



འབྲུག་གློག་མེད་འབྲུག་རིག་ཁབ་སྟོན་ཚད་འཛིན། Bhutan Hydropower Services Limited

(A subsidiary company of



An ISO 9001:2015 Certified Company

Terms of Reference (ToR)

A. Section Officer (Site Supervisor)

The Section Office shall serve as the field-level coordination and supervision unit of BHSL and shall work under the overall direction of the designated Project Manager of the respective project site of BHSL. The Section Office shall ensure that site activities are properly planned, coordinated, monitored and reported, with particular emphasis on safety, quality, progress, manpower, equipment, materials, productivity and compliance with approved project requirements.

The purpose of the Section Office is to provide an effective field-level mechanism for:

- Supervision and monitoring of BHSL project activities.
- Coordination between BHSL, contractors, consultants and other project stakeholders;
- Monitoring physical and financial progress against approved plans;
- Ensuring compliance with approved drawings, specifications, method statements and quality requirements;
- Monitoring manpower, materials, machinery and equipment deployed at site;
- Ensuring adherence to safety, environmental and statutory requirements;
- Identifying and resolving site issues in a timely manner; and
- Providing accurate and timely information to the Project Management and Corporate Office.

Site Supervision and Work Execution:

1. Monitor fabrication, transportation, erection, installation, alignment, welding, testing and commissioning activities, as applicable.
2. Verify site measurements and quantities of completed works.
3. Monitor productivity and identify causes of delays or underperformance.
4. Ensure proper sequencing and coordination of activities among different work fronts.
5. Conduct regular site inspections and document observations.

Project Planning and Progress Monitoring

1. Monitor project progress against the approved baseline schedule of the project site.
2. Maintain daily, weekly and monthly progress records.
3. Monitor planned versus actual progress
4. Identify critical activities and potential delays.
5. Provide inputs for preparation and updating of project schedules.
6. Monitor recovery plans where activities fall behind schedule.
7. Submit timely progress reports to the Project Manager/Project Director.
8. Maintain records of site constraints affecting project progress.



Manpower Management

1. Maintain daily manpower attendance and deployment records.
2. Monitor manpower productivity by trade and work activity.
3. Identify shortages or excess deployment of manpower.
4. Coordinate with HR/Corporate Office regarding recruitment, mobilization, transfer and demobilization requirements.
5. Ensure that skilled workers are deployed according to their qualifications and competencies.
6. Monitor overtime and additional manpower requirements based on project needs.
7. Provide manpower forecasts for upcoming project activities.

Material Management

1. Monitor receipt, inspection, storage and utilization of project materials.
2. Ensure materials are available in accordance with the project schedule.
3. Maintain records of material receipt and consumption.
4. Monitor wastage and material losses.
5. Coordinate with Procurement/Stores for timely replenishment of critical materials.
6. Ensure proper identification, preservation and storage of materials, equipment and components.
7. Report shortages, damages, defects or discrepancies immediately.

Quality Control and Assurance

1. Works are executed in accordance with approved quality requirements.
2. Inspection and Test Plans (ITPs) are implemented.
3. Required inspections and tests are conducted at appropriate stages.
4. Welding procedures and qualified welders are used where applicable.
5. NDT requirements are complied with.
6. Inspection records and test certificates are properly maintained.
7. Non-conformities are identified, recorded and closed within the required timeframe.
8. Corrective and preventive actions are implemented.
9. As-built information is progressively maintained.

Health, Safety and Environment

- Monitoring daily toolbox meetings and safety briefings;
- Ensuring use of appropriate PPE & monitoring safe working practices;
- Conducting regular site safety inspections & reporting unsafe acts and unsafe conditions;
- Monitoring work permits and access controls;
- Reporting accidents, incidents and near misses immediately; and
- Supporting investigation and corrective action for incidents.



འབྲུག་ཁྲུང་ལྷན་ཁོ་སྒྲིལ་ལུ་སྤྱི་ལོ་ལྷན་ཁོ་སྒྲིལ་ Bhutan Hydropower Services Limited

(A subsidiary company of



An ISO 9001:2015 Certified Company

Documentation and Record Management

1. Daily site/ progress reports & daily manpower deployment;
2. Equipment deployment and utilization & material receipt and consumption;
3. Work completion records;
4. Site instructions & minutes of meetings;
5. Drawings and revisions & Non-conformance reports;
6. Accident/incident reports & measurement records;

Required competencies.

