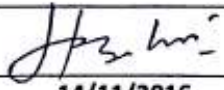



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HZL Standard

Personal Protective Equipment (PPE)

	Issued by	Approved by
Name	Chairman, Corporate SRP Sub-committee	Chairman Corporate Safety Council
Sign.		
Date	14/11/2016	

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REVISION LOG

REVISION NO:	REASON FOR CHANGE(S):	DATE:
01	<ul style="list-style-type: none">Recent learning from multiple incidents	22/10/2016
	<ul style="list-style-type: none">To clear ambiguity in few areas	
	<ul style="list-style-type: none">Change of company LOGO	
	<ul style="list-style-type: none">New requirements	
	<ul style="list-style-type: none">Standard Document No..	

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Acknowledgement The management acknowledges the contributions of the following individuals for being a part of the Zone / location workgroup and for their assistance in preparing this standard on PPE.

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Appendix	PPE Knowledge Handbook	Separate

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1.0 Purpose

The purpose of this standard to ensure proper selection, use and maintenance of personal protective equipment to minimize the potential for personnel exposure to safety, health & environment hazards.

2.0 Scope

The standard is applicable across all units of HZL.

(Includes employees, visitors and contractors across all sites including offices)

Each of the above sites will continue to meet or exceed all government and company standards and regulations established for the area, region or location of operation.

3.0 References

Corporate Safety Policy

- Corporate Safety principles
- Related Corporate Standards.
- Applicable statutory requirements
- Applicable IS standards, CE, EN standards

4.0 Management Responsibilities

Line management has the responsibility to implement this standard. Employees are responsible for using and caring for PPE as required by the company standards, Procedures & Site Work Instructions.

5.0 Definitions

Adequately Trained - All personnel handling, storing & maintaining PPE must have appropriate training based on Manufacturer's guidelines and internally defined criteria for specific operating conditions.

Approved PPE list - A list of personal protective equipment specified for use at the operating site. Provisions for ordering equipment on this list should be available.

Decontamination of PPE -The process of removing contamination from all surfaces of Personal Protective Equipment in a manner that does not contaminate the individual performing the task.

Hazardous task- Hazardous tasks are those tasks which by the nature of the exposure can cause immediate or long-term harm to the individual performing the task if left unprotected.

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Line Management- Managers and supervisors who are in the line of command of a primary function of their organization, business, location or site such as the Plant Head, Maintenance Head, Divisional Heads, Sectional Heads, front line officers at all site or, offices.

Personal protective equipment (PPE)- Devices worn to protect against Safety, Health & Environment hazards. Respirators, gloves, hearing protectors, work clothing, fire resistant clothing, chemical protective clothing, welding clothing, fall protection, safety glasses are some examples of PPE.

PPE Matrix - A PPE Matrix is a document that tells employees which PPE is required to wore while entering inside section or department.

6.0 General Requirements

This standard is intended for the selection, use and maintenance of PPE to minimize the potential for personal exposure to Safety, Health & Environment hazards. This standard shall be administered by each site where employee protection is required.

Line management at each location shall determine the scope of the PPE standard for their respective sections and operations. The program shall include the following key elements:

- Safety, Health & Environment Hazard Evaluation and Control
- Personal Protective Equipment Selection
- Training
- PPE Use
- PPE Maintenance, Storage and Cleaning
- Program Administration, Documentation and Evaluation
- Enforcement and Inspection

6.1 Safety, Health & Environment Hazard Evaluation and control

Each unit shall ensure that the workplace environment is reviewed periodically to identify and evaluate the potential safety, health & environment hazards present. Take help from GN07.

In addressing safety, health & environment hazards, every effort shall be made to control exposure to such hazards by means of technically and economically feasible engineering and administrative controls. Until these controls are functional, or in those circumstances where employee exposures to hazards cannot be avoided or effectively controlled, appropriate PPE must be used.

In addition, PPE may be used as precautionary protection for specific tasks. While carrying out this review PPE requirement for each section / plant shall be selected based on workplace hazards and existing control measures deployed at that specific area/ location.

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Each site shall maintain an Approved PPE list based on this survey. Employees shall use only equipment found on this list within the site. Recommended plant / section wise PPE Matrix (minimum mandatory PPE requirement) is to be listed by as per requirement of units. Site may use this list as a guide to select minimum mandatory PPE requirement for each section/ plant.

6.2 Personal protective equipment selection

The PPE listed below is the minimum mandatory PPE required to be worn while entering inside through factory gate to offices.

