PERSONAL PROTECTIVE EQUIPMENT MANAGEMENT

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Document Change Note

Rev. No	Rev. Date	Comments / Changes
00	2-12-2022	New Issue
01	25-8-2025	Responsibility matrix, PPE Matrix, General PPE requirements, Use of PPE, Replacement criteria

CONTENTS

1. PURPOSE

The purpose of this procedure is to safeguard the employee from the hazards which are potential to cause injury and adversely affect the health.

When engineering and administrative controls are not adequate or not feasible from technical/ financial reasons, Personal Protective Equipment (PPE) is considered to create a barrier between hazard and the human. In case of an eventuality the PPE will reduce the consequence to the minimum.

2. SCOPE

This procedure shall apply to all AMNS project sites and related work areas including contractors to meet:

- Legal and regulatory requirements
- AMNS H&S requirements
- ISO 45001 standard requirements
- AMNS H&S Policy

3. DEFINITIONS AND ABBREVIATIONS

3.1 DEFINITIONS

Personal Protective Equipment: Equipment designed to worn by personnel to protect themselves against work related hazards which may endanger their health/ safety. A barrier between the hazard and the exposed person to mitigate the effects of exposure to the hazard

Supervisor: Any person at supervisory level from AMNS who is in charge of a particular activity/ contractor and/or the contracted work being performed

ToolBox Talk: A specific talk to the people related to carry out the task that day, held at the start of the shift or prior to the task being undertaken.

3.2 ABBREVIATIONS:

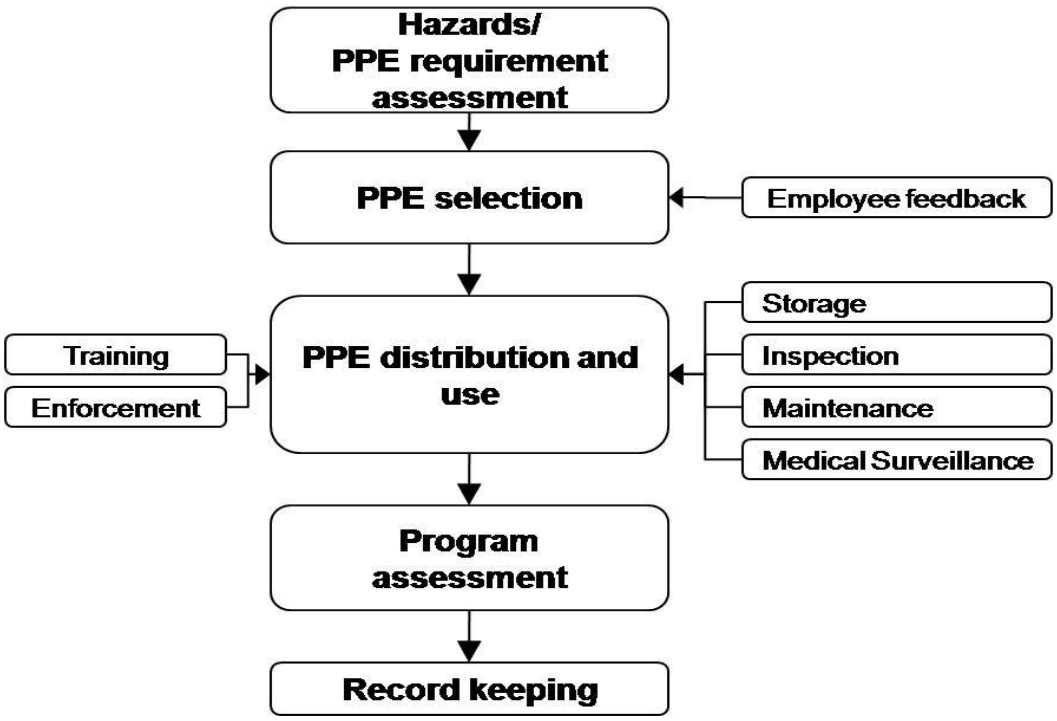
- PPE - Personal Protective Equipment
- SABA - Supplied Air Breathing Apparatus
- SCBA - Self Contained Breathing Apparatus
- JSA - Job Safety Analysis
- RPE - Respiratory Protective Equipment
- BS EN - British Standard European Norm
- ANSI - American National Standard Institute
- IS - Indian Standard

4. RESPONSIBILITY

- Project Head is responsible for the overall implementation of this procedure.
- Site Engineer is responsible for obtaining the necessary PPE as identified in the risk assessments, ensuring employees are made available and attend the required training, and for verifying that PPE is properly used.
- Safety department is responsible for providing technical assistance to operations, assisting with hazard assessments as needed, interpreting PPE requirements, managing the PPE training and auditing the program for compliance.
- Employees are responsible for wearing and maintaining the PPE as instructed and inform their supervisor if there is a problem with PPE, or its use and maintenance.
- Workers are responsible to follow all instructions given by their supervisor and inform their supervisor if there is a problem with PPE, or its use and maintenance.
- The correct use of PPE as required by procedures, safety documents, warning signs, etc. is considered a condition of employment. Any employee who does not comply with the PPE requirements will be subject to disciplinary action.
- Visitors are responsible for implementation of mandatory PPE for site visit and safety shoes for office visit.

