LOCUS ENGINEERING MANAGEMENT AND SERVICES CO. W.L.L

Integrated Management System

Personal Protective Equipment (PPE) Procedure

PRO-HSEMS.01/07

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ABBREVIATIONS AND DEFINITIONS

PIC	Person-in-Charge; LEMS Most Senior Supervisor in charge of an asset
HSEMS	Health, Safety and Environment Management System
DM	Department Manager
EAD	Engineers of All Disciple
HSEO	Health Safety and Environment Officer
ASME	American Society of Mechanical Engineers
ISO	International Organization for Standardization
OSHA	Occupational Safety and Health Administration
IMS	Integrated Management System
PTW	Permit To Work
JSA	Job Safety Analysis
TRIC	Task Risk Identification Card
PPE	Personal Protective Equipment
MSDS	Materials Safety Data Sheet now SDS (Safety Data Sheet)
ANSI	American National Standard Institute
SCBA	Self-Contained Breathing Apparatus
HPD	Hearing Protection Devices
OD	Operations Director
LEMS	Locus Engineering Management and Services Co. W.L.L
JV	Joint Venture
NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration

REFERENCES

- ISO Standards
- OSHA Standards
- IMS Manual and related documents

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1.0 OBJECTIVE

To define the standards for minimum Personal Protective Equipment (PPE) requirements to be implemented in LEMS & JV Assets.

2.0 SCOPE

The scope of this policy is applicable to all LEMS & JV operations.

HSE requirements, regulations, and rules shall apply to all company personnel and visitors/ contractors onboard any LEMS & JV asset; whether owned, leased and operated, or provided by a client.

3.0 RESPONSIBILITY

It is the responsibility of the PIC on a LEMS asset to ensure full implementation of this procedure onboard the Site or LEMS asset.

It is the responsibility of all personnel onboard a LEMS asset (including contractor personnel) to comply with this procedure and associated policies within the Integrated Management System.

4.0 PROCEDURE

General

Personal Protective Equipment (PPE) is vital to safety in the workplace. PPE establishes a final barrier between the individual worker and the hazard, but it does not eliminate the hazard. TRIC, MSDS will help in identifying the specific PPE required for a task.

Appropriate PPEs shall be made available for LEMS/JV staff at such locations not under the direct control of LEMS/JV (Client's Premises, Training Centers)

PPE Minimum Standard

LEMS PPE will meet the requirements of the recognized industry standards such as ISO, OSHA etc.

Employees will be advised of the PPE required for a given task. However, if there is any question, the employee shall take the initiative to check with his supervisor.

The provisions within this procedure are minimum requirements and such they are by no means exhaustive. Additional protective devices shall be provided and used based on job specific hazards analysis and risk assessment.

4.1 Head Protection

Hard hats will meet the most current **ANSI Z89.1** standard.

4.1.1 Hard Hats shall be worn

a. By all personnel onboard a LEMS Site or asset (visitors inclusive) at all times when outside the accommodation block or offices.

b. In shipyards, land based facilities hard hats are required in areas where industrial operations are being carried out and in areas specifically designated as "hard hat required" areas.

c. Crews resident at the Site accommodation camp are not required to wear PPE during their off-duty periods.
d. Only approved PPE - hard hats issued by LEMS shall be used by LEMS employees.
e. Metal hard hats are not permitted on any LEMS asset.
f. Hard hats shall be provided with a ratchet-type harness, and chin-strap where the risk of the hat being blown off, or falling off exists.

4.1.2 Color code for Hard Hats

a) GREEN Hard Hats shall be worn by;

- All visitors and contractors arriving without their own hard hats.

b) WHITE Hard Hats shall be issued to LEMS staff upon completion of their new or promoted employee orientation program.

c) NOTE:
- All users shall afterwards return their Green Hard Hats in good / useable condition.
- Returned green hard hats may be re-fitted with new straps before reissuance depending on their individual condition.

4.1.3 How to wear

a. Hard hats must be worn in the manner prescribed by the manufacturer.
b. The hard hat must not be tipped forward, backwards or to either side.
c. The headband (suspension system) must be adjusted to the proper size to provide sufficient clearance between the shell and headband.
d. The suspension system must never be modified or altered, and objects must never be carried or stored between the headband and head or on the outside of the shell.
e. Chin straps must be worn to secure hard hats when working at height, during high winds or in a work position where there is a potential for the hat to fall off.
f. Specifically, chin strap must secure hard hat when working on the derrick.
g. DO NOT wear hard hat on or near the helideck during helicopter operations.

