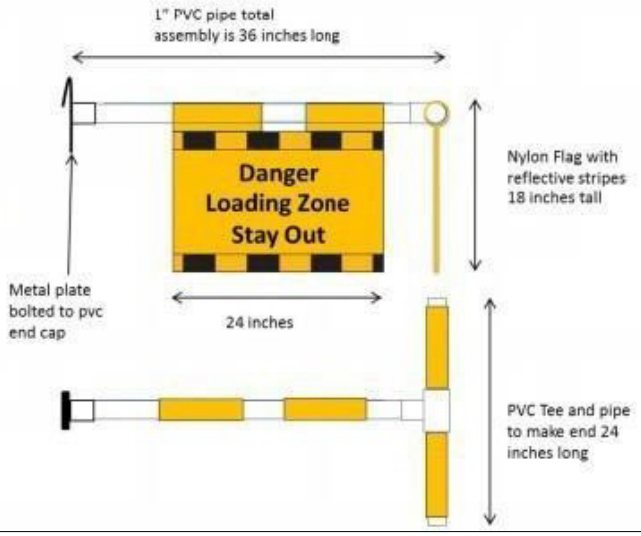
Appendix D

Loading and Unloading Trailers Policy

SECTION 1.3 LOADING AND UNLOADING TRUCKS / TRAILERS

Unloading trucks/trailers is a common operation on many of our projects. Many risks are associated with the loading and unloading of trucks and trailers. Plan ahead, identify trucking activities, build them into your schedule and then communicate and alert operations that could be affected by them. Work with vendors to make sure the proper dunnage is used and the configuration of the materials allows for safe unloading. Avoid double handling the materials by working with your vendor beforehand. It is the practice of Kiewit Bridge & Marine to implement the following procedures into the operation:

- Assess the loading and unloading location to minimize congestion and provide the safest possible outcome.
- Drivers need to wear all of the required PPE upon exiting the truck.
- Chocks need to be used for loads parked on a slope.
- We never want to unstrap a load from a third party trucker; the driver loaded it and is required to unstrap it.
- We should try to unload the truck without climbing on it but when we do we must always use a ladder to access the truck or trailer. We must also implement a method for controlling the fall exposure.
- Before unloading the truck or trailer we must have completed a JHA. If the driver is acting as a spotter, they should be included in the JHA.
- Never stand on the back side of the trailer or let anyone else be in that area.
- When unloading or loading we need to use trailer warning flags to warn others. The warning markers need to be placed on the opposite side of the trailer from where the crane or forklift operator is unloading. Using a spotter does not remove the requirement to set up the warning markers (see diagram below).



Appendix E

Hot Work Plan

HOT WORK PLAN

CONTRACTOR & SUPV. NAME: _____

PLAN ISSUE DATE/TIME: _____ **PLAN EXPIRATION DATE/TIME:** _____

WORK LOCATION (BE SPECIFIC): _____

DESCRIBE WORK PROCESS: _____

PERSON(S) PERFORMING ACTIVITY: _____

NAMES OF FIRE PREVENTION PERSONNEL(FPP): _____

ATTENTION: PRE-CHECK REQUIRED Before approving this hot work plan, the CONTRACTOR SUPERVISOR, or their Designee, shall inspect the work area and confirm that precautions have been taken to prevent fire in accordance with relevant NFPA standards.

Yes	NA	PRECAUTIONS
☐	☐	Is the cutting & welding equipment in good working condition?
☐	☐	Is the sprinkler system in service?
☐	☐	Is the fire department phone number posted? ( ) -

Yes	NA	WITHIN 35' RADIUS OF HOT WORK
☐	☐	Are floors swept clean of combustible material?
☐	☐	Are combustible floors/walls/ceilings wetted down or are they otherwise shielded/protected?
☐	☐	Have all combustible or flammable materials in the work area been moved or are otherwise shielded/protected?
☐	☐	Are all wall & floor openings covered and protected?
☐	☐	Are diapers/fire blankets suspended beneath work area to control/contain free falling sparks?
☐	☐	Are combustibles moved away from other side of walls?
☐	☐	Is glazing and other finished product, adjacent to or below the work activity, covered and protected from damage (i.e. pitting, spatter, burn marks)?

Yes	NA	WORK IN CONFINED SPACE
☐	☐	Is a confined space permit required?
☐	☐	Is the equipment/space cleaned of all liquid combustibles/flammables?
☐	☐	Does atmospheric monitoring need to be conducted?
☐	☐	Is the space purged of harmful vapors?