5. PPE MANAGEMENT PROCESS

5.1. FLOWCHART



5.2. PPE REQUIREMENT ASSESSMENT

The use of PPE will be based on the Risk Management which identifies the reasonably foreseeable risks of the work location and the task to be undertaken. Additional PPE may be identified through job specific risk assessments.

Project Head shall be notified by the contractor well in advance about the date and time of deployment of his manpower and equipment (if applicable). Subsequently, the user department shall inform H&S department about the date and time of starting their work.

PPE requirements are identified through Hazard Assessment for the given tasks. A hazard assessment for PPE requirements shall be performed for each work activity. The assessment findings shall be documented.

When evaluating the type of PPE to be used, a physical inspection of the work area may be required. Potential hazards along with existing controls in place should be identified and documented. Potential hazards include:

- Sources of motion (machinery, mobile handling equipment, movement of personnel that could result in collision with machinery, etc.).
- Sources of high temperature that could result in burns, eye injury, ignition of clothing, etc.
- Sources of chemical exposure, including fumes, dust, etc.
- Sources of radiation
- Sources of falling objects or potential for dropping objects
- Sources of sharp objects that could cause penetration injuries
- Sources of rolling objects or pinching objects that could injure hands and feet.
- Electrical hazards
- Layout of the workplace and location of co-workers.

Prior to specifying PPE, engineering and administrative controls shall be considered. The feasibility of engineering and administrative controls shall be evaluated as part of the risk management (refer to AMNS-Project-SS-H&SM-08 - HIRAC Procedure) and the related requirements.

5.3. PPE SELECTION AND APPROVAL

Employee input shall be obtained randomly on suitability, comfort and quality of protection from employees.

The appropriate type, style, and size of PPE shall be selected and made available to control the hazards identified in the assessment.

All approved PPE shall be specified to meet required regulatory standards of manufacturing.

5.4. PPE – GENERAL REQUIREMENTS

Based upon the results of the hazard assessments, the minimum PPE requirements are established as follows. These requirements will fall into one of two categories:

a) Basic requirements – Typically comprising:

- Safety Helmet
- Safety footwear with steel toe with high ankle
- High visibility vest/jacket
- Safety Goggles

b) Task specific requirements – For example:

- Hand protection - cut resistant gloves, chemical resistant gloves
- Respiratory protection - dust mask, respirator, self-contained breathing apparatus
- Body protection – Boiler suit, chemical apron, leather apron
- Head/ eye protection – Safety helmet, face shields, safety glasses, welding goggle.
- Fall protection - Full body safety harness with shock absorber and suspension trauma strap.

5.4.1 BODY PROTECTION & DRESSING FOR SAFETY

All employees are required to wear safe, sensible clothing, suitable for the job they are performing. The following general rules shall be followed:

- Work garments cannot be loose fitting. No long, loose clothing such as neckties, clothing with fringes, flaps, or cords, or torn, ragged clothing be worn at work sites.
- Shirts must be always tucked into trousers.
- Long sleeve shirts must have cuffs buttoned when near or working around moving/rotating equipment and hot materials.
- Jewelry such as rings, bracelets, exposed/ dangling neck chains, key chains must not be worn where there is a significant risk that it could get caught or snagged in mechanical, electrical or rotating equipment.
- Long hair must be tied back or completely confined in hard hat or hair net.
- High visibility clothing shall be worn when working during night
- Chemical resistant coveralls and/or aprons of the type specified in the MSDS shall be worn when handling chemicals, oils, powders, dry cement etc.
- Flame retardant coverall shall be worn when performing ‘hot work’ .e.g. welding, cutting, using a flame torch etc.
- The need for other specialized protective equipment (full body suits, aprons, etc.) will be defined by hazard assessments

5.4.2 HEAD PROTECTION

Where there is a danger of injury to an employee's head exists or may exists, then the person shall wear a Safety Helmet (FRP) & the same shall be ensured by his supervisor. All employees, contractors and visitors must wear approved safety helmet (FRP) while on project execution site.

Use of chin straps of safety helmet is mandatory.

Head protection requirements may also display at work sites in the form of safety signs.