1. Technical Knowledge – Good understanding of hydromechanical works, fabrication, erection, installation works
2. Site Supervision – Ability to supervise daily site activities and ensure compliance with approved drawings, specifications and work procedures.
3. Planning & Coordination – Ability to plan work activities, coordinate manpower, materials and equipment, and meet project schedules.
4. EHS/OHS Awareness – Strong understanding of occupational health, safety, environmental and site safety requirements.
5. Manpower Management – Ability to allocate, monitor and coordinate workers according to work requirements and productivity at the project site.
6. Problem Solving – Ability to identify site constraints, resolve routine technical/operational issues and escalate critical matters promptly.
7. Communication & Teamwork – Effective communication and coordination with engineers, foremen, workers, contractors and project management.
8. Reporting & Documentation – Ability to maintain daily site records, progress reports, manpower records, inspection records and other project documentation.
9. Digital & Reporting Skills – Basic proficiency in MS Excel, Word, email and project monitoring/reporting systems.
10. Adaptability – Ability to work effectively under challenging project-site conditions, including remote locations and changing work requirements.
11. Integrity & Accountability – Demonstrates responsibility, reliability, transparency and adherence to BHSL policies and procedures.



B. Section Officer (Maintenance)

The effective operation and maintenance of plant, machinery, equipment, tools, utilities and other physical assets of BHSL are essential for ensuring uninterrupted production and project execution. The Maintenance Unit is therefore responsible for planning, coordinating and implementing preventive, predictive and corrective maintenance activities across BHSL's workshop, fabrication facilities, project sites and other assigned locations.

The Section Officer – Maintenance shall support the maintenance function in ensuring the availability, reliability, safety and efficient utilization of BHSL's plant, machinery and equipment and supporting the timely repair and upkeep of BHSL's machinery, equipment, workshop facilities and utilities. The position shall ensure that maintenance activities are carried out safely, systematically and in accordance with approved maintenance schedules, manufacturers' recommendations, technical standards and BHSL procedures.

Maintenance Planning

1. Prepare and maintain preventive maintenance schedules for machinery and equipment.
2. Coordinate planned maintenance activities with respective users and work sections.
3. Ensure maintenance is scheduled to minimize disruption to production and project activities.
4. Maintain an equipment-wise maintenance calendar.
5. Identify critical equipment requiring priority maintenance.
6. Assist in developing annual maintenance plans and maintenance budgets.
7. Monitor adherence to preventive maintenance schedules.

Preventive Maintenance

The Section Officer shall coordinate preventive maintenance of:

Fabrication machinery; Welding machines; CNC/VTL machines; Cutting machines; Drilling machines; Bending/rolling machines; Cranes and lifting equipment; Compressors; Generators; Pumps; Electrical systems; Workshop utilities; Hand tools and power tools; and Other mechanical and electrical assets.

Maintenance shall be carried out according to manufacturers' recommendations, equipment operating hours and BHSL's maintenance schedule.



འབྲུག་གློག་མེད་འཕྲུལ་རྒྱུ་ལས་ཁུངས་ ཏྲོག་ཚད་འཛིན། Bhutan Hydropower Services Limited

(A subsidiary company of



An ISO 9001:2015 Certified Company

Breakdown and Corrective Maintenance

The Section Officer shall:

1. Receive and record equipment breakdown reports.
2. Coordinate timely inspection and diagnosis of equipment failures.
3. Arrange necessary repair works.
4. Monitor repair progress and ensure minimum equipment downtime.
5. Maintain breakdown history for each major equipment.
6. Identify recurring failures and recommend corrective measures.
7. Conduct root-cause analysis for major or repeated breakdowns.
8. Recommend replacement of uneconomical or obsolete equipment where appropriate.

Equipment Inspection and Condition Monitoring

The Section Officer shall:

1. Conduct periodic inspection of machinery and equipment.
2. Monitor equipment condition and performance.
3. Maintain equipment inspection checklists.
4. Monitor abnormal vibration, temperature, noise, leakage and other signs of equipment deterioration.
5. Ensure timely servicing based on operating hours or equipment condition.
6. Maintain equipment history cards/logbooks.
7. Identify equipment requiring major overhaul or refurbishment

Spare Parts and Maintenance Materials

- Identification of critical spare parts;
- Preparation of spare-parts requirements;
- Monitoring minimum stock levels;
- Verification of technical specifications.
- Monitoring consumption of spare parts;
- Maintaining records of replacement parts;
- Identifying obsolete and slow-moving spares; and
- Recommending procurement of critical spares.