- Safety Helmet
- Safety Shoes

At times a higher level of PPE may be required by the procedure or due to the task being carried out. All PPE's shall be selected PPE Standard. If desired type of PPE cannot be found on a Corporate PPE Standard, then following criteria shall be used for selection;

- Physical hazards & Chemical hazards
- Task requirements
- Potential and consequences of PPE failure
- Durability & Duration of use
- Regulatory requirements
- PPE certification and requirements of applicable standard setting organizations for your location (for example IS, ANSI, CE, ISO, etc.).
- User is physically able to utilize
- Fit, comfort, individual needs, and user acceptance.

The need for and selection of PPE shall be determined by Line Managers in Consultation with site safety personnel. Medical consultation shall be sought where appropriate. Refer appendix –A as PPE guide for PPE selection and use.

All plant, sections shall have clearly visible signages, instructions defining the use of minimum mandatory PPE while entering in the respective areas, as indicated in fig.-

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Fig. 1 – PPE display board



6.3 Training

PPE users and their immediate supervisors shall be trained in the proper use, maintenance, and limitations of the PPE prior to its use. Training shall be conducted by individuals who have a thorough understanding of the topics covered in the training. Training of PPE users and supervisory personnel shall include a review of:

- The types of hazards present in the workplace.
- The rationale for the selection of specific PPE.
- The capabilities and limitations of the selected PPE (including routine and emergency use).
- Appropriate procedures for putting on and taking off PPE.
- Maintenance, inspection, cleaning, and storage procedures.
- All training records shall be kept in accordance with site record retention procedure which shall be verified to meet governmental requirements.

6.4 PPE use

All PPE must, at minimum, meet regulatory and company defined standards. All areas and tasks for which PPE is needed under expected routine or non-routine operating conditions shall be clearly displayed in each facility and must be documented in respective Safe Work Procedure (SWP). The type of PPE required shall also be documented for each area and task. PPE must be

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inspected prior to use and as appropriate during each use for defects such as holes, tears, scratches, signs of material deterioration, cracks, poor closure or any other sign of degradation which may affect the PPE performance.

PPE with defects shall be immediately removed from service and replaced. Potentially contaminated PPE shall not be worn in designated clean areas (for example offices, control rooms, lunch rooms, and clean change rooms). Potentially contaminated PPE shall be cleaned, laundered, or disposed of as deemed appropriate by each facility. Site shall establish schedule for replacement of PPE. All PPE suspected to have been affected during an incident / accident shall be inspected prior to use. Following requirements apply to the various types of PPE listed below.

6.4.1 Head protection

Safety helmet shall be worn mandatorily with chin strap in place while entering the factory.

Glass fiber reinforced plastic helmets are recommended for protection of head. HDPE helmets may be allowed where exposure to fire, hot object is not anticipated.

Bump caps are not substitutes for Safety helmets. Metal Safety helmets shall not be used. Safety helmet must conform to the IS: 2925-1984. Safety helmet must be worn with the brim in the front except when an employee is welding or performing other similar activities. Safety helmet must be inspected for cracks or other evidence that the hard hat needs to be replaced. Safety helmet and their attachments should be replaced at intervals specified by the manufacturer.

Anyone working on company premises with scalp hair longer than the top of his/her shoulders must tie-up and restrains the hair within the hard hat or coveralls, shirt or jacket collar.

Bump caps instead of helmet are suitable for working under vehicles. A bump cap is a lightweight hard hat using a simplified suspension or padding and a chin strap. Bump caps are used where there is a possibility of scraping or bumping ones head on equipment or structure projections, but are not sufficient to absorb large impacts, such as that from a tool dropped from several stories.

Employees are not allowed to modify Safety helmet in any way, such as drilling additional ventilation holes. The helmets should be color coded for the following groups;

Employee (White), Visitors (Blue), Contractors (Yellow). Vehicle drivers, not under contract (Orange), Fire personnel (Red)

All helmets will display stickers that identify the Employee's/contractor's Company Logo and Name.

6.4.2 Hand Protection

All Employees shall be provided adequate and suitable hand protection while handling chemicals, hot materials, rough & sharp objects, toxic & corrosive materials, electricity.

The material of the protective equipment shall be suitable for the operation ensuring proper protection against the hazard.

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6.4.3 Eye and face protection

Protection against impact, particles, chemical splash, molten material, or flash shall be provided for face, neck, and eyes.