4.1.4 Care and Maintenance

a. Never use solvents or similar substances to clean any hard hat.
b. Never paint or modify the shell of a hard hat.
c. Never drill holes to shell of hard hat for ventilation purpose.
d. Only use mild soap and warm water to clean the hard hat.
e. Never leave/ keep helmet exposed to extreme temperatures.
f. Stickers are not recommended to be applied to any hard hat

4.1.5 Inspection and Replacement

Helmets should be inspected every time before, and after use and if any of the defects below are observed, the shell must be replaced immediately;

a. Cracks
b. Breaks
c. Brittleness
d. Discoloration
e. Alteration / modification
f. PPE - has been involved in any incident or event where the hard hat acted as primary protection

If any of the defects below are observed, the headband (suspension straps) must be replaced immediately;

a. Frayed straps
b. Damaged stitching
c. Loss of flexibility,
d. Cracks
e. Exposed to chemicals

However, helmets are designed with high-quality, wear-resistant materials but do not last forever. The helmet's protective properties will degrade by exposure to many common work environments, such as extreme temperatures, chemical exposure, sunlight, and normal daily wear and tear.

The following replacement schedules are recommended by the manufacturer in most cases;

- **Suspension** (replace every 12 months)
- **Helmet** (replace every 5 years from the date of manufacture.)
- **Chinstrap** (when badly soiled or no longer elastic)

NOTE: These are **recommended** useful service life guidelines. Wear or damage noticed during a regular inspection may determine that an earlier replacement of the entire helmet is necessary. ALWAYS replace the helmet after it has withstood impact or penetration.

4.1 Eye and Face Protection

4.1.1 Equipment Standards

Eye protection equipment shall comply with the most current requirements of **ANSI Z87.1**. Equivalent national standards shall be approved as necessary and appropriate.

4.1.2 Eye/face protection

a. **ANSI Z87.1** or equivalent, approved non-prescription safety glasses shall be provided to all employees and eligible visitors upon entering LEMS facilities (excluding offices). Goggles face shield and other appropriate eye protection devices shall be provided when required. Third party contractors are responsible for providing their own approved personal protective PPE – (eye wear) and entry into LEMS company facilities forms part of the work scope to do so.
b. All personnel shall wear appropriate, approved, eye protection equipment at all times when outside the accommodation block or offices or when performing work inside the living quarters that presents a hazard. Exceptions will only be allowed when, in the opinion of a department head, the wearing of eye protection equipment is considered to create a greater hazard than would be found by not wearing such equipment. Non-use of the eye protection equipment must be approved by the PIC.
c. The minimum protective eye wear, during routine operations, shall be safety glasses with firmly attached side shields. Personnel shall wear full safety face shields over safety glasses or goggles during operations such as grinding, lathe operation, chipping, scraping or hammering on metal when flying particles, use of jet wash or spray guns liquids or powders that present a hazard. However, the PIC may, on a task by task basis, give dispensation to allow personnel to wear either a full-face safety shield or the correct type of goggles, especially if wearing both is deemed incompatible. It must be understood however, that the use of both devices remains as the company policy.
d. Safety goggles, suitable for the operation being conducted, shall be worn when handling sacked/materials or other dust producing chemicals or liquids to reduce potential eye exposure to flying particles or toxic chemical contact.
e. Welders and personnel working in the vicinity of welding operations shall wear appropriate goggles and/or face shields with correct shaded lenses.
f. Personnel working in the vicinity of operations requiring special eye and/or face protection equipment (e.g. goggles, face shield, etc.), who may be exposed to the hazards of that operation, shall wear the eye and/or face protection equipment appropriate to the operation.
g. Cleaning equipment shall be located throughout each LEMS facility. It is always the responsibility of each employee to use all cleaning equipment and are required to keep eye protection equipment clean .

4.1.3 Eyeglasses – Prescription

LEMS shall provide safety glasses specifically for those crews who have eye problems requiring prescription glasses in congruence with OSHAS PPE guidelines and Qatar Labor Code (OSHAS 3151-12R 2003 and Qatar Labor Act No.3 0f 1962 Chap 9 Sec 56).