5.4.3 EYE PROTECTION

- All employees must wear approved safety glasses with permanent side shields while on plant premises as it is mandatory requirements in PPE's. Tinted/ dark glasses are not permitted indoors.
- Visitors who wear prescription eyeglasses may wear temporary side shields on their glasses, provided they are only passing through work areas.
- Tinted/ dark safety glasses may be provided to protect against extreme sunlight when working in open areas.
- Welding hood with proper shade lens must be used while carrying out arc-welding.
- Cutting goggles with proper shade lens must be worn when welding or cutting with an oxygen-acetylene torch.
- Full-face shield and safety glasses or goggles must be worn when grinding, chipping, handling chemicals or working around hot materials.
- Employees needing prescription glasses must comply with these requirements. Until prescription safety glasses are acquired "over glasses" must be worn over prescription glasses.

5.4.4 HAND PROTECTION

- Supervisor / Engineer shall ensure that all the workers wear suitable, properly fitted hand gloves to protect hand & arm for the task which they perform.
- General use cotton or leather gloves shall be worn to protect hands against minor cuts and abrasions from general work activities.
- Chemical resistant gloves or gauntlets of the type specified in the MSDS shall be worn when handling chemicals or oils.
- Cut resistant ("e.g. Kevlar type") gloves must be worn when handling sharp objects or using sharp tools.
- Heat resistant gloves with tight wrist bands, long sleeves and arm protectors must be worn when handling hot material or working on hot equipment.
- Electrical Supervisor / Engineer shall conform correct and appropriate rated electrical gloves are selected and used for the specific task.

5.4.5 FOOT PROTECTION

- Employees are required to wear company-approved footwear. The preferred footwear is laced steel toed work boots with high ankle support to protect against potential injuries due to twisting, straining, falling objects, heavy rolling objects, puncture and ingress of hot materials/ chemicals.
- When working in debris/ soil, gum boots with steel toes shall be worn by workers.
- Visitors and/or temporary contractors must wear steel toed safety shoes.

5.4.6 HEARING PROTECTION

- Hearing protection is required whenever an employee exposed to noise at levels that may exceed 85 dB or regulatory specified exposure limits.
- The project site shall provide a selection of earmuffs/ earplugs, and employees can choose from these to find a hearing protective device that is comfortable and effective.
- Employees are required to keep hearing protection devices clean and wear them as prescribed.

5.4.7 FALL PROTECTION

Safety harness with shock absorber and suspension trauma strap & engineered lifeline shall be provided, worn and properly secured in all work situations:

- Where there is no fixed work platform, access and or
- Where there is a chance of falling from the height of 1.8 meter and above
- Confined space entry (for rescue purpose)
- Working in depth (for rescue purpose)
- Work over water

The supervisor/ engineer shall ensure that appropriate fall protection devices include full body harnesses, lanyard with shock absorber, suspension trauma strap with fall arrest systems, overhead fall protection devices are made available and used by workers while working at height more than 1.8 meters.

Refer Working at Height Safety document (AMNS/Project/TS/H&SM/04) for additional information.

5.4.8 RESPIRATORY PROTECTION

Any task hazard assessment identified the need for respiratory protection must be provided with suitable respirator to the personnel carrying out the task/ exposed to such hazards and trained in the use, inspection and care of the respirator.

- Dust masks or respirators must be worn when exposed to non-hazardous particulate matters or as specified in the risk assessment/ JSA.
- Toxic vapor respirators with approved cartridges must be worn by all persons involved in spray painting, toxic chemical handling, or as specified in MSDS.
- Supplied Air Breathing Apparatus (SABA) must be used in all hand sandblasting operations.
- Self-Contained Breathing Apparatus (SCBA) shall be provided and personnel shall be trained on handling and use where it may be required based on the hazards identified.
- It must be ensured by the Project Head and H&S Manager that the employees are properly trained and experienced in selection & use of such RPE.

5.5. PPE DISTRIBUTION

PPE shall be distributed from directly from Site Stores. PPE shall only be distributed to those employees who are physically capable of using the equipment.

5.6. PPE INSPECTION/MAINTENANCE/STORAGE/DISPOSAL

Employees shall inspect their PPE prior to each use and maintain it in a safe working condition. Defective equipment shall be repaired or discarded and replaced. Replacement parts or equipment can be obtained by employees by bringing the defective ones. Disposal of damaged PPE to be ensured as per requirements.

5.7. HAZARDS & DISPLAY OF PPE REQUIREMENTS AT WORK SITE

All the work area is to be identified after the survey at the initial stage of the project jointly by the Project Head and the H&S Manager and select the appropriate cautionary boards to indicate applicable PPE for the work site both in pictorial and written. The writing will be in local language or language understood by majority of the work force. In addition, concerned supervisor to ensure that appropriate cautionary boards shall be displayed near the work area.

