



REQUEST FOR PROPOSALS (RFP)

RFP 2026-05

Operations and Maintenance Services

for the

Dworshak Small Hydropower Plant

Issued September 2, 2026

PROPOSAL SUBMITTALS DUE BY October 14, 2026

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1 GENERAL INFORMATION

The Idaho Water Resource Board (Board) is seeking qualified and experienced respondents from interested teams to submit proposals for *Operations and Maintenance Services on the Dworshak Small Hydropower Plant*.

1.1 ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

BPA:	Bonneville Power Administration
CFH:	Clearwater Fish Hatchery
Contractor:	Company hired by the Board, from this RFP, to operate and maintain the Facility
Contractual Services:	Services, provided by the Contractor, that fall under the normal scope of work in a contract with the Board
Additional Services:	Services, provided by the Contractor, deemed outside of the normal scope of work
Facility:	Dworshak Small Hydropower Plant
FERC:	Federal Energy Regulatory Commission
IDFG:	Idaho Department of Fish and Game
IDWR:	Idaho Department of Water Resources
IWRB or Board:	Idaho Water Resource Board
LOTO:	Lock-out/tag-out
NDA:	Non-Disclosure Agreement
Respondent:	Company submitting a proposal to this RFP
RFP:	Request for Proposal
SCADA:	Supervisory Control and Data Acquisition
Team:	The team employed by the Contractor to perform operations and maintenance services to the Facility
USACE:	U.S. Army Corp of Engineers
USFWS:	U.S. Fish and Wildlife Service

1.2 RFP ADMINISTRATIVE INFORMATION:

RFP Title:	Operations and Maintenance Services for the Dworshak Small Hydropower Plant	
RFP number:	2026-05	
RFP description:	The IWRB is seeking qualified and experienced respondents to submit a proposal to serve as the operator of a hydropower facility.	
Informational meeting location:	<u><i>In-person</i></u> 6 th Floor Conference Room 602C 322 E Front St., Suite 648 Boise, ID 83702	<u><i>Virtual</i></u> Microsoft Teams: Meeting ID: 292 305 111 429 782 Passcode: an3u39c2 Join with video conferencing device: Tenant key: idahogov@m.webex.com Video ID: 116 273 878 5 Dial in by phone: 208-985-2810 Phone Conference ID: 841 802 394#
Proposal submittal location:	IDWR Procurement IWRB - RFP No. 2026-05 322 E Front St., Suite 648 Boise, ID 83702	
Submittal of questions:	Idwr.Purchasing@idwr.idaho.gov	
Initial Term of Contract and Renewals:	One (1) year. Upon mutual, written agreement, the Contract may be renewed, extended, or amended. The anticipated total Contract term is up to five (5) years.	

1.3 RFP SCHEDULE

RFP Milestones	Date	Time
RFP issue date:	September 2	
Informational meeting:	September 11	10:00 a.m. MDT
NDA's due (to attend Facility walkthrough):	September 15	5:00 p.m. MDT
On-site Facility walkthrough:	September 16	11:00 a.m. PDT
Deadline for questions:	September 23	11:59 p.m. MDT
Addendum issued:	September 25	5:00 p.m. MDT
RFP submittal deadline and public opening:	October 14	4:00 p.m. MDT
Shortlist announcement:	October 22	
Interviews:	Weeks of October 26 and November 2	
Selection and negotiations:	November	

The RFP schedule is an estimation, and dates may be adjusted by the Board.

To attend the on-site Facility walkthrough, each Respondent must send a signed NDA (in Attachment A of this RFP) for *each attendee* to Idwr.Purchasing@idwr.idaho.gov. This will serve as an RSVP and must be submitted

by 5:00 p.m. MDT on September 15. This tour of the Facility will take roughly one hour, followed by an open question-and-answer session. Teams will have the opportunity to inspect equipment and assess the Facility's condition.

1.4 RFP QUESTIONS

All questions concerning this RFP shall be addressed to Jake Vermaas and sent via email to Idwr.Purchasing@idwr.idaho.gov (no questions will be accepted by telephone). Teams are encouraged to ask questions during the informational meeting and the Facility on-site walkthrough; however, verbal communication with IDWR staff shall not be construed as binding or contractual.

Questions must be submitted via email to receive a formal answer. Questions will be compiled into an addendum and posted, with answers, to the IDWR Solicitations page. The source of all questions will be confidential, and no Teams will be identified in the IWRB's responses.

1.5 REVISIONS TO RFP

All addenda to this solicitation will be posted and available for downloading on the IDWR Solicitations web page <https://idwr.idaho.gov/solicitations/>. Respondents are responsible for regularly checking the IWRB Solicitations website.

1.6 RESERVATION OF RIGHTS BY IWRB

This RFP does not commit IWRB to enter into a contract or to pay any costs incurred in the preparation of a proposal or in subsequent contract negotiations. The IWRB expressly reserves the right to:

- Waive any immaterial defect or informality in any response or response procedure
- Reject any and all proposals for cause
- Reissue the Request for Proposals
- Request additional information and data from any or all Respondents
- Extend the date for submission of responses
- Supplement, amend, or otherwise modify the RFP, and cancel this RFP with or without the substitution of another RFP
- Disqualify any Respondent who fails to provide information or data requested herein or who provides inaccurate or misleading information or data
- Disqualify any Respondent on the basis of any real or apparent conflict of interest

By responding to this RFP, the Respondent agrees that any finding by the Board of any fact in dispute as to this RFP or the responses thereto shall be final and conclusive, except as provided herein. The Board assumes no liability for the disclosure of proprietary material submitted by Respondents. Proposal submittals shall be considered public documents under applicable state law, except to the extent portions of the submittals are otherwise protected under applicable law.

1.7 CONFLICT OF INTEREST

By the submission of a proposal, the Respondent agrees to ensure that, at the time of contracting, the Respondent will have no interest, direct or indirect, that would conflict in any manner or degree with the performance of the Respondent's obligations under the contract. The Respondent shall further covenant that, in the performance of the contract, the Respondent shall not employ any person, or subcontract with any entity, having any such known interest.

1.8 PROFESSIONAL CERTIFICATION

This is a public works project and will require the successful Respondent to have a public works contractor license at the time of signing a contract. In the event a public works construction project occurs during the term of the contract, the successful Respondent will be required to have a State of Idaho licensed professional engineer perform any engineering services to acquire the necessary permits or authorizations from federal, state, or local agencies.

1.9 PAYMENT BONDS

A payment bond is required for this project, in an amount of eighty-five percent (85%) of the annual operating fee (see Section 5.A of the draft contract). The bond shall be executed by a surety company or companies duly authorized to do business in this state, or the Contractor may deposit any of the type of government obligations listed in Idaho Code § 54-1901(2)(h), in lieu of furnishing a surety company payment bond. Bonds shall be provided within ten (10) calendar days of the Contract Date.

1.10 DRAFT CONTRACT, TERMS, AND CONDITIONS

A draft contract is provided (Attachment B) to accelerate contract negotiations upon the selection of the successful Respondent and shall be used for informational purposes only. Questions regarding the draft contract must be submitted by the deadline for questions. Answers will be included in the addendum. Respondents are encouraged to review the document prior to submitting a proposal.

2 DESCRIPTION OF THE FACILITY

The Facility was constructed in June of 2000 for a cost of \$5.5 million. Water from Dworshak Reservoir is conveyed from the Dworshak Dam to the Facility by a 36" pipeline to the primary turbine and an 18" pipeline to the secondary turbine. The generation capacity for the Facility is 2.9 MW – power is generated by a 2.5MW Gilkes Turgo turbine (primary unit) and a 0.4 MW Gilkes Turgo turbine (secondary unit). The Facility generates roughly 18 GWh per year, with the electricity transmitted to BPA through a Wheeling Agreement (contained in the draft contract (Attachment B)) with the local power utility, Clearwater Power.

Water is deflected through the turbines into a concrete flow regulating tank which delivers water to CFH and Dworshak National Fish Hatchery. During Facility shutdowns, water supply to the fish hatcheries is uninterrupted. CFH controls discharge rates from Dworshak Reservoir to both hatcheries.

Equipment and controls at the Facility include control equipment for operation of each turbine by a SCADA system and autodialer. The SCADA system and autodialer allow remote operation and monitoring by the Contractor and the CFH. Additional Facility equipment includes a power substation with a power grid connection, and a backup generator powered by liquid propane.



Figure 1: Dworshak Small Hydro Plant

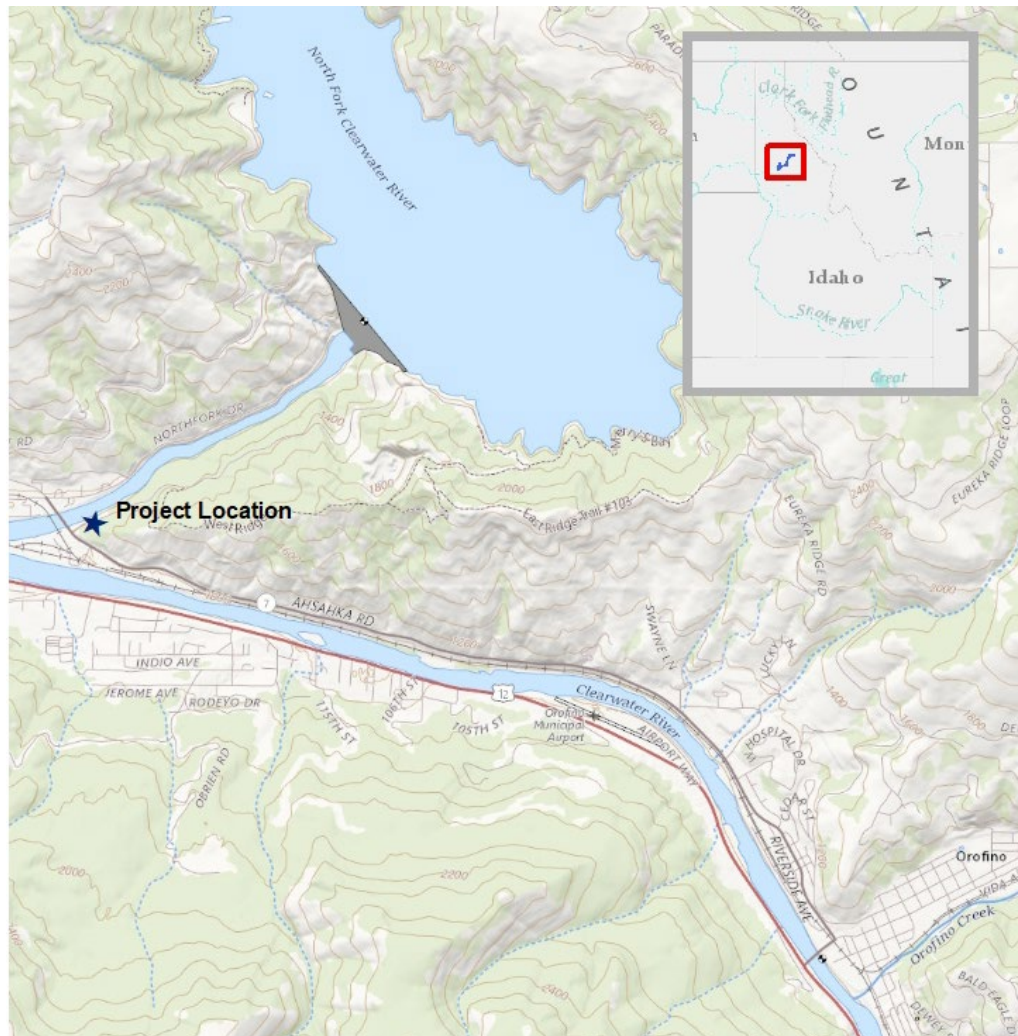


Figure 2: Facility location (near Ahsahka, ID)

3 ROLES AND RESPONSIBILITIES

3.1 CONTRACTOR: CONTRACTUAL SERVICES AND RESPONSIBILITIES

The Contractor shall be responsible for managing the processes, tools, and assets that are required to keep the Facility operating as intended while maintaining effectiveness and efficiency. The services listed below are to be normal operating services and are assumed to be covered under the contractual scope of work. The Contractor is responsible for their travel expenditures.

Contractor is responsible for regular maintenance and repairs of the Facility. These Contractual Services include, but are not limited to:

- Inspecting the Facility regularly.
 - Completing routine checks on Facility equipment biweekly as per Attachment D (Biweekly Maintenance Checklist), or similar.
- Preventative maintenance, testing, and inspections, including routine performance testing and analytics.
 - Monthly oil samples collected and sent for analysis.
 - Other testing services as needed.
- Routine maintenance: normal, low-cost maintenance and minor repairs including planned work tasks to address aging conditions and prevent costly repairs, replacements, and maintenance in the future. Examples include, but are not limited to:
 - Maintenance of the building (including minor paint work, temperature control, corrosion control, etc.).
 - Cleaning air intake vents.
 - Custodial services and cleaning.
 - Trash and recycling removal.
 - Pest control, snow removal, grounds care, landscaping, etc.
 - Updating and implementing software upgrades.

Contractor operational duties, to be included in Contractual Services, will include, but are not limited to:

- Project coordination and communication:
 - With all interested parties (including CFH, USACE, IDFG, USFWS, etc.) regarding penstock flow, operations and maintenance activities, and proposed operational changes.
 - This will also involve one (1) monthly meeting with IWRB staff, along with phone calls, emails, and coordination with Board staff regarding current operations (on an as-needed basis).
 - Monthly Operation Report, no more than ten (10) days after the end of each month.
- Documentation, including:
 - Participation in annual updates to the Safety Manual (see Attachment C).
 - Daily logs for outages or failures, to be reported to the Board after an outage or failure.
 - Monitoring daily SCADA reports.
- Submit reports to BPA for the estimated power generated each week. This also involves:
 - Troubleshooting any BPA Customer Portal system issues.
 - Performing quality assurance and quality control (QA/QC) confirmation of BPA values with site production values.
- Operating and maintaining the Facility in conformance with applicable laws, rules, regulations, and orders of any court or government authority.
- Providing on-site assistance during the annual valve exercise and fall shutdown.

- Each shutdown requires at least 1-3 days of on-site presence to help facilitate shutdown activities with the various stakeholders.
 - Any maintenance/repair work that is needed and can be completed during the shutdown shall be considered Additional Work (Section 3.2).
- Maintaining and facilitating access to the Facility, as per the Clearwater Fish Hatchery MOU (contained in the draft contract (Attachment B)).
- Training:
 - Provide annual training to all entities requiring Facility access. This will be on-site and may include retraining of Board employees in the event of Board staff turnover.
 - If subcontractors are to be employed: selecting, training, and supervising qualified employees to operate and maintain the Facility.
 - Assisting the Contract Manager with the transition of operators at the beginning and ending of the Contract Term – aiding in the transfer of knowledge of Facility operations. This will involve site visit(s).

3.2 CONTRACTOR: ADDITIONAL SERVICES

Additional Services are those that fall outside of the Contractual Services covered in Section 3.1. Additional Services will be billed separately and cannot be performed without prior authorization by the Board or Contract Manager. When Additional Services are required, the Board and Contractor will collaborate to identify which services are needed and negotiate a cost proposal for the work. This cost proposal will include additional Contractor travel expenditures required to complete the Additional Service. It will also include necessary (outside of Contractual Services) time for coordination and communication with all involved parties. Additional Services will include, but are not limited to:

- Planned and programmed major maintenance, repairs, or upgrades, including maintenance tasks which exceed one year. This may include, but is not limited to, services such as:
 - Capital improvements, including upgrades to Facility assets and componentry.
 - Transducer replacement/calibration, cable replacement, replacing switches, or replacing equipment with equivalent parts.
 - Services that may require a Facility shutdown, such as generator cleaning, turbine inspections, transformer repairs, electrical upgrades, or hydraulic fluid replacements.
 - Coordinating with subcontractors and other involved parties about Facility access, safety, LOTO, etc.
- Predictive maintenance, testing, and inspections:
 - Schedule-based maintenance tasks typically governed by equipment's time in service.
 - Routine scheduled activities to anticipate failures. Examples include vibration analyses, thermographs, x-rays, etc.
- Unscheduled/unplanned maintenance:
 - Unplanned maintenance derived from a failure (or perceived imminent failure) of equipment.
 - Restoring equipment to operational ability following a failure.
- Facility emergencies:
 - Contractor will be responsible for immediate action following a failure, as well as the subsequent maintenance and repairs.
 - In an emergency, Contractor must be onsite no more than 3 hours after notification.
- Materials, equipment, tools, supplies, consumables, and other items needed for the Facility that are not covered by services in Section 3.1.

3.3 CONTRACTOR: RETENTION REQUIREMENTS

It is essential that the Contractor provide an adequate staff of experienced personnel capable of and devoted to the successful accomplishment of work to be performed under the contract. The specific individuals listed in the proposal, including Project Manager, shall be assigned to the key positions and shall not be removed or replaced without the prior written approval of IWRB. Replacement personnel submitted for approval must have at least equal qualifications, experience and expertise as those listed in the proposal.

3.4 IWRB: ROLES AND RESPONSIBILITIES

It is the **Board's** responsibility to provide and pay for the following:

- Liquid propane (for the backup generator)
- Insurance
- Phone services
- Internet service
- Power
- Security services
- Software memberships and subscriptions for Facility componentry

The **Board** will also be responsible for:

- Financing any hydropower generation activities associated with the Facility
- Permits (Contractor may be asked to assist)
- Submitting monthly invoices to BPA

3.5 IWRB: EQUIPMENT AND TOOLS

The **Board** also owns equipment and tools that are kept on site. The Contractor may use and operate these tools for operations and maintenance purposes, but the Contractor may need to provide additional specialty tools if needed to conduct services. Equipment and tools owned by the Board shall remain onsite and the Board will retain ownership of them. The Contractor will retain ownership of its own tools when working on the Facility.

4 EVALUATION CRITERIA

4.1 COMPANY AND TEAM EXPERIENCE AND QUALIFICATIONS

Describe how the company and Team will be organized to operate and maintain the Facility. Provide basic information related to the company's size, hydropower (or similar industrial facility) operations and maintenance experience, personnel, and any special certifications as they pertain to the hydropower industry. List any relevant experience regarding hydropower or similar industrial facilities managed and operated by the Team within the last five (5) years. Identify the similarities to this Facility and how the Team is qualified to operate it. Demonstrate the experience and qualifications of the Team related to the following:

- Hydropower operations and maintenance
- Operations and maintenance of power generation equipment
- Contract administration and client management
- FERC inspections
- Experience working with BPA (or similar transmission agency)

List at least two (2) verifiable professional references with a contact name, phone number, and email.

4.2 PROJECT MANAGER, KEY PERSONNEL, AVAILABLE RESOURCES, AND ORGANIZATIONAL CHART

Identify the Project Manager who will be responsible for the quality and timeliness of the Team's work, and for ensuring that adequate personnel and other resources are available for this project. Provide a brief summary of education, experience, and qualifications/certifications associated with operating hydropower facilities. Also, provide the following:

- List any relevant experience regarding similar hydropower or industrial facility maintenance projects led by the Project Manager within the last five (5) years. Provide a brief summary of the Project Manager's experience with hydropower or industrial facilities and identify similarities to this project (including dates when the work occurred and specific services).
- List at least two (2) verifiable references with the contact's name, phone number, and email.

Identify the key personnel and describe each person's role and duties on this project. Provide a brief summary of experience and qualifications, including Idaho professional registration (if applicable) for each person identified, and their office location.

Include an organizational chart of the Team.

4.3 FACILITY UNDERSTANDING

Describe the Team's role as Operator and provide a detailed description of the project based on your Team's knowledge and research. Based on your understanding, identify and describe the critical operations and maintenance activities for the Facility. Describe your Team's technical and operational capabilities and limitations. Also, describe current conditions or issues that impact system longevity.

4.4 PROJECT APPROACH

Based on the understanding of the Facility and project, describe your Team's approach and methodology to managing the operations of the Facility throughout the duration of the contract.

- Explain how the Team would become familiar with the operations of the Facility.
- Describe how the Team would assess and decide upon necessary maintenance and repair work.
 - Explain the degree to which equipment cost and lifespan are considered. How does your Team incorporate downtime (Facility shutdowns) into its considerations?
- How would the Team reduce administration efforts for both the Board and Contractor?
- Describe other processes used to actively manage the Facility throughout the duration of the contract.

Include a preliminary project schedule for estimated operations and maintenance activities.

4.5 TOTAL COSTS FOR OPERATIONS AND MAINTENANCE

Prepare a cost estimate for the total annual costs to comprise all Contractual Services found in Section 3.1. The cost estimate shall show direct labor rates, company/organizational mark-ups, description/position of staff providing the services, and list the hours expected for staff to provide the services. This estimate shall be calculated for the contract year, sub-totaled, and labeled "Total Annual Cost."

Prepare a cost estimate for labor rates to complete Additional Services, as per Section 3.2. Include estimates for hourly rates, travel (mileage), additional coordination/communication efforts, and other additional

charges that would be needed to complete any Additional Services. Include the Company's materials mark-up rate. Label this estimate "Rates for Additional Services."

4.6 QUALITY CONTROL PROCEDURES

Describe the Company or Team's procedures for controlling changes in scope, schedule, cost, and quality. This should also include a description of the Team's processes for maintaining a safe Facility.

5 INSTRUCTIONS TO RESPONDENTS

5.1 PROPOSAL PREPARATION AND SUBMITTAL INSTRUCTIONS

Proposals must conform to the following instructions. Any proposal that fails to meet the following criteria will be rejected.

All proposals must include copies of the following documents found in Attachment A:

1. Non-Disclosure Agreement (signed)
2. Certification Regarding Debarment, Suspension, and Other Responsibility Matters (signed)
3. RFP Signature Page (signed)

The proposal must meet the following requirements:

- The introductory letter (with name, title, email, phone of primary point of contact) is limited to one (1) single-sided page (the letter does not count in the proposal page total).
- The proposal should be no more than 20 pages. This **does not** include documents in Attachment A, but **does** include:
 - Team member resumes, summaries, references, and any professional license numbers
 - Contact information for all references cited
 - Team organizational chart
 - Project examples, with pictures
- The proposal should be in a legible font no smaller than 11 points on pages no larger than 8.5" x 11".
- Include a Table of Contents (not included under required page count).

5.2 SUBMITTAL

Proposals must be submitted to and received by IDWR Procurement no later than 4:00 p.m. MDT, October 14, 2026. Late proposals will be rejected. Interested Teams must provide an electronic copy (PDF) on a USB drive and five (5) printed copies of the proposal. Proposals should be sent to:

IDWR Procurement
Attn: Glyn Roberts
RFP 2026-05
322 E Front St., Suite 648
Boise, ID 83702

If mailing the proposal, please allow additional time to ensure the package arrives before the deadline.

Proposals are to be sealed and clearly marked "*RFP 2026-05 Operations and Maintenance Services for the Dworshak Small Hydropower Plant*," along with the Contractor's company name.

5.3 APPEALS

Written objections to RFP procedures must be received by the RFP Lead, at the submittal location provided in Section 5.2, at least three (3) business days before the date and time that proposals are due.

6 EVALUATION PROCESS

6.1 OVERVIEW

A Selection Committee will score and rank the individual and comparative merits of the proposals received according to Evaluation Criteria (Sections 4.1 – 4.6) and the Scoring Criteria (Table 1). This will determine the three highest ranking Respondents.

CRITERION NUMBER	CRITERION	SCORING CATEGORIES	AVAILABLE POINTS
4.1	Company and Team experience and qualifications	Team's experience and certifications; similarities with other projects, project references	15
4.2	Project Manager, key personnel, available resources, and organizational chart	Project Manager's experience, similarities with other projects, availability and dedication to this project, qualified key personnel, and organizational chart	25
4.3	Facility understanding	Identify critical O&M activities for the Facility, Team's capabilities and limitations, and current conditions impacting system longevity	25
4.4	Project approach	Project approach, schedule for O&M, becoming familiar with the Facility, approach to repairs and maintenance	20
4.5	Total costs for operations and maintenance	Total annual cost to provide services in Section 3.1, rates to include Additional Services costs as per Section 3.2	10
4.6	Quality control procedures	Capabilities to control costs, scope, safety, and quality	5
SUBMITTAL PACKAGE SUBTOTAL:			100
PRESENTATION AND INTERVIEW			50
TOTAL POINTS AVAILABLE:			150

Table 1: Evaluation Criteria

The IWRB will conduct reference checks of the top three Respondents. Information obtained from the references will be considered in scoring the proposals. Staff currently employed by IDWR and IWRB Members shall be excluded from being named as a reference by the Respondent.

6.2 INTERVIEW PROCESS

The three top-ranked Respondents will be invited to an interview with the Selection Committee. It is **mandatory** that the interview team consists of Team members listed in Section 4.2. The interview will include a 30-minute presentation by the Team, 30 minutes for questions from the Selection Committee, and 30 minutes for questions from the Respondent. Detailed interview agendas will be sent to the invitees upon completion of the Proposal evaluation.

Final scores will be determined by the combined points from the proposal submission and the interview.

6.3 SELECTION AND NEGOTIATIONS

Once a top-ranked Respondent has been identified, the IWRB will issue a letter of intent and contract negotiations will begin. However, final acceptance is contingent upon the successful negotiation of a contract. If the IWRB and top-ranked Respondent are unable to negotiate a satisfactory contract, the IWRB will begin negotiations with the second-ranked Respondent, and so forth.

End RFP

Attachment A: RFP Forms

Non-Disclosure Agreement

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

Signature Page



NON-DISCLOSURE AGREEMENT

O&M Services Dworshak Small Hydropower Plant RFP No. 2026-05

1. The Idaho Water Resource Board (Board) issued RFP No. 2026-05 for Operation and Maintenance Services for the Dworshak Small Hydropower Plant (Facility).
2. Some of the information needed to provide an informed response to RFP No. 2026-05 is considered critical energy infrastructure information (CEII) pursuant to 18 CFR § 388.113.
3. Respondent must agree to keep all CEII related to the Facility confidential prior to receiving such information.

Therefore, Respondent agrees as follows:

- A. CEII includes, but is not limited to, the tour of the Facility, design plans, schematics, and emergency action plans. A full definition of CEII can be found at 18 CFR § 388.113(c)(2).
- B. Respondent shall handle the CEII as follows:
 - i. Keep it in a secure place in a manner that would prevent unauthorized access;
 - ii. Destroy or return it to the Board on the date RFP No. 2026-05 submittals are due; and
 - iii. Promptly report to the Board all unauthorized disclosures.
- C. Respondent shall minimize the number of people within its organization who have access to the CEII.
- D. Respondent will not disclose CEII to any subcontractor without obtaining a non-disclosure agreement substantially similar to this Agreement. Respondent shall provide the Board a copy of each non-disclosure agreement prior to disclosing the CEII.
- E. In addition to any other remedies available to the Board, Respondent shall indemnify the Board against any losses and liabilities arising out of disclosure or use of any CEII by any representatives of Respondent other than as authorized in this agreement.

Company Name

Email

Phone Number

Name & Title of Signer

Signature



CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

By signing this document, the Respondent certifies to the best of their knowledge and belief that except as noted on an attached Exception, the Respondent:

- A. Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- B. Has not within a three-year period preceding this Request for Proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction or Contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records making false statements, or receiving stolen property;
- C. Is not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- D. Has not, within a three-year period preceding this Request for Proposal, had one or more public transactions (Federal, State, or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Request for Proposal.

NOTE: Exceptions will not necessarily result in denial of award, but will be considered in determining Respondent responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

Company Name

Signature of Responsible Party

Date



SIGNATURE PAGE

Originals and copies of the response shall be submitted in accordance with the solicitation documents. This signature page must be submitted with the original signature (ink or electronic) of an individual authorized to bind the submitting Respondent.

NO LIABILITY WILL BE ASSUMED BY THE IDAHO WATER RESOURCE BOARD FOR A RESPONDENT'S FAILURE TO OBTAIN ANY PROPERLY ISSUED SOLICITATION ADDENDUMS IN A TIMELY MANNER FOR USE IN THE RESPONDENT'S RESPONSE TO THIS SOLICITATION.

Submit your response to: Idaho Department of Water Resources
Attn. Glyn Roberts
RFP 2026-05
322 E Front Street, Suite 648
Boise, ID 83702

This RFP response is submitted in accordance with all documents and provisions of the specified RFP Number and Title provided below. By my signature, I accept the terms, conditions, and requirements contained in the solicitation, and acknowledge that I have reviewed the Idaho Water Resource Board Standard Contract Provisions contained in Attachment B to this solicitation. As the undersigned, I certify I am authorized to sign and submit this response for the named Respondent. I further acknowledge I am responsible for reviewing and acknowledging any addenda that have been issued for this solicitation.

RFP No: 2026-05 **RFP Title:** Operation and Maintenance Services for the Dworshak Small Hydropower Plant

RESPONDENT (Company Name) _____

ADDRESS _____

CITY, ST, ZIP _____

PHONE: _____ FAX: _____ FEIN: _____

Email: _____

Signature

Date

Printed Name

Title

RETURN THIS SIGNATURE PAGE WITH YOUR STATEMENT OF PROPOSAL

Attachment B: Draft Contract

OPERATION AND MAINTENANCE SERVICES FOR THE DWORSHAK SMALL HYDROELECTRIC PROJECT

Contract Number

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This Operation and Maintenance Services Contract (“Contract”) entered into between the Idaho Water Resource Board (“Board”) and Contractor (“Contractor”) is made in reference to the following facts:

- A. The Board is the owner of and is responsible for planning, financing, designing, and constructing the Dworshak Small Hydroelectric Project (“Project”).
- B. The Board has contracted out the operations of the Project to third parties since the commission of the Project in 2000.
- C. Water is supplied to the Project through the Clearwater Fish Hatchery (“Hatchery”) pursuant to the June 5, 2000 Memorandum of Understanding for the Use of the Clearwater Fish Hatchery Water Supply Lines for the Operation of the Dworshak Small Hydroelectric Project (“Hatchery MOU”) with the United States Fish and Wildlife Service (“FWS”).
- D. The Bonneville Power Administration (“BPA”) purchases all power generated by the Dworshak Small Hydroelectric Project pursuant to the April 30, 1990 Settlement and Contingent Power Purchase Agreement (“Power Agreement”).
- E. Clearwater Power Company (“CPC”) wheels the energy output from the Project to BPA, pursuant to the January 19, 2000 Electric Power Wheeling and Maintenance Agreement (“Wheeling Agreement”).

The parties agree as follows:

1. Definitions

- A. “Contract Manager” shall mean Benjamin Camp (telephone: (208) 287-4870, email: benjamin.camp@idwr.idaho.gov), who is appointed by the Board to administer this Contract on behalf of the Board. Contract Manager includes any authorized representative of the Contract Manager acting within the limits of their authority, unless otherwise provided in this Contract. The Board or anyone authorized on its behalf may change the Contract Manager at any time by written notice served on the contractor.
- B. “Project” shall mean the Dworshak Small Hydroelectric Project which is located approximately one mile downstream of Dworshak Dam on the North Fork of the Clearwater River in Clearwater County, Idaho. The Project is licensed by the Federal Energy Regulatory Commission (FERC) as project no. 10819-002.
- C. “Project Coordinator” shall mean Project Coordinator name (telephone: (XXX) XXX-XXXX, email: email), who is appointed by the Contractor to administer this Contract on behalf of the Contractor. Project Coordinator includes any authorized representative of the Project Coordinator acting within the limits of their authority, unless otherwise provided in this Contract.
- D. "Contract Year" shall mean the 12-month period commencing on the Contract Date, and then each 12-month period thereafter.

2. Attachments

The following documents are attached and incorporated to this Contract:

Attachment	Document
A	Scope of Services
B	Rates for Additional Services
C	Power Agreement
D	Wheeling Agreement
E	Hatchery MOU
F	Confidentiality Agreement

3. Services

A. Project Operation & Maintenance

- i. Contractor shall perform the project management, administration, operations, and maintenance services needed so the Project is safe and reliable. The Contractor is responsible for performing all activities and tasks as follows and as set forth in Scope of Services in Attachment A:
 - a. Reviewing and recommending changes to the project safety manual
 - b. Participating in operations transition (at the beginning and end of the contract term)
 - c. Performing normal and routine maintenance
 - d. Performing preventive maintenance and testing
 - e. Performing project repairs
 - f. Maintaining documentation and record keeping
 - g. Providing oversight of Contractors performing operation and maintenance activities for the hydropower facility
- ii. Contractor shall not conflict or interfere with work conducted by employees of the Hatchery related to the Project. Pursuant to the Hatchery MOU, the FWS has the right to inspect the Project. Timely written notice of inspections will be provided to Contractor.
- iii. Contractor shall comply with all documents that are updated annually by the Board, Contractor, and the Board's Owner Advisor conjunctively, including, but not limited to, the Emergency Action Plan, Safety Manual, and Facility Plan. If updates to these documents require additional work on the Contractor's behalf, this work shall be considered Additional Services.
- iv. Contractor shall maintain a Public Works Contractor License pursuant to Idaho Code Title 54, Chapter 19.
- v. Contractor shall prepare a draft monthly invoice for BPA and submit it to the Board before the 7th of each month.

- vi. Contractor shall troubleshoot any BPA Customer Portal system issues and perform a quality assurance and quality control (QA/QC) confirmation of BPA values with site production values.

B. Project Materials, Equipment, Tools, Supplies, Consumables, and Other Items

- i. The Board shall retain title to all materials, equipment, tools, supplies, consumables, and other items that are purchased or obtained by the Contractor using Board funds, where the items are to be used solely for the Project.
- ii. The Contractor shall retain title to materials, equipment, tools, supplies, consumables, and other items purchased or obtained by the Contractor using Board funds, where the items are to be used by the Contractor on this Project and other projects, provided the Contractor identifies the other projects or purposes for which such items will be used.

C. Additional Services

- i. The following activities and tasks are Additional Services not covered by the services in Section 3.A. The Contract Manager and Project Coordinator shall collaborate to identify which Additional Services are necessary and negotiate a cost proposal for the agreed upon Additional Services. Additional Services include but are not limited to:
 - a. Capital improvements
 - b. Upgrades to Project assets/componentry
 - c. Planned or programmed maintenance that occurs sooner than scheduled due to an urgent condition
 - d. Predictive maintenance/testing/inspection
 - e. Programmed major maintenance
 - f. Services for updating software or subscriptions
 - g. Materials, equipment, tools, supplies, consumables, and other items needed for the Project not covered by services in Section 3.A
 - h. Unscheduled training for Clearwater Fish Hatchery
 - i. Unscheduled/unplanned maintenance
 - j. Project emergencies
- ii. Contractor shall provide the Board with a detailed cost proposal for proposed Additional Services, based on Rates for Additional Services in Attachment B. Absent an emergency, Contractor must receive the Board's approval prior to commencing any Additional Services. If the Contractor performs any Additional Services without written authorization, the Board may refuse to compensate the Contractor for the work.

4. Limitations on Authority

Notwithstanding any provision in this Contract to the contrary, unless previously approved by the Board in writing, Contractor and any employee, representative, contractor or other agent of Contractor are prohibited from taking the following specified actions:

- A. Sell, lease, pledge, mortgage, convey, or make any license, exchange or other transfer or disposition of any property or assets of the Board, including any property or assets purchased by Contractor for exclusive use on the Project as contemplated in Section 3.B.i;
- B. Make, enter into, execute, amend, modify or supplement any contract or agreement (i) on behalf of, in the name of, or purporting to bind Board or (ii) that prohibits or otherwise restricts Contractor's right to assign such contract or agreement to Board at any time;
- C. Settle, compromise, assign, pledge, transfer, release or consent to the compromise, assignment, pledge, transfer or release of, any claim, suit, debt, demand or judgment against or due by, Board or Contractor related to the Project, or submit any such claim, dispute or controversy to arbitration or judicial process, or stipulate in respect thereof to a judgment, or consent to do the same;
- D. Create, incur, or assume any lien upon the Project;
- E. Engage in any other transaction on behalf of Board or any other person or entity not expressly authorized by this Contract or that violates applicable Laws; or
- F. Enter into any agreement to do any of the foregoing.

5. Compensation and Invoices

- A. The Board will pay, and the Contractor shall accept, a total annual operating fee of \$XXXXX, payable in monthly installments of \$XXXXX to perform the Services in Section 3.A. The annual operating fee will be adjusted starting on the first day of each Contract Year using the Idaho Department of Labor Consumer Price Index from the prior year (October to November). The percent change from year to year shall not be less than 0.00% or greater than 3.0%.
- B. In addition to the fee provided for under Section 5.A, the Board will pay for Additional Services in accordance with the Rates for Additional Services in Attachment B.
- C. Contractor shall submit an invoice to the Board monthly covering both the monthly fee and any Additional Services.
- D. Invoices shall be mailed to IDWR Payable, PO Box 83720, Boise, ID 83720-0098 or emailed to idwrpayable@idwr.idaho.gov. The Contractor shall supply the following information on the invoice:
 - i. Billing date
 - ii. Contractor's name, address, and telephone number
 - iii. Contract number

- iv. Itemized activities performed during the billing period, receipts for materials, and subcontractors invoices
 - v. Total amount being billed for the billing period
- E. The Board will promptly process payment upon receipt of the complete invoice and the progress report in accordance with Idaho Code § 67-2302.