Yes	NA	FIRE PREVENTION PERSONNEL(FPP)
☐	☐	FPP provided during and a minimum 30 minutes after work completed?
☐	☐	Are fire extinguishers and/or water immediately available?
☐	☐	Are additional FPP's needed at lower levels/floors below hot work area?
☐	☐	Have fire blankets, covers, or shields been placed to protect these lower floor levels?
☐	☐	Have fire blankets, covers and shields been verified as non-combustible approved hot work fabrics?

Any Other Special Precautions? _____

Contractor Supervisor, or Designee, who is approving this plan and is responsible to monitor employee safety: _____
PRINT Name/Cell Number

Kiewit Superintendent or Designee: _____
PRINT Name/Cell Number

ATTENTION: FINAL CHECK REQUIRED Final Check Required: To be made 30 minutes after completion of any hot work operation. Work area and all adjacent areas to which sparks and heat might have spread (including ceilings above, floors below and opposite sides of walls) were inspected 30 minutes after the work was completed and found fire safe.

Inspection Completed by: _____ _____
PRINT and Sign **Date / Time**

Contractor Supervisor or Designee: _____ _____
PRINT and Sign **Date / Time**

THIS FORM TO BE POSTED AT HOT WORK LOCATION

Rev: 7/16

Appendix F

Dig Permit

Dig Permit

1. GENERAL INFORMATION				
Location of excavation (Attach Plans):				
Drawing Numbers of Plans Attached (highlight utilities):				
Purpose of excavation:				
Start Date:	Expected Completion Date:	Depth:	Width:	Length:

2. LOCATE SERVICE NOTIFICATION		
Ticket No.	Date Requested:	Requested By:
Description:		

3. PRE-WORK CHECKLIST			
It is the Superintendent and Foreman's responsibility to ensure this section is complete.		Initials	If No, STOP Variance is Required
Are all utilities shown on drawings marked in field?	Y / N		
Are all relocations and installed utilities accounted for?	Y / N		
Has a blind sweep been performed using locating device?	Y / N		
Have you performed a field verification to look for unknown utilities?	Y / N		
Have all utilities been potholed according to policy?	Y / N		
Are utilities safe or protected from being crushed by the equipment?	Y / N		
Does the crew understand the 3-ft. hand dig policy?	Y / N		
Are updated utility drawings and any necessary as builts attached?	Y / N		
Has the Hazard Analysis been reviewed?	Y / N		

4. UTILITY CHECKLIST		
COLOR	**UTILITY**	**Is Utility present in the work area?**
BLUE	Water Systems	Y / N
ORANGE	Telephone & Fiber Optics	Y / N
GREEN	Sanitary Sewer Systems	Y / N
RED	Elec. Power Distribution and Transmission	Y / N
YELLOW	Gas and Oil Products Dis.	Y / N
PURPLE	Reclaimed Water, Irrigation	Y / N
PINK	Survey	Y / N

5. SIGNATURES (All Signatures required.)		
Pre-Work Checklist is complete and policies/procedures communicated clearly?		Signature
Operator	Y / N	
Utility Engineer	Y / N	
Foreman	Y / N	
Superintendent	Y / N	
Crew		
Notes:		

Utility Policy Variance Form		Yes	No
1.	Have all aspects of the work been examined to determine if hand digging/hydro-excavating can be used to perform the work?		
2.	Has the utility owner been asked to move/relocate the line prior to starting work?		
3.	Has the utility owner been contacted to de-energize the utility?		
4.	Has a verification (lockout/tag out) method been established with the utility owner to ensure they have properly de-energized the line? (Verbal notification is not acceptable.)		
5.	Has the crew been trained on the variance and do they understand how it is to be followed in the field?		
6.	Is the spotter competent? Do they understand their job?		
7.	Will guarding/shielding be used to protect the utility?		
8.			
9.			

Description of work being performed?

What part of the policy will not be followed due to the variance?

What are we going to do to ensure we do not damage/strike the utility?

Superintendent **Date**

Project Manager **Date**

Area Manager **Date**

Appendix G

Lockout/Tagout Work Plan

Project Name:	
Job Number:	
Job Address:	
Job Phone:	Job Fax:

LOCKOUT / TAGOUT WORK PLAN

CONTRACTOR: _____

TIME & DURATION OF LOCKOUT: _____

PURPOSE & SCOPE OF WORK: _____

MACHINE, EQUIPMENT OR SYSTEM & LOCATION: _____

PROCEDURES

The purpose of the Kiewit Lockout/Tagout Procedures and Plan System is to protect personnel from injury caused by unexpected energization, start-up, or release of stored energy. These procedures must be followed before any work begins that would place any individual in danger such as: maintenance, repair, demolition or installation of equipment or systems.