Safety Glasses/Safety Goggles

All employees performing work requiring eye protection must wear safety spectacles with side shields. The frames, lenses, and side shields must meet the requirements of the Standards. Each employee who wears prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in its design, or wears eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

Additional types of eye protection may be required, depending on the hazard involved. While the site does not prohibit the wearing of contact lens, Company does not recommend their use. Appropriate eye protection must be worn where eye protection is required. Face shields are not substitutes for eye protection. Use of safety glasses is not suitable for Shaft Sinking operations.

Face Shields

Face shields are to be used during activities such as, hand grinding, welding, and handling chemicals and corrosive liquids, power chipping, removing or installing ceiling panels and drilling above shoulder height and where dictated by a formal risk evaluation. Only wire mesh face screen are allowed for Shaft sinking operations.

6.4.4 Respiratory protection

Respiratory equipment must be worn in areas where health hazards exist due to accumulations of dust, fumes, mists, vapors or toxic gases. Approved respirators shall only be used for the purpose for which they were originally intended and must not be modified in any way. Respirator users shall comply with the IS standards, Manufacturers guidelines. Employee who wears respirator must be clean shaven and undergo respirator fit test for that respective model.

6.4.5 Hearing protection

Ear plugs or ear muffs protect the ears from noise by reducing the amount of noise the ear receives. Employees exposed to noise levels that exceed 85 dB, must wear hearing protection. Ear protection devices inserted in the ear or earmuff shall conform to national or international standards and shall be fitted individually.

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Plain cotton/cloth is not an acceptable protective device. Also in case of high noise ($> 100\text{dB}$); combination of ear plug along with ear muff can be used but exposure time should not be more than half an hour.

6.4.6 Clothing

A minimum requirement for all male and female persons working on HZL sites includes the wearing of tight clothing. (No loose clothes are allowed and only full sleeves shirts are allowed)

Fluorescent Jackets - Following persons shall wear the fluorescent jackets/strips while performing work at site.

All contract employees

All CV/Material handling equipment drivers & helpers/Signalmen

Employees working in the areas where Vehicle/Aggregates Rectification, Dispatch etc. All security personnel.

Fire retarding clothing/flash protection

Fire retarding clothing shall be worn by all persons working in an area where a process malfunction, electrical flash, welding, cutting or burning is likely to occur and expose them to burn hazards. For tasks or areas where fire retarding clothing is required, short sleeves shall not be worn. Full flash protection shall be worn when performing all operations or maintenance activities which are deemed likely to result in an electrical flash from an arc of greater than 2,300 Volts. (Full flash protection must confirm to NFPA 70 E)

Chemical protective clothing

Used to protect the whole body except face, hands and feet from chemicals. Must be used while handling of liquids that can splash and can damage skin.

Impact Protective clothing

Used to protect body from flying objects, rough articles, grinding burrs, shot/sand blasting, machining or any other significant physical impacts.

6.4.7 Electrical protection

Where there are potential electrical hazards, electrical protective equipment appropriate for the specific parts of the body including electric safety shoes to be worn as applicable.

6.4.8 Heat and cold stress protection

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Proper protective equipment shall be provided to protect against high and low temperature extremes.

6.4.9 Foot protection

Foot protection with closed composite fiber toes shall be worn in areas where objects could present a foot hazard. All persons entering in to factory areas are required to use safety shoes. Safety footwear shall be well constructed of suitable material for the exposure it is intended to receive and shall provide wear ability and comfort. Full bridged metatarsal protection is recommended for concrete breaking, construction rigging and other heavy work. Any modification or tampering of safety shoes is prohibited.

6.4.10 Fall arrest systems

Positive fall protection (Full body harness, fall arrestor, rope grab etc.) is required for all elevated work areas in excess of 1.8 meters. Where fall arrest systems are required, a full body harness with shock absorbing lanyards made of synthetic rope shall be used. Snap hooks on lanyards shall be double locking or double acting.

Lanyard length should not exceed 1.8 meter. While moving at height one of the lanyard hooks must be tied to solid structure/lifeline. A pre use inspection procedure shall be established. All safety harness shall confirm to Indian standards or equally approved standard and shall be equipped with two shock- absorbing lanyards.