6. Limitation of Program Funds

- A. The Board cannot obligate funds prior to obtaining funding approval.
- B. The Board certifies that state funds are presently available and authorized for expenditure to pay the portion of costs which will accrue during the current state fiscal year.
- C. All obligations of the Board, including the continuance of payments under this Contract, are contingent upon the availability and continued appropriation of funds. In the event state funds become unavailable, as determined by the Board, the Board may immediately terminate this Contract or amend it accordingly. In no event shall the Board be liable for any payments in excess of approved or appropriated funds available for this project.

7. Term

- A. This Contract shall take effect when both parties have signed it. The Contract Date will be the date the Contract is signed by the last party to sign it and shall continue in effect until **Term Date**.
- B. The Contractor agrees to continue with the operation and maintenance of the Project for ninety days after the expiration of this Contract, for the current monthly fee, should the procurement process for a new contract take longer than expected.

8. General Termination Provisions

Upon expiration or termination of this Contract for any reason:

- A. The Contractor shall cooperate with the Board in the transfer of the operations of the Project to the Board or a new contractor of the Project designated by the Board. Without limiting the foregoing, the Contractor shall train personnel of the Board or the new contractor with information and data necessary for the safe and efficient operation and maintenance of the Project.
- B. In connection to transfer of operations and training, the Contractor grants to the Board a non-exclusive license to use all Contractor-owned software, drawings, hardware, patents and other proprietary data that the Board deems necessary for the operation of the Project.
- C. The Contractor shall leave the Project in good operating condition. Gradual deterioration resulting from ordinary use (normal wear and tear) shall not constitute a failure to leave the Project in good operating condition. Normal wear and tear does not include damage from failure to perform scheduled maintenance, failure to follow O&M procedures, neglect, improper operation, or failure to make timely repairs of known defects. Equipment shall be left in an operating condition that aligns with equipment design parameters.

- D. The Contractor shall maintain insurance in accordance with the terms of this Contract until thirty days after the date the Contractor vacates the Project. The Contractor shall provide the Board at least forty-five days' prior written notice of any cancellation or termination of such insurance.
- E. Without additional compensation to the Contractor:
 - i. The Contractor shall deliver to the Board all books, records, accounts, manuals, and Operating Procedures developed or maintained by the Contractor pursuant to this Contract.
 - ii. The Contractor shall provide the Board the non-exclusive right to continue to use any and all Contractor-owned software, hardware, patents, and any proprietary information of Contractor that the Board deems necessary to operate the Project.
 - iii. The Board shall have the right to take possession of all the equipment and supplies located at the Project for the purposes of operating the Project, provided such equipment and supplies are acquired in accordance with Section 3.B.i.
- F. The Contractor shall at the Board's request and at the Board's expense, on a time and materials basis:
 - i. Assist the Board in preparing an inventory of all material, equipment, spare parts, and supplies in use or in storage at the Project;
 - ii. Assign to the Board all subcontracts and other contractual agreements as may be designated by the Board; and
 - iii. Remove from the Project all such equipment and supplies as the Board may request.

9. Termination for Convenience

- A. The Board may terminate for its convenience this Contract in whole or in part. In such event, the Board shall serve a written Notice of Termination for Convenience on the Contractor by deposit in the United States mail, as certified, return receipt requested with proper postage affixed. Notice of Termination for Convenience shall be deemed served upon its receipt.
- B. After the date of service of the Notice of Termination for Convenience, the Contractor shall not incur any non-cancellable obligations, except as authorized in the written Notice of Termination for Convenience.
- C. If a termination for the convenience of the Board is effected, an equitable adjustment in the payments authorized in this Contract shall be made. Such adjustments shall provide for payment to the Contractor for services rendered prior to the effective date of termination of the Contract, for all non-cancellable obligations incurred prior to receipt of a Notice of Termination for Convenience, and for reasonable demobilization charges.
- D. Within twenty days of receipt of a Notice of Termination for Convenience, the Contractor shall submit a summary detailing all completed work on the services required by this Contract.

- E. In addition, the Board shall have the right to terminate this Contract upon thirty days' written notice without further liability if (a) the Board sells, transfers, conveys or otherwise disposes of the Project or (b) the Power Agreement is terminated.
- F. Contractor shall have the right to terminate this Contract without cause upon one hundred eighty days' written notice to the Board with no further liability other than compliance with Section 8, General Termination Provisions. Upon termination of this Contract by the Contractor under this section, the Contractor will be paid for services completed prior to the effective date of termination and reasonable demobilization charges.

10. Termination for Default

- A. In addition to any termination of this Contract in accordance with Section 9, Termination for Convenience, either party may terminate this Contract in whole or in part because of the failure of the other party to fulfill its obligations. Prior to Terminating the Contract for Default, the terminating party must provide notice and a reasonable period to cure. A Termination for Default shall be sent by deposit in the United States mail as certified, return receipt requested. The effective date of termination for default shall be the date of receipt of the Notice of Termination for Default.
- B. Upon receipt of Notice of Termination for Default from the Board, the Contractor shall immediately discontinue all services affected. Oral notice of termination by the Board is effective when given, but in such a case, the Board shall confirm with written Notice of Termination for Default by deposit in the United States mail as certified, return receipt requested. The effective date of termination for default if no oral notice is given shall be the date of receipt of Notice of Termination for Default.
- C. If a termination for default is effected, the Board has the right to withhold payment for services provided that relate to the Contractor's default.
- D. Within twenty days of receipt of a Notice of Termination for Default, the Contractor shall submit a summary detailing all completed work required by this Contract and deliver or otherwise make available to the Board all data, reports, estimates, summaries and such other information and materials as may have been accumulated by Contractor in performing this Contract, whether completed or in process.
- E. The rights and remedies of the Board provided in this Contract are in addition to any other rights and remedies provided by law or under this Contract. Either party may declare a default by written notice, without providing an opportunity to cure, if the other party (i) commits a material breach that is not reasonably capable of cure; or (ii) after receiving written notice and an opportunity to cure a breach, subsequently commits the same or a substantially similar breach. Examples of a material breach include, but are not limited to: failure to maintain required licensure, violations of law, and failure to comply with safety and regulatory directives.
- F. In the event of default, before either party may bring an action in any court involving the interpretation and effect of the Contract, such party must first seek in good faith to resolve the dispute pursuant to Section 11, Dispute Resolution. If default occurs and is not resolved under Section 11, the injured party may elect to terminate this Contract and proceed with any equitable or legal remedies available under Idaho law. Unless the Board

decides to suspend payments after notice to the Contractor, the Contractor shall continue to diligently perform all responsibilities under this Contract pending final resolution of the dispute.

11. Dispute Resolution

The Board and Contractor want this Contract to operate between them fairly and reasonably. If during the term of this Contract a dispute arises between the Board and Contractor, or a question of interpretation arises, then the Board and Contractor shall promptly confer and exert their best efforts in good faith to reach a reasonable and equitable resolution. Unless otherwise agreed in writing or except as provided herein, each party shall continue to perform its obligations under this Contract pending resolution of disputes.

12. Force Majeure and Suspension

- A. The term "Force Majeure" shall mean acts, events, or occurrences beyond the reasonable control of the Contractor or the Board which delay or otherwise prevent the Contractor or the Board from timely performing their respective obligations under this Contract (other than an obligation to pay money), despite prudent and diligent efforts to prevent, avoid, delay or mitigate such acts, events, or occurrences. Such events include, without limitation: fires; floods; epidemics; lightning; earthquakes; quarantine; blockade; governmental acts, orders or injunctions; war; insurrection or civil strife; strikes or labor disputes, provided however that strikes by any laborer employed by the Contractor at the Project, or lockouts or other labor disputes at the Project will not constitute Force Majeure events; sabotage; unusual delays in transportation; explosion; and any other similar events. Such acts, events, or occurrences shall not include those that are the result of willful or negligent actions or inactions of either party.
- B. Neither party shall be considered in default in the performance of its obligations under this Contract to the extent that the performance of any such obligation is prevented or delayed by any Force Majeure; provided however, that
 - i. The suspension of performance is of no greater scope and of no longer duration than is necessarily caused by the Force Majeure and required by any remedial measures;
 - ii. No obligations of either party that arose before the occurrence of such causes are excused as the result of the occurrence;
 - iii. Each party uses its reasonable efforts to remedy its inability to perform; and
 - iv. Except to the extent otherwise provided in this Section 9, no obligation of the Contractor is excused to the extent such obligation can be performed or carried out by a person engaged by the Contractor.
- C. The party claiming Force Majeure shall give written notice to the other party of any Force Majeure within five (5) days after the party claiming the Force Majeure has knowledge of such event. In the event the Contractor gives such notice, the notice shall specify the length of interruption of performance of obligations expected to be incurred by the Contractor by reason of such event and shall substantiate the same to the reasonable satisfaction of the Board. The party claiming Force Majeure shall provide the other party with periodic supplemental notices during the period that the Force Majeure

continues. Such supplemental notices shall keep the other party informed of any change, development, progress or other relevant information concerning the Force Majeure event.

- D. The party claiming Force Majeure shall use diligent and prudent efforts to avoid and minimize the effects of such Force Majeure. The Contractor shall not be required to subcontract the services or to work additional hours for which premium time is payable or to schedule additional work shifts, if additional hours or additional shifts would not have been required prior to the occurrence of such Force Majeure.
- E. The Board, by written notice, may require the Contractor to suspend all or a portion of the Contractor's Services for a specified period of time. In the event the Contractor's Services are suspended by the Board or by an event of Force Majeure, the Contractor shall be relieved of any obligations under this Contract; to the extent those obligations are affected by such suspension. During the period of any suspension or event of Force Majeure, the Contractor shall minimize expenditures to control costs and activities of the Contractor during the suspension or event of Force Majeure. Contractor shall be paid by Board for such minimized costs during a suspension or event of Force Majeure.

13. Indemnification

- A. Contractor shall indemnify, defend, and save harmless the Board, its officers, agents, employees, and volunteers from and against any and all liability, claims, damages, losses, expenses, actions, settlements, attorneys' fees, and suits to the extent caused by, arising out of, or in connection with Contractor's negligent acts or omissions under this Contract, or Contractor's failure to comply with any state or federal statute, law, regulation, or rule.
- B. Upon receipt of the Board's tender of indemnity and defense, Contractor shall immediately take all reasonable actions necessary, including, but not limited to, providing a legal defense for the Board, to begin fulfilling its obligation to indemnify, defend, and save harmless the Board. Contractor's indemnification and defense liabilities described herein shall apply regardless of any allegations that a claim or suit is attributable in part to any act or omission of the Board under this Contract. However, if it is determined by a final judgment that the Board's negligent act or omission is the sole proximate cause of a suit or claim, the Board shall not be entitled to indemnification from Contractor with respect to such suit or claim, and the Board may reimburse Contractor for reasonable defense costs attributable to the defense provided by any Special Deputy Attorney General appointed pursuant to Section 13.C.
- C. Any legal defense provided by Contractor to the Board under this section must be free of any conflicts of interest, even if retention of separate legal counsel for the Board is necessary. Any attorney appointed to represent the Board must first qualify as and be appointed by the Attorney General of the State of Idaho as a Special Deputy Attorney General pursuant to Idaho Code §§ 67-1401(13) and 67-1409(1).

14. Limitation of Liability

- A. Environmental Liability
 - i. Contractor shall not be responsible for claims directly or indirectly related to hazardous materials present at the Project before the date of this Agreement, except to

- the extent Contractor acted with respect to such Board-identified materials in a grossly negligent manner.
- ii. Board shall not be responsible for claims directly related to hazardous materials at the Project arising out of the grossly negligent or intentional acts of Contractor. This provision of the Agreement shall not be construed to require Contractor to take corrective action with respect to any hazardous materials at the Project before the date of this Agreement.
 - iii. If action is required at the Project to comply with any applicable environmental laws during the term of this Agreement, Board (with Contractor's assistance) shall be responsible for the costs of compliance. Costs for such compliance action shall be incurred by Contractor only with Board's prior written consent, unless a governmental authority requires Contractor to incur such costs and expenses prior to obtaining such written consent.
- B. Notwithstanding any provision in this Contract to the contrary, Contractor and Board each agree not to assert against the other any claim, demand or suit for consequential, incidental, indirect or special damages arising from any aspect of the performance or nonperformance of the other party or any third-party engaged by such other party under this Contract.
- C. In no event shall any official, officer, employee, or agent of the Board and the State of Idaho be personally liable for any representation, statement, covenant, warranty, or obligation contained in, or made in connection with, this Contract, express or implied.
- D. Contractor's overall cumulative liability for damages to the Board arising under or in relation to this Contract will in no event exceed an amount equal to one hundred percent (100%) of the applicable Contract Price; provided, however, such limitation of liability shall not apply to: (a) Contractor's indemnity obligations herein with respect to claims by third-parties; and (b) occurrences against which Contractor is required to insure in accordance with this Contract, except to the extent the loss from such occurrences exceeds the applicable limits for such occurrences set forth herein. These limitations of liabilities for damages shall apply to the maximum extent permitted by law and regardless of whether such liabilities for damages arise out of breach of contract or warranty, tort, including negligence, strict or statutory liability, or any other cause of action and shall apply to Contractor, its officers, employees, and subcontractors.
- E. In no event shall either Party (or Contractor's subcontractors) be liable for special, incidental, consequential or exemplary damages, including without limitation, loss of anticipated, unearned revenues and profits and for business interruption, loss-of-use and lost productivity, arising out of or relating to this Contract, as well as any such damages due to either Party's termination.

15. Taxes

The Contractor, with respect to its employees and those of its subcontractors, if any, shall pay, indemnify and hold the Board and the State of Idaho harmless from the payment of all taxes and contributions imposed by federal and state laws, including social security taxes, with respect to

said employees and their remunerations, including all interest and penalties payable under said laws as the result of noncompliance therewith.

16. Workers' Compensation Insurance

Unless the Contractor is exempt under the provisions of Idaho Code § 72-212, the Contractor warrants that it has purchased workers' compensation insurance for Contractor and all employees engaged in the performance of this Contract and shall provide the Board with a Certificate of Insurance to verify the same within 15 days of the execution of this Contract. The Contractor shall notify the Contract Manager within five days of any change in the status of its workers' compensation insurance.

17. Insurance

- A. Contractor shall obtain and maintain insurance at its own expense for the duration of the Contract with insurance companies properly licensed to do business in Idaho. The Contractor shall provide certificates of insurance or certified endorsements as applicable for the insurance required. Contractor shall provide a copy of the carrier's notice of cancellation or material changes within two days of the Contractor receiving notice from the carrier. All insurance, except for Workers' Compensation and Professional Liability/Errors and Omissions, shall name the Board and the State of Idaho as Additional Insured.
- B. Contractor shall maintain insurance in amounts not less than the following:
 - i. Commercial General Liability on an occurrence basis to include premises and operations, personal and advertising injury, products and completed operations, liability assumed under an insured contract, and independent contractors. The limits of liability shall not be less than: \$1,000,000 each occurrence bodily injury and property damage; \$1,000,000 personal and advertising injury; \$2,000,000 general aggregate; \$2,000,000 products/completed operations aggregate. Coverage shall include additional insured status and a waiver of subrogation in favor of the State, its officers, directors, employees, agents, and volunteers.
 - ii. Automobile Liability including owned, non-owned, leased, and hired liability with a limit of not less than \$1,000,000 each accident and \$1,000,000 aggregate.
 - iii. Professional liability insurance covering any damages caused by an error, omission, or any negligent acts. Combined single limit per occurrence shall not be less than \$1,000,000 or the equivalent. Annual aggregate limit shall not be less than \$1,000,000.

18. Payment Bond

Pursuant to the Public Contracts Bond Act (Idaho Code §§54-1925 et. seq.), Contractor shall provide the Board a payment bond in the amount of 85% of the annual operating fee set forth in Section 5.A.

19. Relationship of the Parties

- A. The parties intend to create by the terms of this Contract, an independent contractor relationship between the Board and the Contractor.

- B. The parties do not intend to create by the terms of this Contract the relationship of employer and employee. Contractor's status under this Contract shall be that of an independent contractor and not that of an agent or employee of the State. Contractor shall be responsible for paying all employment-related taxes and benefits, such as federal and state income tax withholding, social security contributions, workers' compensation, and unemployment insurance premiums, health and life insurance premiums, pension contributions, and similar items. Contractor shall indemnify the Board and the State and hold them harmless from any and all claims for taxes (including but not limited to social security taxes), penalties, attorneys' fees, and costs that may be made or assessed against the State arising out of Contractor's failure to pay such taxes, fees or contributions.

20. Assignment of Benefits and Delegation of Duties

- A. The Contractor shall not delegate any duties under this Contract or assign any benefits, including any moneys due or to become due hereunder, without the prior written consent of the Board.
- B. In the event a delegation of duties or an assignment of benefits is approved by the Board, the Contractor shall remain responsible and agrees to bind every such delegate or assignee to comply with the terms and conditions of this Contract.
- C. In addition to any other rights granted in this Contract, if at any time the Contractor fails to perform any obligation under this Contract which is not excused due to Force Majeure, the Board, without waiving any other rights or remedies it may have under this Contract or under applicable law, without notice to the Contractor, may perform or cause to be performed (including without limitation, by engagement of one or more third parties) any such obligation not performed by the Contractor. In such an event the Contractor shall permit any third party to perform such obligation and shall not interfere with the performance thereof. Such performance shall reduce any amount payable to the Contractor under Section 3; to the extent such reduction is reasonable.

21. Waiver, Modification, or Amendment

No waiver, modification, or amendment of this Contract or of any covenants, conditions, or limitations herein contained shall be valid unless in writing and executed by both parties. The parties further agree that the provisions of this section may not be waived, modified, or amended except as herein set forth.

22. Public Records

Pursuant to Idaho Code § 74-101, et seq., information or documents received from the Contractor may be open to public inspection and copying unless exempt from disclosure. The Contractor shall clearly designate each portion as "exempt" on each page of such documents and shall indicate the basis for such exemption. The Board will not accept the marking of an entire document as exempt. In addition, the Board will not accept a legend or statement on one page that all, or substantially all, of the document is exempt from disclosure. The Contractor shall indemnify and defend the Board against all liability, claims, damages, losses, expenses, actions, attorneys' fees, and suits whatsoever for honoring such a designation or for the Contractor's failure to designate individual documents as exempt. The Contractor's failure to designate as

exempt any document or portion of a document that is released by the Board shall constitute a complete waiver of any and all claims for damages caused by any such release.

23. Rights in Data

- A. The Contractor agrees that all data, plans, drawings, specifications, reports, operating manuals, notes, and other written documents produced in the performance of this Contract or in contemplation thereof, are owned by and are for the exclusive use of the Board and are subject to the rights of the Board set forth in this section. The Board shall have the right to reproduce, publish, and use all such documents or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so.
- B. The Board agrees to identify the Contractor or designate appropriate authorship on all materials reproduced and published that are a direct product of the work performed under this Contract.

24. Retention of Records and Access to Facilities, Premises, and Records

- A. The Contractor shall establish and maintain project budget accounts and records for work and services required by this Contract in accordance with generally accepted accounting principles and practices. Records shall be retained by the Contractor throughout the term of this Contract and for a period of three years following final settlement.
- B. At all reasonable times during the term of this Contract and for a period of three years following final settlement, the Board, State of Idaho, and their authorized representatives shall have access at the Contractor's offices and to its records related to the Services performed under this Contract for the purposes of inspection, audit, and copying by the Board, State of Idaho, and their authorized representatives.
- C. Financial records related to lump sum or fixed price portions of the services are subject to audit to the extent they are represented in the Contract. Financial records related to cost plus or time and material portions of the services will be limited to the quantity of billable man-hours and direct costs and the proper pricing extension using the billable rates and mark-ups provided in Attachment B. The composition of the billable rates and mark-ups provided in Attachment B are not subject to audit.

25. Illegal Aliens

Contractor warrants it does not knowingly hire or engage any illegal aliens or persons not authorized to work in the United States; it takes steps to verify that it does not hire or engage any illegal aliens or persons not authorized to work in the United States; and, that any misrepresentation in this regard or any employment of persons not authorized to work in the United States constitutes a material breach of this Contract and shall be cause for termination.

26. Required Certifications

- A. Boycott of Israel. Pursuant to Idaho Code § 67-2346, if payments under the Contract exceed \$100,000 and Contractor employs ten or more persons, Contractor certifies that it is not currently engaged in, and will not for the duration of the Contract engage in, a

boycott of goods or services from Israel or territories under its control. The terms in this section defined in Idaho Code § 67-2346 shall have the meaning defined therein.

- B. Ownership or Operation by China. Pursuant to Idaho Code § 67-2359, Contractor certifies that it is not currently owned or operated by the government of China and will not for the duration of the Contract be owned or operated by the government of China. The terms in this section defined in Idaho Code § 67-2359 shall have the meaning defined therein.
- C. Boycotting Certain Sectors. Pursuant to Idaho Code § 67-2347A, if payments under the Contract exceed \$100,000 and Contractor employs ten or more full-time employees, Contractor certifies that it is not currently engaged in, and will not for the duration of this Contract, engage in a boycott of any individual or company because the individual or company:
- Engages in or supports the exploration, production, utilization, transportation, sale, or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear energy, or agriculture; or
 - Engages in or supports the manufacture, distribution, sale, or use of firearms, as defined in Idaho Code § 18-3302(2)(d).

The terms in this section defined in Idaho Code § 67-2347A shall have the meaning defined therein.

27. Entire Agreement

This Contract sets forth all the covenants, provisions, agreements, conditions, and understandings between the parties, and there are no covenants, provisions, agreements, conditions or understandings, oral or written, between them other than are herein set forth.

28. Severability

If any part of this Contract is declared invalid or becomes inoperative for any reason, such invalidity or failure shall not affect the validity and enforceability of any other provision.

29. Survival

All covenants, conditions, indemnifications, and other elements in this Contract that might involve performance subsequent to any termination or expiration of this Contract or that cannot be reasonably ascertained or fully performed until after termination or expiration of this Contract shall survive. Survival of such terms shall not extend in violation of Article VII, Section 11 of the Idaho Constitution and Idaho Code §§ 59-1015 through 59-1017.

30. No Waiver

The failure by one party to require performance of any provision shall not affect that party's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Contract be construed as or deemed to be a waiver of any subsequent breach or default.

31. Effect of Section Headings

The section headings appearing in this Contract are not to be construed as interpretations of the text but are inserted for convenience and reference only.

32. Sovereign Immunity

Nothing contained in this Contract shall be considered a waiver of the State's sovereign immunity, which immunity is expressly reserved.

33. Governing Law

This Contract shall be governed as to validity, construction, and performance by the laws of the State of Idaho and the parties consent to the jurisdiction of the Idaho state courts. The venue of any action brought by any parties to this Contract shall be in a State of Idaho District Court.

34. Notices

All notices shall be in writing and sent certified mail, postage prepaid, return receipt requested to:

Idaho Water Resource Board
Attn: Purchasing Agent
PO Box 83720
Boise, ID 83720-0098

Contractor
Contractor's Address

35. No Third-Party Rights

Except in accordance with the terms of any assignment of this Contract made in accordance with Section 20, Assignment of Benefits and Delegation of Duties, this Contract shall not create in favor of, nor give any third party, any claim or right of action against the Board or the Contractor, its subcontractors, or their respective affiliates.

36. Counterparts

This Contract may be executed with electronic signatures and in multiple counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document.

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The parties have executed this Contract on the date following their respective signatures.

State of Idaho
Idaho Water Resource Board
322 E Front Street, Suite 648
PO Box 83720
Boise, ID 83720-0098

Contractor
Contractor's Address

Brian Patton
Executive Manager

Signatory for Contractor
Signatory's Title

Date

Date

Attachment A – Scope of Services

Definitions

All definitions and references in Contract **XXXX** apply to this Scope of Services.

Project Management & Administration

- A. Project Coordinator will participate in team coordination meetings with the Contract Manager as requested by Contract Manager (Contractor time: 2 hours per month).
- B. Billing and progress reporting will be prepared and submitted monthly by the Project Coordinator.
- C. Project Coordinator will prepare and regularly maintain a schedule of project activities in the coming year (time: 2 hours per quarter).
- D. Project Coordinator will manage the Scope of Services and budget to meet the project deliverables.
- E. The Board is responsible for providing and paying for the following utilities and project costs:
 - a. Liquid propane for the backup generator
 - b. Bureau of Risk Management (insurance for the Project)
 - c. FERC annual payments (annual costs associated with permit)
 - d. Phone service for the project
 - e. Internet service for the Project
 - f. Clearwater Power (provides power to the Project)
 - g. Security services to the Project
 - h. Software upgrades, memberships, and subscriptions for Project componentry
 - i. Other contractors as required for facility maintenance and repairs.

Deliverables: Monthly invoicing, quarterly updated schedules

Operations

- A. **Operations Support to Board:** Contractor is responsible for managing all the processes, people, tools, and assets that are required for the Project to fully perform as intended while maintaining its effectiveness and efficiency. Operations support will also include the day-to-day operations of the Project. It does not include capital improvements.
 - i. Project Coordination
 - 1. Project Coordinator will co-operate the Project with Clearwater Fish Hatchery (CFH) as it relates to controlling penstock flow to the fish hatcheries. Project Coordinator shall regularly communicate and collaborate with the manager of the CFH to understand and coordinate operations/maintenance activities associated with the Project.
 - 2. Project Coordinator shall coordinate operations and maintenance activities such as scheduled shutdowns, unscheduled shutdowns, response to alarms, and restarting of the Project with Clearwater Power Company (CPC) and the CFH as necessary.
 - 3. In the event the U.S. Army Corps of Engineers (USACE), Bonneville Power Association (BPA), CPC, or Idaho Department of Fish and Game (IDFG) propose any changes to the operation of the Project, the Project Coordinator shall provide technical advice and written recommendations to the Contract Manager concerning the proposed change.
 - 4. Project Coordinator shall keep the Contract Manager aware of all activities as needed on the Project.

5. Project Coordinator shall coordinate with all contractors employed by the Board (for example, the Board's Owner's Advisor) for on-site work pertaining to Facility operations/maintenance repairs and inspections.
6. Project Coordinator shall coordinate with Contract Manager to have a kickoff meeting with the CFH, USACE, FWS, and the IWRB's Owner's Advisor. The purpose of the meeting is to introduce the parties, discuss authorities, and identify critical operations between the parties and how to work on the Project.

Deliverables: Monthly memos to Contract Manager; correspondence via phone, email, fax, or mailed correspondence.

ii. Annual Valve Exercise

Contractor shall have the Project Coordinator or other qualified representative present for the annual valve exercise conducted by the USACE.

iii. Access to Project

The Contract Manager and Project Coordinator shall provide access to the CFH consistent with the terms in the Hatchery MOU in Attachment E.

iv. Training

1. Contractor may select, train, and supervise qualified employees, and subcontractors in the operation and maintenance of the Project. The Contractor may delegate duties to such employees and agents, but no such delegation shall relieve the Contractor of its obligation to perform such duties, and the delegations of duties is subject to approval of the Contract Manager.
2. Contractor shall collaborate with CFH personnel and Contract Manager to learn and identify any training protocols for the Project, such as addressing how to respond in an emergency shutdown of the Project. Any training protocols identified will conform to 29 CFR 1910.269; Occupational Safety and Health Standards – Electrical Power Generation, Transmission and Distribution.
3. The Contractor shall provide annual training to entities needing access to the Project. The purpose of the training will be to inform the entities of the operational procedures to follow in the event of a scheduled or unscheduled outage or disruption in service. This may include retraining of Board staff in the event of staff turnover.

v. Compliance Requirements

1. Good Utility Practice. The Contractor agrees to service the Project in accordance with Good Utility Practices. The term "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be a range of acceptable practices, methods, or acts.
2. Contractor is responsible for operating and maintaining the Project, and performing all duties in this Contract, in compliance with the applicable laws, rules, regulations, and orders of any court or other governmental authority, including standards of the United States

Environmental Protection Agency, the Occupational Safety and Health Administration, the United States Federal Energy Regulatory Commission, the United States Army Corps of Engineers, The Bureau of Land Management, the Idaho Public Utilities Commission, the Idaho Division of Building Safety, and any and all other local, state, or federal regulatory agencies having jurisdiction over the Project. The Contractor shall not permit the Project to be used or operated in material violation of any law, rule, regulation or order.

3. A copy of the Project Safety Manual will be kept in the facility at all times. The Contractor is responsible for keeping the Project Safety Manual current with applicable safety standards and updated on an annual basis.

Deliverable: Project Safety Manual (updated annually)

4. The Contractor shall provide its experience and presence, as directed by the Contract Manager, so the Board can maintain compliance with the following documents, agencies, and standards:
 - a. Wheeling Agreement in Attachment **D**.
 - b. FERC license 10819-002.
 - c. Tour of the facilities for State of Idaho Department of Administration Risk Management.
 - d. Meet with State of Idaho Safety and Machinery Regulatory.
 - e. Power Agreement in Attachment **C**.
- vi. Operations Transition: Contractor will be responsible for assisting the Contract Manager with transitioning between operators at the beginning and ending of the contract term. Activities may include an on-site transition meeting, telephone conferences to schedule/plan meetings, and associated coordination to assist the Contract Manager.

B. Control of Flow for the Project Operations

- i. Flow control for the facility is managed and operated by the CFH. The Contractor is not authorized to adjust flow rates coming to and leaving the Project unless CFH has been contacted and CFH has authorized the change.
- ii. In the event maintenance activities require flows to be diverted from the turbines to the ported sleeve valves/distribution box and vice versa, the Contractor is responsible for maintaining continuous flows through the facility while maintenance activities are occurring. The CFH Manager will be notified at least 2 hours in advance of the flows being diverted.

C. Project Kickoff Meeting & Project Familiarity

The Contractor will schedule a walk-through of the facility with the Operator's team, the Contract Manager, and the IDFG. The meeting will be during the IDFG's annual valve exercise, and will allow the operator to observe the operational activities of the IDFG and to become familiar with the facility. This may be combined with the annual training of entities needing access to the facility, as per Operations Section A.iv.3 in this attachment (Attachment A – Scope of Services).

Maintenance

- A. **Project Maintenance:** Consists of a controlled program of periodic inspection, adjustment, cleaning, lubrication, selective parts replacement of components, and minor repair, as well as performance

testing and analysis intended to maximize the reliability, performance, and lifecycle of the system equipment. The Contractor shall service the project to keep spaces, structures, and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and degradation. The Board will reimburse the Contractor for all materials needed to maintain the overall facility for the Contract Term. Examples of materials include, but are not limited to: lubricating oil, gaskets, tools to clean the facility, software updates/upgrades, paint for the facility, and light bulbs.

- i. Normal and Routine Maintenance & Minor Repairs - Cyclical, low-cost, planned work tasks aimed to address aging conditions and prevent costly repairs, replacements, or maintenance activities in the future. Normal/routine maintenance excludes activities that expand the capacity of an asset, or otherwise upgrade the asset to serve needs greater than, or different from those originally intended. Tasks under routine/normal maintenance and minor repairs may include, but are not limited to:
 - Maintenance of the building above the distribution box and the assets located within it except for the **ported sleeve valves for the primary and secondary supply lines into the distribution box**. This includes repairs regarding corrosion control, chipped paint, chipped stucco, concrete crack repairs, pavement cracks, and oxidized surfaces. It also encompasses repairs to structural components such as doors, windows, or other aspects of the building.
 - Cleaning air intake vents
 - Custodial services and cleaning
 - Pest control, snow removal, grounds care, landscaping, environmental operations
 - Trash and recycling removal from the project
 - Managing heating ducts and cooling vents to regulate facility temperature
 - Managing the locks and alarm system
- ii. The Contractor shall plan and conduct biweekly maintenance inspections of the Project in accordance with the most recent version of *Dworshak Small Hydroelectric Plant, Standard Operation Procedures for Project Operator and Idaho Water Resource Board (SOP)* and provide a detailed report. Every six (6) weeks, oil samples must be drawn and tested. These reports and results are to be communicated with the IWRB.
 - a. Prepare biweekly field reports documenting the work occurred with each visit to the Project, and fill out the ledger located in the Project to document activities documented with each visit.

Deliverable: Biweekly inspections and field reports, maintenance checklist

- iii. Planned or Programmed Maintenance — regularly occurring maintenance tasks whose cycle exceeds one year. Examples of planned or programmed maintenance are transducer replacement/calibration, cable replacement, replacing switches, replacing equipment with equivalent parts, painting, flood coating of roofs, overlays and seal coating of roads and parking lots, pigging of constricted utility lines, and similar functions. The Project Coordinator shall work with the Contract Manager and the Board's Owner Advisor to develop an Operations Repair and Replacement Plan which will summarize the services for the various types of maintenance and repair levels and when they should occur.
- iv. Preventive Maintenance/Testing — schedule-based maintenance tasks that are typically governed by equipment's time spent in service. It may also include replacing or maintaining essential equipment for continuous operation, or equipment that has high value or long lead

times for ordering. The Contractor shall consult the Contract Manager when preventive maintenance may be advisable for various equipment and parts throughout the facility. Both parties will collaborate to schedule the preventive maintenance in the Operations Repair and Replacement Plan.

- v. Predictive Maintenance/Testing/Inspection — routine scheduled activities occurring more than one year between testing or inspections to anticipate failure using specific tests and equipment, such as vibration analysis, thermographs, x-ray, or acoustic systems to aid in determining future maintenance needs. The Contractor shall collaborate with the Contract Manager to prepare predictive maintenance procedures for the Project.
- vi. Programmed Major Maintenance — those maintenance tasks whose cycle for occurrence exceeds one year and require an interruption in generating power or are major repairs/cleaning of critical equipment associated with generating power. Examples of programmed major maintenance are generator cleaning, turbine inspections, transformer repairs, and electrical equipment upgrades.
- vii. Project Coordinator and Contract Manager shall schedule an annual meeting to review the Operations Repair and Replacement Plan to set annual budgets and schedule maintenance activities in the plan.

Deliverable: Operations Repair and Replacement Plan (updated annually)

- viii. Unscheduled/Unplanned Maintenance — requests from the Contract Manager occurring in the current budget cycle for unscheduled system or equipment failures or repairs that are perceived to be functioning improperly. Activities may range from unplanned maintenance of a nuisance nature requiring low levels of skill for correction, non-emergency tasks involving a moderate to major repair or correction requiring skilled labor, emergency unscheduled work that requires immediate action to restore power production, remove problems that could interrupt activities, or to protect life and property.

B. Project Repairs — Contractor shall perform the necessary work to return equipment to service after a failure, or to restore its operation and efficiency.

- i. Project repairs consist of restoration of a component so that it may be effectively used for its designated purposes by overhaul, reprocessing, or replacement of constituent parts or materials that have deteriorated by action of the elements or usage and have not been corrected through maintenance.
- ii. Routine Repairs — actions taken to restore a system or piece of equipment to its original capacity, efficiency, or capability. Routine repairs are not intended to increase the capacity of the item involved.

C. Project Emergencies

- i. Maintenance — unscheduled work that requires immediate action to restore power production, remove problems that could interrupt activities, or to protect life and property.
- ii. Repairs — unscheduled repairs when a system or component has failed or is perceived to be working improperly. If the problem has created a hazard or involves an essential service, emergency maintenance may be necessary. Conversely, if the problem is not critical, unscheduled/unplanned maintenance and repairs are applicable.

- iii. The Contractor shall make reasonable efforts to respond to notifications, from the Project's autodialer or CFH staff, of emergency conditions and take appropriate action within one (1) to three (3) hours of being notified of the emergency condition.
 - iv. The Contractor will be the first to be notified of security breaches/incidents. The Contractor shall be the deciding authority to alert the police or the necessary authorities. Contractor shall coordinate a yearly security inspection to address any security concerns.
- D. **Software Updates & Upgrades** will be in the Board's name, and the Contractor shall advise Contract Manager when routine updates to the software are necessary. The Project Coordinator shall notify the Contract Manager of necessary software upgrades or changes and seek authorization of funds to purchase the necessary software upgrades under Additional Services.

Documentation, Record Keeping, & Reporting

- A. Contractor shall document and report daily logs for all outages or failures and corrective actions taken.
- B. Contractor shall generate a SCADA report three times per day documenting and recording the discrete alarms, primary unit details, secondary unit details, and plant details.
- C. Contractor shall submit a monthly Operation Report to the Contract Manager for the Project which will include all status reports, inspection reports, trip reports, alarm reports, maintenance and repair records, correspondence relative to the Project, no later than ten (10) days after end of the month.
- D. Contractor shall submit meeting minutes from annual trainings or on-site transition meetings and additional trainings no later than 10 days after the month in which it was conducted.
- E. Contractor shall prepare, maintain, and distribute to CFH, CPC, U.S. Army Corps, and Contract Manager an updated emergency contact list once per year or in the event a contact person in the list is changed or contact information has changed.
- F. Contractor shall manage and maintain an inventory of equipment and repairs. This may include information regarding equipment's life expectancy, replacement date, and a list of future necessary repairs. It may also include known information regarding recurring problems and likely issues in the future.
- G. Contractor shall assist in updating the Emergency Action Plan (EAP) as required by FERC.
- H. Contractor shall assist in maintaining a Health and Safety Manual.
- I. Contractor shall provide a project correspondence file for each quarter.

Additional Services

Additional Services are to include those services as described in the Contract under Section 3.C. Additional Services will be issued through a work order request authorized and negotiated by the Contract Manager and Contractor. When the scope of these services becomes certain, the Contract Manager and Project Coordinator will begin negotiating the costs to perform the scope of services.

