

# PUNATSANGCHHU-I HYDROELECTRIC PROJECT AUTHORITY

## OCCUPATIONAL HEALTH, SAFETY & WELFARE (OHSW) GUIDELINE

### 1. PREAMBLE

This Guideline establishes minimum Occupational Health, Safety & Welfare (OHSW) standards for all construction activities at Punatsangchhu-I Hydroelectric Project Authority (PHPA-I). Compliance is mandatory for all PHPA-I personnel, contractors, sub-contractors, consultants, and visitors.

Non-compliance shall invite disciplinary and contractual action.

### 2. OBJECTIVES

- a) Prevent fatalities, injuries, and occupational diseases
- b) Promote safe systems of work
- c) Ensure safe and healthy working conditions
- d) Safeguard welfare and dignity of workers
- e) Establish clear accountability

### 3. SCOPE

Applicable to:

- Dam & spillway works
- Underground Tunnels & Powerhouse
- Slope stabilization
- E&M (including domestic, distribution & sub-transmission lines)
- Switchyard & Substations
- Camps, Workshops, Laboratories & Logistics areas

### 4. OHS POLICY STATEMENT

PHPA-I is committed to:

- "Zero Fatality" target
- Reduction of Lost Time Injuries (LTI)
- Compliance with national laws and international best practices
- Continuous improvement in safety culture

All levels of management shall demonstrate visible leadership in safety.

### 5. ORGANIZATIONAL RESPONSIBILITY

#### 5.1 Managing Director

Overall accountability for OHS performance.

#### 5.2 Safety Officer

Implementation and monitoring of OHS systems.

### **5.3 Engineer-In-Charges/Heads of Divisions & Units**

Enforcement at respective work fronts.

### **5.4 Contracting Agencies**

Primary responsibility for workers' safety.

### **5.5 Workers/Employees**

Right to refuse unsafe work and duty to follow procedures.

## **6. RISK MANAGEMENT FRAMEWORK**

### **6.1 Hazard Identification**

- Job Safety Analysis (JSA) mandatory
- Pre-task risk assessment
- Daily toolbox talks

### **6.2 Risk Control Hierarchy**

- Elimination
- Substitution
- Engineering controls
- Administrative controls
- Personal Protective Equipment (PPE)

## **7. PERSONAL PROTECTIVE EQUIPMENT (PPE)**

### **7.1 Mandatory PPE**

- Safety helmet
- High visibility vest
- Steel toe boots
- Gloves
- Safety goggles

### **7.2 Task-Specific PPE**

- Respirators (dust/tunnel works)
- Hearing protection (Dam site/blasting areas)
- Full body harness (height work)
- Life jackets (near river/spillway)

PPE must be certified and inspected regularly.

## **8. SAFE WORK PRACTICES**

### **8.1 Working at Height**

- Approved scaffolding
- Double lanyard harness
- Edge protection
- Permit required above 2 meters

## **8.2 Underground Works**

- Continuous ventilation
- Gas detection monitoring
- Emergency refuge chambers
- Escape routes clearly marked
- No lone working

## **8.3 Blasting Operations**

- Licensed blasters only
- Controlled blasting schedule
- Warning siren system
- Post-blast gas testing
- Blast record maintenance

## **8.4 Lifting Operations**

- Approved lifting plan
- Certified crane operators
- Load test certificates
- Barricaded exclusion zones

## **8.5 Electrical Safety**

- Lock-Out/Tag-Out (LOTO) mandatory
- Only authorized electricians
- Insulated tools
- Earthing verification

## **8.6 Confined Space Entry**

- Entry permit system
- Gas testing
- Standby attendant
- Rescue plan available

## **8.7 Traffic & Equipment Safety**

- Speed limits enforced
- Designated pedestrian walkways
- Reverse alarms & flashing lights
- Operator certification required

# **9. OCCUPATIONAL HEALTH MANAGEMENT**

## **9.1 Medical Screening**

- Pre-employment medical examination
- Periodic health check-ups
- Fitness certification for high-risk tasks

## **9.2 Occupational Disease Prevention**

- Dust suppression measures
- Noise monitoring
- Adequate ventilation
- Regular audiometry tests

## **9.3 Heat & Cold Stress Management**

- Work-rest cycles
- Hydration stations
- Weather monitoring

## **10. WORKERS' WELFARE PROVISIONS**

### **10.1 Accommodation**

- Safe and hygienic camps
- Adequate lighting & ventilation
- Fire safety compliance

### **10.2 Sanitation**

- Separate toilets for men & women
- Safe drinking water
- Waste disposal system

### **10.3 Canteen & Nutrition**

- Hygienic food preparation
- Regular inspection
- Balanced nutrition

### **10.4 Grievance Redressal**

- Worker complaint mechanism
- Confidential reporting
- Protection from retaliation

## **11. EMERGENCY PREPAREDNESS**

- Emergency Action Plan (EAP) implemented
- First aid centers at all work fronts
- Ambulance available 24/7
- Trained first aiders
- Emergency contact lists displayed

Quarterly mock drills mandatory.

## **12. INCIDENT REPORTING & INVESTIGATION**

### **12.1 Reporting Timeline**

- Immediate reporting of serious incidents
- Preliminary report within 12 hours

- Detailed investigation within 7 days

However, even minor incidences are also required to be reported as soon as possible.

## **12.2 Investigation Focus**

- Root cause analysis
- Corrective & preventive actions
- Lessons learned dissemination

## **13. TRAINING & COMPETENCY**

Mandatory training includes:

- Site safety induction
- Job-specific training
- Working at height training
- Blasting certification
- First aid & CPR
- Fire fighting

Refresher training annually.

## **14. SAFETY MONITORING & AUDIT**

- Daily site safety inspection
- Monthly safety audit
- Quarterly safety meeting
- Third-party safety review (periodic)

### **Safety performance indicators:**

- Lost Time Injury Frequency Rate (LTIFR)
- Total Recordable Incident Rate (TRIR)
- Near-miss reporting rate

## **15. DISCIPLINARY ACTION**

Violations may result in:

- Warning notice
- Work suspension
- Removal from site
- Contractual penalty

## **16. DOCUMENTATION & RECORDS**

Maintain records of:

- Training
- Medical checkups
- Incident reports
- Inspection logs
- PPE issuance

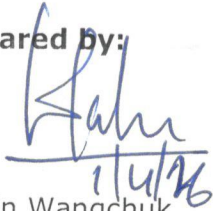
Records retained minimum 5 years.

## 17. REVIEW & CONTINUOUS IMPROVEMENT

This guideline shall be:

- Reviewed annually, if needed
- Updated after major incident
- Improved based on audit findings

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