Safety Nets: (IS: 11057 1984)

- Safety nets shall be provided when working places are more than 8 meter above the ground or water surface or other surfaces where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines or safety belts is impracticable.
- Where safety net protection is required operations shall not be undertaken until the net is in place and has been tested.
- Nets shall extend 2 meters beyond the edge of the work surface where employees are exposed and shall be installed as close under the work surface as practicable but in no case more than 6 meter below such work surface. Nets shall be hung with sufficient clearance to prevent user's contact with the surface or structures below.
- The mesh size or nets shall not exceed 15 cm. By 15 cm. And nets shall be certified by the manufacturer for its proof test.
- Forged steel safety hooks or shackles shall be used to fasten the net to its supports.

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6.4.11 Other PPE

The need for other PPE shall be assessed at each location for any categories which have not already been covered in this document. Other potential workplace hazards which may require the use of specialized PPE include biological agents, over water and radiation.

Standard requirement for Seat belts –3 point contact (not normally classified as PPE) as per IS 15139 (2002): Automotive Vehicles including HEMM -- Safety Belt Anchorages.

An arrangement of straps with a securing buckle, adjusting devices and attachments which is capable of being anchored to a vehicle and designed to diminish the risk of injury to its wearer, in the event of collision or abrupt vehicle deceleration by limiting the mobility of the body of wearer. Such an arrangement is referred to as a ‘belt assembly’, a term also embracing any device for energy absorption or belt retraction.

6.5 PPE maintenance, storage and cleaning

All maintenance activities, including the installation of PPE replacement parts, shall be performed in accordance with the manufacturer’s recommendations unless an alternative documented maintenance and repair procedure has been approved by Corporate Safety. Installation of PPE replacement parts shall only be performed by individuals adequately trained to conduct these activities. Personal protective equipment shall be stored in a clean environment to prevent cross contamination with other contaminated clothing or chemical agents in the area. The storage location of PPE shall be selected to prevent exposure to other damaging conditions (rain, sunlight, humidity etc.), which may cause the equipment to become defective. Employees should be issued PPE for their exclusive use whenever possible. Sharing of equipment should be discouraged. Where sharing is necessary, equipment should be sanitized between uses.

6.6 PPE disposal

Potentially contaminated PPE and work clothing shall not be taken home. A decontamination and laundry procedure that address the handling of contaminated and potentially contaminated personal clothing shall be documented. All PPEs which got damaged, got wear and tear due to poor handling / used to its full potential, contaminated due to adequate use, meets criteria for rejection (after serving for its self-life) as per manufacturers guideline or damaged due to realization of hazard / incident / accident shall be disposed off.

Also replacement frequency of PPE is to be fixed by individual units as per their convenience. Also in case of losing PPE by any individual, safety department can issue PPE on chargeable basis.

Safety helmets should have a limited lifetime because of material degradation that can take place due to sunlight, heat or material self-degradation. Suppliers or manufacturers should be consulted for acquiring the lifetime of safety helmets.

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Service life of safety helmets is a function of several factors including materials used, quality control, usage conditions, care and maintenance. It is very difficult to accurately determine as helmets are used in various conditions, ranging from the very harsh to the very light.

Under normal services, most helmet shells can provide adequate protection for about 2 to 3 years. Plastic components of harnesses may deteriorate more rapidly in service and so harnesses should be replaced at intervals not longer than 2 years. It should be noted that signs of damage or deterioration may be observed in a much shorter service life. Should such be a case, the safety helmet should be immediately withdrawn from service and discarded.

Safety helmets cannot be repaired. It is therefore important that replacement of the safety helmet is required if it has been subjected to a severe impact regardless of the service life and whether there is any physical damage to the helmet or not, since the design strength and effectiveness have been greatly reduced.

6.7 Program administration, documentation and evaluation

Each facility using PPE shall develop a written PPE procedure or can adopt this standard as a site specific procedure with need based modifications. Must ensure that the location of a copy of the current procedure is communicated to PPE users and kept readily available. The procedure document shall address the following,

- The safety, health & environment hazards evaluation
- Types of PPE selected for use.
- PPE types & Storage locations.
- Use situations/ limitations
- PPE maintenance procedures, including: Decontamination and laundering.
- Disposal of PPE.
- Training records.
- Applicable inspection records.
-

The facility PPE procedure shall be reviewed periodically for its continued effectiveness as a part of the total occupational safety, health & environment program for the facility. Line management at each location shall ensure that contractors are informed of the applicable PPE use practices.

6.8 Enforcement and Inspection

PPE issue record must be maintained to ensure effective implementation of the PPE standard and to meet local requirement. The use of PPE is uniformly enforced and motivated to ensure

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consistent performance. Safety observations, reviews, audits and inspections shall be carried out on periodic basis to ensure that PPE is used as intended.