Reference Data

- FERC License P-10819
- Guidance for Good Utility Practices
- USFWS MOA
- USACE MOA
- USACE Design Drawings for Pipeline and Distribution Box
- IWRB Small Hydro Project Design Drawings
- 2024 Emergency Action Plan
- CH2MHill Report for increased flows to CFH

DRAFT

Attachment B Rates for Additional Services Placeholder

SETTLEMENT AND CONTINGENT POWER PURCHASE AGREEMENT

executed by the
UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
acting by and through the
BONNEVILLE POWER ADMINISTRATION

and the

STATE OF IDAHO
acting by and through the
IDAHO WATER RESOURCE BOARD

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This SETTLEMENT AND CONTINGENT POWER PURCHASE AGREEMENT (Agreement), executed as of April 30, 1990, by the UNITED STATES OF AMERICA (the Government), Department of Energy, acting by and through the BONNEVILLE POWER ADMINISTRATION (Bonneville), and the STATE OF IDAHO (the State), acting by and through the IDAHO WATER RESOURCE BOARD (IWRB); Bonneville and IWRB hereinafter sometimes are referred to individually as "Party" and collectively as "Parties";

W I T N E S S E T H:

WHEREAS the Clearwater Fish Hatchery (CFH) located near Orofino, Idaho will be constructed beginning in the spring of 1990; and

WHEREAS water will be taken for the operation of CFH from the nearby Government-owned Dworshak Dam and Reservoir, which will result in a net electric power generation loss to the Federal Columbia River Power System (FCRPS); and

WHEREAS electricity hydrogeneration facilities can be designed for and constructed in the water supply system of CFH (which as defined in subsection 4(h) constitutes the "Project") to offset part of such net electric power generation loss to FCRPS; and

WHEREAS Bonneville believes that only the Government may develop and own the Project; and

WHEREAS IWRB believes the Project is available for non-Federal development, and has filed an application with the Federal Energy Regulatory Commission (FERC) for a preliminary permit to develop the Project; and

WHEREAS Bonneville and IWRB conducted settlement discussions during the autumn of 1989 and winter of 1989-1990 which resulted in the Parties signing a Letter of Intent, attached as Exhibit A to this Agreement; and

WHEREAS this Agreement implements the Letter of Intent; and

WHEREAS the State is authorized to obtain funds for the purposes set forth below in the Agreement pursuant to the provisions of Article 15, section 7 of the Idaho Constitution, Section 42-1734 of the Idaho Code, and 1990 Idaho Session Laws, Chapter 363; and

WHEREAS Bonneville acknowledges the record of involvement in the Project by IWRB, which enabled the development of minimum facilities for in-line power generation, including design and development work on the Project, submittal of a request for a FERC preliminary permit, and preparation to obtain legislative approval for revenue bonds to fund design and construction of the Project;

NOW, THEREFORE, the Parties hereto mutually agree as follows:

A. GENERAL PROVISIONS

1. Effective Date.

This Agreement becomes effective at 2400 hours on the last date the Parties have signed (Effective Date).

2. Term.

- (a) In the event that neither the Government nor the State is allowed to develop the Project, after all appellate rights, if exercised by either or both Parties, are exhausted, the Agreement shall terminate at 2400 hours on the last date all such appellate rights terminate.
- (b) In the event the Government is allowed to develop the Project, after all appellate rights are exhausted as is described in paragraph 11(b)(1), the Agreement shall terminate at 2400 hours on the date Bonneville pays IWRB under section 20 below.
- (c) In the event IWRB's permit application and license for the Project are upheld, after all appellate rights, if exercised by the Government, are exhausted, the Agreement shall terminate at 2400 hours on the date Bonneville makes its final payment to IWRB for energy and capacity under section 20 below.

- (d) All obligations incurred under this Agreement shall be preserved until satisfied.

3. Early Termination.

The provisions of this section 3 shall apply only in the event the State receives a preliminary permit from FERC to develop the Project.

- (a) Bonneville shall have the right, but not the obligation to terminate the Agreement, effective at 2400 hours on the date IWRB receives Bonneville's notice of termination, if any one or more of the following events occurs:
 - (1) Once IWRB has received a preliminary permit to develop the Project, IWRB subsequently loses its right to develop the Project; or
 - (2) IWRB fails to make timely application to the Corps for all agreements necessary to develop the Project; or
 - (3) IWRB fails to secure funding for the development of the Project no later than the latter of: (i) 90 days after IWRB receives the FERC license to develop the Project; or (ii) 90 days after the Parties receive the Government Department of the Treasury's final response to a request made under section 9(f) of the Pacific Northwest Electric Power Planning and Conservation Act for a ruling on whether the State may use Tax Exempt Bonds (as described in section 17 of the Agreement) to finance the Project; or
 - (4) IWRB fails to diligently pursue the design, construction, and testing of the Project as follows:

Attachment C

- (A) IWRB fails to obtain a preliminary design for the Project during the preliminary permit stage; or
 - (B) IWRB fails to let a contract for the construction of the Project no later than 12 months after IWRB receives a FERC license to develop the Project; or
 - (C) IWRB fails to interconnect the Project to the FCRPS and begin deliveries to Bonneville of the Project's electric capacity and energy no later than 2 years after IWRB receives the FERC license to develop the Project; or
- (5) IWRB fails to provide all of the capacity and energy output of the Project to Bonneville under section 16 below; or
 - (6) The Project is unable to generate due to a discontinuance of the water supply to the Project which is planned to last more than 24 consecutive months, or
 - (7) The Project is unable to generate due to the permanent cessation of CFH operations; or
 - (8) The Project at any time becomes infeasible for IWRB to either develop or operate.
- (b) If the Agreement terminates pursuant to subsection 3(a), IWRB agrees that no damages or liability shall be claimed, assessed, or imposed against Bonneville as a result of such termination.

4. Definitions.

The following terms, when used in this Agreement with initial capitalization, whether singular or plural, shall have the meanings specified.

- (a) "Calendar Week" means the week beginning at 2400 hours on Saturday, and ending at 2400 hours on the following Saturday.
- (b) "CFH" means the Clearwater Fish Hatchery.
- (c) "Corps" means the United States of America, Department of Defense, Department of the Army, Corps of Engineers.
- (d) "FCRPS" means the Federal Columbia River Power System, as that term is defined in subsection 1(a) of Exhibit F.
- (e) "FERC" means the Federal Energy Regulatory Commission, or its successor.
- (f) "Letter of Intent" means the letter executed by Bonneville and IWRB on January 31, 1990 concerning the settlement of the dispute over the development of the Project.
- (g) "Orofino" means the City of Orofino, Idaho.
- (h) "Project" means: (i) provisions within the CFH water supply system to accommodate development of hydroelectric power; and (ii) a powerhouse containing the necessary turbine(s)/generator(s) and appurtenant facilities; and (iii) transmission line with an interconnection into the FCRPS; and (iv) provisions within the CFH water supply system to provide for the future development of municipal and industrial water for Orofino, not to exceed 6 cubic feet per second.

- (i) "Uncontrollable Force" means any act or event beyond the control of a Party which impairs the ability of the Party to perform, which by exercise of due diligence such Party could not reasonably have been expected to avoid, and which by exercise of due diligence it shall be unable to avoid. Uncontrollable Force includes, but it is not limited to, failure of or threat of failure of facilities, flood, earthquake, storm, fire, lightning and other natural catastrophes, epidemic, war, labor or material shortage, strike or labor dispute, or sabotage; and also includes restraint by an order of a court of competent jurisdiction or by regulatory authorities, against an action taken or not taken by a Party, after a good faith effort by the appropriate Party (i) to obtain relief from such order, or (ii) to obtain any necessary authorizations or approvals from any governmental agency or regulatory authority.
- (j) "Workday" means each day which both Bonneville and IWRB observe as a regular day of work.

5. Exhibits.

Letter of Intent (Exhibit A), Project Plan of Delivery (Exhibit B), Operating Procedures (Exhibit C), Bonneville's Trial Technical Standards for Interconnection of Small Generating Resources to the BPA, as may be amended or replaced (Exhibit D), Bonneville Wholesale General Rate Schedule Provisions, or successor (Exhibit E), and General Contract Provisions (Exhibit F) are attached hereto and hereby made a part of this Agreement.

B. SETTLEMENT PROVISIONS

6. Ratification of the Letter of Intent.

The Parties hereby ratify the Letter of Intent, attached to this Agreement as Exhibit A; provided, however, when a provision in the

Letter of Intent conflicts with a provision found in the body of this Agreement, the latter shall prevail.

7. Project Design and Construction.

The Parties agree that the Project shall be designed and constructed either by the Corps, or by another entity to standards which would allow the Project to be interconnected with the FCRPS. The Parties also agree that the water supply serving CFH shall include sufficient water pipeline capacity to allow Orofino to take up to 6 cubic feet of water per second from the secondary pipeline for Orofino's municipal and industrial purposes, subject to a subsequent agreement between the Corps and any necessary party for costs related to the provision of water under the Water Supply Act of 1958 and other appropriate statutory authority applying to the Corps, and other matters between the Corps and Orofino.

8. IWRB Withdraws Opposition to Federal Development.

IWRB hereby agrees not to oppose Federal development of the Project. IWRB hereby agrees to make this position known in all relevant legislative, administrative, judicial and other proceedings, including, but not limited to FERC. The Parties agree to use their best efforts to obtain a FERC ruling on the issue of FERC jurisdiction over the Project. The Parties understand that IWRB will notify FERC that pending FERC's determination of FERC jurisdiction over the Project, IWRB assumes FERC has jurisdiction and, accordingly, IWRB will continue to pursue its application for a preliminary permit for the development of the Project.

9. IWRB's Notification of FERC.

IWRB shall submit a written notice to FERC precisely as follows:

Whereas applications have been filed for the right to develop the subject property; and whereas Bonneville has filed a motion that FERC lacks jurisdiction over the proposed Project;

Now therefore, IWRB hereby notifies FERC that IWRB does not oppose Bonneville's motion and claim that the Government's authorization to develop the Project withdraws FERC jurisdiction. Nevertheless, pending FERC's determination that it lacks jurisdiction over this Project, IWRB assumes FERC has jurisdiction and, accordingly, continues to diligently pursue its application for a preliminary permit and development of the Project. Nothing in this response by IWRB is intended to be a waiver of priority by IWRB in favor of any competing application for a preliminary permit for the Project.

10. IWRB's Releases the Government From Claims.

IWRB releases and forever discharges the Government, its agencies, employees, agents and assigns from any and all claims which have been, could have been, or might in the future be asserted against the Government, its agencies, employees, agents and assigns arising from or in any manner directly or indirectly connected with the rights to the development of the Project which forms the subject matter of this Agreement and claims of whatsoever nature directly or indirectly connected with IWRB's efforts to date for the planning and design of the Project.

11. Development of the Project.

Subsections 11(a), 11(b), and 11(c) are alternative scenarios. Therefore, each of the subsections of this section 11 shall operate to the mutual exclusion of the other two subsections.

(a) Neither Party Allowed to Develop the Project.

In the event that neither the Government nor the State is allowed to develop the Project, after all appellate rights, if exercised by either or both Parties, are exhausted, then this Agreement shall terminate as is specified above in subsection 2(a).

(b) Federal Development of the Project.

(1) If Federal development of the Project is upheld, after all appellate rights, if exercised, are exhausted, Bonneville agrees to compensate the State through IWRB in the amount of \$750,000, upon receipt of an invoice from IWRB, pursuant to the terms and conditions of section 20. Notwithstanding the provisions of Exhibit A, IWRB shall not appeal FERC's decision that the Project has been withdrawn for Federal development except to the extent necessary to preserve IWRB's priority in favor of any competing application for a preliminary permit for the Project. The Parties agree such payment is in recognition of IWRB's prior participation in the Project, including the expenditure of funds therefor, and for IWRB not opposing the Government's development of the Project, and for IWRB's satisfactory completion of its obligations under sections 8, 9, and 10 of this Agreement. Contingent upon IWRB fulfilling its obligations as specified above and in sections 8, 9, and 10, Bonneville shall pay IWRB pursuant to section 20 regardless of whether the Government ultimately develops the Project.

(2) The Parties agree Bonneville shall be the marketing agent for the Project's electric power as part of the FCRPS pursuant to BPA's enabling legislation including the

Federal Columbia River Transmission System Act (16 U.S.C. § 838 et seq. (1984)), the Bonneville Project Act (16 U.S.C. § 832 et seq. (1984)), P.L. 88-552 (the Pacific Northwest Preference Act, 16 U.S.C. § 837 et seq. (1984)), and the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. § 839 et seq. (1984)).

(c) State Development of the Project.

If the State's right to develop the Project is upheld, after all appellate rights, if exercised by the Government, are exhausted, then IWRB agrees to sell, and Bonneville agrees to purchase the Project's entire electric capacity and energy output (Power Output) from IWRB pursuant to the Contingent Power Purchase Provisions below. The Parties agree that once Bonneville has received the Project's Power Output, Bonneville shall be the marketing agent for such power as part of the FCRPS pursuant to BPA's enabling legislation, as is specified above in paragraph 11(b)(2).

C. CONTINGENT POWER PURCHASE PROVISIONS

12. Implementation of the Contingent Power Purchase Provisions.

Sections 12 through 19 of this Agreement shall be implemented and shall operate only in the event that the State's right to develop the Project is upheld, as is described above in subsection 11(c).

13. IWRB Development of the Project.

(a) IWRB agrees to diligently pursue the development of the Project. To that end, IWRB agrees to make timely application to FERC for any necessary permit or license, and to take all other

actions necessary to obtain and keep alive both (i) the FERC permit and (ii) the later FERC license to develop the Project.

- (b) IWRB also agrees that the design, construction, testing, operation, and integration of the Project into the FCRPS shall be to standards acceptable to both: (i) the Corps; and (ii) Bonneville, consistent with both the provisions of Exhibit D, and similar electricity hydrogeneration projects integrated into the FCRPS.

14. Point of Delivery.

(a) Location.

The point in the vicinity of the Government's Dworshak Dam where the 115 kV facilities of the Corps and Bonneville are connected, or at another point to be mutually agreed upon by IWRB and Bonneville.

(b) Voltage.

In the event the State develops the Project, the Parties agree to provide for interconnection at a voltage to be mutually agreed upon during the Project's design phase, consistent with the provisions of Exhibit D.

(c) Metering.

- (1) In the event the State develops the Project, the Parties agree to provide for metering in IWRB's Project powerhouse, in the 13.2 kV circuit over which such electric power flows (Point of Metering). The Parties further agree to provide for metering equipment and other necessary provisions, to

be developed and mutually agreed upon during the Project's design phase, consistent with the provisions of Exhibit D.

(2) Exception.

Bonneville and IWRB shall make an adjustment for losses between the Point of Metering and the Point of Delivery.

15. IWRB Coordinated System Operation Obligations.

- (a) Not later than January 1 every year, IWRB shall submit to Bonneville annual amounts of Project energy it plans to deliver, in the format presented in Exhibit B.
- (b) Consistent with the provisions of Exhibit D, IWRB shall make best efforts to conclude an agreement with the Corps, acceptable to Bonneville, which will allow the Corps to approve the operation and integration of the Project into the FCRPS. IWRB shall make best efforts to enter into such agreement with the Corps no later than 6 months after the execution of this Agreement. Bonneville shall not unreasonably withhold its acceptance of the IWRB/Corps agreement. IWRB further agrees it shall make best efforts to conclude one or more agreements, acceptable to Bonneville, to provide for: (i) procedures during periods of transmission outages; (ii) the maintenance and calibration of metering equipment; (iii) the maintenance of hydrogeneration equipment and appurtenant facilities; and (iv) the maintenance of transmission and interconnection equipment and facilities. Bonneville shall not unreasonably withhold its acceptance of such agreement(s).

16. Project Electric Power Output.

Bonneville shall receive all of the Project's Power Output, both electric capacity and electric energy: (i) during the testing phase; and (ii) for 30 years after Bonneville accepts the Project for integration into the FCRPS, beginning at 2400 hours on the date IWRB receives Bonneville's notice accepting the Project as integrated into the FCRPS. The Parties agree that none of the Project's Power Output shall be used for station service, or to provide electric power service to CFH. Bonneville shall receive at no cost all of the Project's inadvertent power flow during the testing phase. After Bonneville accepts the Project as integrated into the FCRPS, Bonneville shall pay IWRB at the applicable rate specified below in section 19 for the Project's Power Output beginning at 2400 hours on the date Bonneville accepts the Project as integrated into the FCRPS. The Parties agree that once the Project's power enters the FCRPS, Bonneville alone shall determine how the Project's Power Output shall be used during both the test phase and the term for which Bonneville purchases the Power Output.

17. Bonneville Request for a Section 9(f) Ruling.

Notwithstanding the provisions of section 7(b) of Exhibit A and of section 6 of this Agreement, no later than 20 Workdays after the State receives a license from FERC to develop the Project, the Parties agree to develop mutually acceptable provisions concerning if and how a request shall be made to the Government's Department of the Treasury under section 9(f) of the Pacific Northwest Electric Power Planning and Conservation Act to assist the State to obtain Project financing through revenue bonds, the interest on which shall be exempt from Federal taxes (Tax Exempt Bonds).

18. Insurance.

(a) Mechanical Disabling Event or Transmission Interruption.

IWRB agrees to maintain insurance during the term of this Agreement to ensure that the proceeds of such insurance together with funds set aside by IWRB for Project maintenance and replacement costs shall be adequate to provide necessary Project repairs or replacement in case of (i) a mechanical disabling event which causes the hydropower facility to cease generating and supplying power for a reason unrelated to a discontinuance of the water supply to the CFH; or (ii) in case of a transmission outage or reduction in transmission capacity on the transmission portion of the Project extending more than 24 consecutive hours. IWRB further agrees to effect such repairs or replacement in a timely manner and to produce no less than the rated generation and transmission capacity which existed prior to the disabling event.

(b) Discontinuance of Water Supply.

The Parties agree that in the event IWRB is unable to generate electrical power from the Project because of a discontinuance of the water supply to the CFH, IWRB shall not be required during any such period of discontinued water supply to provide any electrical power to Bonneville for purchase under this Agreement, and Bonneville shall not be obligated to pay for power which it has not received. Once Bonneville has made its payment to IWRB pursuant to subsection 19(a) below, the Parties further agree that in the event the Project is later unable to generate electrical power because of a discontinuance of the water supply to the CFH, IWRB may keep the entire \$750,000 payment made by Bonneville for the right to receive the Project's Power Output pursuant to subsection 19(a) below.

19. Bonneville Payments to IWRB for the Project's Power Output.

(a) Bonneville One-Time Payment.

After Bonneville has accepted the Project as integrated into the FCRPS, Bonneville shall pay IWRB a one-time payment of \$750,000 for the right to receive the Project's Power Output for the 30 year term specified in section 16, which term begins at 2400 hours on the date IWRB receives written notice from Bonneville that Bonneville accepts the Project as integrated into the FCRPS. Acceptance of the Project as provided herein is an essential consideration of Bonneville's obligation both to make any payments for the right to receive the Project's Power Output and for such Power Output.

(b) Bonneville Payment for Project Power.

After Bonneville accepts the Project as integrated into the FCRPS, Bonneville shall pay IWRB for the Project's Power Output which Bonneville receives and meters at the point of interconnection during the 30 year term of the power purchase, which term begins at 2400 hours on the date IWRB receives written notice from Bonneville that Bonneville accepts the Project's output. Bonneville shall pay for the Project's Power Output based on measured Project energy which it receives, adjusted for losses between the Point of Metering and the Point of Delivery. The following rates are expressed in mills per kilowatthour (kWh), and comprise melded capacity and energy rates. Rates shall be calculated to the nearest tenth of a mill.

The Parties assume that the Project will not be able to deliver power to Bonneville prior to calendar year 1992. However, if the Project does deliver power to Bonneville prior to calendar year 1992, the Parties agree to use 97 percent of the applicable

rate indicated below in paragraphs 19(b)(1) and 19(b)(2) for calendar year 1991, and 97 percent of the applicable 1991 rate for calendar year 1990.

(1) Tax Exempt Bonds Energy Rate.

The provisions of this paragraph 19(b)(1) apply only in the event the State is able to finance the Project through Tax Exempt Bonds. The energy rate for metered power IWRB delivers to Bonneville at the point of interconnection during calendar year 1992 is 28.1 mills/kWh.

(2) Non-Tax Exempt Bonds Energy Rate.

The provisions of this paragraph 19(b)(2) apply only in the event the State is not able to finance the Project through Tax Exempt Bonds. The energy rate for metered power IWRB delivers to Bonneville at the point of interconnection during calendar year 1992 is 30.7 mills/kWh.

(3) Annual Adjustments Beginning January 1, 1993.

Beginning January 1, 1993, the energy rates specified in paragraphs 19(b)(1) and 19(b)(2) shall be adjusted as follows:

$$P_{\text{new}} = P_{\text{init}} * (1.03)^n$$

where P_{new} = The energy rates, as adjusted hereunder, to be effective each January 1 beginning with January 1, 1993;

P_{init} = The P_{init} energy rate shall be 28.1 mills/kWh in the event the Project is financed with Tax Exempt Bonds; and the P_{init} energy rate shall be 30.7 mills/kWh in the event the Project is not financed with Tax Exempt Bonds;

and n = the number of calendar years after 1992. Therefore, $n = 1$ for calendar year 1993; $n = 2$ for calendar year 1994; etc.

D. GENERAL PROVISIONS

20. Payment Procedures.

(a) IWRB Invoices.

IWRB shall request the payments described in paragraph 11(b)(1), and in subsections 19(a) and 19(b) by submitting monthly invoices in a form acceptable to Bonneville. Bonneville shall pay IWRB by the close of business on the thirtieth (30th) day after the date Bonneville receives each such invoice. Should the thirtieth (30th) day be a Saturday, Sunday, or holiday as observed by Bonneville, then the due date shall be the next following business day. Other provisions relating to the payment of bills specified in the General Rate Schedule Provisions attached to this Agreement as Exhibit E, or its successor General Rate Schedule Provisions, shall apply.

(b) Payment by Wire Transfer.

Payments in excess of \$25,000 shall be made by direct wire transfer of funds from the United States Treasury to IWRB's bank account, or to the account of IWRB's trustee bank. On the

initial such invoice, IWRB shall include the name and address of the bank, IWRB's bank account number or trustee bank account number, and the American Bankers Association 9-digit routing number. IWRB shall provide similar information on a subsequent invoice only if IWRB changes the bank account to which it wants payment to be made.

21. Environmental Compliance.

The Parties agree that the payment of any sum under this Agreement shall be contingent on the completion of the environmental review work as required by all applicable Federal and state environmental laws and regulations. The Government shall conduct the final review, including an analysis of the environmental review conducted by the State. The Parties further agree that any payment under the scenario described in subsection 11(c) shall be contingent on the Government's determination that the Project may be developed without violating the provisions of the National Environmental Protection Act.

22. Uncontrollable Force.

(a) Obligations of the Parties.

Obligations of the Parties, other than those to pay money, shall be excused when failure to perform such obligations is due to an Uncontrollable Force; provided, however, that if either Party is unable to perform due to an Uncontrollable Force, such Party shall exercise due diligence to remove such inability with reasonable dispatch. Nothing in this subsection 22(a) shall be construed to require either Party to settle any strike or labor dispute in which it may be involved.

(b) Notice.

Each Party shall notify the other as soon as possible of any Uncontrollable Force which may impair performance under this Agreement. Failure to give notice shall not be deemed a waiver of such Uncontrollable Force.

23. Assignment of Agreement.

Neither Party shall have the right to transfer or assign this Agreement or any part hereof without the prior written consent of the other Party; provided, IWRB may pledge or assign this Agreement, and all or a portion of the payments to be made thereunder by Bonneville, for the benefit of the holders of bonds issued by IWRB to finance the Project. Such prior written consent shall not be unreasonably withheld.

24. Notices.

(a) Notice.

Each Party shall notify the other as soon as possible if the Party believes the Project at any time becomes infeasible for the IWRB to either develop or operate.

(b) Unless the Agreement requires otherwise, any notice, demand or request provided for in this Agreement, or served, given or made in connection with it, shall be in writing and shall be deemed properly served, given, or made if delivered in person or sent by telegraph, or sent by telephone facsimile with a confirmed reception, or by acknowledged delivery, or sent by registered or certified mail, postage prepaid, to the persons specified below:

Attachment C

To IWRB: Director
Idaho Department of Water Resources and
for the Idaho Water Resource Board
1301 North Orchard
Boise, Idaho 83720

To Bonneville: The Administrator
United States Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

(c) Either Party may, by written notice to the other Party, change the designations or address of the person so specified as the one to receive notices pursuant to this Agreement.

25. Suspension of Payments.

Bonneville shall have the right to immediately suspend any payment due IWRB under this Agreement after notice to IWRB only in the event IWRB fails to deliver all of the Project's Power Output to Bonneville under the Contingent Power Purchase Provisions.

26. Disputes.

Pending resolution of a disputed matter, the Parties shall continue performance of their respective obligations pursuant to this Agreement. For a period not to exceed 6 months unless otherwise mutually agreed, the Parties shall discuss disputes regarding any matter relating to this Agreement, and shall use their best efforts to amicably and promptly resolve each such dispute. If the Parties have been unable to resolve a disputed matter as specified above, then each Party has the right to adopt any other remedies available under law.

27. Audits.

- (a) With regard to this Agreement and payments made under it, each Party shall reserve the right to audit and to examine any cost, payment, settlement or supporting documentation, including, but not limited to, audit reports resulting from any items set forth in this Agreement. Any such audit(s) shall be undertaken by either Party's representative(s) upon reasonable notice to the other Party and at reasonable times and in conformance with generally accepted auditing standards. The Party being audited agrees to cooperate fully with any such audit(s). The right to audit a cost shall extend for a period of 3 years following the first billing for such cost under this Agreement. The Parties agree to retain all records and documentation related to this Agreement prepared in the normal course of business for the entire length of this audit period. The Parties agree that all Project accounting and records shall be maintained in accordance with Generally Accepted Accounting Principles.
- (b) The Party being audited shall be notified in writing of any exception taken as a result of an audit promptly after completion of the audit. The Party being audited shall have 30 days to review the notice of exception.
 - (1) If the Parties agree upon any exception(s) found as a result of the audit, the owing Party shall directly refund the amount of such exception(s) to the other Party, with interest calculated in the same manner as in Bonneville's Wholesale Power Rate Schedules and General Rate Schedule Provisions, or its successor (Exhibit E) within 10 days after agreement is reached.
 - (2) If the Parties dispute any exception(s) taken as a result of the audit, the owing Party shall so notify the other

Party in writing promptly after its receipt of the written notification of exception. Such dispute shall then be subject to the provisions set forth in section 26. If upon resolution of the dispute, it is determined that a Party shall make payment to the other Party, such payment shall be made within 10 days of resolution of the dispute, with interest calculated in the same manner as set forth in Bonneville's Wholesale Power Rate Schedules and General Rate Schedule Provisions, or its successor, attached as Exhibit E.

28. Governing Law.

This Agreement shall be interpreted, governed by, and construed under Federal law.

29. Waivers.

Except as otherwise provided herein or as agreed by the Parties, no provision of this Agreement may be waived except as documented or confirmed in writing. Any waiver at any time by a Party of its right with respect to a default under this Agreement, or with any other matter arising in connection therewith, shall not be deemed a waiver with respect to any subsequent default or matter. Either Party may waive any notice or agree to accept a shorter notice than specified in this Agreement. Such waiver of notice or acceptance of shorter notice by a Party at any time regarding a notice shall not be considered a waiver with respect to any subsequent notice required under this Agreement.

30. Headings Not Binding.

The headings and captions in this Agreement are for convenience only and in no way define, limit, or describe the scope or intent of any provisions or sections of this Agreement.

31. Agreement of the Parties.

This Agreement represents the entirety of the agreement between the Parties, and the Agreement supersedes any prior written or oral agreements between the Parties.

32. Interpretation of Agreement.

The Parties agree that both Parties drafted this Agreement, and that if any ambiguities arise in the later interpretation of the Agreement, such ambiguities shall not be construed against either Party as the sole drafter of the Agreement.

33. Signature Clause.

Each Party hereto represents that it has the authority to execute this Agreement and that it has been duly authorized to enter into this Agreement.

34. Execution by Counterpart.

This Agreement shall be executed in several counterparts, and shall be deemed to constitute a single document with the same force and effect as if both Parties hereto, having signed a single counterpart, had signed all counterparts. IWRB shall deliver an executed

Attachment C

counterpart to Bonneville, and Bonneville shall prepare a conformed copy of this Agreement and deliver it to IWRB.

IN WITNESS WHEREOF, the Parties have executed this Agreement in several counterparts.

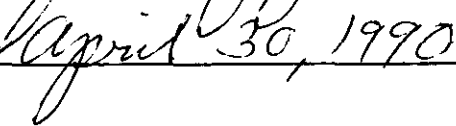
UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By



Administrator

Date



THE STATE OF IDAHO
Idaho Water Resource Board

By

Title

Date

(VS6-PMCE-4332c)

Attachment C

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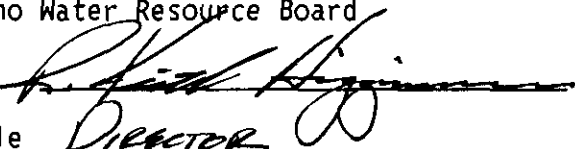
IN WITNESS WHEREOF, the Parties have executed this Agreement in several counterparts.

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By _____
Administrator

Date _____

THE STATE OF IDAHO
Idaho Water Resource Board

By 

Title DIRECTOR

Date 4/30/90

(VS6-PMCE-4332c)



Attachment C

Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

EXHIBIT A

January 29, 1990

SM

IN REPLY REFER TO

Keith Higginson
Director
Idaho Department of Water Resources and
for the Idaho Water Resource Board
1301 North Orchard
Boise, ID 83720

Dear Mr. Higginson:

Subject: Letter of Intent for Construction of Clearwater and Dworshak Fish
Hatcheries Generating Project and Related Matters

This letter is intended to serve as a Letter of Intent (the "Letter") to set out certain terms and conditions which were verbally agreed to with Wayne T. Haas and which will be more fully set out in a final agreement and supplemental documentation. It is understood that the increased capacity in the water supply line to allow the City of Orofino ("City") the option to acquire a future water supply will be provided for the City.

1. The project (the "Project") consists of a hydropower generation facility located in a water supply line serving the Clearwater Fish Hatchery. The Project will also provide and include sufficient water pipeline capacity to allow the City of Orofino to take, at a future date, up to 6 cubic feet per second from the secondary pipeline for its municipal purposes, subject to an agreement between the City and the Corps of Engineers (the "Corps") for costs related to the provision for water under the Water Supply Act of 1958 and other appropriate statutory authority applying to the Corps, and other matters between the Corps and the City. The generating facility will be designed and constructed by the Corps.

2. Bonneville Power Administration (BPA) acknowledges the record of involvement in this project by the Idaho Water Resource Board (IWRB) which enabled the development of minimum facilities for in-line power generation, including design and development work on the Project, submittal of a request for a Federal Energy Regulatory Commission (FERC) permit, and preparation to obtain legislative approval for revenue bonds to fund design and construction of the Project.

3. Subsequent to IWRB's permit application, BPA issued a formal determination to the Secretary of Army that the facility, which will mitigate the loss of generating capacity from the water diversion for the Clearwater and Dworshak Fish Hatcheries, is needed to meet the Federal Columbia River Power System (FCRPS) market requirements.

4. IWRB agrees not to oppose Federal development of the Project and to make this position known in all relevant legislative, administrative, court and other proceeding, including, but not limited to, the FERC. IWRB and BPA agree to use their best efforts to obtain a ruling by FERC on the issue of FERC jurisdiction over the proposed project. IWRB will notify FERC that pending FERC's determination of its jurisdiction over this project, IWRB assumes FERC has jurisdiction and, accordingly, continues to pursue its application for a preliminary permit for development of the project.

5. IWRB, upon execution of a final agreement implementing this letter of intent, will notify FERC in writing, at a future date to be coordinated with BPA, to the following effect:

Whereas applications have been filed for the development of the subject property; and whereas BPA has filed a motion that FERC lacks jurisdiction over the proposed project;

Now therefore, IWRB hereby notifies FERC that IWRB does not oppose BPA's motion and claim that the Federal government's authorization to develop the project withdraws FERC jurisdiction. Nevertheless, pending FERC's determination that it lacks jurisdiction over this project, IWRB assumes FERC has jurisdiction and, accordingly, continues to diligently pursue its application for a preliminary permit and development of the project.

6. IWRB releases and forever discharges the United States, its agencies, employees, agents and assigns from any and all claims which have been, could have been, or might in the future be asserted against the United States, its agencies, employees, agents and assigns arising from or in any manner directly or indirectly connected with the rights to the development of the Project which forms the subject matter of this agreement and claims of whatsoever nature directly or indirectly connected with IWRB's efforts to date for the planning and design of the Project.

7a. In recognition of IWRB's participation in the project, including the expenditure of funds therefore and for IWRB not opposing Federal development of the Project; if Federal development of the Project is upheld (after all appellate rights, if exercised by the State of Idaho, are exhausted), BPA agrees to compensate the State of Idaho through IWRB in the amount of \$750,000 subject to the terms and conditions to be agreed to in the final agreement implementing this letter of intent. The IWRB will receive payment under these terms whether the project is ultimately built by the Federal Government. BPA will be the marketing agent for the electric power as part of the FCRPS pursuant to BPA's enabling legislation including the Federal Columbia River Transmission System Act (FCRTSA), the Bonneville Project Act, the Pacific Northwest Preference Act and the Pacific Northwest Electric Power Planning and Conservation Act.

7b. As an alternative to paragraph 7a, if IWRB's permit application and license for the Project is upheld (after all appellate rights, if exercised by BPA, are exhausted), the State of Idaho agrees to sell the Project's entire capacity and energy output to BPA for a period of 30 years for 28.1 mills during calendar year 1992 and annually escalated on January 1 at a 3 percent rate. BPA agrees to pay the State of Idaho through the IWRB \$750,000 for this right contingent upon, and billable after BPA's acceptance of the Project's power for inclusion into the FCRPS and subject to additional terms and conditions to be agreed to in the final agreement implementing this letter of intent.

The terms provided under this paragraph are subject to IWRB being able to issue Federal tax-exempt revenue bonds. BPA agrees to request a ruling under Section 9(f) of the Northwest Power Act pursuant to the 9(f) methodology approved by the Treasury on February 26, 1984.

7c. In the event that IWRB is unable to issue Federal tax-exempt revenue bonds, the State of Idaho agrees to sell the Project's entire capacity and energy output to BPA for a period of 30 years for 30.7 mills during calendar year 1992 and annually escalated at a 3 percent rate. BPA agrees to pay the State of Idaho through the IWRB \$750,000 for this right contingent upon, and billable after BPA's acceptance of the Project's power for inclusion into the FCRPS and subject to additional terms and conditions to be agreed to in the final agreement implementing this letter of intent.

7d. In the event that Federal development is denied by FERC and a preliminary permit and/or license is granted to a party other than IWRB, no payment shall be made.

8. It is the position of BPA that it is authorized under the Bonneville Project Act and subsequent legislation to enter into this Letter and the final agreement with IWRB. IWRB is authorized to enter into this letter and the final agreement with BPA. The Director of the Idaho Department of Water Resources is authorized to execute the Letter on behalf of IWRB.

9. This letter of intent shall be null and void if terms and conditions are not agreed to in the final agreement implementing the letter of intent. BPA and IWRB are prepared to develop and execute the final agreement within 45 days of the acceptance of the terms and conditions of this letter of intent.

10. The parties agree to support and implement all the provisions of the final agreement.

Assuming that the foregoing provisions are acceptable, please sign the two copies of this Letter in the space provided below and return one copy in the envelope provided. If you have any questions regarding these matters, please call me at (503) 230-5121.

Sincerely,

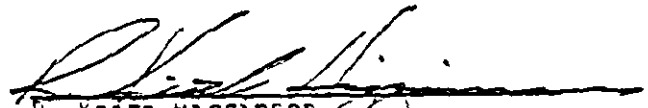


Richard L. Perlas
Project Manager

Agreed to and accepted this 31st day of January, 1990.

Idaho Water Resources Board

By:



R. Keith Higginson
Director, Idaho Department of
Water Resources

PROJECT PLAN OF DELIVERY

1. Monthly Amounts of Energy.

Year	/	1992	/	1993	/	1994	/	1995
Month								
August								
September								
October								
November								
December								
January								
February								
March								
April								
May								
June								
July								

This Exhibit will be revised each year upon IWRB's submission of new data.

2. Example, assuming 1995 Power Sale.

Upon IWRB's submittal of plans of delivery each year in accordance with subsection 15(a), Bonneville shall use such plans in its PNW Coordination Agreement planning. That is, the information from such submittals shall be included in initial, modified, and final coordinated system regulations.

At 2400 hours on July 31, 1995, or shortly thereafter, parties to the PNW Coordination Agreement determine reservoir elevations corresponding to the level of refill. If the system refills, Bonneville will use the most recent plan of delivery submitted by IWRB. If the system does not refill, the parties to the PNW Coordination Agreement will use the system capability associated with actual elevations to most closely match planning done in previous years (earlier 'Critical Periods'). This can be shown as follows:

<u>Critical Period</u>	<u>IWRB Plan of Delivery</u>
1995 - 1998 (refill)	year 1995 from 1995 submittal
1994 - 1997	year 1995 from 1994 submittal
1993 - 1996	year 1995 from 1993 submittal
1992 - 1995	year 1995 from 1992 submittal

If less than a 4 year Critical Period is ever used, there may be fewer than 4 alternatives to be considered.