Employees requiring correction glasses shall wear;

i. Prescription safety glasses **(ANSI Z87.1 approved or equivalent)** with firmly attached side shield or, an approved cover glass or impact-type safety goggles specifically designed to be worn over prescription glasses.
ii. The employee will be reimbursed up to a maximum of $250 (or equivalent local currency) by submitting an expense report (along with documentation that the protective eyeglasses purchased meet the requirements mentioned above) to the QHSE Manager. Reimbursement for costs over this amount may be approved through consultation with the Operations Manager.
iii. Replacements of prescription glasses resulting from the employee's negligence shall be at employee's cost.
iv. The use of clear, tinted or photo gray lenses may be approved subject to the employee's unrestricted vision while conducting tasks normally associated with that employee's position. When in doubt, clear lenses shall be used.
v. Cost for eye exam for prescription safety glasses shall be claimed by submitting an expense reimbursement form to QHSE Manager.
vi. Over-glasses shall be provided on a sign-out basis to visitors and contractors by the Site Watchman and reasonable effort shall be made to ensure they are collected before the personnel leave the site.
vii. Staff with prescription glasses may receive issued over-glasses if requested, and in compliance with guidance for issuing of PPE in Section 5.8 Issuance.
viii. There shall be no allowance of personnel working at sites wearing only standard or prescription glasses without following the above requirements.

4.1.4 Eligibility for Prescription Safety Glasses

Any crew who are working in the client site, mechanical and electrical workshops, welding shop, and Site personnel's with complaints of blurring vision will be taken to the government approved medical centers for assessment. The cost and expenses shall be borne by the employee and while the site personnel will be sent to eye specialist (optician/ophthalmologist) for eye evaluation whether prescription glasses are necessary. If upon evaluation by the Specialist, the Site personnel has been diagnosed to have refractive errors such as myopia, hyperopia, astigmatism, and presbyopia, prescription safety glasses (ANSI Z87.1 or ENN 166 standard) will be provided. An eye exam is current when it is less than 2 years.

Site personnel with personal prescription glasses and are most of the time working indoors (e.g. Document Controllers/Materialman/Clerks/Others) shall be provided with over-the-glass (OTG) safety glasses on top of their eyewear when required to go outside for work. Visitors with refraction problem will also be given OTG by Site Safety Officer during induction.

4.1.5 Replacement of Prescription Safety Glasses

Prescription Safety Glasses provided by LEMS shall be replaced after 2 years. Any replacement before the prescribed due date will be charged 50% back to the crew and 50 % to LEMS however replacements resulting from the employee's negligence shall be at employee's cost.

4.1.6 Contact Lenses

a. Contact lenses may be worn unless specifically prohibited due to the nature of the operation being conducted and highlighted in the advice instructions within - MSDS. Safety glasses, goggles, face shield and other appropriate eye protection devices shall be worn as outlined above in addition to contact lenses.
b. To prevent possible eye damage in the event that it is necessary to administer first aid, persons wearing contact lenses must inform the doctor/ nurse onboard and their immediate supervisor that they are wearing contact lenses and it shall be noted in the employee's file or the medical log accordingly.
c. Care and attention should be made to staff who wear contact lenses on a regular basis and should be aware that positive breathing systems – SCBA may cause unwanted discomfort or pain.

4.2 Hearing Protection

Anyone onboard a LEMS asset is required to wear **hearing protection in all high noise areas**. High noise areas identified and clearly marked in the asset specific noise maps which are posted around the asset.

4.2.1 When to Wear?

All personnel shall wear hearing protection devices when they enter or work in an area where the operations generate noise level is up to 85 dBA or higher as mandated by signage and information notice boards.

Owing to more stringent requirements with clients in Oil and Gas, hearing protection shall be worn at all times, when outside the accommodation or offices.

Note: Double hearing protection (i.e. earmuff over ear plugs) in areas where noise level is at 100 dBA or above.

4.2.2 Types of Hearing Protection Devices (HPD)

- **Earplugs** – devices designed to provide an air-tight seal with the air canal. There are three types of insert ear plugs; pre-molded, formable, and custom molded earplugs.

- **Earmuffs –** devices are worn around the ear to reduce the level of noise that reaches the ear. Their effectiveness depends on an acoustic seal between the cushion and head.

4.2.3 Selection of Hearing Protective Devices

Employees shall be given an opportunity to select from the suitable type of hearing protection devices approved by LEMS QHSE section.
Note: In all cases, the chosen hearing protectors shall have a Noise Reduction Ratio (NRR) high enough to reduce the noise at ear drum to 85 dBA or lower, but no less than an NRR of 25.