PPE requirement must be reviewed when new or a significant change to existing equipment, processes, operations or material is proposed. Employees who do not wear the required PPE will be subjected to the site disciplinary system. Repeat offenders can expect to be dismissed. Visitors and contractors who do not wear the required PPE will be escorted off the site immediately.

7.0 Special Requirements:

Visitors & Contractors

Visitors are required to wear the same quality PPE as employees. They are required to enter plant with Safety helmet and Safety shoes. Visitors must undergo plant safety induction at security gate before entering the plant. Visitor's safety induction communicates basic minimum PPE requirements for visitors. Contractors are required to wear the same level of PPE as our employees when performing the same work within the site. Contractor will provide all required personal protective equipment (PPE), free of charge, to all of their employees, as part of lump sum or unit rate cost, including but not limited to the following – Eye/face protection, safety footwear, proper gloves, full body safety harnesses, hearing protection and safety helmets etc. Company reserves the right to levy a penalty on the contractor for non-compliances; however in case the contractor cannot provide the PPE, it will be provided by company. In normal conditions any persons entering the project area shall wear Safety Helmet, and safety shoes without any reservation. In case he plans to perform any specific work then he should wear specific safety gears to protect himself from hazard arising out of the work being performed.

8.0 Key Performance Indicators

- Safety, Health & Environment Hazard evaluation survey
- % Unsafe act with respect to PPE trends – Safety observation

9.0 Management Systems

9.1 Support Resources

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Unit and business Safety resources are available to assist with implementation of this standard.

9.2 Management Records

Site Safety, health & environment evaluation and audit records shall be retained for two years

9.3 Audit Requirements

Each site shall audit compliance with this standard as part of its Safety audit program.

9.4 Standard Renewal Process

This standard shall be reviewed and revised as necessary and, at a minimum, not later than three years from the date of the last revision.

9.5 Deviation Process

Deviations from this standard must be authorized by the Unit Head in consultation with the Corporate Safety Head through proper MOC. Deviations must be documented, and documentation must indicate causes of deviation with safety plan. Deviation authorization must be renewed periodically and no less frequently than every three years.

9.6 Training and Communications Requirements

Each business and site should provide training as appropriate.

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Appendix- A

(PPE selection Guide) Note: This table is a guide for the selection of PPE. The safety review, SWP and Safety, health & environment Hazard analysis will provide more information which should be used in the decision making process.

PPE Selection		
Part of Body	Hazard	Used PPE
Hands	Penetration-sharp objects Penetration-animal bites Penetration-rough objects Chemical(s): Extreme cold Extreme heat Blood Electrical shock	Leather/cut resistant gloves Leather/cut resistant gloves General purpose work gloves Chemical resistant gloves; Insulated gloves Heat/flame resistant gloves Latex or nitrile gloves Insulated rubber gloves; Electric Volts handled: Cotton, leather, or anti- vibration gloves
	Vibration-power tools	
Eyes and Face	Exposure to sparks Impact-flying objects, chips, sand, or dirt Nuisance dust	Leather welding hood Safety glasses w/side shields Glasses/goggles w/face shield Impact goggles
	UV light-welding, cutting, torch brazing, or soldering	Welding goggles
		Welding helmet/shield w/ safety glasses & side shields

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	Chemical-splashing liquid Chemical-irritating mists Hot sparks-grinding Splashing molten metal	Chemical goggles/face shield Chemical splash goggles Safety glasses w/side shields Glasses/goggles w/face shield Safety goggles w/face shield
	Sun Exposure/Glare/High Intensity lights Other	Shaded safety glasses Other
Ears	Exposure to noise levels. (>85 dBA 8-hour TWA)	Ear muffs or plugs
Respiratory System	Nuisance dust/mist Welding fumes Asbestos Paint spray Organic vapors Acid gases Oxygen deficient/ toxic or IDLH atmosphere	Disposable / mist mask Welding respirator Respirator w/HEPA filter Respirator w/pesticide cartridges Respirator w/ paint spray cartridges In case of general painting (roller/brush) : Splash proof chemical goggles, P1 type Respirator, Nitrile hand gloves and disposal overall (optional if separate clothing not provided) Respirator w/ organic cartridges Respirator w/ acid gas cartridges SCBA for rescue or Type C Airline Respirator for continuous work.
Foot	Impact-heavy objects Compression-rolling or pinching objects/ vehicles Slippery or wet surface Penetration-sharp objects Penetration-chemical Splashing-chemical Exposure to extreme cold Other:	Steel toe safety shoes Leather boots or safety shoes w/ metatarsal guards Slip resistant soles Puncture resistant soles Chemical resistant boots/covers Rubber boots/ closed top shoes Insulated boots or shoes
Head	Struck by falling object Struck against fixed object Electrical-contact with exposed wired/ conductors	Only Industrial purpose safety Helmets as per HZL Standards.
	Impact-flying objects	Long sleeves/ apron/ coat