(VS6-PMCE-4332c)

OPERATING PROCEDURES

Both Parties realize that not all of the operating procedures which will be required to implement this transaction have been established as of the Effective Date. During the term of the Agreement, the Parties agree to develop operating procedures as necessary to assist the implementation of the Agreement. Such procedures may include, but are not limited to, determination and verification of costs, additional operating procedures under various water conditions, additional scheduling procedures on a daily prescheduled, Calendar Week, and 10 day planning estimate basis, additional scheduling procedures in the event of transmission outages, establishing and exchanging information on Workdays, and operating procedures as may be necessary during periods of total and partial transmission outages.

These procedures shall be inserted into this Exhibit and shall in no way alter the substance or intent of any language contained in the body of the Agreement.

(VS6-PMCE-4332c)

EXHIBIT D
Small Hydropower

TRIAL TECHNICAL STANDARDS FOR INTERCONNECTION OF
SMALL GENERATING RESOURCES TO THE BPA
TRANSMISSION SYSTEM

December 27, 1989

TRIAL TECHNICAL STANDARDS FOR INTERCONNECTION OF
SMALL GENERATING RESOURCES TO THE BPA
TRANSMISSION SYSTEM

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December 27, 1989

TRIAL TECHNICAL STANDARDS FOR INTERCONNECTION OF
SMALL GENERATING RESOURCES TO THE BPA
TRANSMISSION SYSTEM'

INTRODUCTION

The Bonneville Power Administration (BPA) has prepared standards for the integration of small generating resources directly or indirectly connected to the BPA system. The purpose of these standards is to ensure the safe operation, integrity, and reliability of the BPA electrical system and of the facilities with which it is interconnected.

These standards are not intended as a design specification or an instruction manual. Many requirements, particularly the protective equipment and relaying, will need to be considered on a case-by-case basis because the BPA system is so varied.

It is important to remember that the physical laws which govern the behavior of electric systems do not recognize defined lines of electric facility ownership. Thus, for a well engineered interconnection, it is mandatory that the systems be studied and analyzed critically without regard to ownership. BPA will review the interconnection plans with the owner/operator of the small generating resource and any interconnected utility. Factors such as short circuit currents, transient voltages, stability requirements, prudent utility practices, safety, operations, and maintenance will be considered.

I. SCOPE

These standards cover small generating resources directly connected to the BPA system or to another utility's system which is directly connected to BPA's system. Based on these standards, the small generating resource and the interconnected utilities must demonstrate that generation on, or connected to, their system will not degrade the reliability and safe operation of the BPA system or another utility's system directly connected to BPA.

A. Definition

A small generating resource (SGR) is a generating resource which has a production capacity of 50 Megawatts or less of electric power.

B. Application of Codes, Policies and Laws

Installations shall be in compliance with the National Electrical Code (ANSI C1), National Electrical Safety Code (ANSI C2), Western Systems Coordinating Council and Northwest Power Pool minimum operating reliability criteria, State and local electrical codes, BPA Reliability Criteria, and the General Contract Provisions of the agreement between BPA and the SGR or interconnected utility, as applicable.

BPA will not interconnect a SGR until completing an appropriate decisionmaking process, which may include preparation of an environmental document under the National Environmental Policy Act (42 U.S.C. & 4321 et seq.). The owner of the SGR may be asked to prepare the environmental document for BPA, or to submit relevant environmental information, before BPA will decide whether to offer a connection.

BPA, in cooperation with the interconnected utility and the SGR, shall determine that the BPA system is properly protected from any problems or disturbances that occur on the SGR's system and that the operation of the SGR is safe and reliable with respect to the BPA system before an interconnection is closed and interconnected operation may begin. At its discretion, BPA may waive those requirements which can be met by equivalent measures to maintain the reliability and safe operation of the BPA system.

Each of the parties involved in a direct or indirect connection of an SGR to the BPA System is responsible for the design, construction, reliability, protection, and safe operation of its own system.

Design of the SGR facilities should be supervised by a Registered Professional Engineer.

C. Interconnection Point

The interconnection point is that point on the BPA system where the facilities of the SGR or the transferring utility are connected with BPA. (The nominal voltage at the interconnection point will normally be at the lowest voltage available at that point.)

The term "interconnection point" is used in a general sense in these standards. The term is used somewhat differently in small resource wheeling agreements. The wheeling agreements define the "Point of Integration" as the point where the project output is made available to BPA, while the "Point of Interconnection" is the point where the developer makes the project output available to a third party utility so it can be wheeled to BPA.

II. PERFORMANCE STANDARDS

The SGR (owner) shall mitigate complaints such as audible noise, radio, television and telephone interference and voltage fluctuations caused by the SGR.

Each party involved in the connection of the SGR shall design, construct, operate, maintain, and use its facilities in conformance with prudent utility practices.

A. Electric Disturbances

Each party shall:

1. Minimize the effect of all electric disturbances such as, but not limited to:
 - a. an abnormal flow of power which may interfere with the interconnected electric systems;
 - b. the transient overvoltages that occur during ground faults.
2. Minimize the degradation of the reliability of the interconnected electrical system.

B. Voltage Regulation and Power Factor

1. The nominal high-side voltage of the SGR's step-up transformer shall be the same as the nominal or agreed upon voltage of the Interconnection Point for SGR's directly connected to the BPA system.
2. The SGR shall impose no restrictions on BPA's capability to operate within a system voltage range of five percent above or below nominal for voltages equal to or less than 25-kV, and 10 percent above or below nominal for voltages greater than 25-kV.
3. Synchronous generators shall:
 - a. Be rated at 0.95 power factor or lower, lagging and leading.
 - b. Coordinate with voltages as scheduled by BPA within the reactive capability of the machine. Design and operation of voltage regulators shall be coordinated with other voltage and reactive control equipment on the system.
4. Induction generators or groups of induction generators shall have a suitable reactive power supply to maintain a power factor that is acceptable to BPA and the other interconnected utilities. If the SGR induction generators can be self-excited during fault conditions, the SGR must provide protective relaying to promptly trip the generator.
5. Inverters or groups of inverters shall have a suitable reactive power supply to maintain unity power factor, or other power factor that may be acceptable to BPA and other interconnected utilities.

C. Voltage Flicker

The SGR shall limit to acceptable levels the production of voltage fluctuations (flicker) at the interconnection point.

D. Harmonics Requirements

The SGR shall limit to acceptable levels the production of total harmonic current distortion (THCD) and individual harmonic current distortion injected or coupled into the interconnected system. Harmonic current distortion is defined as the ratio of the rms value of the harmonic current to the rms value of the fundamental alternating current.

The harmonic current distortion of the SGR supplied power shall be limited to the levels indicated below:

<u>Individual Harmonic (h) Current Distortion, %</u>				<u>THCD, %</u>
<u>$h < 9$</u>	<u>$9 \leq h < 23$</u>	<u>$23 \leq h < 35$</u>	<u>$35 \leq h$</u>	
4.0	1.5	1.0	0.5	5.0

These values are for long term operation. For short term testing, and startup, these values may be exceeded. A level of 50% higher current distortion will be allowed for up to one hour.

Exception to these requirements will be considered on an individual basis.

E. Phase Unbalance

Generators shall not cause phase current unbalance greater than 10 percent.

F. Speed/Frequency Control/Damping

1. Speed governors shall be provided when the SGR is to be used to supply loads while operating in isolation from a power system synchronizing source.
2. Speed governors shall be designed and adjusted:
 - a. so that they do not react to cause frequency and power swings to develop during normal system conditions, and
 - b. so that any swings that do occur during system disturbances are well damped.

III. GENERAL REQUIREMENTS

A. Safety and Operation

All BPA and customer switchgear that could be opened, leaving equipment energized by the SGR, must be visibly marked so that all maintenance crews are aware of the potential hazard.

A switch shall be provided that physically and visibly opens the integrating circuit to the SGR. The device:

1. Must simultaneously open all phases to the SGR.
2. Must be accessible by BPA personnel at any time without notice to the SGR and without restricted access.
3. Must be lockable in the open position by BPA.

BPA personnel may lock the switch in the open position:

1. If it is necessary for the protection of maintenance crew personnel when working on de-energized circuits.
2. If the SGR's equipment presents a hazardous condition.
3. If the SGR's generating equipment interferes with the operation of the BPA transmission system.

B. Inspection, Test, Calibration, and Maintenance

The SGR owner has full responsibility for the inspection, testing, calibration and maintenance of the SGR generating and protection equipment.

Drawings, specifications, maintenance records and test records of SGR equipment pertinent to interconnected operation shall be made available to BPA and any interconnecting utility. In some instances, certain tests may be required by BPA. The type of test and required results will be determined by BPA on an individual basis.

Inspection, test, and calibration of the SGR generating and protection equipment shall be completed before initial operational acceptance and subsequently on a periodic basis. Maintenance intervals shall be based on prudent utility practice.

C. Grounding

Grounding requirements shall be in compliance with the National Electrical Code and any applicable State and local codes. Adequate station grounding shall be provided by the SGR.

If there is any possibility during normal or outage conditions of the SGR energizing an ungrounded system in the event of a disturbance on the connected BPA transmission line, the SGR must provide a grounding current source to the BPA system. In some instances, a fault detection scheme using three potential transformers may be substituted for the grounding current source, subject to approval by BPA.

Attachment C

In all cases the protection schemes and equipment necessary for the protection of the BPA system shall be approved by BPA. (See Section IV Protection Guidelines.)

D. Metering and Telemetering

The following revenue metering requirements apply to an SGR with which BPA has a contract to purchase or wheel its generated power.

1. The revenue metering shall be specified by BPA.
2. Specific revenue metering requirements will depend on contractual constraints, wheeling arrangements, designated point of delivery, scheduling requirements, and other factors (see Section F).
3. Metering requirements for an SGR will be the same as for any similarly sized BPA point of interconnection. This includes the overall metering scheme, the type of equipment used, and the overall metering accuracy for metering purposes. Required metering could include: recording three-phase kW-hours, kVAR-hours, KW demand and an RMS (Revenue Metering System) remote, complete with a surge-protected telephone line. Potential transformers and current transformers shall be 0.3% accurate metering class accuracy for the burden of the metering circuit. It may also include automatic data acquisition (telemetering) for scheduling, operating reserve responsibilities and/or billing requirements, Automatic Generation Control (AGC) and two-way metering.
4. At BPA's election, these devices may be owned, operated, and maintained by BPA.
5. Calibration of metering shall occur periodically. All parties may witness calibration.

E. Isolating and Synchronizing

The SGR shall not energize a BPA line that is de-energized unless the energization is specifically approved by the BPA dispatcher.

Whenever a disturbance occurs on the BPA system, interconnecting utility, or the SGR system, the disturbance must be isolated before equipment damage occurs.

If, for any reason, the system source is disconnected from the SGR (fault conditions, line switching, etc.), the switching device connecting the SGR to the system must open and not reclose until approved by the BPA dispatcher.

The SGR shall synchronize its equipment to the BPA and/or interconnected utilities' system.

The SGR shall clear its generator before the normal system reclosing time. The SGR shall not reclose out of synchronization with the BPA and/or interconnected utilities' system.

F. Scheduling

BPA's Power Supply and Scheduling Division will define scheduling requirements on an individual basis. The SGR operators shall adhere to these requirements.

G. Underfrequency/Voltage Relays

Relays must not trip the SGR for major system disturbances but must allow the generator to ride through system frequency and voltage transients.

In order to meet these requirements, the following relay settings are required.

<u>Relay Type</u>	<u>Setting/Delay</u>
1. <u>Undervoltage</u>	0.8 pu or above - 2 second delay minimum 0.75 pu - 0.8 sec. delay minimum 0.7 pu - 0.25 sec. minimum Below 0.7 pu - no restrictions on setting or delay
2. <u>Overvoltage</u>	1.2 or below - 2 second delay minimum 1.25 - 0.8 second delay minimum 1.3 - 0.25 second delay minimum above 1.3 - no restrictions on setting or delay
3. <u>Underfrequency</u>	59.5 Hz or above, 10 minutes min. trip 59.0 Hz - 4 minutes minimum trip 58.5 Hz- 1.2 minutes minimum trip 58.0 Hz- 0.3 minutes minimum trip 57.5 Hz- 0.06 minutes minimum trip 57.0 Hz- or below-no restrictions
4. <u>Overfrequency</u>	60.5 Hz or below - 10 minutes 61.0 Hz- 4 minutes 61.5 Hz- 1.2 minutes 62.0 Hz- 0.3 minutes 62.5 Hz- 0.06 minutes 63.0 Hz or above - no restrictions

IV. PROTECTION GUIDELINES

The protective devices (relays, instrument transformers, circuit breakers, etc.) required to protect BPA's or an interconnected utility equipment shall be specified by BPA, the SGR, and the interconnecting utility. At BPA's election, these devices may be owned, operated, and maintained by BPA. The settings of the protective devices shall be jointly agreed to by BPA, the SGR, and the interconnecting utility. The interconnected utility is fully responsible for the protection of all of its own equipment associated with the interconnection. The SGR shall protect its generator and all of its associated equipment from any and all disturbances or malfunctions.

The BPA system is so varied that there is no one single plan of service typical of all cases. The complexity of the protection required must be determined for each project. The following factors will influence the protection scheme:

1. The output (MVA) and the machine characteristics of the generator.
2. The electrical size of the SGR with respect to the load served by the transformer connected to the BPA system.
3. System protection requirements at the interconnection point and elsewhere on the system as a result of the interconnection configuration (both normal and alternate configurations).
4. The type of transformer electrical connections used to integrate the SGR.
5. The insulation level of the system served by the SGR.

Typical protection requirements for a 4 MW SGR connected to a BPA utility customer system with an 8 MW minimum load are shown in figure 1. Additional equipment such as a grounding transformer may be required in this example if the output of the generation approximately matches or exceeds the load.

In all cases, the protection schemes and equipment required for the protection of the BPA system shall be approved by BPA.

Attachment C

APPENDIX A

APPLICABLE STANDARDS

ANSI

C1	National Electrical Code
C2	National Electrical Safety Code
C37.4	Definitions...AC High Voltage Circuit Breakers
C37.16	Requirements...AC Low Voltage Circuit Breakers
C37.30	Definitions...Air Switches, Insulation, and Bus Supports
C37.48	Guide...Cutouts, Fuse Links, Secondary Fuses
C37.90	Relays...Electric Power Apparatus
C37.91	Relays...Transformers
C37.95	Relays...Utility Consumer Interconnections
C57.12.00	Distribution, Power Transformers...General Requirements
C57.12.01	Distribution, Power Transformers...Dry Type
C62.1	Surge Arrestors
C57.13	Instrument Transformers

WSCC Minimum Operating Criteria

NW Power Pool

National Environmental Policy Act

Pacific Northwest Regional Power Act

IEEE Guide 80 Guideline to Substation Grounding

Cogeneration and Small Power Production Guidelines for Public Power Systems, November 1980, American Public Power Association

IEEE Guide for Interfacing Dispersed Storage and Generation Facilities with Electric Utility Systems -- ANSI/IEEE Standard 1001-1988

December 27, 1989

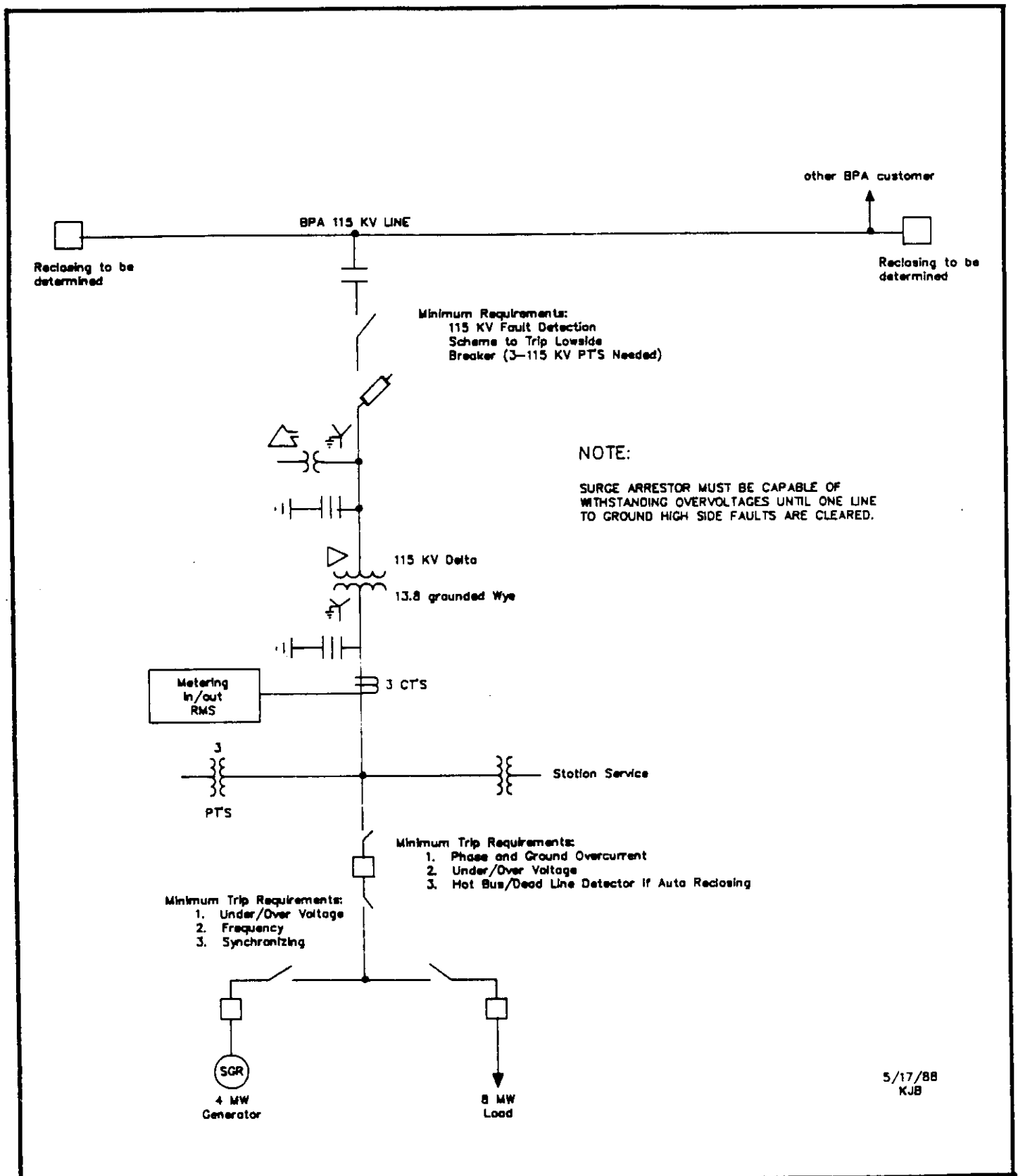


Fig. 1
Typical Example of Protection Requirements for a SGR

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IN REFERENCE TO MEANING

1. Definitions. The definitions in the body of this contract and the following additional definitions apply to this exhibit.

(a) "Federal System" or "Federal System Facilities" means the facilities of the Federal Columbia River Power System, which for the purposes of this contract shall be deemed to include the generating facilities of the Government in the Pacific Northwest for which Bonneville is designated as marketing agent; the facilities of the United States under the jurisdiction of Bonneville; and any other facilities:

(1) from which Bonneville receives all or a portion of the generating capability (other than station service) for use in meeting Bonneville's loads, such facilities being included only to the extent Bonneville has the right to receive such capability; provided, however, that "Bonneville's loads" shall not include that portion of the loads of any

Bonneville customer which are served by a non-Federal generating resource purchased or owned directly by such customer which may be scheduled by Bonneville;

(2) which Bonneville may use under contract, or license; or

(3) to the extent of the rights acquired by Bonneville pursuant to the Treaty between the United States and Canada relating to the cooperative development of water resources of the Columbia River Basin, signed in Washington, D.C., on January 17, 1961.

(b) "Integrated Demand" means the number of kilowatts which is equal to the number of kilowatthours delivered at any point during any clock hour.

(c) "Non-Federal Utility" means any utility not owned or controlled by the United States, including any entity (1) which such a utility owns or controls, in whole or in part, or is controlled by; (2) which is controlled by those controlling such utility; or (3) of which such utility is a member.

(d) "Pacific Northwest" means the same as such term is defined in P.L. 96-501.

(e) "Point(s) of Delivery" means the point(s) of delivery listed either in the Points of Delivery Exhibit to this contract or in the body of this contract.

(f) "Treaty" means the Treaty between the United States and Canada relating to the cooperative development of water resources of the Columbia River Basin, signed in Washington, D.C., on January 17, 1961.

2. Interpretation.

(a) The provisions in this exhibit shall be deemed to be a part of the contract body to which they are an exhibit. If a provision in such contract body is in conflict with a provision contained in this exhibit, the former shall prevail.

(b) If a provision in the General Rate Schedule Provisions incorporated in the Wholesale Power Rate Schedules and General Rate Schedule Provisions Exhibit is in conflict with a provision contained in this exhibit or the contract body, this exhibit or the contract body shall prevail.

(c) Nothing contained in this contract shall, in any manner, be construed to abridge, limit, or deprive any Party hereto of any means of enforcing any remedy, either at law or in equity, for the breach of any of the provisions of this contract which it would otherwise have.

IN REFERENCE TO DELIVERY OF POWER

3. Character of Service. Unless otherwise specifically provided for in the contract, electric power, capacity or energy made available pursuant to this contract shall be in the form of three-phase current, alternating at a nominal frequency of 60 hertz.

4. Point(s) of Delivery and Delivery Voltage. Electric power, capacity or energy shall be delivered to each purchaser at the Point(s) of Delivery and

at such voltage(s) as specified. Unless otherwise agreed, delivery at more than one voltage shall constitute delivery at more than one point.

5. Metered Quantities. The amount(s) of energy, Integrated Demands therefor and amount(s) of reactive energy delivered to the Point(s) of Delivery during each month shall be determined from measurements made by meters installed for such Point(s) of Delivery in the circuit specified.

IN REFERENCE TO PAYMENT FOR POWER

6. Payment of Bills. Each calculated monetary amount in a wholesale power bill shall be rounded to a whole dollar amount, by elimination of any amount of less than 50 cents and increasing any amount from 50 cents through 99 cents to the next higher dollar.

If IWRB is unable to render Bonneville a timely monthly bill which includes a full disclosure of all billing factors, it may elect to render an estimated bill for that month to be followed by the final bill. Such estimated bill, if so issued, shall have the validity of and be subject to the same payment provisions as shall a final bill; however, payment required under the estimated bill shall be adjusted as appropriate in the final bill.

Bills not paid in full on or before the date specified in the Payment of Bills section, or its successor, of the General Rate Schedule Provisions incorporated in the Wholesale Power Rate Schedules and General Rate Schedule Provisions Exhibit shall bear additional charges as specified therein.

Remittances received by mail will be accepted without assessment of the charges referred to in the preceding paragraph provided the postmark indicates the payment was mailed on or before the 30th day after the date of the bill. If the 30th day after the date of the bill is a Sunday or other nonbusiness day of the purchaser, the next following business day shall be the last day on which payment may be made to avoid such further charges. Payment made by metered mail and received subsequent to the 30th day must bear a postal department cancellation in order to avoid assessment of such further charges.

7. Determination of Estimated Billing Data. If the amounts of power or energy which have been delivered hereunder must be estimated from data other than metered quantities, scheduled quantities or tabulations of hourly interchange prepared by Bonneville, Bonneville and IWRB shall agree on estimated billing data to be used in preparing the bill.

MISCELLANEOUS PROVISIONS

8. Additional Provisions. IWRB agrees to comply with the clauses for United States contracts contained in the following statutes, Executive Orders, and regulations to the extent applicable:

(a) the Rehabilitation Act of 1973, Public Law 93-112, as amended, and 41 CFR Part 60-741.4 (Affirmative Action for Handicapped Workers);

(b) the Vietnam Era Veterans Readjustment Assistance Act of 1972, Public Law 92-540, as amended, and 41 CFR Parts 60-250.4 and 60-250.10 (Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era);

(c) the Small Business Act, as amended;

(d) Executive Order 11246 and 41 CFR Part 60-1.4 (Equal Opportunity). Such clauses, as amended, are incorporated by reference herein as if fully set forth.

9. Notices and Computation of Time. Any notice required by this contract to be given to any party shall be effective when it is received by such party, and in computing any period of time from such notice, such period shall commence at 2400 hours on the date of receipt of such notice.

10. Interest of Member of Congress. No Member of or Delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to such contract if made with a corporation for its general benefit.

(VS6-PMCE-4332c)

Electric Power Wheeling and Maintenance Agreement

between

Idaho Water Resources Board

and

Clearwater Power Company

for

**Use of Electrical Transmission Facilities
associated with the
Dworshak Small Hydroelectric Project
FERC License No. 10819**

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AGREEMENT

This Agreement, made this _____ day of January 2000, by and between the Idaho Water Resources Board (IWRB) and the Clearwater Power Company (CPC).

RECITALS

1. IWRB is developing the Dworshak Small Hydroelectric Project "Project" a hydroelectric power plant, having a name-plate generation capacity of approximately 2,900 kW, located approximately one mile downriver of Dworshak Dam on the feedwater lines serving the Clearwater and Dworshak National Fish Hatcheries in Clearwater County.
2. IWRB was issued Federal Power License No. 10819 for the Project on August 4, 1998, by Federal Energy Regulatory Commission (FERC).
3. IWRB desires to deliver the output from the Project to the Bonneville Power Administration's (BPA) transmission system.
4. CPC owns and operates the Ahsahka Substation, a 115kV to 24.9kV facility located in the vicinity of the Project, and a 115kV transmission line which interconnects the Ahsahka Substation to the BPA Transmission System.
5. CPC has designed, on behalf of IWRB, a protection system satisfactory to CPC for the protection of CPC's electric distribution system. A copy of the design of the protection system is attached as Exhibit A and incorporated herein by this reference.
6. CPC is willing to make the necessary changes to its facilities in order to wheel the power produced from the Project to the BPA Transmission System.

Now, therefore, in consideration of the promises stated, the parties hereto agree as follows:

I. Definitions

As used in this Agreement:

1. "Good Utility Practice" shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been

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expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a range of acceptable practices, methods or acts.

2. "System" or "Facilities" shall include transmission, transformer, substation, and distribution facilities which are owned by either party or which either party may use under a lease, easement or license.

3. "Point of Interconnection " shall be defined as where the 24.9kV low voltage side of CPC's Ahsahka Substation and IWRB facilities are connected.

4. "Point of Delivery" shall be defined as the junction of the CPC and BPA facilities located approximately one mile northeast up the North Fork of the Clearwater River from the Ahsahka Substation.

5. "Metering Point" shall be in CPC's Ahsahka Substation, in the 24.9 kV circuit over which such electric power and energy flows.

6. "Uncontrollable Forces" may include, but are not restricted to:

a. Strikes affecting the operation of either party's system or other physical facilities upon which such operation is dependent; or

b. The following events that either party, by exercise of reasonable diligence and foresight, could not reasonably have been expected to avoid:

(1) Events, reasonably beyond the control of the party having jurisdiction thereof, causing failure, damage, or destruction of any system or facility. The term "failure" shall include any interruption or interference with the actual operation of such system or facility.

(2) Acts of God or of the public enemy, acts of the government in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes or failure or breakdown of transmission, distribution or other facilities.

II. Scope

CPC agrees to furnish wheeling services requested by IWRB to transmit the output from the Project to the Point of Delivery. CPC also agrees to perform the identified construction and maintenance services to facilitate

the delivery of electrical power from the Project to the Point of Interconnection.

III. Description of Services

1. Wheeling Services

a. CPC agrees to provide wheeling services from the Point of Interconnection located at the 24.9 kV circuit side of the Ahsahka Substation through the substation to the Point of Delivery on the BPA Transmission System located approximately one mile from the Ahsahka Substation.

b. The premises to be served under this Agreement is the Dworshak Small Hydroelectric Project FERC License No. 10819 located near Ahsahka Idaho. The name-plate generation capacity of the Project is approximately 2,900 kW and the annual energy production is estimated at 23,000,000 kWh.

c. IWRB shall give reasonable notice to CPC respecting any changes anticipated in the capacity requirements or characteristics of the wheeling service required.

2. Construction and Maintenance Services

a. CPC agrees to construct and install all necessary electrical facilities identified in Exhibit C incorporated herein by this reference and located between the south side vault of the Ahsahka Bridge and the Point of Interconnection located at the 24.9 kV circuit side of the Ahsahka Substation. Ownership and title to the facilities including the conduits, primary conductors, ground wire and connectors shall remain with IWRB, except that CPC shall own and hold title to the Ahsahka Bridge electrical vaults and bridge cable tray together with other associated facilities attached to the vaults and tray. CPC hereby provides to IWRB a license to jointly use the bridge vaults; cable tray and associated facilities owned by CPC for the life of this Agreement. CPC agrees to be responsible for all loss or damage to its facilities except loss or damage that is caused by the interconnection of IWRB's facilities to CPC or that arising out of the negligence of IWRB, its agents or employees. All real estate taxes and other charges, together with all liability arising out of the negligence of CPC in the construction and maintenance shall be assumed by CPC.

b. IWRB shall construct and install the transformer, buried conduit and wire to the Clearwater Bridge. Ownership and title to the transformer, buried conduit and wire shall remain with IWRB and it shall be responsible for all loss and damages to its facilities except that arising

out of the negligence of CPC, its agents or employees. All taxes and other charges, together with all liability arising out of the negligence of IWRB shall be assumed by IWRB.

c. CPC agrees to provide the inspection, maintenance, and periodic replacement of the transformer, buried conduit, and wire owned by IWRB together with electric facilities identified in Exhibit C. CPC agrees to inspect and maintain all the facilities identified under this Agreement to the same standard it maintains its other distribution facilities using Good Utility Practices, and use reasonable diligence to provide a regular uninterrupted wheeling service to the Project. Notwithstanding CPC's agreement to provide maintenance for the IWRB transformer, CPC shall not have any liability for any damages arising from, but not limited to, any environmental cleanup, fines, or other costs. Except that CPC shall be responsible for damages that arise as the result of negligence on the part of CPC in the performance of its maintenance duties under this Agreement. IWRB shall provide periodic maintenance, testing and repair to all other Project facilities. CPC reserves the exclusive rights to operate, maintain, inspect, update, and/or repair IWRB's facilities within the boundaries of CPC's Ahsahka Substation and the North and South vaults located on the Ahsahka Bridge. IWRB reserves the right to accompany CPC personnel during any maintenance, inspections, updates, and/or repairs of IWRB's facilities.

d. Each party agrees to design, construct, operate, maintain and use its electric facilities in conformance with Good Utility Practices to minimize electrical disturbances such as, but not limited to, the abnormal flow of power which may interfere with the electric system of the other party or any other electric system connected to the party's system. Nothing in this section shall be construed to create any duty, standard of care, or liability to any person not a party to this Agreement, including but not limited to those who purchase electricity directly from CPC.

IV. Continuity of Service

1. CPC shall not be liable to IWRB for damages, breach of Agreement, or service interrupted by any uncontrollable force or any other event or consequence unless such event or consequence is the result of CPC's willful misconduct or negligence.

2. CPC may temporarily interrupt or reduce wheeling of electrical power of the Project if it determines that such interruption or reduction is necessary or desirable in case of system emergencies, uncontrollable forces, or in order to make repairs, replacements, investigations,

inspections or install equipment and perform other maintenance work on CPC's system. CPC shall make every effort to perform all repairs and other duties identified in this paragraph with reasonable dispatch to promptly restore wheeling service to the Project. Except in cases of emergency and/or uncontrollable forces, CPC agrees to give IWRB reasonable notice of any anticipated interruption or reduction together with an explanation for the action and an estimate of the duration of the interruption.

3. IWRB shall provide power and energy in conformance with IEEE Standard 519-1992 for harmonic control and IEEE Standard 141-1986 for voltage guidelines. IWRB also shall maintain unity average power factor as nearly as practicable. In the event that the delivered power and energy is not within the standard or the power factor falls below 95% leading or lagging based on an hourly average, CPC, after notification to IWRB, may disconnect the Project from its system until such time as the power quality is corrected at IWRB expense. IWRB shall adhere to Good Utility Practices in the operation and maintenance of the Project, including, but not limited to, system protection and generation output.

4. CPC agrees to notify IWRB as soon as possible of any uncontrollable force that in any way affects transmission of power under this Agreement. In the event the operations of CPC are interrupted or curtailed due to such uncontrollable force, CPC agrees to exercise due diligence to reinstate such operations with reasonable dispatch. In the event CPC is unable to wheel power for any causes identified under this Agreement, for any period, CPC shall not be held responsible for the lost production revenues of the Project.

5. In the event IWRB is unable to operate the Project in whole or in part, IWRB shall not be liable to CPC for damages breach of Agreement or service interrupted by any uncontrollable force or any other event or consequence. CPC agrees to maintain IWRB's facilities as outlined in this Agreement and IWRB shall continue to pay the monthly rate subject to an adjustment pro-rated daily as described in Section V below until such time as IWRB notifies CPC in writing of the termination of this Agreement

6. The parties shall furnish each other such information as is necessary for making any computation required under this Agreement and the parties further agree to cooperate in the exchange of additional information as may be useful in their respective operations.

7. It is the intent of the parties to create and foster an atmosphere of cooperation over the term of this Agreement.

V. Payment, Rate and Charges

1. IWRB shall pay and CPC shall accept as payment the monthly rate specified in Exhibit B and incorporated herein by this reference. The monthly rate shall include charges for standby, maintenance and inspection and wheeling and joint use for the Project. An adjustment pro-rated daily shall be made to the monthly Wheeling and Joint Use Fee if IWRB is unable to operate the Project for more than thirty (30) consecutive days.
2. The rate schedule may be renegotiated at any time upon request of either party. CPC agrees that the rate will not exceed the rate CPC would charge others under similar conditions of service.
3. CPC agrees to bill and IWRB agrees to pay up to twenty five thousand dollars (\$25,000.00) per year for all costs, including but not limited to labor, material, and overhead, plus ten percent (10%), associated with repairs to IWRB equipment and replacement thereof. CPC agrees to, after consultation with IWRB, bill IWRB for any additional amounts that may exceed \$25,000.00 in any given year.
4. Upon completion of the facilities, or periodically prior to completion if the parties agree, IWRB shall pay CPC the approximate total sum of one hundred seventy three thousand two hundred dollars (\$173,200) for construction and installation of the facilities identified in the attached Cost Estimate of Electric Facilities labeled as Exhibit C. Payment shall be adjusted more or less from the amount identified above to reimburse CPC for the actual costs expended to construct and install the facilities. Upon full payment, CPC agrees to execute a release in favor of IWRB for all claims arising under or by virtue of the installation.
5. The parties agree that actions performed under this Agreement are not intended to cause any detrimental effect on CPC in regards to any agreement CPC has or may have with BPA and/or other power providers. The parties further agree to promptly renegotiate any term of this Agreement to alleviate any dispute or remove any detrimental effect encountered by either party. If the parties are unable to reach agreement to modify this Agreement to remedy a dispute or eliminate a detrimental effect, either party may submit the dispute for Mediation and Arbitration as set out in Section XX of this Agreement. CPC agrees to continue to provide Wheeling and Maintenance services while any matter in this Agreement may be in dispute. IWRB agrees to reimburse CPC for reasonable costs associated with any ongoing maintenance, inspection and detrimental effects attributable to IWRB, as determined by the parties.

VI. Term

1. This Agreement shall become effective upon the execution by the parties. Services provided by CPC described in Exhibit B shall commence at 2400 hours on or before August 3, 2000 and shall continue until the earlier of:

- a. 2400 hours on the date 60 days after written notice from IWRB to CPC of termination of the Power Sales Agreement between IWRB and BPA; or
- b. 2400 hours on the date 60 days after written notice from IWRB to CPC of termination pursuant to section XXI of this Agreement; or
- c. Fifty (50) years from the effective date of this Agreement.

2. This Agreement may be extended or renewed upon agreement of the parties.

VII. Audit by IWRB

IWRB shall have the right to audit and inspect the records of CPC subject to the following provisions:

1. Examination of Costs. CPC agrees to make available and IWRB shall have the right to examine books, records and documents, and other evidence, accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of CPC's plants, or parts thereof, as may be engaged in the performance of this Agreement.

Any data relied upon by CPC to establish a price shall be made available to IWRB upon request.

2. The materials described in paragraph No. 1 of this section shall be made available at the offices of CPC, at all reasonable times and with reasonable notice, for inspection, audit, or reproduction, until three years after payment under this Agreement. IWRB shall reimburse CPC for costs of providing data and assistance during the audit.

VIII. Interpretation

Nothing in this Agreement shall, in any manner, be construed to abridge, limit or deprive any party hereto of any means of enforcing any remedy, either at law or in equity, for the breach of any provision in this Agreement that either party would otherwise have.

IX. Conflicts

Any inconsistency between the provisions of this Agreement and the provisions of any schedule, rider or exhibit incorporated into this Agreement by reference or otherwise, the provisions of this Agreement shall control.

X. Attorney's Fees

In the event either IWRB or CPC takes action, judicial or otherwise, to enforce or interpret any of the terms of this Agreement, the prevailing party shall be entitled to recover reasonable fees of attorneys, paralegal, accountants and other experts, and all other amounts provided by law, whether incurred in a suit or action or appeal from a judgment or decree therein.