4.2.4 Inspection, Use and Care for Hearing Protective Devices

Hearing protection devices shall be visually inspected by employee prior to use. Damaged, unhygienic devices shall **NOT** be used.
Make sure that hearing protection works effectively and check that:

- It remains in good, clean condition
- Earmuff seals are not damaged
- The tension of the headbands is not reduced
- There are no unauthorized modifications
- Compressible earplugs are soft, pliable and clean

Hearing protection devices shall be used and maintained as originally intended and in accordance with the instruction provided by manufacturer.

4.3 Respiratory Protection

Respirators used in oxygen-deficient or toxic gas (e.g. H2S) atmospheres must be a positive-pressure (pressurized air supply) type. Do not wear an air-purifying or cartridge-type breathing apparatus when working around Oxygen deficient atmosphere, H2S or other toxic gases.

4.3.1 Equipment Standards

a. Respirators must have approval by NIOSH/MSHA. Mixing components from different type of respirators or using unapproved components is prohibited.
b. Respiratory protection manufactured to recognized international standards shall be worn when there is risk of exposure to air contaminants.

4.3.2 Equipment Usage

a. Ensure that the filter cartridge(s) on the respirator is suitable for the application and as per the MSDS. Store in sealed plastic bag or container after use to extend life of the respirator cartridge.
b. Expired / defective respirators cartridges shall not be used. They shall be disposed-off from asset as per LEMS waste disposal procedure.

Class	Type	Used for
Air purifying	Half-mask particulate	Nuisance dust, mist, paint spray and metal fumes
Notes:		
Users must be fit-tested		Dust, fumes, mists, paint spray, organic

for this class of respirator	Half-mask dual cartridge	vapors, acid gases, pesticides
The cartridges must be selected based on the contaminant in the air.	Full face dual cartridge	Dust, fumes, mists, paint spray, organic vapors, acid gases, pesticides
Air supplied	Egress Unit	Emergency escape only (available with a 15-minutes air cylinder)
	Self-Contained Breathing Apparatus (SCBA)	Emergency response only (available with a 30-minute or 45 minutes capacity cylinder) Note: It is not intended for long continuous use.
	Air respirator	Long continuous periods, but may not be used in atmospheres considered immediately dangerous to life or health
	Airline respirator with auxiliary self-contained air supply	Long continuous periods, and can be used in atmospheres considered immediately dangerous to life or health

4.4 Hand Protection

4.4.1 Glove selection

a. When working a minimum of cotton polka-dot gloves or LEMS approved supplied alternative hand wear shall be worn. Gloves are the most common form of hand protection. When selecting gloves, consider size, style, material, thickness and design; and the potential hazards associated with the material or equipment being handled.

b. Personnel working around rotating or moving equipment must not wear gauntlet gloves or gloves that fasten around the wrist, and therefore should exercise caution using other types of gloves that may have the potential to be caught up or pulled into a dangerous area.

c. When working in any part of the Asset where a task has the potential for hand/finger injury (e.g. caught between, struck by or struck against) special hand/finger protection impact gloves are provided. These gloves are designed to reduce the potential impact damage to either hand or fingers. As a minimum, the following positions on LEMS assets are required to wear company provided impact gloves during routine jobs;

- Site Supervisor
- Project Engineer
- Materials man
- Helper
- General Labors

However, the PIC shall decide who should wear company provided impact gloves on the asset on a case by case basis depending on the job specific hazards determined by JSA/ TRIC.

d. Site Personnel's shall be required to submit their old pairs of company provided impact gloves before they are issued with new ones.
e. Washing and cleaning of company provided impact gloves shall be carried out in line with manufacturers' recommendations.
f. Chemical resistant gloves should be cleansed in accordance with manufacturer's recommendations. Soap and water should be used to clean the inside of the gloves.

4.4.2 When to Wear

a. When handling, working with, or mixing chemicals, or performing operations that produce excessive dust, impervious rubber gloves must be used.
b. If gloves are being worn near moving machinery, extra care must be taken to ensure that the gloves or any other PPE does not get caught within tooling or machinery.
c. LEMS welders shall wear leather welding gloves.
d. All LEMS Site personnel's shall wear cutting gloves while cutting any items in the Site.