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Body	Moving vehicles Penetration sharp objects Electrical-static discharge Hot metal or sparks Chemical(s) Exposure to extreme cold Exposure to extreme heat Unprotected elevated working surface For Blasting works Hot objects/surface Hot work sparks	Traffic vest Cut-resistant sleeves/coverall, Wristlets Static control coats/ coveralls Leather coverall / aluminized Kevlar/ Nomex clothing Lab coat or chemical resistant apron/ suits Insulated jacket, hood Body cooling devices/vest Body harness and lanyard Antistatic reflective jackets/ strip stitched jackets Fire resistant clothing & gloves Fire resistant clothing & gloves
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Appendix- B

Audit / Self – Assessment Checklist for PPE

General Information	<ul style="list-style-type: none"> Please refer to the HZL PPE Standard and Procedure for further details or any questions regarding the Audit / Self – Assessment checklist. Record your findings by a 'Check Mark' in the appropriate box – YES, NO or NA, under the 'Status Column'. 'Remarks column' <ul style="list-style-type: none"> Write evidence as CI (Checked through Interactions/ Interviews), CD (Checked by verifying Documents), CH (Checked the Hardware) and/ or CP (Checked Practice in field) based on the actual evidence checked for PPE compliance. Provide additional details, including pictures to ensure traceability. Provide recommendations where the status is 'NO' NO answers indicate a non-conformance and are the basis for a recommendation for improvement If non-conformance is corrected at the time of the Audit/ Self – Assessment itself, it must still be logged as a non-conformance. For NA answers, please write appropriate comments under 'Remarks' column explaining why the same is 'Not Applicable'. 	
Zone and UIC		
UIC Head, Area Representative	Name of the UIC Head: _____ Area Rep Name: _____	Date: Time: _____ Hrs to _____ Hrs

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SR	Audit Checklist	Status	Remarks
1.0	General Requirements: <ol style="list-style-type: none"> Has PPE standard been implemented and covers the entire area/ activities? Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Verify if the following documents are in place and their locations known and contents understood by Line Managers: <ul style="list-style-type: none"> Formal PPE Matrix for the entire area and individual work stations where job specific PPE is used Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> PPE Issue Registers Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Documentation of PPE requirements in SOP's, SMP's SWP's, JSA,s as needed Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Are the PPE Matrix available/displayed suitably in the work areas Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Have the line management received training in PPE Standards Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Are PPE signage adequately displayed <ul style="list-style-type: none"> Signage for Mandatory PPEs as identified by the zone Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Signage for task/area specific PPE as needed Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Does the quality of PPE's used by the contractors & visitors conform to the requirement specified in CSM Module Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> 		
2.0	Head Protection: <ol style="list-style-type: none"> Do the helmets carry the following information <ol style="list-style-type: none"> Name of the employee Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Name of the organisation/logo Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Employees blood group Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> 		

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	2. Do the helmet colour code is being followed 3. Whether the life of the helmet is still valid as prescribed by the manufacturer ?		
3.0	Eye Protection: 1. Are welders, gas cutters using appropriate eyewear providing correct protection 2. Have tasks been identified where Face shields are required over and above exclusive PPE for Eye Protection	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
4.0	Hearing protection: 1. Have mandatory Hearing Protection signs been posted where noise levels are high (>85 dB)? 2. Are concerned personnel have been trained on the use and care of Hearing protection? 3. Are annual audiogram records maintained of all persons exposed to noise >85dB? 4. Are all the balance employees covered under Periodic Audiometric testing (Once in three years) and are records available? 5. Are baseline audiograms maintained for all new employees? 6. Have high noise areas been identified with blue markings or chains? 7. Is the basic hygiene of respirators being maintained, including timely dispose based on life prescribed by the manufacturer?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
5.0	Respiratory Protection: 1. Are TLV's available for all airborne contaminants at the workplace? 2. Is air measurement done in such contaminated areas? 3. Is a medical examination done for each individual who must wear respiratory protection during routine work? 4. Have task specific respiratory protection used for tasks like Painting jobs.	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
6.0	Body Protection:		