XI. Assignment of Agreement

This Agreement shall inure to the benefit of, and shall be binding upon the respective successors and assigns of the parties to this Agreement, provided, however, that neither such Agreement nor any interest therein shall be transferred or assigned by either party without the written consent of the other, which consent shall not be unreasonably withheld. In the event approval is not given, the non-assigned party must state the reason for withholding approval and list conditions needed for approval.

XII. Indemnification

Each party agrees to indemnify, defend and hold harmless the other party, its assigns, officers, employees and agents from any and all claims, demands, suits, losses, costs and damages of every kind and description, including attorney fees, growing out of or connected with its negligent acts, errors or omissions its employees or agents, provided that neither party shall be relieved hereby from liability for their own negligence and that of its employees.

XIII. Null and Void Covenants

If any part of this Contract is declared invalid or becomes inoperative for any reason, such invalidity or failure shall not affect the validity and enforceability of any other provision.

XIV. Notices

Notices shall be in writing and shall be delivered by means of registered or certified mail, confirmed facsimile transmission, courier or messenger service or personal delivery, and shall be deemed given upon receipt or, in case of the notice by mail, three business days after deposit in the United States mail. Notices shall be addressed as follows, or to such other address as either IWRB or CPC shall provide.

To IWRB: Director
Idaho Department of Water Resources
1301 N. Orchard Street
P.O. Box 83720
Boise, Idaho 83720-0098
Facsimile: (208) 327-7866
Telephone: (208) 327-7900

To CPC: Raymond J. Thayer, P.E.
General Manager
Clearwater Power Company
4230 Hatwai Road
P.O. Box 997
Lewiston, Idaho 83501
Facsimile: (208) 746-3902
Telephone: (208) 743-1501

XV. Liability Insurance

IWRB and CPC agree to obtain and maintain liability insurance with a single limit of coverage of not less than \$5,000,000 for each occurrence. A certificate of such insurance shall be provided by IWRB and CPC to the other party prior to operation of the Project. Each party agrees to promptly notify the other of any changes in its liability insurance coverage and policies. The liability of each party is limited to amount of coverage identified herein.

XVI. Waiver, Modification or Amendment

No waiver, modification, or amendment of this Agreement or of any covenants, conditions or limitations herein contained shall be valid unless in writing duly executed by both parties and the parties further agree that the provisions of this section may not be waived, modified, or amended except as herein set forth.

XVII. Governing Law

This Agreement shall be interpreted, construed and enforced in accordance with the laws of the State of Idaho or the law of the United States of America, whichever is applicable.

XVIII. Enforceability

IWRB and CPC each represent and warrant that this Agreement has been duly authorized, executed, and delivered by the party and constitutes a legal and binding obligation of the party, enforceable against the other party in accordance with its terms.

XIX. Authorization

The persons signing this Agreement each represent that they have been appropriately authorized to enter into the Agreement on behalf of the party for which they sign.

XX. Mediation and Arbitration

Except for the right of either party to apply to a court of competent jurisdiction for a temporary restraining order or preliminary injunction to preserve the status quo or to prevent irreparable harm pending the decision of the arbitrator, the parties agree to first attempt to resolve any dispute arising under this Agreement informally through mediation using a mediator mutually agreed upon by the parties. If the parties cannot resolve the dispute through mediation, the parties may agree to submit the dispute to binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

The arbitration may be conducted by one (1) impartial arbitrator chosen by mutual agreement or by three (3) arbitrators if the parties are unable to agree on a single arbitrator within thirty (30) days of the first demand for arbitration. All arbitrators are to be selected from a panel provided by the American Arbitration Association. The arbitrators should be knowledgeable in electric utility and electric transmission matters. The chair shall be an attorney at law. Upon the request of a party, the arbitrators shall have the authority to permit discovery to the extent they deem appropriate. A court reporter shall record the arbitration hearing and the reporter's transcript shall be the official transcript of the proceeding. The arbitrators shall have no power to add or detract from the agreement of the parties and may not make any ruling or award that does not conform to the terms and conditions of this Agreement. The arbitrators shall have the authority to grant injunctive relief in a form substantially similar to what could be granted by a court of law. The arbitrators shall have no independent authority to award punitive damages or any other damages not measured by the prevailing party's actual damages. The arbitrators shall specify the basis for any damage award and the types of damages awarded. The decision of the arbitrators shall be final and binding on the parties and may be entered and enforced in any court of competent jurisdiction by either party.

The prevailing party in the arbitration proceedings shall be awarded reasonable attorneys' fees, expert witness costs and expenses, and all other expenses incurred directly or indirectly in connection with the proceedings, unless the arbitrators shall for good cause determine otherwise. Nothing in this

Agreement shall prevent either party from petitioning the Federal Energy Regulatory Commission at its expense to obtain relief under the provisions of the Federal Power Act or the regulations promulgated pursuant thereto.

XXI. Disconnection and Termination

If, in the sole judgment of CPC, IWRB's Project fails to remain in an operating condition that conforms to Good Utility Practices as set forth in this Agreement, CPC shall describe the deficiency and notify IWRB in writing to disconnect the IWRB's Project from CPC's system. In the event IWRB fails to remedy the described deficiency within seven (7) calendar days, CPC may discontinue services under this Agreement until such time as IWRB's Project is restored to an operating condition satisfactory to CPC. This Agreement may be terminated upon the destruction or abandonment of the Project or upon discontinuation of Project operations under a final order issued by a public official having authority to issue such order. Upon termination, IWRB agrees to reimburse CPC for costs associated with the removal of IWRB's facilities located in CPC's Ahsahka Substation and Ahsahka Bridge Vaults including, but not limited to, labor and material.

Attachment D

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

IDAHO WATER RESOURCE BOARD

By Almond Parr

Title Chairman I.W.R.B.

Date 1/27/2000

CLEARWATER POWER COMPANY

By Gordon Jensen

Title President

Date 1/19/2000

ATTEST:

By Robert L. Loss

Title Secretary

Date _____

Exhibit A

Dworshak Small Hydroelectric Project (FERC License 10819)

Protection System

See Attached Drawing

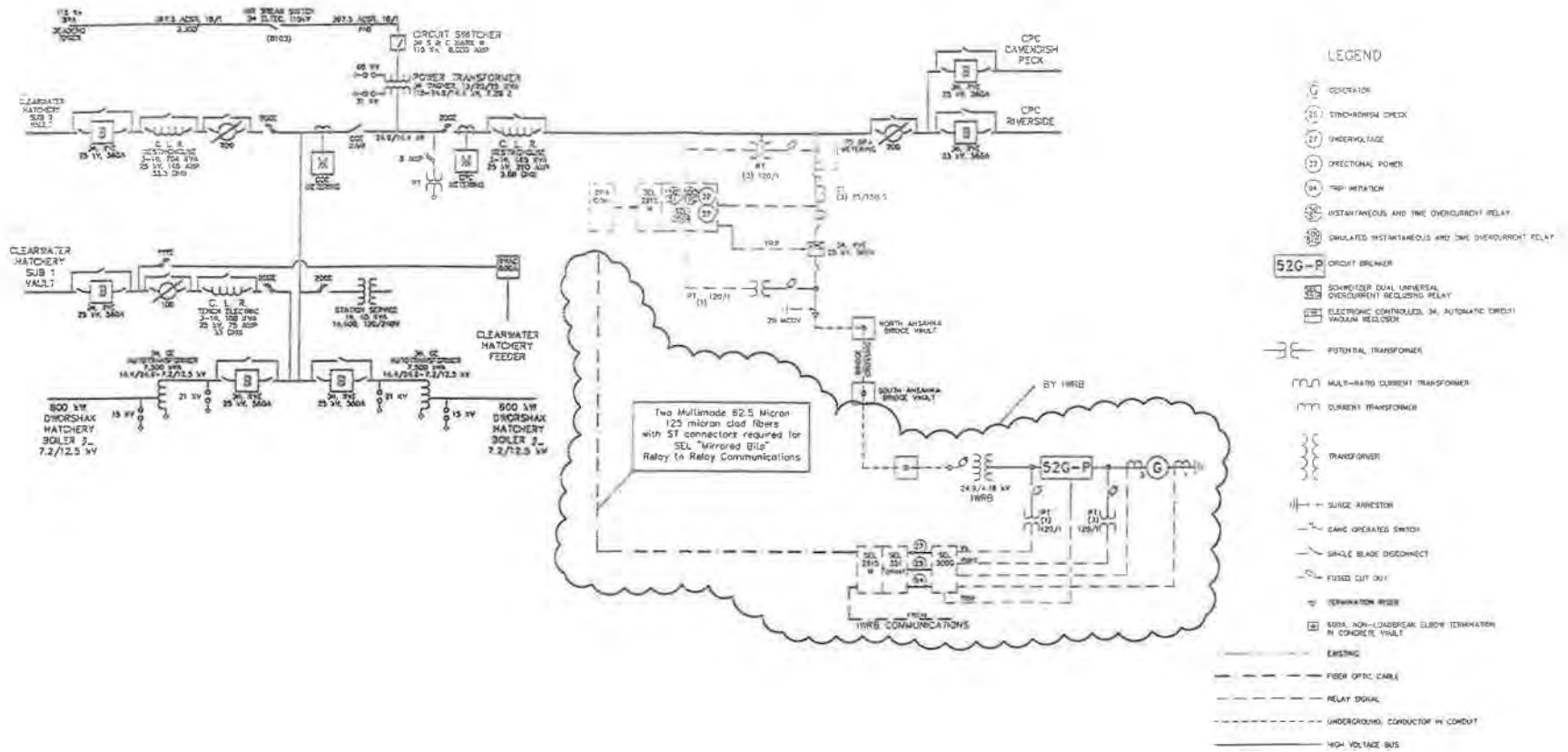
Clearwater Power Company One-Line Diagram

Ahsahka Substation

File: AS007

Sheet: 007

Attachment D



		CLEARWATER POWER COMPANY ONE-LINE DIAGRAM		AHSARKA SUBSTATION	
DATE: 07/28/99	USER: BT 001	USER: BT 001	DATE: 07/28/99	FILE: 85001	SHEET: 001

Exhibit B

Dworshak Small Hydroelectric Project (FERC License 10819)

Rate Schedule

The annual charge for electric power wheeling service and facility maintenance shall be comprised of the following costs:

- | | | |
|----|--------------|---------|
| 1. | Standby Fee: | \$5,000 |
|----|--------------|---------|

Standby: CPC agrees to maintain personnel and equipment 24 hours per day 7 days a week to conduct inspections, maintenance, repair, and replacement of IWRB's transformer, buried conduit and wire and the other facilities identified in Exhibits C. CPC agrees to respond in accordance with Good Utility Practices and shall not give preferential treatment to IWRB.

- | | | |
|----|---------------------------------|----------|
| 2. | Maintenance and Inspection Fee: | \$10,000 |
|----|---------------------------------|----------|

Maintenance and Inspection Fee: CPC agrees to inspect and perform maintenance on IWRB facilities and the other facilities identified in Exhibits C according to Good Utility Practice up to \$7,500 annually.

- | | | |
|----|-----------------------------|---------|
| 3. | Wheeling and Joint Use Fee: | \$7,686 |
|----|-----------------------------|---------|

Total Annual Charge:	\$22,686
-----------------------------	-----------------

The monthly rate shall be determined by dividing the annual charge by twelve. Billing shall be to the nearest whole dollar and shall be rendered by IWRB on a monthly basis to CPC.

Monthly Rate:	\$1,891
----------------------	----------------

Wheeling and Joint-Use Fees For CPC's Ahsahka Substation and Transmission Line By IWRB

Ahsahka Substation Point of Delivery

Location: The point in CPC's Ahsahka Substation where the 24.9 kV facilities of IWRB and CPC are connected.

Voltage:	24.9 kV
IWRB Reserved Capacity:	2,900 kW
Transformer Peak Load (TPL):	21,000 kW
Annual Cost Ratio (ACR):	.1387
Diversity Factor:	1.05
Joint-Use Investment:	\$377,241

Annual Joint-Use Fee: $2,900 / (21,000 \times 1.05) \times .1387 \times \$377,241 = \$7,587$

Ahsahka Transmission Line

Transmission Distance:	.785 miles
Transmission Distance Ratio:	\$0.0436
Joint-Use Transmission Factor:	$.785 \times \$0.0436 = \$0.0342 / \text{kW-yr}$
IWRB Reserved Capacity:	2,900 kW

Annual Wheeling Fee: $\$0.0342 \times 2,900 = \99.00

Total Annual Wheeling and Joint-Use: $\$7,587 + \$99 = \$7,686$

Exhibit C

Dworshak Small Hydroelectric Project (FERC License 10819)

Cost Estimate and Description of Electric Facilities Provided by CPC

Description	Materials	Labor	Overhead	Total
<u>Ahsahka Substation Modifications</u>				
Structure Modifications	\$1,120	\$7,060	\$1,640	\$9,820
Safety Breaker	15,740	7,000	4,550	27,290
Controls	4,500	3,500	1,600	9,600
Switches	3,000	1,350	870	5,220
Buswork	---	1,200	240	1,440
Metering (buy from BPA)	20,000	5,000	5,000	30,000
Underground Riser	---	640	130	780
Trenching and Backfill	---	3,750	750	4,500
Conduit	1,440	1,750	640	3,830
Conductor	1,450	450	380	2,280
<u>Oil Containment</u>	-----	1,000	200	1,200
Subtotal Ahsahka Substation	\$47,250	\$21,220	\$13,700	\$95,960
<u>Bridge Crossing</u>				
Conduit	\$1,410	\$9,360	\$2,150	\$12,920
Conductor	3,230	1,670	980	5,880
<u>Cable Tray (1/3 of cost)(actual)</u>				8,440
Subtotal Bridge Crossing	\$6,840	\$13,720	\$4,110	\$27,240
<u>Bridge Vaults</u>				
Ahsahka Side (1/3 of cost)(actual)				\$5,750
<u>Orofino Side (1/3 of cost)(actual)</u>				5,750
Subtotal Bridge Vaults				\$11,500
Contract Setup Costs				\$17,500
CPC Engineering and Coordination				\$21,000
TOTAL CPC ESTIMATED CONSTRUCTION COST				<u><u>\$173,200</u></u>

Attachment D

98TX30120BPA F 4220.31e
(05-97)
(Prior editions are unusable)

U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION

Electronic Version
Approved by CGIR - 05/28/97

AGREEMENT

1. AGREEMENT NUMBER 00TX30375	2. AGREEMENT EFFECTIVE FROM DATE IN BLOCK 4 UNTIL Completion of Work	3. MODIFICATION NO. -0-	4. EFFECTIVE DATE (MM/DD/YY) Same as Block 20	5. PROCUREMENT REQUEST NUMBER
ISSUED TO		ISSUED BY		
6. ORGANIZATION AND ADDRESS (Include 9-Digit ZIP Code) Clearwater Power Company ATTN: Raymond Thayer, General Manager P.O. Box 997 Lewiston, ID 83501		9. ORGANIZATION AND ADDRESS U.S. Department of Energy Bonneville Power Administration ATTN: Edward A. Peterson - TOC/DITT2 P.O. Box 491 Vancouver, WA 98666-0491		
7. TECHNICAL CONTACT Doug Pfaff	PHONE NUMBER (208) 743-1501	10. BPA TECHNICAL CONTACT Jeff Hathhorn	PHONE NUMBER (208) 746-2357	
8. ADMINISTRATIVE CONTACT Raymond Thayer, General Manager	PHONE NUMBER (208) 743-1501	11. BPA ADMINISTRATIVE CONTACT Ed Woessner	PHONE NUMBER (509) 358-7426	
12. TITLE/BRIEF DESCRIPTION OF WORK TO BE PERFORMED UNDER THIS AGREEMENT				

Bonneville Power Administration (BPA) will, at Clearwater Power Company's (CPC) expense, install revenue metering in CPC's Ahsahka Substation to capture generation output from the Idaho Water Resources Board (IWRB) generation facility (also know as the Dworshak Small Hydro Project). Metering is to be located in BPA's meterhouse

CPC is acting as the IWRB agent for the purposes of paying for and installing the required metering package. BPA does not have a direct contact with IWRB for this part of the project.

The estimated completion date for this project is April 5, 2000.

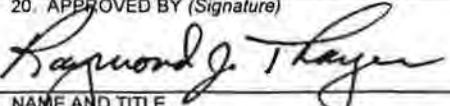
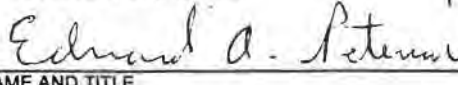
The following documents are attached to and become a part of this Agreement:

- ♦ Financial Terms and Conditions Statement dated December 1, 1999

The following documents are attached for reference:

- ♦ Letter from Ralph Mellin (IWRB) to Thomas Murphy (BPA) and Edward Woessner (BPA) dated November 8, 1999
- ♦ BPA Contract #92888, Settlement and Contingent Power Purchase Agreement, signed April 30, 1990
- ♦ BPA Preliminary Project Requirements Diagram No. 258573

COPY

15. AMOUNT TO BE PAID BY BPA \$		16. AMOUNT TO BE PAID TO BPA Actual Costs (estimated at \$21,000)	
17. SUBMIT INVOICE TO U.S. Department of Energy Bonneville Power Administration ATTN: Edward A. Peterson - TOC/DITT2 P.O. Box 491 Vancouver, WA 98666-0491		18. ACCOUNTING INFORMATION (For BPA Use Only)	
		19. SUBMIT INVOICE TO (Name and Address) Clearwater Power Company ATTN: Raymond Thayer, General Manager P.O. Box 997 Lewiston, ID 83501	
PARTICIPANT		BPA	
20. APPROVED BY (Signature) 	DATE (MM/DD/YY) 1/25/00	21. APPROVED BY (Signature) 	DATE (MM/DD/YY) 12/2/99
NAME AND TITLE Raymond J. Thayer General Manager		NAME AND TITLE Edward A. Peterson Manager, Customer Service Planning and Engineering	

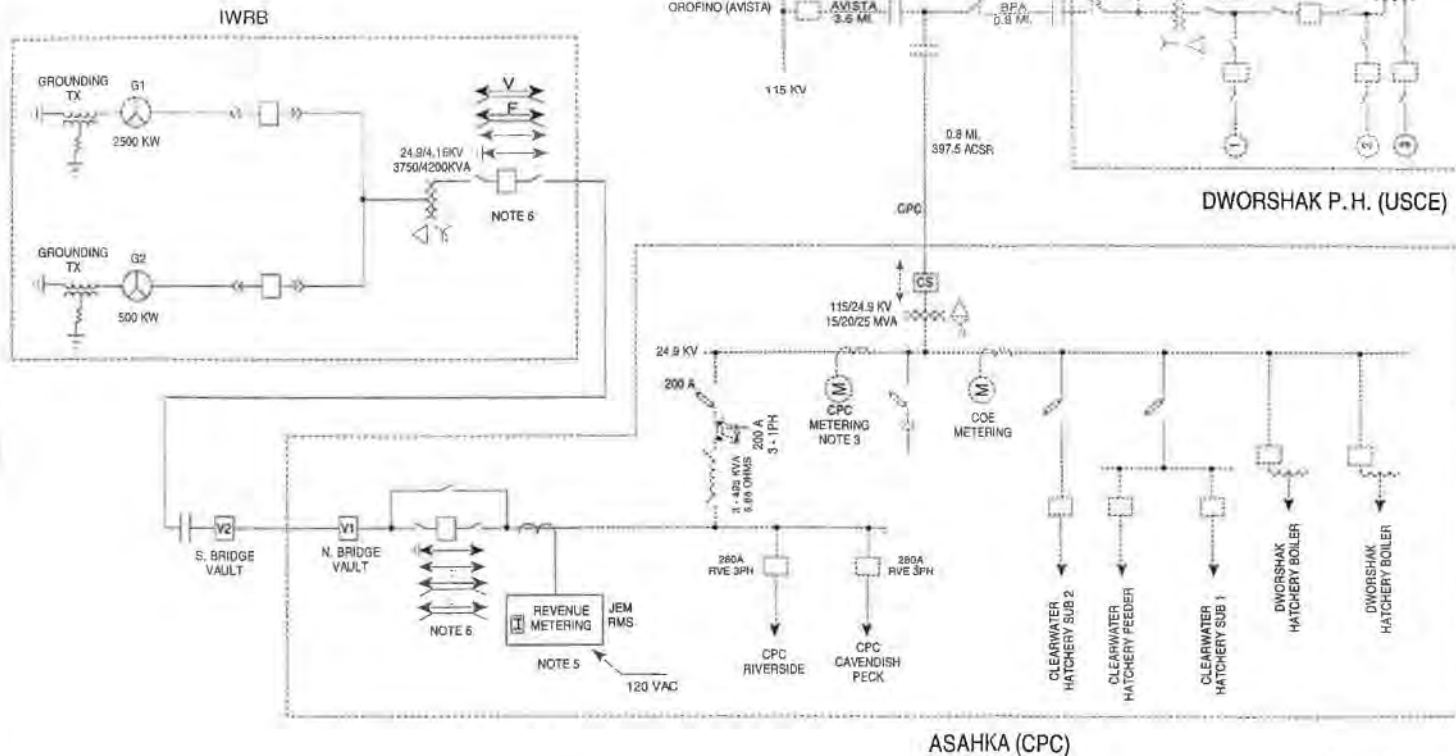
Attachment D

WALLA WALLA REGION

BPA - BONNEVILLE POWER ADMINISTRATION
CPC - CLEARWATER POWER COMPANY
IWRB - IDAHO WATER RESOURCES BOARD
CDE/USCE - U.S. ARMY CORP OF ENGINEERS

NOTES:

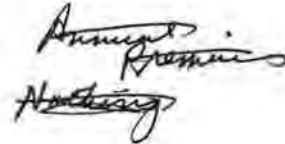
1. THE PURPOSE OF THIS PROJECT IS TO INTEGRATE THE IDAHO WATER RESOURCES BOARD GENERATION INTO CLEARWATER POWER COMPANY'S AHSAHKA SUBSTATION.
2. REAL-TIME AGC TELEMETRY OF GENERATION QUANTITIES FOR THE IWRB PROJECT IS NOT REQUIRED. TOTAL NAMEPLATE CAPACITY OF THE IWRB GENERATORS IS SLIGHTLY LESS THAN 3 MW. THE TOTAL ELECTRICAL OUTPUT OF THIS PROJECT MAY INTERMITTENTLY EXCEED 3 MW FOR SHORT PERIODS. EXPANSION OF THIS PROJECT IS UNLIKELY DUE TO LIMITATION OF HYDRAULIC CAPACITY AT THIS SITE.
3. BPA TO MODIFY THEIR SINGLE-DIRECTION METERING TO BE BI-DIRECTIONAL.
4. BPA WILL INSTALL A PHONE SWITCH TO UTILIZE TELEPHONE LINE FOR ACCESS TO THE NEW REVENUE METER IN NOTE 5.
5. BPA TO PROVIDE AT CPC'S EXPENSE, RMS REMOTE BI-DIRECTIONAL METERING PACKAGE INCLUDING A JEM METER WITH INTEGRAL DEMAND RECORDER.
6. OVER/UNDER FREQUENCY AND VOLTAGE RELAYING FOR THE PROJECT GENERATION SHOULD BE SET TO COMPLY WITH REQUIREMENTS SPECIFIED IN SECTION 5-C (RELAY COORDINATION) OF THE BPA TECHNICAL REQUIREMENTS FOR THE INTERCONNECT OF GENERATION RESOURCES.
7. POTENTIAL LIGHT-LOAD FERRORESONANCE PROBLEM EXISTS IF THE AHSAHKA 24.9 KV BUS IS ISLANDED WITH THE IWRB GENERATION IN-SERVICE. THERE MAY BE INSTANCES WHERE THE MINIMUM LOAD AT AHSAHKA IS LESS THAN 3-TIMES THE IWRB GENERATION.
8. PROTECTIVE RELAYING FOR FAULTS ON THE 115 KV SYSTEM WILL INCLUDE PHASE OVERCURRENT AS WELL AS NEGATIVE SEQUENCE OVERCURRENT PROTECTION PROVIDED BY SEL RELAY.
9. ENGINEERING COORDINATOR:
ED WOESSNER (509) 358-7426



PRELIMINARY
12/1/99

THIS PROJECT
EXISTING OR OTHER PROJECTS
REMOVE
FUTURE
BOUNDARY LINE

NO.	COMPUTER REVISION ONLY	COORDINATING ENGINEER	APPROVED
PROJECT REQUIREMENTS DIAGRAM			
UNITED STATES DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION PORTLAND, OREGON			
ENERGIZATION DATE(S) 4/2000		OPERATIONS & PLANNING	
PRELIMINARY APPROVED L. FURUMASU		DATE 12/1/99	
COORDINATING ENGINEER ED WOESSNER		AHSAHKA GENERATION PROJECT (IDAHO WATER RESOURCES BOARD)	
FINAL APPROVED		DATE	
258573		SOURCE TO	REV. 0
		SIZE A3	SHEET 1 OF 1



FAX COVER PAGE - MESSAGE

IMMEDIATE DELIVERY PLEASE

TO: JOHN HOMAN, DEPUTY ATTORNEY GENERAL
WATER RESOURCE UNIT

FAX NUMBER: 327-7866

FROM: JOAN COMPTON, CPIW
Risk Management Analyst
State of Idaho
Office of Insurance Management/Risk Management

TELEPHONE NUMBER: (208) 332-1872
E-mail Address: jcompton@adm.state.id.us
FAX NUMBER: (203) 334-5315

DATE: 11/19/99 TIME: 3:30 NUMBER OF PAGES (INCLUDING COVER SHEET): 4

RE: EVIDENCE OF FINANCIAL RESPONSIBILITY TO CLEARWATER POWER COMPANY
REGARDING PROPOSED ELECTRIC POWER WHEELING AND MAINTENANCE AGREEMENT
(Small Hydroelectric Project)

PER YOUR REQUEST, FOLLOWING ARE TWO CERTIFICATES EVIDENCING THE INSURANCE
REQUIREMENTS IN THE AGREEMENT. ONE OF THEM IS FROM THE EXCESS INSURANCE
CARRIER COMPLYING WITH THE \$5,000,000 LIMIT EXCESS OF THE STATE'S SELF-
INSURED LIMIT OF \$500,000.

LET ME KNOW IF YOU HAVE QUESTIONS OR I CAN BE OF FURTHER ASSISTANCE.

HAVE A GREAT WEEKEND!

REGARDS,

Joan Compton
Risk Management Analyst
Office of Insurance Management
jcompton@adm.state.id.us
208-332-1872

State of Idaho CERTIFICATE OF FINANCIAL RESPONSIBILITY

The State of Idaho and its departments and agencies are self-insured for their public liability exposures. The State of Idaho has created The Retained Risk Fund, administered by the Bureau of Risk Management (Idaho Code § 67-5776), as the method to finance its risks of loss. Self-insurance is not insurance.

NAME OF AGENCY: State of Idaho/DEPARTMENT OF WATER RESOURCES/WATER RESOURCES BOARD
% Office of Insurance Management - Risk Management
P.O. Box 83720
Boise, Idaho 83720-0079

CERTIFICATE HOLDER: CLEARWATER POWER COMPANY
4230 HATWAI ROAD
LEWISTON, IDAHO 83501
ATTN: RAYMOND J. THAYER

DESCRIPTION OF OPERATION: The State of Idaho's Self Retained Risk Liability Fund, subject to the limits of liability specified in Idaho Code 6-901 through 6-929, is in effect on behalf of the State of Idaho including Dept. of Water Resources and the Idaho Water Resources Board but only for the *Negligent* actions of the Idaho Water Resources Board as respects to the Electric Power Wheeling and Maintenance Agreement between the Clearwater Power Company (CPC) and the Idaho Water Resources Board.

TYPE OF COVERAGE	INDEMNIFICATION PROVIDED BY	EFFECTIVE DATES OF CERTIFICATE	LIMITS OF LIABILITY EACH OCCURRENCE
Comprehensive General Liability For: Bodily Injury including personal injury Error & Omission and Medical Malpractice, if applicable Property Damage	State of Idaho Retained Risk Fund	Nov. 1999 until cancellation of signed agreement	\$500,000
If applicable: Comprehensive Auto Liability For: Bodily Injury and Property Damage	State of Idaho Retained Risk Fund		

11-19-99
Date Issued

Jean Compton
Authorized Representative

In the event of any material change in this program, the Office of Insurance Management-Risk Management will give 30 days' written notice to the party to whom this certificate is issued, but failure to give such notice shall impose no obligation upon the State of Idaho and the Office of Insurance Management.

MARSH, INC.

225 N 9TH, STREET, SUITE 300
PO BOX 8688
BOISE, ID 83702
208-385-5580

November 18, 1999

Clearwater Power Company
Attn: Raymond J Thayer P.E.
4230 Hatwai Road
Lewiston, ID 83501

RECEIVED BY:

NOV 19 1999

OFFICE OF INSURANCE
MANAGEMENT

RE: State of Idaho

TO WHO IT MAY CONCERN:

Attached are the following items per your request:

☒	Certificate of Insurance
☐	Memorandum of Insurance
☐	Original Policy (as captioned)
☐	Copy of Policy (as captioned)
☐	Loss Payable and/or Mortgage Clause
☐	Contract of Sale Clause
☐	Cover Note and/or Binder
☐	Other

The enclosed is issued in connection with:

Evidence of Insurance as respects to the Electric Power Wheeling and
Maintenance Agreement between the Clearwater Power Company and the Idaho
Water Resources Board.

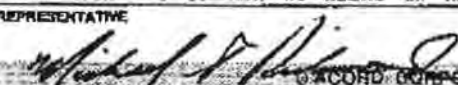
We trust that you will find the enclosure(s) entirely satisfactory.

By: Connie L. Jones
Connie Jones, CPIW

cc: Joan Compton, State of Idaho

h:\comgrp\genbus\connie\soi\soicert.doc

Attachment D

ACORD - CERTIFICATE OF LIABILITY INSURANCE				DATE (MM/DD/YY) 11/18/1999	
PRODUCER Marsh USA, Inc. P O Box 8688 Boise, ID 83707 (208)342-6573 Fax(208)338-6436			THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.		
INSURED STATE OF IDAHO OFFICE OF INSURANCE MGT. PO BOX 83720 BOISE, ID 83720			COMPANIES AFFORDING COVERAGE		
			COMPANY A AMERICAN RE		
			COMPANY B		
			COMPANY C		
			COMPANY D		
COVERAGES THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.					
CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR ☐ OWNER'S & CONTRACTOR'S PROT				GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ PERSONAL & ADV INJURY \$ EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS				COMBINED SINGLE LIMIT \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	GARAGE LIABILITY ☐ ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
A	EXCESS LIABILITY ☐ UMBRELLA FORM ☒ OTHER THAN UMBRELLA FORM	9312254	07/01/99	07/01/00	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 SLR \$500,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: ☐ INC. ☐ EXCL. OTHER				VEC STATUTORY LIMITS ☐ OTHER ☐ EL EACH ACCIDENT \$ EL DISEASE - POLICY LIMIT \$ EL DISEASE - EA EMPLOYEE \$
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS EVIDENCE OF INSURANCE AS RESPECTS TO THE ELECTRIC POWER WHEELING AND MAINTENANCE AGREEMENT BETWEEN THE CLEARWATER POWER COMPANY (CPC) AND THE IDAHO WATER RESOURCES BOARD.					
CERTIFICATE HOLDER CLEARWATER POWER COMPANY ATTN: RAYMOND J THAYER P.E. 4230 HATWAI ROAD LEWISTON ID 83501			CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.		
			AUTHORIZED REPRESENTATIVE 		
ACORD 25-S (199) ACORD CORPORATION 1985					

MEMORANDUM OF UNDERSTANDING

**FOR THE USE OF THE
CLEARWATER FISH HATCHERY WATER SUPPLY LINES
FOR THE OPERATION OF THE
DWORSHAK SMALL HYDROELECTRIC PROJECT**

BETWEEN

**U. S. FISH AND WILDLIFE SERVICE
Lower Snake River Compensation Plan Office**

AND

IDAHO WATER RESOURCE BOARD

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PREAMBLE

This Memorandum of Understanding (MOU) is entered into this 5th day of July, 2000, by and between the United States of America acting through the Department of the Interior, Fish and Wildlife Service (Service), and the Idaho Water Resource Board (Board) also referred to as the Licensee.

RECITALS

1. The Department of the Army, Corps of Engineers (Corps), constructed the Clearwater Fish Hatchery (CFH) together with water supply lines for the CFH and water supply lines for the adjacent Dworshak National Fish Hatchery (DNFH) for fish production and other purposes of the Lower Snake River Compensation Plan, which was authorized by Water Resources Act of 1976 (Public Law 94-587). The water supply lines include a distribution box to the two hatcheries. The distribution box provides the base for the main portion of the Dworshak Small Hydroelectric Project (Project).
2. The ownership of CFH including the water supply line from the intake to CFH and the distribution box was transferred from the Corps to the Department of the Interior, Fish and Wildlife Service, on April 10, 2000.
3. The Service administers and funds the Lower Snake River Compensation Plan's fish propagation facilities to offset losses associated with the construction and operation of the four Lower Snake River dams. The Idaho Department of Fish and Game (IDFG) operates CFH under a cooperative agreement with the Service. The Service/IDFG agreement provides that the CFH manager, an IDFG employee, shall operate the water supply lines, which are facilities of CFH, from Dworshak Dam to the distribution box to meet the needs of both CFH and DNFH.
4. The Federal Energy Regulatory Commission (FERC), in accordance with the Federal Power Act, issued License No. 10819-002, dated August 4, 1998, to the Idaho Water Resource Board for the construction, operation and maintenance of the Project. Article 305 of the License required the Licensee to enter into an operating Memorandum of Agreement with the Corps (who owned the pipeline at the time) to protect the interests of the Federal Government and to insure the continuity of the CFH and the DNFH operations.
5. The Corps and Board entered into a Memorandum of Agreement (MOA) executed on September 13, 1993, which described the rights and responsibilities of the Corps and Board in the design and construction of the Project. Article 2 (10) of the MOA required the

parties enter into a subsequent agreement addressing operation and maintenance of the Project.

6. The Board and Bonneville Power Administration (BPA) entered into a Settlement and Contingent Power Purchase Agreement on April 30, 1990 establishing terms for the purchase of the Project's electricity.

7. The Service operates the DNFH under agreement with the Corps. The DNFH takes a portion of its water supply from the distribution box upon which the project largely will be built.

8. The authority of the Service to operate the CFH water supply which is the subject of this MOU, as well as its authority to permit Idaho Water Resources to use the water supply, is subject to a preexisting obligation to provide specific flows to the Corps for operation and maintenance of DNFH. No agreement contained or referenced in this MOU may interfere in anyway with the existing Service obligation to provide the required flows to DNFH and any express or implied agreement to the contrary is hereby declared null and void and shall not bind the parties to performance.

9. The Board plans to substantially complete the Project and undertake operation by August 4, 2000, and intends to use the water controlled by the CFH manager for the generation of electrical energy.

10. The Board intends to enter into an agreement with others to operate and maintain the Project.

The Service and Licensee agree to the operation and maintenance of the Project subject to the terms of the License and the conditions hereinafter set forth:

ARTICLE 1

PURPOSE

The purpose of this MOU is to set out the requirements for the operation, maintenance and use of certain facilities owned by the U. S. Government (Government) and needed by the Licensee for the operation of the Project. Additionally, this MOU serves to meet certain requirements and contractual obligations of the Board under Article 305 of FERC License 10819-002, the MOA with the Corps dated September 13, 1993.

ARTICLE 2

OWNERSHIP

A. Existing appurtenances and equipment for the CFH and DNFH including appurtenances and equipment at the water distribution box are presently owned by the Government and shall remain the property of the Government. The Service has jurisdiction of the property. (See U.S. Army Corps of Engineer, Walla Walla, Washington District, original contract drawings Inv. No. 90-B-32 for the Clearwater Fish Hatchery Water Supply and related change orders.)

B. Licensee shall retain ownership of all equipment installed by Licensee to operate the Project. Licensee shall retain ownership to the Project including the powerhouse superstructure above the powerhouse floor, the turbine and generator, the power transformer and turbine intake piping and valves, and all other appurtenant features (hereafter referred to as Project Structures).

C. However, in the event that the Project is abandoned or removed by Licensee, the powerhouse superstructure and floor shall remain an integral part of the existing facilities and title shall pass to the Government by virtue of said action. The Licensee shall remove all other Project Structures and restore the premises to the satisfaction of the Service in accordance with Article 30 of the Terms and Conditions for FERC license 10819-002. If the Licensee fails or neglects to remove said property or restore the premises, then at the option of the Service, the property shall either become the property of the Government without compensation therefore, or the Service may cause the property to be removed and no claim for damages against the Government or its officers or agents shall be created by or made due to such removal or restoration. The Licensee shall also pay the Service on demand any sum which may be expended by the Service in restoring the premises.

ARTICLE 3

ACCESS

A. The Service, its agents, contractors and those employees designated by the CFH manager shall at all times have free and unrestricted access to, through, and across all Project lands and appurtenances wherever access is required for performance of normal operation and maintenance duties as well as during times when such access would be required to protect health and safety. In order to assure safety to persons and property, the Service and CFH hatchery personnel shall attempt to provide the Board prior notification of access and security during periods of access.

B. Access onto CFH and DNFH by Licensee personnel, or its representatives, must be approved by the operating manager of the respective fish hatchery.

C. Access to the distribution box exit pipelines or inlet pipelines located above the inlet plug valves, must be authorized by the CFH manager and, for the DNFH exit pipeline, by DNFH or Corps personnel.