5.8. DEVIATION CONTROL

In case of deviation in implementing use of PPE due to certain technical reason & limitation of work site must be reviewed jointly by Project Head, Site Engineer and the H&S Manager and ensure alternative suitable arrangements are made. The records of such deviations shall be maintained by the H&S department till the completion of the project.

In case of serious noncompliance to any element of H&S plans and repetitive non-compliance to PPE as laid down in H&S plan, the workers shall be issued safety default in writing and may also be imposed with penalties commensurate with the nature of safety default.

5.9. REPLACEMENT AT THE END OF USEFUL LIFE

Unless otherwise replaced because of damage or wear, PPE will be replaced as follows:

Safety shoes	every year
Gum boots	6 months
Safety helmet	Every 3 year
High visibility vest	6 months
Full Body Harness	Until the availability of valid third-party certificate
Respiratory protection cartridge (daily use)	every month, unless otherwise specified by manufacturer
Electrical gloves	Every year (unless there is an annual testing program)
Consumables like ear plugs, hand gloves	As required

6. TRAINING

The H&S Manager shall ensure that all the personnel have undergone H&S Induction training in which selection, use & maintenance of PPEs will be one of the training modules. The level of training will vary with the type of PPE, but will include at least-

- Purpose of PPE
- Selection of PPE
- Limitations of PPE
- Use, care & Disposal of damaged PPE

Daily Toolbox Talk by the supervisor and Mass Toolbox Talk by the H&S department must include selection, use & maintaining of PPE.

7. RECORDS

Records pertaining to the inspection, training & toolbox talk shall be maintained by the H&S department till the completion of the project.

S. No.	Title	Maintained by	Retention period
01	Hazard Assessment	H&S Department	Until completion of project
02	PPE Evaluations	H&S Department	Until completion of project
03	Training attendance records	H&S Department	Until completion of project
04	PPE distribution record	Stores	Until completion of project

8. REFERENCE DOCUMENTS

S. No.	Format No.	Standard Name
1	AMNS/Project/SS/H&SM/08	HIRAC Procedure
2	AMNS/Project/SS/H&SM/05	Training, Awareness and Competence
3	AMNS/Project/TS/H&SM/04	Working at Height Safety

9. ANNEXURES

Annexure A : PPE SPECIFICATION
Annexure B : PPE MATRIX

Annexure A

PPE SPECIFICATION

PPE	STANDARD
Industrial Safety Helmet	EN 397/ ANSI Z89.1/ IS 2925
Spectacle type	BS EN 166 or ANSI Z87.1
Safety Sun glass	BS 2724 + BSEN 1836
Goggles and face screen	BS EN 166 or ANSI Z87.1
Non-ionizing radiation arising during welding or similar operation	BS EN 175
Filters for eye protectors used in welding and similar operations	BS EN 169:1992
Eye Protection used in grinding	BS EN-175
Safety Shoes / Boots	ANSI Z41-1991 BS 1870 EN-345-1:1992 IS 11226, IS 14544, and IS 15298 Part 1 & 2
Gloves suitable for general industrial use	BS EN 1651 - BS EN 1651:1986
Specification for Rubber Gloves for Electrical Purposes. Gloves shall be rated for the voltage of the equipment to be worked on.	BS EN 697 - BS 697, 1986 IS 4770
Heat resistant gloves	BS EN 407 - BS EN 407:1994
Protective gloves against mechanical risks	BS EN 388:1994
Protective Gloves Against Chemicals and Micro-Organisms	BS EN 374 (Parts 1 To 3)
Protective Gloves Against Ionising	BS EN 421:1994
Welding & Grinding	IS 6994
Body Protection	EN367, EN467 & NFPA 2112.
Hearing Protectors – Ear muffs	BS EN 352-1: 1993
Hearing Protectors – Ear plugs	BS EN 352-2:1993
Ear muffs attached to a safety helmet.	BS EN 352-3:1997
Full Body Harness	IS 3521 or BS EN361
Fall arrest system	BS EN 363
Lanyard	BS EN 354
Air purifying respirators - with an air purifying filter cartridge or canister that removes specific contamination	BS EN 141/143/371/372 or approved by MSHA / NIOSH
Self Contained Breathing Apparatus	BS EN 12021:1999 or approve by MSHA / NIOSH

Annexure B

PPE REQUIREMENTS MATRIX

Activity	 HELMET	 SAFETY SHOES	 GOGGLES	 HIGH VISIBILITY VEST	 FACE SHIELD	 HARNESS	 WELDING SHIELD	 FILTER MASK	 EAR PROTECTION	 GLOVES
Site Visit / Inspections										
Using Hand Power Tools										Cotton
Welding										Leather
Height Work										
Material Handling										Cotton
Painting										Chemical
Chemical Handling										Chemical
Electrical										Electrical
Excavation		Gum boots								
Using Jack Hammer										
Gas Cutting					Tinted					Leather
Blasting										Cotton