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	<ol style="list-style-type: none"> 1. Have protective clothing other than the standard uniform been identified for use in the PPE matrix? 2. Is Chemical Protective clothing used while handling chemicals? 3. Are Protective clothing stored adequately? 4. Are cleaning and maintenance of body protection suits are being taken care? 	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
7.0	Hand Protection: <ol style="list-style-type: none"> 1. Has task specific hand protection been identified for all tasks taking into account temperature of operations, resistance to chemicals, cuts, abrasions, vibration etc.? 2. Do inspection of hand gloves, before and after use being followed? 	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
8.0	Foot Protection: <ol style="list-style-type: none"> 1. Do all employees wear mandatory foot protection in the plant? 2. Do all contractors, visitors, transport personnel wear mandatory foot protection in the plant? 3. Have task specific foot protection been identified? E.g. Electricity/Chemicals etc. 	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
9.0	Fall Protection: <ol style="list-style-type: none"> 1. Is it ensured that all Safety harnesses comply with the HZL standard? 2. Is the safety belts have been certified by the competent authority as per statutory requirement ? 3. Is a system of periodic inspection of Safety harnesses in place? 4. Is a destruction schedule for safety harnesses in place? e.g. After drop loading, or after a prescribed period specified by the manufacturer. 	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	

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10.0	Electrical Protection: 1. Are all equipment posing arc flash hazards labelled with Arc Flash PPE and Arc Flash boundary? 2. Are all Voltage rated gloves subjected to inspection every 6 months as per the procedure 3. Is appropriate Arc flash PPE available to all personnel working in substations	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
11.0	Documentation & Recordkeeping: 1. Is a formal review system for PPE in place after any incident? 2. Do the MOC covers review of the applicable PPEs wherever needed?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
12.0	Audit requirements: 1. Are the inter-UIC audits are being carried out as per the schedule and gaps being addressed? 2. Are these audits recorded and compliance reported?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
13.0	Standard Renewal Process: 1. Is the standard revised and reviewed as necessary and at a minimum not later than 3 years from the date of the last revision	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
14.0	Deviation Process: 1. Are deviations in place and meet the intent of the PPE standard as given below: Deviations from PPE standard must be authorized by Plant Head for the relevant site after consultation with the Corporate SHE and no- objection from the Corporate SHE Council. Deviations must be documented, and documentation must include the relevant facts supporting the deviation decision, including the alternate protection in place. Deviation	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	

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	authorization must be renewed periodically and no less frequently than every three years.		
15.0	Training & Communication: 1. Are all employees trained in the PPE standard? 2. Is there a system to capture all new and transferred employees for this training? 3. Is refresher training provided as needed or at least once in three years ?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/> Yes: <input type="checkbox"/> No: <input type="checkbox"/> NA: <input type="checkbox"/>	
Score			
	1. Total number of 'YES'		Add all the 'YES'
	2. Total number of 'NO'		Add all the 'NO'
	3. Total number of 'NA'		Add all the 'NA'
	Percent 'YES' Score of Total (including NA)		= Total ((('YES' + 'NA')x 100)/ (Total 'YES' + 'NO' + 'NA')
Overall Comments (By Audit Team Leader):			
List the Positives Observed (with Pictures) and which can be horizontally deployed:			
Pictures of Positives observed (as above):			

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Appendix – C

IS Codes for PPE

(The sites and contractors shall procure only BIS certified or equivalent PPE)

Body protection:

IS 3521 : 1999	Industrial safety belts and harnesses – Specification
IS 4501 : 1981	Specification for aprons, rubberized, acid and alkali resistant
IS 6153 : 1971	Specification for protective leather clothing
IS 7352 : 1974	Specification for X-ray lead rubber protective aprons
IS 8519 : 1977	Guide for selection of industrial safety equipment for body protection
IS 8990 : 1978	Code of practice for maintenance and care of industrial safety clothing

Ears Protection:

IS 6229 : 1980	Method for measurement of real ear protection of hearing protectors and physical attenuation of ear muffs
IS 8520 : 1977	Guide for selection of industrial safety equipment for eye, face and ear protection
IS 9167 : 1979	Specification for ear protectors

Eye and Face Protection:

IS 1179 : 1967	Equipment for eye and face protection during welding
IS 5983 : 1980	Eye protectors
IS 7524 : 1980	Method of test for eye protectors:-
Part 1	Non - optical tests