ARTICLE 4

OPERATIONS

A. Project water flows from Dworshak Dam will be determined and controlled by the CFH manager (acting as an agent of the Service) based on the fish production needs of CFH and DNFH. Primary communications shall be provided by the System Control and Data Acquisition (SCADA) equipment to the control equipment with notification to the operator of the Project as mutually agreed upon by the CFH manager and the Licensee. Secondary communications shall be through a computer telephone modem to the control equipment.

B. An emergency, as referred to in this section, is defined as an event that could reasonably lead to the sudden or catastrophic loss of life, property or fish resources. The CFH manager or a designated representative shall determine when an emergency situation exists and will advise the Licensee, DNFH manager, Corps, and Service of the emergency as soon as possible. An emergency situation shall include, but is not limited to, an earthquake, flash flood, tornado, or mechanical failure of gates or valves. In response to an emergency, the CFH manager may take appropriate action, as provided in Exhibit B, including terminating Project operations, provided that any action taken directly by the CFH manager to change the Project operating status will be communicated to the Licensee or its designated representative as soon as possible. The CFH manager, the Service, or the Corps will not be held liable for damage to Licensee's facilities during emergency situations.

C. After construction is complete, a testing program of control features shall be accomplished to determine the actual normal and emergency operating features. The testing program's emergency operating features will be included as a part of the Emergency Action Plan described in Exhibit B of this MOU.

D. The Project will be operated locally and will be visited and monitored on a regular basis by the Licensee's operation and maintenance personnel. The Licensee will monitor the Project status and alarm indicators as provided in Exhibit B.

E. The Licensee will be responsible for operating the turbines and the bypass system in cooperation with the CFH manager. In the event of a load rejection, turbine deflector blades shall automatically move to deflect the incoming water away from the turbine runners allowing the turbine-generator to roll to a stop and flow to the hatcheries to continue.

F. The Licensee shall obtain written consent from the Service and Corps before any modifications are made to the Project Structures or to the Project operations which might affect operations of CFH or DNFH.

G. The Licensee shall be responsible for pollution caused by it and its agents. The Licensee shall not unlawfully pollute the air, ground or water or create a public nuisance. The Licensee shall at no cost to the Government, promptly comply with present and future federal, state and local laws, ordinances, regulations, or instructions controlling the quality of the environment. Nothing in this section shall affect the Licensee's right to challenge the validity of any law or seek injunctive relief.

H. The Licensee shall be responsible for, and have sole operating responsibility for, equipment as outlined in Exhibit A.

I. The Licensee shall adhere to all provisions of the current Occupational Safety Health Administration (OSHA) requirements and the Idaho General Safety and Health Standards (see Idaho Division of Building Safety).

ARTICLE 5

INTERRUPTION OF WATER FLOW

Flow of water in the CFH pipeline to and from the Project shall be in accordance with schedules established by the CFH manager. Interruptions of flow of more than short durations may be necessary at times for hatchery operations, maintenance, or repair. This MOU does not guarantee flows beyond those needed to safely and properly operate CFH and DNFH. Flow of water from the Project to CFH and DNFH shall not be interrupted by the operation or maintenance of the Project unless approved in advance by the CFH manager or in case of emergency as described in Article 4.B and Exhibit B.

ARTICLE 6

MAINTENANCE

A. All costs necessary for the maintenance, repair, replacement, and proper operation of the following facilities shall be the sole responsibility of the Licensee. These facilities include, but are not limited to:

- (1) The Project Structures as defined under Article 2.B. of this MOU.
- (2) Grounds care and security measures of established areas of Project Structures known as the "compound."
- (3) Remote status and alarm equipment.
- (4) Distribution box lights, panelboards, and project valves and piping other than the Bailey polyjet ported sleeve valves and associated piping.
- (5) Powerhouse floor.

B. Limitations and controls on maintenance and post project actions by the Licensee.

- (1) The Licensee shall coordinate its operation and maintenance activities so as not to interfere with the maintenance crews and the maintenance programs of the CFH manager.
- (2) The distribution structure and all appurtenant facilities including the equipment in the pre-license Government structure, shall not be altered, replaced, or removed without the express written consent of the Service.

C. All costs necessary for the maintenance, repair, replacement, and proper operation of non-Project facilities shall be the sole responsibility of the following parties:

- (1) The valves and pipeline from the intake to the distribution structure and the distribution box interior structures below the powerhouse floor and the overflow piping will be the responsibility of CFH (under agreement with the Service).
- (2) Routine maintenance, repair, replacement, and proper operation of the valves and pipeline from the distribution box to DNFH will be the responsibility of DNFH (under agreement with the Corps). The Corps will assist with non-routine maintenance, if required.)

D. The CFH manager will provide as much notice as possible of any maintenance activity that might affect the Project.

ARTICLE 7

PROJECT MODIFICATIONS

The Licensee shall undertake no change to the Project, which in the opinion of the Service may affect the structural integrity of the CFH distribution box, inlet piping, outlet piping, or related items or their operation, without first obtaining the written consent of the Service, whose response shall not be unreasonably withheld or delayed.

ARTICLE 8

INSPECTION BY THE GOVERNMENT AFTER CONSTRUCTION

A. The Service shall have the right to inspect the Project Structures to ensure that the Project is being operated and maintained in a manner that will not endanger the structural integrity or operation of the CFH and DNFH water supply lines and appurtenances. Each party shall furnish such plans, drawings, specifications, documentation and information pertaining to its equipment, facilities, or requirements as may reasonably be requested by the other party to perform or exercise its rights or obligations under this MOU. During inspections, the Licensee may be required to de-water the Project Structures to facilitate inspection. Timely written notice of these scheduled inspections shall be given to the Licensee by the Service and shall be scheduled, to the extent practicable, so as to minimize interruption to Project generation. The Service shall provide copies of all inspection reports to the Licensee and the FERC. The Licensee shall only reimburse the Service for costs of inspections pertaining to the Project Structures. The Licensee shall not be required to reimburse the Service for the cost of routine inspections of the CFH water supply line or to the Corps for inspections of the DNFH water supply line.

B. The Licensee will promptly correct all deficiencies associated with the Project Structures identified by the Service, to the extent such deficiencies pertain to the operations or the structural integrity of the CFH water supply line and associated facilities. Should the Licensee fail to make such necessary repairs in a timely and acceptable manner, the repairs will be made by the Service and the Licensee will reimburse the Service for the actual costs of said repairs, including engineering and administrative costs. If the Service makes such repairs to Project Structures, the Licensee shall have the right to review the Service's books and records to verify the accuracy and appropriateness of such reimbursement of costs.

ARTICLE 9

TRAINING

The Licensee will provide training for designated CFH, DNFH, Service, and Corps personnel expected to respond in the emergency shut down of the Project system. The Licensee shall conduct a refresher course each year for the designated personnel to ensure familiarity with the Project installation and operation. The CFH, DNFH, Service, and Corps shall each pay their own salary costs associated with the training. Other costs, such as travel and supplies, shall be paid by the Licensee. (Training will conform to 29 CFR 1910.269; *Occupational Safety and Health Standards -Electrical Power Generation, Transmission and Distribution.*)

ARTICLE 10

LIABILITY

A. The Licensee hereby agrees that all claims, personal injury, death, property damage, arising solely out of the Licensee's activities under this MOU are the liability of the Licensee. In the event that a claim, personal injury, death or property damage is caused by joint negligence of the Licensee and Service (or its agents), the parties will attempt to resolve liability.

B. The responsibility for repairing any damage to the CFH water supply lines and its appurtenances as a result of the Licensee's deviation from the requirements of this MOU will be the responsibility of the Licensee.

C. Licensee is not liable for any environmental mitigation or control that may be required as a result of any previous Service action or on any previously installed or maintained Service property associated with this MOU.

ARTICLE 11

DISAGREEMENTS

Differences between the Licensee and the Service will be settled at the LSRCP Office and Regional Office levels if at all possible. Lacking resolution, the Service, Licensee and FERC staff will meet to resolve the dispute.

ARTICLE 12

ASSIGNMENT

The Parties shall not delegate any duties under this MOU or assign any benefits without the prior written consent of the other party. In the event a delegation of duties or an assignment of benefits is approved by the other Party, the Parties agree to bind every such delegate or assignee with the terms and conditions of this MOU.

ARTICLE 13

TERM

This MOU shall become effective on the day of execution by all signatories. The terms of this MOU will be reviewed at least once every five years and may be modified by written amendment as necessary. The term shall be concurrent with that of the License and upon termination of the License, this MOU shall also terminate.

ARTICLE 14

EXHIBITS

The following Exhibits are incorporated into the MOU by this reference:

Exhibit A: Areas of Responsibility

Exhibit B: Project Operation Procedures

Exhibit C: Clearance Procedure Summary

Exhibit D: Memorandum of Understanding between Clearwater Fish Hatchery, Dworshak National Fish Hatchery, and the U.S. Army Corps of Engineer's Dworshak Project for the Operation and Entrance Requirements for the Hatchery Water Supply System

ARTICLE 15

NOTICES

Any notice, demand or request authorized or required by this MOU shall be deemed to have been given on behalf of the Licensee when hand delivered or three days after mailed, postage prepaid, to each of the following:

LSRCP Coordinator
Fish and Wildlife Service
1387 South Vinnell Way, Suite 343
Boise, Idaho 83702

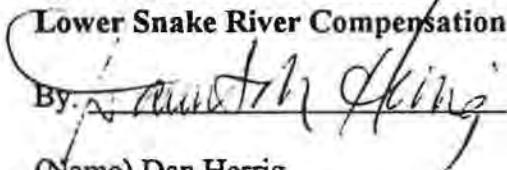
and on behalf of the Service, when hand delivered or three days after mailed, postage prepaid, to:

Chairman
Idaho Water Resource Board
1301 North Orchard St
P.O. Box 83720
Boise, ID 83720-0098

The designation of the addressee or the address may be changed by notice given in the manner as provided in this article for other notices.

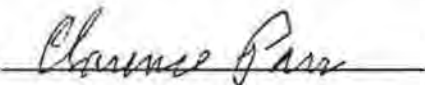
The Parties of this MOU have executed this MOU in duplicate.

U. S. FISH AND WILDLIFE SERVICE
Lower Snake River Compensation Plan

By: 

(Name) Dan Herrig
(Title) LSRCP Coordinator

IDAHO WATER RESOURCE BOARD

By: 

(Name) Clarence Parr
(Title) Chairman

Concurring:



Tom Rogers
Idaho Department of Fish and Game
Fisheries Bureau, Anadromous Hatchery Supervisor

Exhibit A

AREAS OF RESPONSIBILITY

The Licensee will provide for operation and maintenance for all the equipment installed by the Licensee at the Service's CFH with its water supply line including those facilities identified in Article 6(A) of this MOU. Licensee's area of responsibility include the following:

1. All equipment installed or retrofitted for use by Licensee including:
 - a. The 24.9 kV power line from the Licensee's transformer to and including the revenue meter at the 24.9 kV side of Clearwater Power Company's (CPC) Ahsahka Substation.
 - b. All associated water passages installed by the Licensee from the exit-flange face of the distribution structure's outside-the-building inlet plug valves V-29 and V-8, through the turbines to the distribution box. Except that the Licensee shall have no responsibility for water passages in existence prior to construction of this Project including the Bailey polyjet ported sleeve valves.
 - c. All incoming power supply lines from Clearwater Power Company to the Licensee's emergency electrical supply system, which includes the power supply for the Service's equipment at the distribution structure. This equipment includes the four Bailey polyjet ported sleeve valves owned by the Service.
 - d. SCADA - System Control and Data Acquisition System components and communication links.
2. The Licensee and CFH manager shall cooperatively manage and operate all equipment that controls the generator and water supply for the Project.

Exhibit B

PROJECT OPERATION PROCEDURES

1. In the event equipment should fail at the Project, an automatic dialing device located in the powerhouse will first call the Licensee's operator, and if necessary the numbers listed in the Emergency Action Plan in sequence until there is a response with a key code acknowledgment. At the same time the SCADA monitor at the Clearwater Fish Hatchery will also alert the manager who will take appropriate control action to mitigate any impact to personnel, property or hatchery operations.
2. After receiving a call, the Licensee's operator will call the manager at the Clearwater Fish Hatchery to confirm contact and advise as to the estimated time of arrival at the project.
3. Failure of the Licensee's personnel to respond to the call or delayed arrival at the project may require action by CFH personnel.
 - a. If the Licensee's personnel do not advise CFH manager of call receipt within ten minutes, CFH manager shall have back up phone numbers to contact for instructions.
 - b. If the Licensee's personnel are unable to respond within the critical time, IDFG operators should proceed with the actions outlined in Step 4 below.
4. Licensee shall prepare an Emergency Action Plan subject to the approval from the Service and Corps, which describes the prescribed response to foreseeable emergencies.

Exhibit C

CLEARANCE PROCEDURE SUMMARY

1. Clearances, Lock-Out/Tag-Outs will be used at all locations. All equipment will be cleared to its least energized state. If equipment cannot be totally de-energized, the appropriate supervisor and craftsmen will be consulted to decide cooperatively how best to work on the equipment.
2. Qualified personnel will submit Clearance, Lock-Out/Tag-Out requests to the Licensee's operator on duty (Operator). The Operator will process the request and perform or direct the required switching or clearance operations.
3. The clearance requester will verify proper placement of the clearance cards or Lock-Out devices and the proper positioning of equipment energy source devices (breakers open, valve closed, etc.)
4. The clearance requester will install any personal grounds required for safety. This ground will be noted on the clearance form.
5. No one may remove a clearance card or lock without authorization of the issuing Operator.
6. No one may operate any equipment that has a clearance card or lock attached.
7. When the equipment is ready for service, the Operator shall inspect the equipment, remove the clearance cards and/or locks and return the equipment to normal operating condition. The Operator will then check the clearance form to insure all points of clearance were released and required to normal operating position.
8. Any Contractor, employee of a Contractor, or Subcontractor employed by the Licensee to provide services at the Project shall be required to undergo training in regards to all requirements of this Clearance Procedure.

Exhibit D

MEMORANDUM OF UNDERSTANDING

BETWEEN THE CLEARWATER FISH HATCHERY, DWORSHAK NATIONAL FISH HATCHERY AND THE U.S. ARMY OF CORPS OF ENGINEERS DWORSHAK PROJECT FOR THE OPERATION AND ENTRANCE REQUIREMENTS FOR THE HATCHERY WATER SUPPLY SYSTEM.

Definition

Clearwater Fish Hatchery will be referred to as "Clearwater FH" or "CFH". Dworshak National Fish Hatchery will be referred to as the "Dworshak Hatchery" or "DNFH". The Dworshak project of the U.S. Army Corps of Engineers will be referred to as the "Dworshak project" or "project".

Purpose

This Memorandum of Understanding (MOU) describes the roles, responsibilities and safety requirements of the signatory parties for the operation, maintenance and emergency procedures related to the water supply line from Dworshak Reservoir to the Clearwater Fish Hatchery and Dworshak National Fish Hatchery. All parties agree to the responsibilities and procedures outlined in this MOU.

**PART I
PROJECT DESCRIPTION**

I Authorization and Location

The Clearwater Fish Hatchery Water Supply System is part of the Lower Snake River Compensation Plan (LSRCP) Program. The LSRCP was established by the Water Resources Development Act of 1976 (Public Law 94-587) to compensate for losses caused by the lower Snake River dams. The Clearwater Fish Hatchery water supply system delivers water from Dworshak Reservoir to the CFH and DNFH. The hatcheries are located near the confluence of the North Fork and the main stem of the Clearwater rivers near Ahsahka, Idaho.

II Brief Description of Project

The CFH water supply system consists of primary and secondary pipelines. The primary pipeline is equipped with a selective withdraw intake screen that allows water at selectable temperatures to be withdrawn when available. A floating platform allows the intake screen to be adjusted from 5 to 50 feet below the water surface. The secondary pipeline has a fixed low level intake that provides water at a temperature that is consistently near 40°F. Both pipelines are routed through Dworshak Dam and then down the face of the dam along the spillway training wall. The pipelines are then buried and follow the left bank of the North Fork Clearwater River to the distribution structure. The distribution structure is the transition between the incoming high pressure piping and outgoing low pressure piping. The distribution structure provides stilling wells for energy dissipation valves and distributes flow between the two fish hatcheries. Two

lines from the distribution structure supply the DNFH with supplemental water. The distribution structure also provides a connection to the secondary pipeline for a potential future municipal and industrial (M&I) hookup for the City of Orofino.

III Construction History

The Clearwater Fish Hatchery Water Supply System was constructed under one contract let by the U.S. Army corps of Engineers. A copy of the construction report is on file at the Walla Walla District Corps of Engineers library in Walla Walla, Washington. The construction contract number, contractor, construction start date, and beneficial occupancy date are shown below:

Project Title: Clearwater Fish Hatchery Water Supply
 Contract No.: DACW687-90-C-0030
 Contractor: Harcon Inc. and S.A. Gonzales Construction, Inc.
 A Joint Venture
 P.O. Box 2661
 Pocatello, Idaho 83201
 Construction Start Date: 28 August 1990
 Beneficial Occupancy Date: 15 April 1992

PART II METHOD OF OPERATION CLEARWATER FISH HATCHERY PIPELINE

I PRIMARY INTAKE STRUCTURE

Adjustments to the level of the primary intake screen will be determined by locating the seasonal thermocline in the reservoir of 56 to 58°F water temperature. The screen will be raised or lowered to this thermocline. These adjustments will be done by CFH staff.

The primary intake is located inside the log boom security area on the face of Dworshak Dam. Prior to entrance of this security area a 24 hour minimum notice is to be given to the operator at the Dworshak Dam. On the day of entry in to the security area, prior to entrance, Clearwater FH staff will notify the on duty operator at Dworshak Dam. After the adjustments or cleaning has been performed on the primary intake screen and the boat has left the security area Dworshak Dam operator will be notified they have left the area.

The intake was modified under the following contracts.

Contract Number	Project	Contractor	Start	Date
DACW68-95-C-0011	Clearwater Hatchery	Knight Construction	12/94	5/30/95
	Emergency Isolation Valve	& Supply Company		
DACW68-97-C-0017	Clearwater Hatchery	Advanced America	3/97	9/30/97
	Water Supply Modifications	Diving Service, Inc.		

The CFH manager will schedule a diver to inspect the primary intake screen when determined to be necessary. (The screen was designed so that it would not clog but our experience shows that the algae in the reservoir will completely plug the primary intake screen).

II PIPELINES FROM INTAKE TO CLEARWATER FISH HATCHERY

Routine inspections and maintenance of the pipelines will be the responsibility of the CFH. This approach has resulted from design review meetings conducted by the COE.

A. Maintenance

All maintenance of valves and pipeline from the intake to the distribution structure will be the responsibility of CFH.

III DISTRIBUTION STRUCTURE

Any adjustments to the ported sleeve valves on the primary and secondary pipelines will be accomplished by the manager or CFH staff. Each supply line is equipped with two ported sleeve valves. Never at any time will more than one ported sleeve valve be operated unless it is during the switch over process from one valve to another. The manager of CFH will notify the manager of DNFH of any adjustments or maintenance work which may impact distribution to DNFH.

IV DISTRIBUTION TO DWORSHAK NFH

The supply valves on the secondary and primary lines from distribution structure to the DNFH will remain at preadjusted levels. The amount of flow will be controlled by DNFH manager or his staff. Prior to any adjustments, requiring more or less water from either pipeline, notification will be given to the CFH manager. This is to protect from damage to the distribution structure and pipelines resulting from either hatchery calling for more water than available and causing cavitation in the supply pipelines.

A. Maintenance

All routine maintenance of valves and pipeline from the distribution structure to DNFH will be the responsibility of DNFH. The COE will assist with non-routine maintenance, if required.

V. DISTRIBUTION TO CLEARWATER FH

All adjustments for water flowing from the distribution structure to CFH will have prior approval from CFH manager or a designated representative and will be accomplished by the CFH staff under the managers direction.

PART III

OPERATION AND MAINTENANCE

I. GENERAL

A. Scope

This section describes the equipment and routine operation and maintenance procedures for the water supply system. It also describes procedures for various emergency situations. The value of this manual is dependent upon how it is used. For this reason, additional reference data and revised procedures and parameters should be inserted into the manual as dictated by changing conditions and operator experience with this particular facility.

B. Responsibility

The operation and maintenance of the Clearwater Fish Hatchery Water Supply System from Dworshak Dam to the distribution structure, including the intake screens and energy dissipation valves, is the responsibility of the CFH personnel. The CFH personnel are also responsible for the system from the distribution structure to the CFH. The DNFH personnel, with COE assistance, when required, are responsible for the system from the distribution structure to DNFH. The Dworshak Dam operator shall be notified when problems arise with the water supply system, and specifically during emergency situations.

C. Dworshak Project Entrance Requirement

Hatchery personnel shall abide by the Dworshak Project entrance requirement and safe clearance procedure while working in the secure project area. The secure project area includes the forebay protected intake area; the main dam and powerhouse; and the south abutment, hillside, and stilling basin wall.

II CLEARWATER HATCHERY WATER SUPPLY

A. Annual Valve Exercise

This exercise will occur after steelhead are completely transported and released from DNFH and CFH in the spring of the year. Coordination and scheduling of exercises will be the responsibility of CFH Manager. CFH will provide six personnel, DNFH a maximum of 2 personnel and electric operator wrench. 1) All rearing areas will be converted to secondary pipeline water only. 2) Pipeline shutdown will start a CFH and DNFH on primary pipeline and proceed upstream to valves inside the dam. Once emergency closure valves are exercised, energizing of the pipeline will begin at emergency closure valves and proceed downstream to both hatcheries. 3) Both hatcheries will then convert to primary pipeline water only and proceed with shutdown of secondary pipeline at each hatchery and proceed upstream to emergency shutdown valve. When exercise is complete, energizing of pipeline will begin at emergency valve and proceed downstream to both hatcheries. Annual exercise is now completed and both pipelines are back in operation.

PART IV INTAKE FACILITIES

I. GENERAL

A. General Description

The primary intake consists of a tee-screen suspended on a cable from a floating platform. The cable is attached to a winch that allows the depth of the intake screen to be adjusted. The screen is attached to a 48-inch polyethylene pipe. The polyethylene pipe connects to a 24-inch steel pipe at the face of the dam. The secondary intake consists of a drum screen mounted on the face of the dam at Elevation 1361.5 msl. The screen is connected to a 14-inch steel pipe. The 24-inch-diameter and 14-inch-diameter steel pipes pass through the upstream face of the dam and into the maintenance gallery in monolith 14. Inside the maintenance gallery, intake valves are installed to serve as emergency shutoff valves and pressure gauges are installed to measure the pressure differential on the intake screens.

B. Primary Intake Screen

(1) Description

The primary intake screen is a 7.5-foot-diameter by 23-foot-long Johnson tee-screen. The screen is suspended from a floating platform that is anchored to the upstream face of the dam (see Sheet 57.1 of the contract drawing). Access to the floating platform is by use of a boat stored at the CFH. The primary intake screen can be adjusted from 5 to 50 feet below the water surface using the winch on the floating platform. The water surface can vary between a maximum pool level of 1,605 msl and minimum pool level of 1,455 msl. The proper depth to provide the desired temperature is determined by taking temperature measurements from the platform with a portable, hand-held temperature gauge.

(2) Operation and Maintenance

The intake screen is required to have a minimum submergence of 4 feet. A physical restraint is attached to the screen to prevent it from inadvertently being raised to less than 4 feet of submergence. The primary pipeline intake valve (V-1) must be closed before raising the primary screen out of the water for any maintenance procedures. Raising the screen out of the water prior to closing V-1 could cause failure of the pipeline.

CAUTION! Follow the procedure described under Intake Valve for closing V-1. To avoid potential freezing problems at the water surface, the primary screen should be lowered to at least 20 feet below the water surface each fall when the temperature is approximately uniform in the top 20 feet of the reservoir, which is typically from about October to March. The wedge wire design of the screen is nonclogging and somewhat self-cleaning; therefore, additional means of cleaning were not considered necessary during the original design. However, experience to date indicates that some cleaning may be required. The screen has air backflushing connections so that backflushing equipment can be added in the future if necessary. The pressure gauge should be checked every two weeks and the screen should be inspected by a diver, if the differential pressure is rising

and approaching 60 inches, or at least twice a year to determine if cleaning or other maintenance is required. See next Section Pressure Gauge.

(3) Pressure Gauge

An ILT Barton differential pressure gauge is installed inside the maintenance gallery to measure the pressure differential across the primary intake screen. The pressure gauge is calibrated in inches of water and has a range between 0 and 60 inches. The maximum pressure differential allowed is 60 inches. Caution! Allowing more than 60 inches pressure differential could cause damage to the intake pipe and screen.

(4) Emergency Procedures

If the head differential across the primary screen exceeds 60 inches, perform the following procedures:

1. Contact CFH manager.
2. Contact DNFH manager.
3. Contact Dworshak Dam operator.
4. Throttle back the operating primary energy dissipation valve (V-9 or V-10) while monitoring the intake pressure differential to ensure that the pressure differential reduces to less than 60 inches. This will require personnel stationed at both locations with two-way radios to communicate.
5. Determine and correct the problem. Large pressure differentials could be caused by a plugged intake screen or pipeline flows greater than design capacity.

C. Secondary Intake Screen

(1) Description

The secondary intake screen is a 6.5 foot-diameter by 7.5 foot-long Johnson drum screen. The screen is wedge wire type having inwardly enlarging openings. The secondary screen is not adjustable and is mounted at Elevation 1361.5 msl.

(2) Operation and Maintenance

The wedge wire design of the screen is nonclogging and somewhat self-cleaning. Therefore, additional means of cleaning were not considered necessary during the original design. However, experience to date indicates that some cleaning may be required. The screen has air backflushing connections so that backflushing equipment can be added in the future, if necessary. The pressure gauge should be checked every two weeks and the screen should be inspected by a diver, if the differential pressure is rising and approaching 60 inches. See Section Pressure Gauge.

PART V

ENTRANCE REQUIREMENTS AND SAFE CLEARANCE PROCEDURE FOR NORMAL OPERATION AND MAINTENANCE AND EMERGENCY CONDITIONS FOR THE CLEARWATER FH

I WATER SUPPLY SYSTEM

A. Purpose

The purpose of this section is to provide an understanding of the entrance requirements, Safe Clearance Procedure, and project personnel interaction with CFH and DNFH personnel during normal O&M and emergency conditions within the secure area of Dworshak Project. The secure project area includes the forebay protected intake area, the main dam and powerhouse, south abutment dam face, hillside, and stilling basin wall.

B. Conditions

(1) General

Activity requiring either CFH or DNFH personnel to enter Dworshak Project secure area will be coordinated with the powerhouse control room operator prior to entry into the secure area. Work requiring access to the floating platform in the intake area will require the requesting and issuance of a safe clearance on spillway machinery (safe clearance on regulating outlet machinery is not required unless diving operations are necessary). A clearance will be issued to the shift operator and then an identical clearance will be issued to an authorized hatchery person who has been trained in the Dworshak Project Hazardous Energy Control Program. A notice of intent will be provided to the control room operator a minimum of a day prior to issuing the clearances. Hatchery personnel will verify the safe clearances have been placed on the machinery before accessing the platform. Hatchery personnel that have been working in the secure area will immediately communicate to the shift operator the completion of their work and confirmation of exiting the secure area. They will then coordinate the release of their safe clearance.

(2) Normal operation and maintenance:

Scheduled inspections and adjustments of equipment within the secure area will be made entirely by hatchery personnel. Results of the inspections will be communicated to the Dworshak Operations and Maintenance Manager.

(3) Emergency Situation:

The shift operator will not normally be available to assist in operations outside the control room such as closing the intake valves, etc.. Hatchery personnel will immediately notify the shift operator of the emergency condition and describe any potential effect on the dam or powerhouse. If the emergency requires a boat to go into the protected intake

forebay area, a safe clearance on the spillway must still be requested and implemented before entering the area. If hatchery personnel are required to go to the pipe penetration area they must notify the shift operator just prior to their entrance and immediately after their exit. The COE shift operator will contact supervisory personnel who will direct or make further communication as required. Under an acute emergency condition, COE personnel would be made available to assist hatchery personnel.

PART VI RESPONSIBILITIES

I Corps of Engineers

- A. To report to the CFH and DNFH managers any problems or suspected problems.
- B. To provide to CFH personnel two project entrance keys.
- C. To inform CFH personnel (and provide copy) of safe clearance procedures.
- D. To provide available help as allowable during an acute emergency.
- E. To provide an adequate access to the 1385 gallery and the 1360 pipe penetration gallery.
- F. To maintain lighting in these areas and reliable power to the control valves.

II Clearwater Fish Hatchery

- A. Hatchery personnel will inform the shift operator before entering the project secure areas and renotify when leaving.
- B. The hatchery will provide Dworshak Project a copy of their inspection reports.
- C. The hatchery personnel will abide by the Dworshak Project Hazardous Energy Control Program while working in the secure project area.
- D. Hatchery personnel will secure Dworshak Project access keys and immediately report if lost or stolen. They will also ensure Dworshak Project security by keeping all doors, used for their access, secure.
- E. The hatchery will inform DNFH manager of any problems which could impact flow to DNFH.

III Dworshak National Fish Hatchery

- A. Hatchery personnel will coordinate any flow adjustments which may impact CFH with the CFH manager.
- B. Hatchery will provide a available help to CFH manager when requested in emergency, maintenance or water flow adjustments.

HATCHERY MANAGERS

U.S. ARMY CORPS OF ENGINEERS

Jerry McGehee 10/21/98
Date
Jerry McGehee
Manager, Clearwater FH
Idaho Department of Fish and Game

Gregory A. Parker 11/2/98
Date
Gregory A. Parker
Operations & Maintenance Manager
Dworshak Project

Bill Miller 10/21/98
Date
Bill Miller
Manager, Dworshak NFH
U.S. Fish and Wildlife Service

Charles R. Krahenbuhl 11/4/98
Date
Charles R. Krahenbuhl
Operations Manager
Eastern Operating Projects
Dworshak Project

Attachment F Confidentiality Agreement (NDA) Placeholder

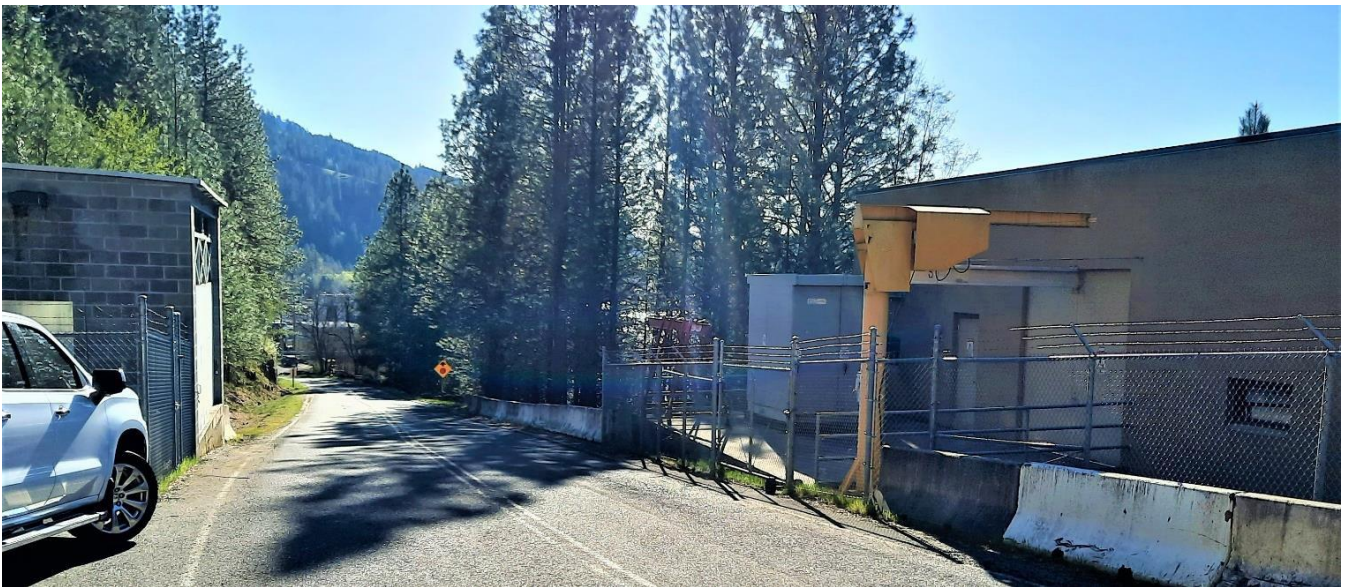


11785 N. Tracey
Hayden, ID 83835
Office 208-635-5551
Cell 208-660-5767
www.thompsonsoutheast.com

D W O R S H A K

S M A L L H Y D R O P O W E R F A C I L I T Y

Site Safety and Health Manual



Prepared for;



By
Thompson Construction Group Inc.

September 2023

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Attachment C - Safety Manual

At Thompson Construction Group Inc. (TCG) safety is our number one core value. We are uncompromising in our commitment to the health and safety of our employees, subcontractors, and customers. We will continually improve our processes, demonstrate leadership, and promote comprehensive safety. We will require individual accountability, expect all employees to adhere to our safety standards, and actively participate in and support the advancement of our health and safety practices. Safety is the responsibility of all employees, including both top management and the individual worker. Everyone is responsible for achieving zero accidents resulting in a SAFE day, a SAFE tomorrow, a SAFE year, and a SAFE career.

Providing safety leadership is a fundamental part of our business and we will require individual accountability. TCG is committed to being a leader in safety training and keeping our employees informed about the safety and health of our work as well as current safety issues, rules, and regulations.

This Safety manual highlights the TCG safety policies. While working at Little Dworshack all workers will adhere to this TCG safety manual as well as all safety regulations in the Bureau of Reclamation Safety and Health Standards. <https://www.usbr.gov/safety/rshs/index.html>

TCG Safety Policy

- Maintain a safe and healthy workplace for all employees in compliance with all applicable laws and regulations.
- Promote a positive attitude towards safety.
- Establish safety and health objectives for all levels of management and employees.
- Commit appropriate and sufficient resources to protect and support company safety efforts including providing technical support for our field crews.
- Provide management leadership and require all employees to take responsibility and ownership for safety, including bringing the attitude that “I am individually responsible for safety” to the job each and every day.
- Ensure that each employee understands that they have the obligation to stop a job/task to prevent an unsafe incident from occurring. We all have “STOP WORK” Authority
- Assure compliance with all company and client safety, health, and security programs and practices.
- Cell phones are to be used during breaks and meal breaks
- To provide industry leading training to our employees to better educate them how to comply with those policies as well as promote a culture of continuous improvement and commitment to safety and training.
- Regularly review and evaluate safety, health, and security programs, procedures, and practices to assure that they are effective and up to date.
- Assure timely and thorough reporting and investigation of all incidents including the identification of causal factors and the establishment of effective corrective actions.

Management Responsibility

The Safety & Health Manual (S&HM) / Injury and Illness Prevention Program (IIPP) administrator, Fred Hambly (Safety Manager), has the authority and responsibility for implementing the provisions of this program. TCG will ensure all employees are properly trained on an annual basis by a certified OSHA instructor.

Each project site will have a TCG management employee responsible for coordinating the safety and health activity. This person will act as the contact for outside agencies and TCG’s personnel requesting information regarding safety and health. It will be this person’s responsibility to ensure compliance with all specifications outlined in this manual. Management is responsible for ensuring that all safety and health policies, procedures and programs are clearly communicated and understood by all employees and sub-contractors. Supervisors and lead personnel are expected to enforce the rules fairly and uniformly.

All managers, supervisors and lead personnel are responsible for implementing the S&HM / (IIPP) in their work areas and for answering worker questions. A copy of this S&HM is available from the York PA. or the Hayden ID. Office.

Employee Responsibility

All employees are responsible for using safe work practices, for following all directives, policies, procedures, and programs and for assisting in maintaining a safe work environment. Report all injuries / illnesses or potentially hazardous situations, regardless of severity, to TCG supervision in order to immediately address concerns and avoid future occurrences.

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Other means used to ensure employee compliance with a safe and healthful workplace.

- Audits of work activities
- Inspections of workplace
- Observations of employees

The following is our system of ensuring that all employees comply with the rules and maintain a safe work environment:

- Informing employees of the provisions of our Manual.
- Ensuring all employees are properly trained
- Evaluating the safety performance of all employees.
- Providing training to employees whose safety performance is deficient.
- Disciplining employees for failure to comply with safe and healthful work practices.

Site Specific Guidelines

Maintain a questioning attitude, when in doubt ask for assistance. Observe all Clients site safety rules. Stay in your assigned work area. Do not wander around the plant or facility. No personnel are permitted in control rooms or customer offices without authorization. You are not permitted to give individual or group tours. Violations will be subject to discipline. A pre-job briefing shall be conducted prior to the start of any work or when there is a change in the original work plan. As a minimum the pre-job briefing shall include:

- The work that is being performed.
- Tools and equipment needed.
- Safe work practices to be followed.
- All recognized hazards.
- Chain of command for reporting incidents.
- Documented and signed training documents.
- Potential environmental hazards and contingency plans.

Discipline and Enforcement

First Offense: Verbal Reprimand with a note placed in personnel file.

Second Offense: Written Reprimand issued by the site Supervisor and copy placed in file.

Third Offense: Minimum two-day suspension without pay and a maximum of immediate termination.