Maintenance Records and Documentation

1. Equipment master register;
2. Equipment history cards;
3. Preventive maintenance schedules;
4. Breakdown reports;
5. Maintenance work orders;
6. Repair records;
7. Spare-parts consumption records;



འབྲུག་ཁྲིམས་མཐོན་འཛིན་རིག་ཁབ་སྟོན་ཚད་འཛིན། Bhutan Hydropower Services Limited

(A subsidiary company of



An ISO 9001:2015 Certified Company

8. Equipment inspection reports;
9. Calibration/inspection certificates where applicable;
10. Maintenance cost records;
11. Equipment downtime records;
12. Annual maintenance plans; and
13. Other maintenance-related documentation.

Coordination with Project Sites

1. Monitor equipment condition at the various project locations of BHSL;
2. Plan preventive maintenance;
3. Respond to breakdowns;
4. Arrange technicians and spare parts;
5. Monitor equipment downtime;
6. Maintain site equipment history;
7. Support emergency repairs; and
8. Coordinate equipment return to workshop where major repairs are required.

Competencies

- Good knowledge of mechanical/electrical maintenance;
- Maintenance planning skills & Equipment troubleshooting ability;
- Knowledge of workshop machinery & Basic knowledge of electrical systems;
- Knowledge of preventive and corrective maintenance;
- Basic knowledge of CMMS/Maintenance Management Systems;
- Documentation and reporting skills & Safety awareness;
- Problem-solving skills & Ability to work at project sites and workshops.



C. Technician (Grinder)

Bhutan Hydropower Services Limited (BHSL) undertakes hydromechanical works including fabrication, erection and installation of gates, penstocks, ferrules and other hydromechanical components for hydropower projects. The Grinder is an important skilled/semi-skilled workforce supporting fabrication and welding activities by preparing, dressing, cleaning and finishing metal components to the required dimensions, surface condition and quality standards.

The Grinder shall be responsible for carrying out grinding, edge preparation, weld cleaning, dressing, finishing and related fabrication support activities in accordance with approved drawings, specifications, work procedures, safety requirements and instructions from the Supervisor/Foreman.

Grinding and Fabrication Work

1. Carry out grinding of the underwater components, pipes, penstocks, ferrules, gates and other HM components.
2. Prepare and clean welding edges before welding.
3. Remove slag, spatter and other welding residues.
4. Dress and smooth weld joints as instructed.
5. Perform grinding of tack welds where required.
6. Prepare surfaces for subsequent welding, inspection, painting or coating.
7. Remove sharp edges, burrs and excess materials.
8. Perform bevel preparation and edge dressing as per approved requirements.
9. Assist welders in preparing joints for welding.
10. Ensure the required surface finish is achieved without damaging the base material.

Weld Dressing

- Remove welding slag and spatter;
- Dress weld reinforcement where specified;
- Smooth weld transitions where required;
- Remove surface irregularities;
- Prepare welds for visual inspection and NDT;
- Assist in rectification of weld defects as directed by authorized personnel; and
- Ensure grinding does not introduce unacceptable defects or excessive material removal.

Quality Responsibilities

1. Grinding is carried out according to drawings and instructions.
2. Required dimensions and tolerances are maintained.
3. Excessive grinding of the parent material is avoided.
4. Weld surfaces are properly prepared for inspection.



འབྲུག་གློག་མེད་འབྲུག་རིག་ཁབ་སྟོན་ཚད་འཛིན།
Bhutan Hydropower Services Limited
(A subsidiary company of **DrukGreen**)

An ISO 9001:2015 Certified Company

5. No cracks, gouges or unacceptable surface damage are introduced during grinding.
6. Bevel angles and dimensions are maintained where applicable.
7. Rework identified by QA/QC or the Supervisor is properly carried out.
8. Completed work is presented for inspection as required.

Required Competencies

- Basic understanding of welding and fabrication;
- Ability to read basic work instructions;
- Basic measurement skills & Good hand-tool skills;
- Safety awareness & Physical ability to perform fabrication work;
- Ability to work at height and in confined/industrial work areas where required;
- Teamwork and discipline