Due to the nature of this work in many cases work will be performed on equipment or systems at existing facilities controlled by our clients. When this is the case the representative of the client or facility will be directly involved in evaluating the shutdown and lockout/tagout procedures. They may also place their individual lock at the isolating device.

At times subcontractors are required to lockout equipment or systems in facilities still under construction or under the control of the general contractor. Locks will be placed by the individual authorized by Kiewit-Hoffman and/or the subcontractor's representative.

LOCKOUT PROCEDURE

- ☐ Notify all affected personnel of lockout and reason.
- ☐ Identify all energy sources (redundant sources of energy).
- ☐ Shutdown the machine or system using normal shutdown procedure.
- ☐ Isolate the machine or system by operating the switch, valve or other energy-isolating device.
- ☐ Secure the energy-isolating device with a lock and attach a completed safety tag to the lock.
- ☐ Block, bleed down or otherwise control all stored energy.
- ☐ Verify the system has been de-energized and brought to a zero-energy state. This maybe done by using a voltage tester, by opening a valve or by attempting to operate the equipment or system (return controls to the off position).

Verified By: _____ **Date/Time:** _____

RELEASE FROM LOCKOUT

- ☐ Check, during the system check-out, the equipment or system to ensure it is in safe operating condition. Place a safety monitor at the equipment.
- ☐ Remove all tools, equipment, and materials from the work area.
- ☐ Notify all affected personnel that lockout is being removed.
- ☐ Remove the lockout devices.
- ☐ Restore power sources and verify safe operating conditions.
- ☐ If additional work is needed, follow all previous procedures.

Subcontractor or Facility Representative designated to lockout equipment and monitor personnel safety during the work process.

_____ _____

Name/Title Date

Received By: (Superintendent or Designee)

_____ _____

Name/Title Date

Rev: 08/15

Appendix H

Herbicide Use

HERBICIDE USE TRACKING & COMPLIANCE FORM

In accordance with 29 CFR 1910.1200:

Contractor's Name and Address:

_____

Briefly describe work to be performed:

_____

_____

By reason of the contract you/your employees may be exposed to the following hazardous chemicals in the workplace (list chemicals):

_____ _____ _____

_____ _____ _____

_____ _____ _____

The following is the appropriate protective equipment, which should be used by your employees (list equipment):

_____ _____ _____

_____ _____ _____

The labels or Safety Data Sheets for chemical hazards found in this area are attached or can be obtained from the Company HCP Coordinator.

Company Representative: _____

Contractor: _____

Signature and Date: _____

Inventory List of Chemicals:

The following is a list of the hazardous chemicals used in this workplace. Further information can be obtained from the original SDS located in the SDS Chemical Inventory Notebook available from the Regional EHS&S Representative. Lists are maintained at the regional level.

SDS INDEX #	NAME OF MATERIAL	LOCATION

Appendix I

Float Plan

FLOAT PLAN

Date: _____

Boat Owner: _____

Boat Operator: _____

Boat Operator Qualified? _____

Boat Color/Make/Type: _____

Boat Registration Number: _____

Motor Type and Horsepower: _____

Distinguishing Features of Boat: _____

Launch Site: _____

Departure Time: _____

Route to Be Taken: _____

Vehicle Color/Make: _____

Vehicle Tag Number: _____

Passenger Names and Contact Phone Numbers: _____

_____ _____

_____ _____

Medical Conditions of Passengers on Board: _____

Safety Equipment Verified by Boat Operator: _____

Estimated Time of Arrival Back to Launch Site: _____

Designated Person of Contact and Phone Number: _____

Appendix J

Electrofishing Training Log

RES Electrofishing Stream Sampling Training Log

Purpose: This document logs the number of hours of electrofishing stream sampling training done while under the observation of an experienced Fish Crew Lead.

Trainee Name:

_____

DATE	HOURS LOGGED	OBSERVING FISH CREW LEAD SIGNATURE	COMMENTS

Total Hours Completed:_____**Date Completed:** _____

Appendix C

Public Safety Plan

Klamath River Renewal Corporation

Public Safety Plan

The Public Safety Plan will be submitted as part of the dam safety submittal package prior to implementation of the Proposed Action.