Job Safety Analysis/Activity Hazard Analysis (JSA/AHA)

TCG will utilize JSA/AHA to determine potential hazards and identify methods to reduce exposure to the hazards. JSA/AHA's are methods of planning for safety and health during the scope of work to be performed. There are three parts to the JSA/AHA:

- The first component of a JSA is breaking down a job or task into the specific steps it takes to complete the job. Although this can be done in small detail, typically only the major steps are listed. This often results in five to ten steps. The steps are listed in chronological order, listing the first thing that must be done, then what comes next, and so on.
- The second component of a JSA is to list all the hazards that are involved in each step.
- The third step is to write down how each hazard will be eliminated or controlled. In other words, describe what needs to be done in order to perform that task safely.

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Hazard Identification Assessment

Periodic inspections are performed by supervision to identify and evaluate workplace hazards (unsafe conditions and actions). These inspections shall be performed by supervision and employees according to the following schedule:

- At least weekly during the work shifts.
- When new substances, processes, procedures, or equipment that present potential new hazards are introduced into our workplace.
- When new, previously unidentified hazards are recognized.
- When occupational injuries and illnesses occur.
- When we hire and/or reassign permanent or temporary workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted.
- Whenever workplace issues warrant an inspection.

Periodic inspections consist of identification and evaluation of workplace hazards utilizing applicable sections of an attached Hazard Assessment Checklist or other effective methods to identify and evaluate workplace hazards.

Hazard Control Activity

TCG recognizes the need to provide a workplace free of recognized hazards.

It is each employee's or independent contractor's responsibility to correct hazards that are observed in the workplace immediately, temporarily control them until permanent action can be taken, or report them to the proper management personnel for corrective action follow-up. TCG hazard control activity must remain pro-active to insure a safe work environment for all employees and sub-contractors. Everyone plays a role in identifying and controlling hazards.

Reporting and Investigation

All incidents, regardless of the severity, must be reported to supervision. First aid (minor) cases should be treated and recorded as an entry on the first aid log by supervision. Additionally, the recorded incidents shall be reported immediately to Fred Hambly, Div. 19 Safety Manager. (530) 510-3461

Incidents resulting in an injury / illness with lost time, work restrictions or that require a hospital or clinic visit, must be reported by site supervision to Fred Hambly then reported to OSHA.

Medical supplies should be readily available and checked weekly to maintain adequate supplies. TCG will be responsible for providing a first aid kit at the site and maintaining the supplies.

Each incident should be investigated by supervision on the same shift of occurrence to determine the cause and measures that must be implemented to prevent a recurrence.

TCG has an obligation to make certain that all our employees, staff, contractors, volunteers, and visitors are aware of the importance of and requirements for reporting and investigating close calls, near misses and other incidents. Investigations of close calls and near misses provide a learning and improvement opportunity to help prevent someone from being injured. Investigator shall use who, what, when, where and why.

- Who was involved (injured and witnesses).
- What was involved (tools, equipment, material, machines)
- When did the incident occur (date and time of day)
- Where did the incident occur (location on job site, be specific).
- Why did it occur (root cause)

Taking and preserving all evidence is very important. Photos, witness statements, notes, physical evidence.

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IN THE EVENT OF AN EMERGENCY, CONTACT ONE OF THE FOLLOWING PERSONNEL IN ORDER OF LISTING.

Randy Broesch, Project Management Consultant _____ 208-660-0135 cell

Rod Graybeal, Director of Western Operations _____ 208-660-5767 cell

Wes Powers TCG, Project Manager _____ 336-756-0798 cell

Fred Hambly, Safety Manager _____ 530-510-3461 cell

Action Plan

See Attachment A

Emergency plans should be coordinated with the client to ensure expeditious handling of all emergencies and to avoid redundancy of action. This response plan will be developed and implemented prior to work commencing. The person on site will be the responsible person for implementation.

As a minimum the plan will include:

- Initial Response.
- Securing the Work Area.
- Who to call in an emergency
- Where to muster or assemble

CORRECTIVE ACTIONS

Unsafe or unhealthy work hazards, practices or procedures at our job sites shall be corrected in a timely manner based on the severity of the hazards, and according to the following procedures:

- When they are observed or discovered
- When an imminent danger exists, which cannot be immediately abated, without endangering employee(s) and/or property. Exposed employees will be removed from the area except those necessary to correct the existing hazards. Workers necessary to correct the hazards shall be provided with the necessary protection; and all such actions taken and dates they are completed shall be documented on a Hazard Control and Correction Form.

PERSONAL PROTECTIVE EQUIPMENT

TCG has established a minimum PPE requirement for our employees.

- Eye and Face Protection
- Foot Protection
- Head Protection
- Hearing Protection
- Respiratory Protection- When needed
- Protective Clothing- When required
- Fall Protection- Any height greater than 4'
- Other **PPE** as required and identified in pre-job briefing and hazard analysis.

HOUSEKEEPING

- Good housekeeping must be maintained at all times. Housekeeping involves orderliness, arrangement of materials, proper storage of equipment and machinery, unobstructed aisle ways and work areas, lighting and ventilation and contributes to a safe and efficient work- place.
- Daily audits should be made by Supervision to ensure acceptable levels of housekeeping are maintained.

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- Each employee or independent contractor has an obligation to leave the work area as orderly as he found it at the start of his shift.
- Supplies and machinery are to be piled or stored so as not to constitute a falling or tripping hazard.
- Any exposed hazards that could cause impalement shall be covered or removed. If the hazard cannot be covered or removed a barricade system shall be put in place to divert all personnel away from the hazard.
- Equipment and machinery when not in use is to be positioned, blocked or locked to prevent accidental movement or failing of the equipment or parts, and shall be placed, positioned or guarded to not constitute a hazard to personnel or obstruction of normally used passageways.
- Compressed air shall not be used for cleaning machines, tools, or parts. This practice contributes to the potential for eye hazards.

LOCK-OUT / TAG-OUT

The purpose of this program is to establish procedures for the safe control of energy through locking and tagging of equipment and machinery. This procedure establishes the minimum requirements for controlling hazardous energy whenever maintenance or repair is done on machinery at a facility and at construction sites. It is used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury. Hazards being guarded against include being caught in, being crushed by, being struck by, being thrown from or contacting live electrical circuits/parts. This program supports compliance with the Occupational Safety and Health Administration Lockout/Tagout Standard.

The procedure herein established will ensure that machines and equipment are properly isolated from hazardous or potentially hazardous energy sources during servicing and maintenance and properly protect against re-energization as required by OSHA

Site/Client Specific Energy Control Procedures

Due to the nature of TCG activities and that TCG projects are of very short duration at one specific geographic location, the development of site-specific Energy Control Procedures cannot be reasonably developed. Therefore, it will be the responsibility of the Superintendent and the client's representative to identify what work practices at a specific site will require an Energy Control Procedure. Once identified, site specific procedures can be developed. Quite often the client will have written current procedures in-place. For these situations, TCG will work with the client's site representative and follow the requirements of the client's programs. Site-specific training will be provided to all TCG's employees on the site who may be exposed to energy sources. Individual locks and tags will be provided for all TCG employees to use in conjunction with the customers specified energy control procedures. The Site Superintendent will provide the client a list of Authorized and Affected employees for that specific site.

CONFINED SPACE ENTRY PROGRAM

Introduction

The procedures and guidance provided within this Confined Space Entry Plan are designed to protect TCG's employees and its subcontractors from injury when working in or around confined spaces. OSHA, State and Local agencies require that specific activities and forms be completed prior to and during a confined space entry. TCG will provide or make available this Confined Space Entry Plan to all employees, and subcontractors who conduct activities subject to a confined space. This plan provides guidance on training requirements, how to enter a confined space, and emergency response procedures.

Purpose

The purpose of this program is to ensure the protection of TCG's employees and its subcontractors from the hazards associated with a confined space entry. This document contains requirements for practices and procedures to protect employees and subcontractors from those hazards of entry into and work within permit required confined spaces. It is the policy of TCG to reduce the need for confined space entry. It shall also be the policy of TCG to eliminate whenever possible, all confined space hazards in order to reclassify permit-required confined spaces to non-permit required confined spaces. When confined space entry is necessary all provisions of this document are

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to be followed. In addition to specific requirements for confined space entry, a complete confined space program incorporates other safety programs including, but not limited to, lockout/tagout, hazard communication, hot work, and personal protective equipment.

Summary

TCG has the responsibility to establish a written, comprehensive program which includes provisions for working in confined spaces. These provisions entail preventing unauthorized entries, identifying and evaluating hazards, establishing procedures for safe permit space entry, issuing, and maintaining proper equipment, using outside attendants, establishing rescue and emergency procedures, identifying duties and job classifications of employees entering and/or working in confined spaces, establishing a system for issuing entry permits, developing post-entry procedures, and conducting post-illness/injury reviews.

The written plan will be reviewed every year for accuracy and completeness.

The written plan and its elements will be updated in the following situations:

- When there is reason to believe that provisions of the program may not protect employees.
- When new processes and/or technologies are introduced.
- When job duties mentioned in the program are changed.
- When locations mentioned in the program are changed.
- When requirements for written confined space entry programs have changed in accordance with applicable standards, codes, and regulations.
- When any other elements are changed.

Responsibilities

Safety Manager

TCG's Safety manager shall be responsible for the development, documentation, and administration of the Confined Space Entry Program. In fulfilling these responsibilities, the Safety Manager shall carry out the following tasks.

- Develop the Written Confined Space Entry Program and revise the program as necessary
- Maintain records of employee training, along with others.
- Provide guidance for the proper selection and use of appropriate air monitoring equipment, respiratory protection, and personal protective equipment to meet the requirements of this program.
- Periodically audit work operations and documentation using canceled permits to evaluate the overall effectiveness of the Confined Space Entry Program and ensure that employees participating in entry operations are protected from permit space hazards.
- Assist each Manager/Supervisor in identifying confined spaces encountered by his/her employees.
- Provide guidance for the proper selection and use of appropriate safety and rescue equipment to meet the requirements of the Confined Space Entry Program.

Supervisors

Supervisor shall identify and report all job areas and locations that are or may be confined spaces. In addition to this, designated supervisors shall carry out the following tasks.

- Classify confined spaces as "permit required," "Alternate Procedure" or "non-permit required."
- Identify personnel who will enter confined spaces.
- Identify the personnel under their supervision required to wear respirators.
- Advise personnel on routine measurement of respiratory hazards in confined spaces.
- Provide detailed instruction and training on confined space hazards and entry procedures to those who may enter confined spaces.
- Provide instruction to personnel on the proper use of equipment required for confined space entry.
- Maintain equipment that is used to enter confined spaces.
- Conduct work site inspections to review unit compliance with confined space entry procedures.
- Maintain records of equipment maintenance and employee training.

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- Inform employees who may enter the permit confined space by posting danger signs or by training.
- Issuance and cancellation of entry permits.
- Establishment of a lockout program for their department.
- Identify and evaluate the hazards of permit spaces before employees enter them.
- Conduct a pre-entry briefing to inform entrants of possible hazards that may be encountered.
- Identify the people who will enter the confined spaces.
- Take the necessary measures to prevent entrance into prohibited permit spaces.

When acting as a guest employer at a client facility and performing permit space entry work TCG shall:

- Inform the client and other contractors of this permit space entry program
- Apprise the client and or other contractors of hazards of particular permit space and precautions and procedures implemented for protection of all employees in or near permit spaces
- Coordinate entry operations with the client and or other contractors when either will be working in or near permit spaces.
- Obtain information from client and or other contractors of other permit programs to be followed and coordinate multiple programs entry operations if necessary.
- Debrief the client of the hazards encountered or created.
- If necessary, reclassify a non-permit confined space as a permit space when there are changes in use or configuration.

Employees who enter a confined space

Employees who may enter confined spaces shall comply with the confined space entry procedures contained herein and with those procedures stipulated by their supervisor.

To comply, employees shall carry out the following tasks:

- Will not enter any permit required space unless specifically authorized by an entry supervisor and only in full accordance with this program and all OSHA, State, and local requirements.
- When selected as an entrant, attendant, or entry supervisor, perform those duties as outlined in this program
- Understand emergency procedures in case of an accident in a confined space
- Under no circumstance enter a confined space that is suspect of having a non-respirable atmosphere, even to rescue a fellow employee

Definition of a Confined Space

Confined Space:

- Is large enough and so configured that an employee can bodily enter and perform assigned work
- Has limited or restricted means for entry or exit
- Is not designed for continuous human occupancy.
- Examples of confined spaces include but are not limited to, storage tanks, process vessels, bins, silos, boilers, ventilation or exhaust ducts, sewers, pipe chassis, underground utility vaults, tunnels, and pipelines.

Permit Required Confined Space:

- Contains or has the potential to contain a hazardous atmosphere
- Contains a material that has the potential for engulfing an entrant
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section
- Contains any other serious safety or health hazard.

Non-Permitted Confined Space:

- A confined space that does not contain, or with the respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious harm.

Permit Required Confined Space

The Superintendent will identify and classify every confined space as either a Permit-Required Confined Space or, when the confined space does not present a real potential hazard, a Non-Permit Confined Space. When Permit-Required Confined Spaces are identified Superintendent and Foreman will be responsible for the following:

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- Preventing Unauthorized Entry
- Identifying Permit Space Hazards
- Developing Safe Entry Practices
- Controlling Hazards
- Maintaining and Using Equipment Properly
- Testing for Acceptable Entry Conditions
- Providing Permit Space Attendants
- Providing Emergency Rescue

Preventing Unauthorized Entry

In order to prevent unauthorized entry into a permit required confined space, TCG will utilize at least two of the following mechanisms

- Provide information to visitors
- Post warning signs
- Erect barriers
- Install locks or covers at entry point not being utilized
- Document the implementation of these mechanisms and ensure they remain in place

Identifying Permit Space Hazards

The Superintendent will identify and evaluate the hazards of permit spaces before employees or subcontractors enter the space.

The following hazards shall be identified prior to entry into a confined space:

- Atmospheric hazards
- Asphyxiating atmospheres
- Flammable atmospheres
- Toxic atmospheres
- Burn hazards
- Heat stress hazards
- Mechanical hazards
- Engulfment hazards
- Physical hazards (falls, debris, slipping hazards)
- Electrocution
- Danger of unexpected movement of machinery
- Noise hazards

Safe Entry Practices

Superintendent shall implement procedures and practices necessary for safe permit space entry. These include but are not limited to

- Acceptable entry conditions
- Isolating the permit space
- Purging, inerting, flushing or ventilating the permit space as necessary to eliminate or control atmospheric hazards.
- Pre-entry Briefing. The lead worker will conduct a meeting of all employees who will enter the confined space. Employees will be informed of the hazards and safety conditions of the particular job

Controlling Hazards

Hazards shall be controlled by the following mechanisms

- Lockout of energy sources
- Cleaning and purging
- Personal protective equipment

Equipment Use and Maintenance

Equipment, including testing, ventilating, lighting, monitoring, communication and personal protective equipment, necessary for the safe entry into a Permit Space shall be provided, maintained and properly used by all TCG employees and subcontractors

Testing for Safe Entry

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Permit space evaluation will include all testing conducted before an entry as well as all testing and monitoring activities to ensure that acceptable entry conditions are maintained throughout the entry.

Permit Space Attendants

TCG or its subcontractor will provide at least one attendant outside a permit space to be entered for the duration of the entry operations. Attendant shall be properly trained in Confined Space Entry and be First Aid/CPR trained

Emergency Rescue

TCG or its subcontractors shall provide emergency rescue when the confined space entrants require either Non-entry rescue or a confined space rescue team.

Training

There are three specific members of a confined space entry team

- Entry Supervisor
- Authorized entrants
- Attendant

TCG shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned.

Training shall be provided prior to employee being assigned to their confined space duties or if there is a change to their duties. In the event permit space operations are altered and present a hazard, training shall be required to inform authorized entrants of the hazard. If there is a change in permit space operations that presents a hazard about which an employee has not previously been trained. Or whenever TCG has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

Training shall establish employee proficiency in their duties and shall establish new or revised procedures, as necessary, for compliance with applicable standards, codes and regulations.

TCG shall certify that the training required by the previously mentioned paragraphs has been accomplished. The certification shall contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives. Only trained attendants, authorized entrants, and personnel authorizing or in charge of entry shall work in and around a Confined Space.

Rescue and Emergency Services

Wherever possible, the use of non-entry rescue systems or methods shall be used. Where non-entry rescue is not possible, departments will coordinate rescue and emergency services.

These service providers will be made aware of the hazards they may confront when called on to perform rescues. They shall be responsible to equip, train, and conduct it appropriately.

Designated departments (Fire or rescue teams) will provide the service providers with access to all permit spaces from which rescue may be necessary so that they can develop appropriate rescue plans and practice rescue operations.

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

At times TCG will provide their own rescue team. On these occasions TCG shall have an outside agency conduct a site-specific rescue training by a certified confined space rescue training company

If the confined space is classified as Immediate Danger to Life and Health (IDLH), TCG will not provide the rescue team.

Non-Entry Rescue Retrieval System shall meet the following requirements

- Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head. Wristlets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

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- If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information shall be made available to the medical facility treating the exposed entrant.

If rescue should become necessary, the attendant will

- Notify and summon the rescue team and supervisor
- Attempt a **NON-ENTRY** rescue to the extent possible without breaking the plane of the confined space
- Monitor the situation and be ready to give rescuers information on how many victims and their status, what hazards, chemical types, concentrations, etc. are present.

Only designated personnel will enter permit spaces for rescue purposes. Each designated rescue team member will be trained on:

- Use of personal protective and rescue equipment necessary for making the rescue from the permit space
- Assigned rescue duties
- Basic first aid and cardiopulmonary resuscitation (CPR).
- At least two members of the rescue team will hold current certification in first aid and CPR.

Equipment Calibration

To ensure that the atmospheric testing equipment is functioning properly, any direct reading test device should not be used without performing the following three operations:

- Inspection
- Calibration
- Function Test (bump test)

All three operations should be performed according to specific manufacturer's instructions

Air Monitoring

Calibrating instruments shall be done at a minimum of annually. If instrument becomes wet, dropped, or excessive dust air monitor shall be recalibrated by a certified calibration company.

Instrument shall be inspected prior to use. Check physical condition of instrument, case, meter, attachments, and hoses for cracks

Perform Function Test (bump test)

A bump test, also known as a functional test, should be performed at the start of each day's use. This procedure tests the alarms and sensors of a gas detector to be sure they are functional. The test exposes the detector to a known concentration of gases that exceed the lowest alarm set-point for each sensor. The bump test verifies sensor and alarm functionality, but not the accuracy of the instrument (you must rely on calibration for accuracy). To determine which gases are appropriate for your instrument, consult the manufacturer's instructional manual. If an instrument fails a bump test, it should immediately go through a complete calibration before being put into use. Although a new gas detector most often is calibrated when sent from the manufacturer, it will still require bump testing/calibrating before it is first put into service to ensure it has not been damaged in shipment. Consult the manufacturer's instructional manual to determine which process the manufacturer suggests.

Employees Duties

Entry Supervisor:

- Know the potential hazards during entry and work.
- Determine if acceptable entry conditions are present at a permit space where entry is planned.
- Terminate entry and cancel the permit when entry operations are complete or a prohibited condition arises.
- Verify that rescue services are readily available and the means for summoning them are operable.
- Remove unauthorized individuals who enter or try to enter the permit space during entry and work.
- Determine that entry and work operations remain consistent with entry permit terms and that acceptable entry conditions are maintained.
- Sign Confined Space Entry Permit prior to anyone entering
- Sign off on Confined Space Entry when completed
- Conduct debriefing when work is complete

Entrants:

- Know the hazards that may be faced, including the mode, signs or symptoms, and consequences of the exposure.

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- Use equipment properly.
- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to alert entrants of the need to evacuate the space.
- Alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.
- Exit the permit space quickly whenever:
 - An order to evacuate is given by the attendant or the entry supervisor, or an evacuation alarm is activated.
 - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.

Attendant:

- Know the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of the exposure.
- Know behavioral effects of exposure.
- Continuously maintain an accurate count and identity of authorized entrants.
- Remain outside the permit space during entry operations until relieved by another attendant.
- Communicate with entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate.
- Monitor activities inside and outside space to determine if safe for entrants to remain in space and orders evacuation when necessary.
- Summon rescue and emergency services when assistance for emergency exit from space is necessary.
- Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - Warn them to stay away or exit immediately if they have entered.
 - Inform the entrants and entry supervisor if unauthorized persons enter the permit space.
- Perform non-entry rescue as specified by company procedure.
- Perform no conflicting duties that might interfere with their primary duty to monitor and protect authorized entrants.

Training

Only trained and qualified employees and subcontractors may be authorized as entrant, attendant, entry supervisor, or in house rescue team members. The training will establish proficiency in the duties required by this program so that the employee acquires the understanding, knowledge, and skill necessary for the safe performance of his/her duties. Training must be completed before employee is assigned duties under this program, before there is a change in assigned duties and, whenever a supervisor has reason to believe either that there are deviations from permit space entry procedures or inadequacies in the employee's knowledge or use of this program.

Supervisors will certify that this training has been accomplished. The certification will contain the employee's name, signatures or initials of the trainers, and the dates of training. The certification will be kept on file. All employees shall be trained at a minimum every two years for confined space.

Training shall include:

- Recognizing hazards
- Alerting attendants about the presence of hazards and warning signs
- Wear, store and use suitable personal protective equipment
- Conducting self-rescue methods in emergency situations
- Communication with attendants who are outside the confined space
- Determine hazards
- Monitor all working conditions
- Coordinate resources with confined space workers
- Maintain worker count in the confined space
- Maintaining constant communication when workers enter and exit the space.
- Allowing only qualified and authorized entrants to enter a confined workspace.
- Filling out Confined Space Permit
- Closing out permit
- Testing air
- Opening manholes

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- Conducting pre-entry briefing with all affected personnel
- Holding a debriefing after closing permit

WELDING, CUTTING AND HOT WORK

- When “HOT WORK” is performed, flammable and combustible materials shall be relocated to a safe distance, covered with a flame-retardant material or wet down.
- An inspection of the work area shall be conducted before and after work is performed per the “HOT WORK” permit.
- The Supervisor will instruct all employees in the proper procedure and personal protective equipment to wear while performing any “HOT WORK”.
- Gas cylinders shall be protected against falling or being struck. Valves shall be protected by the cap while in storage. Empty cylinders shall be marked “Empty or MT”. Cylinders shall be stored in an upright position, capped, and adequately secured to prevent falling.
- Tools shall not be left in the recessed top of cylinder.
- All compressed gas cylinder shall be used in a safe manner at all times.
- Cylinders shall never be used as rollers, supports for welding or cutting operations or where they might become a part of an electrical circuit, causing arcing on a compressed gas cylinder.
- A suitable cradle or skip box shall be used when handling cylinders by cranes or hoists.
- Fittings and regulators used for gas shall not be exchanged for use of another gas. Connections shall never be forced into position as threads can be damaged by this procedure.
- No one shall tamper with valves, fusible plugs, or other safety devices on compressed gas cylinders.
- Adequate fire prevention measures shall be taken before welding or cutting near or above flammable materials or personnel.
- No cutting or welding shall be done in the presence of flammable or explosive mixtures of vapors, gases, or dust.
- When not welding, electrodes shall be removed from the holder and the holder placed so that electrical contact with persons or objects is prevented.
- Welding hose shall be easily identified by the use of a color code and used only for the designated gas.
- All oxygen, acetylene, or other fuel gas-oxygen combinations used in cutting or welding shall have reverse flow check valves installed at the inlet side of the torch.
- Welding screens shall be used to protect other workers and pedestrians from arc flash
- Welding fumes shall be extracted from enclosed areas using adequate ventilation

HOT WORK PERMIT

TCG recognizes that there is a potential for injury to people and damage to property that can result from fire or sparks that arises when hot work is performed outside of a designated safe hot work area. This operating procedure establishes a permit authorization system to ensure that all hazards are evaluated, and that appropriate safety measures and controls are taken prior to and during any operation that uses an open-flame or spark-producing apparatus. This operating procedure is written in accordance with the Occupational Safety and Health Administration’s (OSHA) workplace standard, 29 CFR 1910.252, Welding, Cutting and Brazing and the National Fire Protection Association (NFPA) code standard 51B, Fire Prevention in Use of Cutting and Welding Processes. TCG is responsible for ensuring that the requirements of this operating procedure are understood and practiced by their employees. Any department that employs an outside contractor who will be performing any hot work, as defined, must comply with the requirements of this procedure. Specific responsibilities of the department conducting or coordinating any hot work operations include:

- Contact the facility manager or person responsible for the area in which the welding is to take place, inform that person of the scope of work to be performed and determine if they have any specific concerns about the procedure.
- Determine the combustible materials and hazardous areas present or likely to be present in the work location.

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- Protect combustibles in the work location by:
 - Moving the work to a designated safe hot work area or a location free of combustibles.
 - If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against ignition.
 - Schedule the hot work during a time when the combustibles are not likely to be in the area.
- Obtain a HOT WORK PERMIT from the site representative for any work that is to be performed outside of a designated safe hot work area.
- Ensure that workers are provided with and using proper safety equipment, including personal protective equipment and fire extinguishing equipment.
- When required, designate a responsible person to serve as a fire watch.
- Ensure that the work area is given a final inspection one-half hour after completion of the job to detect and extinguish possible hot spots or smoldering fires. The fire watch shall be released after the final inspection.

TCG Safety Dept. is responsible for the development and maintenance of this operating procedure, providing resources for equipment and personnel training, and for auditing operations to ensure compliance to this procedure. Specific responsibilities include:

- Review and approve, in coordination with a departmental representative, locations approved for hot work operations (designated safe hot work areas).
- Periodically inspect designated areas to be sure that conditions have not become unsafe for welding and/or cutting.
- Issue a HOT WORK PERMIT for work being done outside of the designated safe hot work areas, after the area has been inspected and approved by TCG
- Provide training for fire watches and ensure that the proper fire-fighting equipment is in working condition and is available to standby personnel.
- Suspend welding and cutting work if conditions become unsafe for the work being performed.

A fire watch shall be required whenever hot work is performed at any location other than designated safe hot work area. The fire watch shall be any employee or contractor designated by the individual or department requesting the hot work permit but shall not be the actual employee who is performing the hot work operation. Specific responsibilities include:

- Having fire extinguishing equipment readily available and be trained in its proper use and limitations.
- Being familiar with facilities and procedures for sounding an alarm in the event of a fire.
- Correcting or stopping any conditions which may lead to a fire and reporting conditions to their department at the earliest opportunity. Attempting to extinguish fires appropriate to the available equipment and level of training, or otherwise activate the fire alarm system.
- Remain at the work site to monitor for smoldering fires while work is in progress and for at least thirty (30) minutes following job completion. If the fire watch must leave the work site, all cutting, and welding must stop.

WELDING

Arc welding and cutting operations shall be shielded by Non-combustible or flameproof screens that will protect employees and other persons working in the vicinity from the direct rays of the arc, sparks, molten metal, spatter, and chipped slag. Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made to determine its flammability. Preservative coatings shall be considered highly flammable when scrapings burn with extreme rapidity. When welding or cutting is to be done over combustible flooring, the flooring shall be protected by fire-resistant shielding, covered with damp sand, or kept wet.

FIRE WATCH

In any instance where combustible materials have been exposed to fire hazards (such as welding operations, hot metals, or open flame), a fire watch shall be assigned to remain at the location for at least one-half hour after the exposure has ended. Fire watchers shall have fire extinguishing equipment readily available and be trained in its

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use. They shall be familiar with facilities for sounding an alarm and/or calling emergency services. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least one-half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

Fire watch personnel shall be trained and qualified prior to conducting any fire watch.

TRAINING

TCG personnel shall be trained on the proper use of fire extinguishers according to the NFPA guidelines.

Topics to be covered will be:

- Purpose of a Fire Extinguisher
- Fire Classification and Characteristics
- Fire Extinguisher Types and Identification
- How to Operate Fire Extinguisher
- Hazards associated to incipient stage Fires
- When Not to Fight a Fire
- Maintenance, Testing and Inspection

STANDARD AND CRITICAL LIFT PLANS

When attempting any lift, regardless of how small or seemingly insignificant, there is some basic information that must be known and confirmed before you begin. As an industry, we do a great job planning critical and super lifts. These major lifts are executed with precision and are successful if the plan is carefully followed. We don't do as well on the everyday routine or standard lifts. In most cases there is little or no planning and when things go wrong, accidents result. The majority of crane accidents result from lifts that are classified as standard when in fact there is nothing standard about any lift. Preparing and implementing a Standard Lift Plan will eliminate the casual approach to the standard lift.

Hazard identification and risk assessment are an integral part of planning a lift. Master Rigger and Crane Operator shall identify all hazards and potential risks while preparing a standard lift. These hazards and risks shall be included in JSA's/AHA's.

The standard lift plan shall clearly address, but not be limited to, the following:

- The type and number of personnel required, their specific roles and competences, and how they will be briefed
- The nature and weight of the load and lifting points
- Pick up and set down points and constraints such as space and stacking
- Equipment required and certification checks
- Step-by-step instructions
- Communication methods to be used
- Emergency and rescue plans
- Restrictions on the lift
- Access and egress for slinging and un-slinging the load
- Simultaneous, conflicting, or nearby operations or work
- Load integrity check
- An assessment of tag lines, their hazards, and limitations
- Personnel: roles, responsibilities, qualification, public persons or other trade personnel access or affected by lift.
- Area Preparation: load handling location and path of travel, blocking/cribbing.
- LHE Considerations: capacity, configuration, obstructions.

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- Load parameters: weight, center of gravity, radii, and configuration.
- Rigging: type, inspection, need for softeners.

A written Standard Lift Plan shall be prepared for every lift or series of lifts. The SLP shall be developed, reviewed, and accepted by all personnel involved in the lift. The SLP shall be maintained by the Master Rigger or Crane Operator while current lifts are being made.

CONTROLLED WORK ZONE

When crane operations are being performed a controlled work zone shall be established prior to any operations. Only essential personnel will be allowed into controlled area. Controlled work zones will be controlled with “DANGER” ribbon and signage stating “DANGER OVERHEAD HAZARD”

CRITICAL LIFT

A Critical Lift operation is a hazardous activity during which failure/loss of control could result in loss of life, loss of or damage to equipment and property.

A critical lift is a non-routine lift that requires detailed planning with additional or unusual safety precautions.

Critical lifts include

- Lifts made when the load weight is 75 percent of the rated capacity of the crane.
- Lifts involving non-routine or technically difficult rigging arrangement.
- Hoisting personnel.
- Lifts where the center of gravity could change or
- Any lift that the crane operator believes could be considered a critical lift.

RIGGING

Rigging and hoisting refers to the lifting and moving of loads using mechanical devices such as hoists, slings, wire ropes, shackles, chain-falls, etc. Improper design, use, or maintenance of hoists, lifting devices, and rigging equipment can cause equipment to fail or a load to be dropped, which can result in personnel injury, death, or significant property loss. Employees that perform rigging activities have a critical role in helping to make sure each lift is a safe lift. The fact that an object is lifted off the ground does not mean it was rigged properly. Take the time to have your rigging checked, then double-checked by your supervisor or a competent person.

- Only qualified personnel are authorized to perform rigging and signalperson activities.
- Pre-Lift Checklist and crane inspection must be utilized when using a crane
- A Personnel man basket must be used only as a last resort.
- Personnel who perform rigging activities MUST be familiar with standard hand signals for controlling and directing the crane operator. If the operator sees that the signal person does not know proper signal techniques—stop the lift and get a qualified signal person.
- Communication is a critical part of the lift procedure—not only with the crane operator, but also with other employees working in close proximity to the hoisting operation. Make sure everyone in the area is aware a lift is taking place.
- Have materials delivered as close to the work area as possible.
- Always inspect hoists, lifting equipment, cables, straps and rigging equipment before using them each day.
- Defective equipment shall be removed from service immediately and destroyed to prevent inadvertent reuse.
- Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees.
- Never exceed the designed load capacity (Working Load Limit - WLL) for any lifting device or rigging equipment.
- Do not walk or stand under any suspended loads.

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- Do not place your hands/fingers between a sling and its load while the sling is being tightened around the load.
- Keep all body parts away from the areas between the sling and the load and between the sling and the crane or hoist hook.
- Remain clear of loads about to be lifted and suspended. Use tag lines when necessary.
- Employees are prohibited from riding on any lift, hook chain, or cable sling suspended from a crane or hoist.
- Keep suspended loads clear of all obstructions.
- Ensure that, in a chock hitch, the choke point is only on the sling body, never on a splice or fitting
- Do not rest or drop load on chain.
- Do not pull a sling from under a load when the load is resting on the sling.
- Do not drag slings on the floor or over abrasive surfaces.
- Ensure that slings are not constricted, bunched, or pinched by the load, hook, or any fitting.
- Eliminate all twists, knots or kinks before lifting.
- Do not shorten or lengthen a sling by knotting or twisting.
- Do not point load hooks. The load should be seated properly within the throat opening and centered in bowl of the hook.
- Balance the load to avoid undue stress on one leg of multi-leg slings.
- Never bounce, jerk or shock load a sling when lifting or lowering items. Remove slack by slowly applying the load to the chain.
- Avoid sudden starts and stops when moving loads.
- Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
- The load capacity limits shall be stamped or affixed to all rigging components. If missing, remove from service.
- Makeshift links or fasteners or other such attachments shall not be used.
- Install wire rope clips (cable clamps) properly. Use the correct size and number of clips.
- NEVER install U-bolts on the live end of the wire rope. The live end is where the saddle goes, so remember, "Never saddle a dead horse".
- Store slings in a dry area out of direct sunlight, extreme temperatures, moisture, mechanical damage, or corrosive environments.

USER RESPONSIBILITY

- Must be trained on rigging procedures.
- Utilize appropriate rigging gear suitable for overhead lifting.
- Utilize the rigging gear within industry standards and the manufacturer's recommendations.
- Conduct regular inspection and maintenance of the rigging gear.

INSPECTION OF RIGGING HARDWARE

- A visual inspection shall be performed by the user or designated person each day before the rigging hardware is used.
- A periodic inspection shall be performed by a designated person, at least annually.
- The rigging hardware shall be examined, and a determination made as to whether they constitute a hazard.

REJECTION CRITERIA OF RIGGING HARDWARE PER ASME B30.26

- Missing or illegible manufacturer's name or trademark and/or rated load identification (or size required)
- A 10% or more reduction of the original dimension
- Bent, twisted, distorted, stretched, elongated, cracked or broken load bearing components.
- Excessive nicks, gouges, pitting and corrosion.
- Indications of heat damage including weld spatter or arc strikes, evidence of unauthorized welding.
- Loose or missing nuts, bolts, cotter pins, snap rings, latches or other fasteners and retaining devices.

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- Unauthorized replacement components or other visible conditions that cause doubt as to the continued use of the sling.
- Additionally, inspect wedge sockets for:
 - Indications of damaged wire rope or wire rope slippage
 - Improper assembly
- Additionally, inspect wire rope clips for:
 - Insufficient number of clips
 - Incorrect spacing between clips
 - Improperly tightened clips
 - Indications of damaged wire rope or wire rope slippage
 - Improper assembly

INSPECTION OF SLINGS

- A visual inspection for damage shall be performed by the user or designated person each day or shift the sling is used.
- Additional inspections shall be performed during sling use where service conditions warrant.
- A complete inspection for damage shall be performed periodically by a designated person, at least annually.
- Damaged or defective slings shall be immediately removed from service.
- Written records of the most recent periodic inspection shall be maintained.

REJECTION CRITERIA FOR SLINGS

- Missing or illegible sling identification.
- Evidence of heat damage.
- Slings that are knotted.
- Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.
- Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

WIRE ROPE SLINGS

- Excessive broken wires, for strand-laid and single part slings, ten randomly distributed broken wires in one rope lay or five broken wires in one strand in one rope lay.
- Severe localized abrasion or scraping, kinking, crushing, bird caging.
- Any other damage resulting in damage to the rope structure.
- Severe corrosion of the rope or end attachments.
- Evidence of heat damage.
- Hooks opened more than 15% at the throat.
- Hooks twisted sideways more than 10 degrees from the plane of the unbent hook.

CHAIN SLINGS

- Cracks or breaks.
- Excessive wear, nicks, or gouges.
- Stretched chain links or components.
- Bent, twisted, or deformed chain links or components.
- Excessive pitting or corrosion.
- Lack of ability of chain or components to hinge freely.
- Weld splatter.

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WEB SLINGS

- Acid or caustic burns.
- Melting or charring of any part of the sling.
- Holes, tears, cuts, or snags.
- Broken or worn stitching in load bearing splices.
- Excessive abrasive wear.
- Discoloration and brittle or stiff areas on any part of the sling, which may mean chemical or ultraviolet/sunlight damage

FALL PROTECTION

Fall Protection Program

Falls from elevated surfaces are a major hazard of construction and hazardous waste site work. The purpose of this Program is to protect workers and provide fall protection as required. Whenever personnel are potentially exposed to falls from a height of four feet or greater to lower levels. This Fall Protection Plan addresses the use of other than conventional fall protection at areas on the project, as well as identifying specific activities that require non-conventional means of fall protection. This includes, but is not limited to, the following situations:

- Man baskets
- Work Platform, Scaffolding
- Other areas like storage and lay down
- Aerial Lifts
- Scissor lifts when required

It is TCG's policy to take all practical measures possible to prevent employees from being injured by falls from heights. First priority is given to the elimination of fall hazards. If a fall hazard cannot be eliminated, effective fall protection will be planned, implemented, and monitored to control the risks of injury due to falling.