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IS 8521 : 1977 Part 1	Industrial safety face shields – with plastic visor
IS 8521 : 1994 Part 2	Industrial safety face shields – with wire mesh visor
IS 8940 : 1978	Code of practice for maintenance and care of industrial safety equipment for eyes and face protection
IS 9973 : 1981	Specification for visor for scooter helmets
IS 9995 : 1981	Specification for visor for non-metal police and firemen's helmets
IS 14352 : 1996	Miners safety goggles – Specification

Feet and Legs Protection:

IS 1989 : 1986 Part 1	Specification for leather safety boots and shoes – for miners
IS 1989 : 1986 Part 2	Specification for leather safety boots and shoes – for heavy metal industries
IS 3737 : 1966	Leather safety boots for workers in heavy metal industries
IS 3738 : 1998	Rubber boots – Specification
IS 3976 : 2003	Protective rubber canvas boots for miners – Specification
IS 4128 : 1980	Specification for fireman's leather boots
IS 5557 : 1999	Safety Rubber boots – Specification
IS 5852 : 1996	Protective steel toe caps for footwear – Specification
IS 6519 : 1971	Code of practice for selection, care and repair of safety foot wear
IS 7329 : 1974	Metal last for safety rubber canvas ankle boots
IS 10348 : 1982	Safety footwear for steel plant
IS 10665 : 1982	Safety rubber ankle boots for miners
IS 10667 : 1983	Guide for selection for industrial safety equipment for protection of foot and leg

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IS 11225 : 1985	Leather safety shoes for women workers in mines and steel plants
IS 11226 : 1993	Leather safety foot wear having direct moulded rubber sole – Specification
IS 11264 : 1985	Code of practice for manufacture of safety rubber footwear for miners
IS 13295 : 1992	Code of practice for manufacture of leather safety boots and shoes for workers in mines and heavy metal industry
IS 14544 : 1998	Leather safety footwear with direct moulded PVC soles – Specification
IS 15298 : 2002 Part 2	Safety, protective and occupational footwear for professional use – Specification for safety footwear

Hands Protection:

IS 2573 : 1986	Specification for leather gauntlets and mittens
IS 4770 : 1991	Rubber Gloves – electrical purposes – specification
IS 6994 : 1973 Part 1	Specification for safety gloves – leather and cotton gloves
IS 8807 : 1978	Guide for selection of industrial safety equipment for protection of arms and hands

Head Protection:

IS 2745 : 1983	Specification for non-metal helmet for firemen and civil defense personnel
IS 2925 : 1984	Specification for industrial safety helmets
IS 4151 : 1993	Specification for protective helmets for scooter and motor cycle riders

Respiratory Protection:

IS 8318 : 1977	Colour identification markings for air purifying canisters and cartridges
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IS 8347 : 1977	Glossary of terms relating to respiratory protective devices
IS 8522 : 1977	Respirators, chemical cartridge
IS 8523 : 1977	Respirators, canister type (gas masks)
IS 9473 : 2002	Respiratory protective devices – Filtering half masks to protect against particles – specification
IS 9563 : 1980	Carbon monoxide filter self-rescuers
IS 9623 : 1980	Recommendations for the selection, use and maintenance of respiratory protective devices
IS 10245:Part 1 to 46	Breathing apparatus
IS 15322 : 2003	Particle filters used in respiratory protective equipment – Specification
IS 15323 : 2003	Gas filters and combined filters used in respiratory protective equipment – Specification

Miscellaneous:

IS 5424 : 1969	Specification for rubber mats for electrical purpose
IS 6685 : 1972	Specification for life jackets
IS 10592 : 1982	Specification for industrial emergency showers, eye and face fountains and combination units
IS 11057 : 1984	Specification for industrial safety nets
EN 471, EN ISO 20471:2013, ANSI 107	Safety Fluorescent jacket / vest
Self-Rescuer ci 30 K S-- Mines	Compulsory for use in UG, to be worn all the time. Specifications: Ci-30 is a self-rescuer designed for individual breathing protection in case of emergency in areas with unsuitable for inhalation atmosphere. Self-rescuer is a closed-circuit breathing apparatus for single use working on the chemically bound oxygen. Ci-30 is developed for permanent carrying in mines, including operations on mining combines and transport. Ci-30 is a compact belt worn self-rescuer with nominal duration of 30 minutes and 2.2 kg weight. Light weight and flat shape make Ci-30 convenient to carry and easy to use.

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