Subcontractors working in areas with potential hazardous falls must have their own Fall Protection Program, which meets the minimum standards established in this program. All employees exposed to potential falls from heights will be trained to minimize the exposures.

Fall protection equipment will be provided and its use required by all employees and sub-contractors. Supervisors and Safety coordinator will be responsible for implementation of a fall protection plan for their jobsite.

All work under this Fall Protection Plan shall comply with:

- 29 CFR 1926 Subpart M Fall Protection in Construction
- 29 CFR 1910, Subpart D, Walking/Working surfaces
- ANSI Z359 Fall Protection Code

RESPONSIBILITIES

Responsibilities specific to this Fall Protection Program include the following, program manager, supervisors, safety coordinator, employees, and sub-contractors.

FALL PROTECTION PROGRAM MANAGER

TCG has designated Fred Hambly, as the Fall Protection Program Manager and Competent Person. The Fall Protection Manager is authorized to develop and implement the fall protection program. The Fall Protection Manager shall ensure that all personnel exposed to fall hazards and using fall arrest equipment and other personnel involved in the program receive adequate training as well as perform the following duties:

- Reviewing and updating this Program as necessary and maintaining current information on fall protection.
- Coordinating or conducting training programs for employees on fall protection and safe use of ladders.
- Assisting supervisors in determining the need for fall protection, and in developing proper work procedures.
- Ensuring proper rescue equipment and a rescue plan are in place
- Ensuring supervisors are enforcing safety policies in the workplace.

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- Performing site audits and inspections according to the required schedule, including the safety of elevated locations.
- Investigation of fall incidents.
- Ensuring that appropriate corrective actions are implemented based on incident reports, inspections, or hazard reports
- Performing follow-up to ensure that the necessary corrective actions are completed
- Maintaining appropriate records of employee training, workplace inspections, fall protection bi-annual equipment inspections and incident reports and investigations

SUPERVISORS/SITE SAFETY & HEALTH OFFICERS

Supervisors and foremen are responsible for implementing this Fall Protection Program on jobsites, and are responsible for:

- Setting an appropriate example to employees.
- Requesting technical assistance from the Fall Protection Program Manager in identifying potential fall hazards
- Identifying potential fall hazards in the workplace and bringing these hazards to the attention of all TCG personnel.
- Ensuring that TCG personnel exposed to fall hazards are trained in fall prevention and protection.
- Verifying that necessary supplies and fall protection equipment are available at each work location
- Inspecting the equipment for proper use and maintenance and verifying compliance with safe work practice,
- Rule enforcement
- Performing routine workplace inspections to ensure ongoing compliance with the work rules established in this Program
- Implementing corrective actions, as needed
- Taking immediate action to remove employees from imminent hazards

EMPLOYEES

TCG employees who might be exposed to fall hazards and using fall protection equipment shall read and understand the requirements of this plan. Employees shall also comply with the following

- Follow all work rules established in this Fall Protection Program
- Immediately report all hazards to supervisor or foreman for corrective action. Employees shall not return to work until the hazard has been corrected.
- Using the fall protection equipment required for work situations, only after receiving hands-on training with the equipment.

HAZARD IDENTIFICATION

The supervisor, foreman or competent person will be responsible for identifying fall hazards in the workplace. The supervisor/foreman will evaluate each situation or work procedure where employees may be exposed to a fall of 4 feet or more. The supervisor/foreman and competent person will be responsible for developing a plan to eliminate the exposures, if possible, or to select the appropriate fall protection systems and/or equipment that meet the requirements of OSHA standards.

FALL PROTECTION POLICY

TCG has a 100% fall protection requirement for all work above the trigger height. Some work areas are 6 feet others are 4 feet. This policy carries with it a “zero tolerance policy” whereby any offence of this rule will result in removal from the jobsite. The requirement applies to all TCG personnel as well as any person wishing to access to work requiring fall protection controlled by TCG

TYPES OF FALL PROTECTION

When there is a potential fall of 4 feet or more, one or more of the following means of protection must be utilized:

- Guardrail systems
- Personal Fall Arrest Systems
- Positioning Device Systems S
- Scaffolding Systems

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- Guardrail Systems
- Guardrail systems must meet the following criteria:
- Top rails and mid rails of guardrail systems must be at least one-quarter inch nominal diameter or thickness to prevent cuts and lacerations.
- If wire rope is used for top rails, it must be flagged at not more 6 feet intervals with high-visibility material.
- Steel and plastic banding cannot be used as top rails or mid rails.
- Manila, plastic, or synthetic rope used for top rails or mid rails must be inspected as frequently as necessary to ensure strength and stability.
- The top edge height of top rails, or (equivalent) guardrails must be 42 inches plus or minus 3 inches, above the walking/working level.
- When mid rails are used, they must be installed to a height midway between the top edge of the guardrail system and the walking/working level.
- Screens, mid rails, mesh, intermediate vertical members, or equivalent intermediate structural members must be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 21 inches high.
- When screens and mesh are used, they must extend from the top rail to the walking/ working level and along the entire opening between top rail supports.
- Support posts will be no more than 8-feet apart.
- Other structural members, such as additional mid rails and architectural panels, shall be installed so that there are no openings in the guardrail system more than 19 inches.
- The guardrail system must be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. When the 200-pound test is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than 39 inches above the walking/working level.
- Mid rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the mid rail or other member.
- Guardrail systems shall be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.
- The ends of top rails and mid rails must not overhang terminal posts, except where such overhang does not constitute a projection hazard.
- When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section must be placed across the access opening between guardrail sections when hoisting operations are not taking place.
- At holes, guardrail systems must be set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole shall have not more than two sides with removable guardrail sections. When the hole is not in use, it must be covered or provided with guardrails along all unprotected sides or edges.
- Covered holes must withstand twice the intended load
- If guardrail systems are used around holes that are used as access points (such as ladder ways), gates must be used or the point of access must be offset to prevent accidental walking into the hole.
- Openings must be barricaded or have a designated spotter at opening.
- If guardrails are used at unprotected sides or edges of ramps and runways, they must be erected on each unprotected side or edge.
- For wood railings, post and top rails will be at least nominal 2-inch by 4-inch, construction grade lumber. Mid rails will be at least nominal 1-inch by 6-inch.
- For pipe railings, posts, top rails, and mid rails will be at least 1.5-inches nominal diameter.

PERSONAL FALL ARREST SYSTEMS (PFAS)

Personal fall arrest systems consist of an anchorage, connectors, and a body harness and may include a deceleration device, lifeline, or suitable combinations.

If a personal fall arrest system is used for fall protection, it must do the following:

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- Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness and have a dorsal D-ring or D strap incorporated into the full-body harness.
- Be rigged so that an employee can neither free fall more than 4 feet nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 2 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.
- All PFAS must have a permanently attached label indicating the manufacture's name, serial number/lot number, manufacture date, maximum elongation force, maximum free fall distance, capacity and that it meets OSHA and ANSI Z359.1 standard.
- All personal fall arrest equipment must meet ANSI standard Z359.1.
- Systems must be inspected prior to each use for wear damage, and other deterioration.
- Components which are defective in any way must be immediately removed from service.
- Anchorage points used for attaching personal fall protection systems must support at least 5,000 pounds per employee and must be completely separate from any anchorage used to support platforms or equipment.
- Guardrails and hoists must not be used as anchorage points for personal fall protection systems.
- Lanyards and vertical lifelines must have a minimum breaking strength of 5,000 pounds.
- Lanyards, lifelines, and load bearing parts of body harnesses must be made from synthetic fibers and be protected from cuts and abrasions.
- D-rings and snap hooks must be corrosion-resistant drop forged, pressed, or formed steel, or equivalent with no rough edges.
- D-rings and snap hooks must have a minimum tensile strength of 5,000 pounds and must be proof-tested to a minimum of 3,600 pounds.
- Only full body harnesses and locking-type snap hooks may be used in personal fall arrest systems; the use of body belts for fall arrest is prohibited.
- Body harnesses, lanyards, and lifelines that have been subjected to impact loading will be removed from service, tagged and replaced immediately after impact.
- TCG employees donning a PFAS must meet the weight criteria stated in the OSHA standard. 310 pounds including tools and equipment.
- All PFAS must have a permanently attached label indicating the manufacture's name, serial number/lot number, manufacture date, maximum elongation force, maximum free fall distance, capacity and that it meets OSHA and ANSI Z359.1 standard.

POSITION DEVICE SYSTEMS

Positioning device systems are personal fall prevention systems rather than fall arrest systems, as they are designed to prevent a person from reaching an area where they may fall greater than 4 feet. They shall be secured to an anchorage of 3,000 pounds.

SCAFFOLDING

TCG will review and evaluate this scaffolding standard on an annual basis, or when changes occur to the governing regulatory standards, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety and health that is endorsed and advocated by TCG management that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals, and objectives

All scaffolding used by TCG will be inspected by a competent person prior to each shift. Certain work conditions may contain a reasonable probability of injury that can be prevented by proper maintenance and supervision. TCG will do all possible to ensure the safety of our employees. No employee will knowingly be subjected to a hazardous condition without all possible protective measures first being implemented.

To ensure safety and serviceability the following general precautions concerning the care and use of scaffolding will be observed:

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- Footing and anchorage. The footing and or anchorage for scaffolds will be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks will not be used to support scaffolds or planks.
- Scaffolds and their components will be capable of supporting without failure at least four times the maximum intended load.
- Scaffolds will be maintained in a safe condition at all times in accordance with the manufacturer's recommendations. Fixed scaffolds will not be altered or moved horizontally while they are in use or occupied.
- Any scaffold damaged or weakened from any cause will be immediately repaired and will not be used until repairs have been completed.
- Scaffolds will not be loaded in excess of the working load for which they are intended.
- All planking will be Scaffold Grade as recognized by grading rules for the type of wood used. The scaffold manufacturer's recommendations will be followed.
- Nails or bolts used in the construction of scaffolds will be of adequate size and in sufficient numbers at each connection to develop the designed strength of the scaffold.
- Nails will not be subjected to a straight pull and will be driven full length.
- All planking or platforms will be overlapped (minimum 12 inches) or secured from movement.
- An access ladder or equivalent safe access will be provided.
- Scaffold planks will extend over their end supports not less than 6 inches nor more than 18 inches.
- The poles, legs, or uprights of scaffolds will be plumb, and securely and rigidly braced to prevent swaying and displacement.
- Overhead protection will be provided for men on a scaffold exposed to overhead hazards.
- Employees will not work on scaffolds which are covered with ice or snow, unless all ice or snow is removed and planking sanded to prevent slipping.
- Tools, materials, and debris will not be allowed to accumulate in quantities to cause a hazard.
- Scaffolds will be secured to permanent structures, through use of anchor bolts, reveal bolts, or other equivalent means.

To ensure safety and serviceability the following general precautions concerning the care and use of scaffolding will be observed:

- Working loads. Work platforms and scaffolds will be capable of carrying the design load under varying circumstances depending upon the conditions of use.
- The design load of all scaffolds will be calculated on the basis of:
 - **Light** - Designed and constructed to carry a working load of 25 pounds per square foot.
 - **Medium** - Designed and constructed to carry a working load of 50 pounds per square foot.
 - **Heavy** - Designed and constructed to carry a working load of 75 pounds per square foot.
- Nails, bolts, or other fasteners used in the construction of ladders, scaffolds, and towers will be of adequate size and in sufficient numbers at each connection to develop the designed strength of the unit. Nails will be driven full length. (All nails shall be immediately pulled from dismantled lumber.)
- All exposed surfaces will be free from sharp edges, burrs, or other safety hazards.
- Work levels. The maximum work level height will not exceed four (4) times the minimum or least base dimensions of any mobile scaffold. Where the basic mobile unit does not meet this requirement, suitable outrigger frames will be employed to achieve this least base dimension, or provisions will be made to guy or brace the unit against tipping.
- The minimum platform width for any work level will not be less than 20 inches for mobile scaffolds (towers). Ladder stands will have a minimum step width of 16 inches.
- The supporting structure for the work level will be rigidly braced, using adequate cross bracing or diagonal bracing with rigid platforms at each work level.
- The work level platform of scaffolds will be of wood, aluminum, or plywood planking, steel, or expanded metal, for the full width of the scaffold, except for necessary openings. Work platforms will be secured in place. All planking will be 2-inch (nominal) scaffold grade minimum 1,500 f. (stress grade) construction grade lumber or equivalent.

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- All scaffold work levels 10 feet or higher above the ground or floor will have a standard 4-inch nominal toe board.
- All work levels 10 feet or higher above the ground or floor will have a guardrail of 2-by 4-inch nominal or the equivalent installed no less than 36 inches or more than 42 inches high, with a mid-rail, when required, of 1- by 4-inch nominal lumber or equivalent.
- Wheels or casters. Wheels or casters will be inspected to ensure that they are provided with strength and dimensions to support four (4) times the design working load.
- All scaffold casters will be inspected to ensure that they are provided with a positive wheel and/or swivel lock to prevent movement.
- Where leveling of the elevated work platform is required, screw jacks or other suitable means for adjusting the height will be used.
- Employees are not permitted to ride rolling scaffolds during relocation.
- Adjusting screws may not be extended more than 12 inches.
- Before moving the platform secure all equipment and material.
- Casters or wheels must have a serviceable locking device.
- Be aware of overhead obstructions when moving scaffolds.
- Never run over electrical cords.
- Never pull scaffolds from the top, always push at base level.
- Work only from the platform area never extend work beyond guard-railing.

Only trained and authorized employees will supervise the erection of scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following apply:

- Manufacturer's erection instructions will be followed.
- Advance planning considerations will be followed during the erection process.
- Only trained and authorized employees will supervise the erection of scaffolding.
- Each component will be visually inspected before use.
- Defective or unserviceable materials will be tagged and removed from service
- Only approved lumber will be used.
- Consult with the project manager where any instructions are unclear.

Pre-inspection of Erected Scaffolding. The three main areas of inspection are for rust, straightness of members, and welds. Only trained competent persons will conduct the pre-inspection. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following as a minimum apply:

- Rust. Heavily rusted scaffolding equipment is a possible sign of abuse or neglect. Severely rusted components should be thoroughly inspected and cleaned before approved for use.
- Straightness of members. Mishandling, trucking, and storing may cause damage to scaffolding equipment. All members or parts of all steel scaffolding components should be straight and free from bends, kinks, or dents.
- Scaffolding equipment should be checked before use for damaged welds and any piece of equipment showing damaged welds or re-welding beyond the original factory weld should not be used. The factory weld reference pertains to location and quality of re-welds.
- Check serviceability of locking devices.
- Check alignment of coupling pins and braces.
- Check serviceability of caster brakes (rolling scaffolds).

FINAL INSPECTION OF ERECTED SCAFFOLDING.

Only trained and authorized employees will conduct the final inspection of erected scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following as a minimum apply:

- Check for proper support under every leg of every frame.
- Check for wash out (if outside) due to rain.
- Check to ensure all base plates or adjustment screws are in firm contact with supports.

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- Check frames for plumbness and squareness in both directions.
- Check serviceability and correctness of all cross braces.
- Check to ensure that all planking and accessories are properly installed.
- Check to ensure that all guard rails are in place.
- Recheck periodically to ensure conditions remain safe.
- Scaffold inspection card must be signed prior to every shift

Dismantling of Scaffolding. Only trained and authorized employees will supervise the dismantling of scaffolding. Pertinent OSHA regulations and information and guidance provided by the manufacturer of the particular type of scaffolding will be used. The following apply:

- Manufacturers dismantling instructions will be followed.
- Relocation planning considerations will be considered during the dismantling process.
- Dismantling will be supervised by a competent person.
- Each component will be visually inspected after use.
- Defective or unserviceable materials will be tagged and removed from service and not stored with serviceable materials.
- Avoid dropping or throwing the components as this could result in damage to the equipment.

Training. A training program will be provided for all employees who will be using scaffolding in the course of their duties. The training will be conducted by competent personnel. The program will include but will not be limited to:

- A description of fall hazards in the work area or job site
- Procedures for using fall prevention and protection systems
- Scaffolding access and egress procedures
- Scaffolding equipment limitations
- Inspection and storage procedures for the equipment

Initial training. Training will be conducted prior to job assignment. TCG will provide training to ensure that the purpose, function, and proper use of scaffolding is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction will be provided to and read by all employees receiving training. The training will include, as a minimum the following:

- Types of scaffolding used by this company.
- Recognition of applicable fall hazards associated with the work to be completed and the locations of such.
- Load determination and balancing requirements.
- Safety precautions in the use of scaffolds.
- All other employees whose work operations are or may be in an area where scaffolding may be utilized, will be instructed to an awareness level concerning the associated hazards.
- Inspection requirements.
- Equipment strengths and limitations.

Certification. TCG will certify that employee training has been accomplished and is being kept up to date. Training will be accomplished by a competent person.

Refresher training. This standard practice instruction will be provided to and read by all employees receiving refresher training. Refresher training will be conducted annually or on an as needed basis.

SAFE WORK PROCEDURES

- Handrails should be used when walking up or down elevated platforms.
- Tools and materials must not be left unsecured in any elevated place. The area beneath overhead operations should be roped off and marked with warning signs.
- All ladders shall be inspected before using to ensure that rungs and side rails are safe for immediate use.
- When hauling or hoisting tools or equipment, make sure you are secured in position and use both hands to hoist.
- Stepladders must be fully extended before being used.
- When on a ladder, exercise caution; do not overreach.
- When necessary to place ladders in front of a blind doorway, the door should be locked or guarded by a fellow worker.

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- Barrels, boxes, chairs, crates, etc., shall not be used in place of ladders, portable steps or working platforms.
- Only one person at a time is permitted to climb a ladder.
- A straight portable ladder shall not be climbed beyond the third rung from the top.
- Standing on top of a stepladder four feet or more in height is prohibited.
- Ladders shall be tied off at the top in any situation where slippage is possible.
- All straight ladders shall be equipped with safety shoes.
- Stepladders are not to be used as straight ladders.
- Use of makeshift ladders is prohibited.

TRAINING

Employees potentially exposed to fall hazards will receive initial training before using fall protection and an annual one-hour refresher training on the following topics:

- OSHA fall protection standards fall protection requirements.
- How to recognize and avoid fall hazards.
- Fall hazards present in specific work situations.
- The employee's role in a fall protection plan.
- How to select, assemble, use, inspect and maintain personal fall protection systems.
- The use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line, and safety monitoring systems.
- The correct procedures for equipment and materials handling and storage to prevent falls and dropping objects on personnel working at lower levels, and the erection of overhead protection.

Fall Protection Program Manager shall Provide/ensure appropriate level of training is received by TCG employees, Competent Persons, Qualified Persons, and others as required. Retraining is required whenever the work operation, fall hazards, or type of fall protection changes, and whenever an employee demonstrates unsafe behavior relating to fall hazards. Training will be conducted annually and documented with written certificates and maintained in employees' training files.

INSPECTION and MAINTENANCE

All fall protection equipment shall be inspected prior to each use.

All fall equipment shall be properly stored and maintained according to the manufacturer's recommendations.

TCG competent person shall inspect all fall protection items semi-annually and document any and all findings.

Any fall protection equipment that fails inspection shall be removed from service immediately.

Inspection forms shall be recorded and saved electronically.

Rescue Equipment shall be stored and maintained separately in a job box clearly marked "RESCUE EQUIPMENT ONLY". Under no circumstances may any of the rescue equipment be used for anything other than rescue and evacuation procedures.

RESCUE AND EVACUATION

In the event of a rescue or evacuation in any of the above designated work areas, TCG will provide prompt rescue to all fallen persons. Immediate contact will be made with the fallen worker either by oral communication or physical contact. Appropriate emergency personnel shall be contacted, and emergency transportation arrangement made.

All TCG personnel will be trained to safety and promptly rescue all fallen persons. TCG will be trained to recognize and know risks of suspension trauma. The following procedures shall be taken to rescue a fallen worker:

- First recognize a fallen worker suspended in a harness has less than five minutes of being suspended before serious injury or death can occur.
- All workers working in fall protection equipment shall have an assigned safety person or spotter, also known as the "buddy system" who will be within visual/verbal range to initiate rescue of the fallen worker.
- All workers who will work from a height utilizing Fall Protection will also be trained in self-rescue techniques and will be trained in these techniques before utilizing Fall Protection and annually thereafter.

There are four phases of fall protection: Before the fall, at fall arrest, suspension, and post-fall rescue. Each phase presents unique safety challenges. Suspension trauma can be influenced by all aspects of the fall, so they are all important. As with many aspects of safety, increasing the safety in one phase can compromise the safety of the others. Whatever training workers have received will determine how they respond to different phases. Here is a brief discussion of each aspect of fall protection

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Rescue

Rescue must come rapidly to minimize the dangers of suspension trauma. The circumstances together with the lanyard attachment point will determine the possibilities of self-rescue. In situations where self-rescue is not likely to be possible, workers must be supervised at all times. Regardless of whether a worker can self-rescue or must rely upon others, time is of the essence because a worker may lose consciousness in only a few minutes. If a worker is suspended long enough to lose consciousness, rescue personnel must be careful in handling such a person or the rescued worker may die anyway. This post-rescue death is apparently caused by the heart's inability to tolerate the abrupt increase in blood flow to the right heart after removal from the harness. Current recommended procedures are to take from 30 to 40 minutes to move the victim from kneeling to a sitting to a supine position.

Safety harnesses save many lives and injuries. However, continual vigilance is needed to train and supervise workers to ensure harnesses are used safely. All phases of fall protection need to be examined for each particular application. Workers and emergency response personnel must be trained to recognize the risks of suspension trauma.

BEFORE THE POTENTIAL FALL

- Workers should never be permitted to work alone in a harness.
- Time in suspension should be limited to under five minutes. Longer suspensions must have foothold straps or means for putting weight on the legs.
- Harnesses should be selected for specific applications and must consider compliance, convenience, potential arrest injury, and suspension trauma.
- Tie-off lanyards should be anchored as high and tight as work permits.

BLOOD-BORNE PATHOGEN (BBP)

TCG and its subcontractors have a duty and are required to protect all workers, from Blood-Borne Pathogens. Certain diseases can be transmitted from an infected individual to a person by contact with blood or other body fluids. These diseases include, but are not limited to, hepatitis B virus (HBV), human immunodeficiency virus (HIV) and hepatitis C virus (HCV).

OSHA 29 CFR 1910.1030 requires employers to identify situations and job classifications in which employees may be exposed to blood or other potentially infectious fluids, and to provide protection to these employees in the form of engineering controls, administrative controls, personal protective equipment, training, and risk reduction. Being exposed to BBP is always a possibility during any phase of construction. TCG is committed to ensuring that these possibilities be minimized with proper Engineering and Administrative controls. TCG will also provide all necessary PPE to eliminate the risk of BBP.

The purpose of this BBPP is to eliminate or minimize employee occupational exposure to human blood or other infectious body fluids. All TCG personnel have the potential to be exposed to BBP.

TCG RESPONSIBILITY

TCG will provide all necessary training in accordance with 29 CFR 1910.1030, as well as provide Blood-Borne Pathogen response kits at each workstation. TCG will use Engineering controls to minimize the risk of exposure to BBPs. Engineering Controls will consist of ensuring that sharp edges, puncture hazards or pinch points will be covered, flagged, or removed.

Producing a well thought out and thorough JSA/AHA, with well-defined procedures will help eliminate the risk to BBP.

If personnel are exposed to BBP, TCG personnel will comply with the provisions of this plan.

Site supervisor shall monitor all work areas to ensure all personnel are using proper PPE (i.e. puncture resistant gloves, retractable bladed scrapers) as well as looking for any areas that could cause a puncture or cut due to sharp edges or any other hazards. Supervisor shall implement control measures to eliminate the risk of hazards that could cause bodily injuries.

The Exposure Control Plan shall be reviewed and updated whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

Reflect changes in technology that eliminate or reduce exposure to blood borne pathogens; and document consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

METHODS OF COMPLIANCE

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Universal precautions shall be observed to prevent contact with blood or other potentially infectious fluids. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Engineering and work practice controls shall be used to eliminate or minimize employee exposure to any BBP or body fluids. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

Engineering and Administrative Exposure Controls for Blood Borne Pathogens

- The universal precautions concept should be followed to prevent exposure to Human bodily fluids.
- Engineering and administrative controls need to minimize exposure as follows:
 - All procedures involving sharp objects such as cutting scraping chiseling etc., that could cause cuts (human blood exposure) must be performed in such a manner to minimize the possibility of cuts.
 - Sharp tools shall be stored in a manner that limits the possibility of cuts while searching for moving and retrieving sharp tools from bins and cabinets etc.
- Personal protection equipment must be used in addition to engineering and administrative controls listed above to further reduce overall exposure.
- When working on sharp components wear appropriate gloves, heavy protective sleeves and/or Tyveks.
- Gloves must be worn when the employee may have hand contact with human bodily fluids, including but not limited to administering first-aid, performing cleaning or maintenance, and housekeeping in break area, food preparation area and toilets.

TCG shall provide handwashing facilities which are readily accessible to TCG Personnel.

When provision of handwashing facilities is not feasible, TCG will provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic wipes. When antiseptic hand cleansers or wipes are used, hands shall be washed with soap and running water as soon as possible.

POST BLOOD-BORNE PATHOGEN EXPOSURE

Following a report of an exposure incident, TCG shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred
- Identification and documentation of the source individual.
- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, TCG shall establish that legally required consent cannot be obtained.
- When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented
- Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

TRAINING

Training shall be provided at the time of initial assignment to where occupational exposure may take place.

The training program shall contain at a minimum the following elements

- An accessible copy of the regulatory text of this standard and an explanation of its contents
- A general explanation of the symptoms of blood borne diseases
- An explanation of the modes of transmission of blood borne pathogens
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious fluids.
- The procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- Information on the post-exposure evaluation and follow-up that TCG is required to provide for the employee following an exposure incident

HEAT ILLNESS PREVENTION

Purpose

The purpose of this plan is to protect TCG employees and their subcontractors from the hazards of hot working environments.

Scope

This plan implements efficient and safe work practices that will prevent both indoor and outdoor heat-related illnesses among employees at our workplace. It will be used for training new employees and for the annual refresher training of employees. All employees potentially exposed to hot working environments are subject to this plan.

Background

Heat-related illnesses can happen if workplace activities in a hot environment overwhelm the body's ability to cool itself. This becomes more likely if any of the risk factors are present. Examples include working in a hot environment without adequate access to water for rehydration, working in protective gear that does not allow air circulation across the skin, working where the humidity is too high for sweat to evaporate or where air circulation doesn't exist.

Risk Factors

The following are environmental risk factors for heat illness:

- Air temperature above 90 degrees F
- Relative humidity above 40 percent
- Radiant heat from the sun or other sources
- Conductive heat sources such as dark clothing or dark work surfaces
- Lack of air movement
- Physical exertion from work
- Use of non-breathable protective clothing and other protective equipment

The following are personal risk factors for heat illness:

- Lack of acclimation to warmer temperatures
- Poor general health
- Dehydration
- Alcohol consumption
- Caffeine consumption
- Previous heat-related illness
- Use of prescription medications that affect the body's water retention or other physiological responses to heat such as beta blockers, diuretics, antihistamines, tranquilizers, and antipsychotics.

Heat-Related Illness

Heat rash is the most common health problem in hot work environments. It is caused by sweating and looks like a red cluster of pimples or small blisters. Heat rash usually appears on parts of the body that overlap or rub other parts of the body, such as in the groin area, under the arms or breasts, and in knee or elbow creases. If an employee has symptoms of heat rash, provide a cooler, less humid work environment, if possible. Advise the employee to keep the area dry and not to use ointments and creams that make the skin warm or moist, which can make the rash worse.

Heat exhaustion can best be prevented by being aware of one's physical limits in hazardous environment on hot, humid days. The most important factor is to drink enough clear fluids (especially water, not alcohol or caffeine) to replace those lost to perspiration. Signs and symptoms of heat exhaustion typically include:

- Profuse sweating

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- Weakness and fatigue
- Nausea and vomiting
- Muscle cramps (associated with dehydration)
- Headache
- Light-headedness or fainting; fainting or loss of consciousness is potentially serious and should be treated as a medical emergency.

When you recognize heat exhaustion symptoms in an employee, you must intervene; stop the activity, and move the employee to a cooler environment. Cooling off and rehydrating with water (or electrolyte replacing sports drinks) is the cornerstone of treatment for heat exhaustion. If the employee resumes work before their core temperature returns to normal levels, symptoms may quickly return. If there is no intervention and the body's temperature regulation fail, heat exhaustion can rapidly progress to **heat stroke**, a life-threatening condition!

Heat stroke requires an immediate emergency medical response. The person may stop sweating, become confused or lethargic, and may even have a seizure! The internal body temperature may exceed 106 degrees F. Signs and symptoms of heat stroke typically include:

- Absence of sweating
- Dry skin
- Agitation or strange behavior
- Dizziness, disorientation, or lethargy
- Seizures or signs that mimic those of a heart attack

Ensure that emergency responders are summoned immediately if heat stroke is suspected. While waiting for emergency responders to arrive, cool the employee; move the employee to an air-conditioned environment or a cool, shady area; and help the employee remove any unnecessary clothing. Do not leave the employee unattended. Heat stroke requires immediate medical attention to prevent permanent damage to the brain and other vital organs that can result in death.

Preventing Heat-Related Illnesses

- Gradually increase workloads and allow more frequent breaks during the first week of work so that employees become acclimatized to higher temperatures, especially those who are new to working in the heat or have been away from that work for a week or more.
- Encourage employees to frequently drink small amounts of water before they become thirsty to stay hydrated. During moderate activity, in moderately hot conditions, employees should drink about 8 ounces of liquid every 15 to 20 minutes. Employees can monitor their hydration with a urine chart. Urine should be clear or slightly colored; dark urine is a warning sign!
- Encourage employees to eat regular meals and snacks as they provide enough salt and electrolytes to replace those lost through sweating as long as enough water is consumed.
- Drinking extreme amounts of water can also be harmful (more than 3 gallons in a 24-hour period).
- Schedule frequent rest periods with water breaks in shaded or air-conditioned recovery areas. Note that air conditioning does not result in loss of heat tolerance.
- Ensure employees are aware of the signs of heat-related illnesses and encourage them to report immediately they or their co-workers show symptoms.
- Monitor weather reports daily and reschedule jobs with high heat exposure to cooler times of the day if possible
- Be extra vigilant when air temperatures rise quickly.
- Provide shade or cool areas for breaks

All employees are responsible for protecting themselves from heat illnesses by following these guidelines for prevention and immediately reporting any signs or symptoms to his or her supervisor.

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PURPOSE

Electricity is a serious workplace hazard, capable of causing both employee injury (shocks, electrocution, fires, and explosions) as well as serious property damage. By providing maintenance personnel with proper training in safe electrical work practices, TCG hopes to reduce the risk of such incidents.

RESPONSIBILITIES

TCG management is responsible for providing employee safety training, conducting electrical safety inspections, correcting all electrical safety hazards, and ensuring that all new electrical equipment and components comply with codes and regulations. Employees are responsible for the immediate reporting of electrical safety hazards, for not working on electrical equipment without proper training and authorization, and for inspecting equipment prior to using it.

DEFINITIONS

Qualified worker: An employee who is trained and authorized to perform work on electrical equipment and components.

Unqualified worker: An employee who has not been trained or authorized to perform electrical work.

HAZARD CONTROL

The following control methods will be used to prevent occurrence of electricity-related incidents:

Engineering Controls

- All electrical distribution panels, breakers, disconnects, switches and junction boxes must be completely enclosed
- Water-tight enclosures must be used if any of these components could possibly be exposed to moisture
- Structural barriers must be used to prevent accidental damage to electrical components
- Conduits must be supported for their entire length, and non-electrical attachments to conduits are prohibited
- Non-rigid electrical cords must have strain relief wherever necessary.

Administrative Controls

- Only trained, authorized employees may repair or service electrical equipment
- Contractors must be licensed to perform electrical work
- Physical barriers must be used to prevent unauthorized persons from entering areas where new installation or repair of electrical components or equipment is being performed
- Only authorized employees may enter electrical distribution rooms
- All electrical control devices must be labeled properly

Work Practice Controls

- Employees covered under this policy must wear electrically rated safety shoes or boots
- Use only tools that are properly insulated
- Non-conductive gloves will be available for work on electrical equipment
- Electrical-rated matting will be placed in front of all electricity-distribution panels.

ELECTRICAL EQUIPMENT INSPECTIONS

- Inspect all electrical equipment for hazards that could cause employee injury or death. Consider the following factors when determining the safety of the equipment
- Suitability for the intended use
- Proper insulation
- Heating effects under conditions of use
- Arcing effects
- Classification by type, size, voltage, current capacity and intended use.

PERSONAL PROTECTIVE EQUIPMENT

TCG will provide personal protective equipment for use by employees working in areas where they could be exposed to electrical hazards.

Employees are required to observe the following procedures for PPE use:

- PPE use is mandatory when contact with exposed electrical sources is likely
- Only use PPE that is designed for the work being performed

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- Inspect and test all PPE prior to use
- Use a protective outer cover (leather, for example) if the work being performed might damage the PPE's insulation
- Wear non-conductive headgear if there is danger of electrical burns or shock from contact with exposed, energized equipment
- Wear eye and/or face protection any time there is danger of flying objects, flashes or electrical arcs produced by an electrical explosion.

EMPLOYEE TRAINING

Qualified Employees

Training for those employees qualified to perform electrical work will consist of:

- Specific equipment procedures
- The training requirements outlined in OSHA standard 29 CFR 1910.331 to 1910.339.
- Unqualified Employees

Employees not qualified or authorized to perform work on electrical equipment and components will be trained in general electrical safety precautions for the purpose of hazard awareness.

The following electrical safety rules also apply to unqualified employees:

- Do not conduct any electrical repairs
- Report all electrical hazards to your supervisor
- Do not operate equipment if you believe there is an electrical hazard
- Do not allow electrical equipment or components to contact water
- Remember that even low-voltage electricity can be physically harmful
- Do not use cords or plugs that are missing the 'ground' prong
- Do not overload electrical receptacles

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**DWORSHAK SMALL HYDROPOWER FACILITY
OPERATION AND MAINTENANCE CHECKLIST**

NAME		DATE	START TIME	FINISH TIME	
INTERVAL	ITEM	ACTION		INITIALS	READING / COMMENTS
AS REQUIRED	A	RESPOND TO AUTO DIALER ALARM WITHIN ONE HOUR			
	B	COMPLETE TROUBLE REPORT & CORRECT PROBLEM			
	1	PRIMARY UNIT ALARM			
	2	PRIMARY UNIT SHUT DOWN / LOCKOUT			
	3	SECONDARY UNIT ALARM			
	4	SECONDARY UNIT SHUT DOWN / LOCKOUT			
	5	MAIN TRANSFORMER ALARM			
	6	INTRUSION ALARM			
	7	FIRE ALARM			
	8	PRIMARY UNIT SHUTDOWN, V9, V10 NOT OPEN			
	9	SECONDARY UNIT SHUTDOWN, V11, V12 NOT OPEN			
	10	FLOOR DRAIN SUMP HIGH ALARM			
	11	STANDBY GENERATOR AUTO EXERCISE FAILED			
WEEKLY	-	MAKE CHECKS SAME DAY EVERY DAY			
	1	CHECK SCADA HISTORICAL DISPLAYS FOR ABNORMAL TRENDS			
	2	PRIMARY UNIT			
		TEST START AND RUN EMERGENCY GENERATOR			
	3	STATOR TEMPERATURES -3 (°C)			ØA: ØB: ØC
	4	BEARING TEMPERATURES -2 (°C)			38DE: 38NDE:
	5	DRIVE END BEARING DISPLACEMENT			DEH: DEV:
	6	NON DRIVE END BEARING DISPLACEMENT			NDEH: NDEV:
	7	SECONDARY UNIT			
	8	STATOR TEMPERATURES -3 (°C)			ØA: ØB: ØC
	9	BEARING TEMPERATURES -2 (°C)			38DE: 38NDE:
	10	DRIVE END BEARING DISPLACEMENT			DEH: DEV:
	11	NON DRIVE END BEARING DISPLACEMENT			NDEH: NDEV:
	12	CHECK PAPER SUPPLY IN PRINTERS, ADDITIONAL PAPER REQUIRED?			NO YES
	13	POWER HOUSE TEMPERATURE UPSTAIRS			°F MINIMUM °F MAXIMUM
	14	CHECK ALL ROTATING EQUIP. FOR UNUSUAL VIBRATION OR NOISE			
	15	PRIMARY UNIT LUBE OIL FLOW:			
	16	(DE1) 38/80-P Q1 12.0 Gpm			Gpm
	17	(DE2) 38/80-P Q2 12.0 Gpm			Gpm
	18	(DE3) 38/80-P Q3 12.0 Gpm			Gpm
	19	(NDE) 38/80-P Q4 1.6 Gpm			Gpm
	20	CHECK LPU-P FOR OIL LEAKS AND RESERVOIR LEVEL			
	21	CHECK LPU-P FILTERS			
	22	CHECK PRIMARY INLET PIPING AND NOZZLES FOR WATER LEAKS			
	23	EXERCISE SLEEVE VALVE 9 (FISH HATCHERY)			Exercise done by FISH HATCHERY
	24	CHECK SEAL WATER PRIMARY UNIT			

Attachment D

DWORSHAK SMALL HYDROPOWER FACILITY OPERATION AND MAINTENANCE CHECKLIST

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