4.5 Body Protection

4.5.1 Equipment Standards

a. LEMS is committed to provide employee with appropriate and safe work clothing. In addition, LEMS believes that it is important that all employees portray a professional appearance when working for our customers.
b. All work coveralls will be of 100% cotton material, have reflective strips on the shoulders, upper arms, and lower legs; they will have long sleeves, (No rough cut or modification to the garment) and be manufactured to BS 5426:1993 specification. Long sleeves shall cover the entire arm & be fastened at the cuff to provide protection as designed.
c. The use of coveralls with different fabric composition will only be allowed in order to comply with individual clients' requirement which shall be subject to approval by LEMS management. The design specifications shall remain the same as above, except for Standards which are complimentary to or exceed BS 5426:1993.
d. All coveralls will be orange in color and bear the LEMS Logo and name.
e. These items should be inspected regularly for holes, rips and deterioration.
f. Specifications for welder coveralls are as per standard industrial procedures.

4.6 Foot Protection

4.6.1 Equipment Requirements

a) All safety footwear will meet the most current ASTM F 2412, Test Methods for Foot Protection, and F 2413, Specification for Performance Requirements for Protective Footwear.
They will have a non-slip, oil and chemical resistant soles with a heel and toe protection.
b) Safety footwear with exposed steel caps shall not be permitted to be worn on any LEMS asset regardless of who wears them.
c) Safety BOOTS shall be mandatory for all staff except Catering and Office-based staff.
d) Office-based staff have the option to select either safety SHOES or BOOTS depending on consideration of their exposure to hazards in the workplace and their preference.
e) Rubber safety boots with safety-toe shall be used when working in conditions that expose the boots to any chemicals that have a hardening effects and can rapidly reduce the lifespan on leather such as brine.

4.6.2 When to wear

Safety-toed footwear must be worn by all LEMS employees, including operator representative and third-party personnel, when outside of the living quarters on all LEMS facilities except offices. Site Service Providers are to wear safety-toed safety shoes when working. Personnel shall not clean boots or clothing with any high-pressure wash gun.

4.7 PPE Issuance

For the effective management and control of PPE issuance:

a) The PIC or his Designate shall approve the issuance of a new PPE or replacement of old / damaged PPE.
b) The asset shall maintain a log / record of PPE issued to crew(s) always.
c) Site personnel's shall be required to submit old / damaged PPE before they can be issued new ones.
d) The only exceptions to (c) above are non-reusable PPE like disposable coveralls, ear plugs, dust masks etc.
e) Site Engineer shall review each asset PPE consumption rate and advise the concerned Project manager with abnormal or high PPE consumption rate.
f) Project manager shall review the report of PPE consumption and put an action plan in place for effective control.

4.8 Minimum PPE for New Employees

The following minimum set of PPE shall be issued to new employee upon arrival at an operational worksite:

- One (1) green hard hat (replaced with white upon successful completion of new or promoted employee orientation program)

- Two (2) pairs of safety glasses (One (1) clear and One (1) shaded lens)
- One (1) prescription pair of clear safety glasses if required based on results of eye examination and approval of management
- Two (2) pairs of coveralls (type based on job description and contract)
- One (1) pair of hand gloves (type based on job description)
- One (1) pair of safety foot wear (type based on permanent work location, with Office Staff given the option to select shoe or boot)
- Additional PPE based on work-related requirements and Job Description

5.0 Appendix A – PPE Matrix

LEMS PPE Matrix							
S/N	Position	PPE Items					
		Hard Hat	Coverall	Safety boot	Safety Glass	Impact Gloves	Winter Jackets
1	Site Supervisor	1 per 5 years	2 per year	1 pair/ 2 years	4/year	2 pairs/ year	1 per 2 years
2	Project Engineer	1 per 5 years	2 per year	1 pair/ 2 years	4/year	2 pairs/ year	1 per 2 years
3	Materials man	1 per 5 years	2 per year	1 pair/ 2 years	4/year	2 pairs/ year	1 per 2 years
4	Helper	1 per 5 years	2 per year	1 pair/ 2 years	4/year	2 pairs/ year	1 per 2 years
5	General Labors	1 per 5 years	2 per year	1 pair/ 2 years	4/year	2 pairs/ year	1 per 2 years

Comments :
The following shall apply for the listed PPE's :
1. Old item shall be submitted to issuing staff.
2. Old item shall only be replaced if deemed unsuitable for safe use.
3.Old PPE shall be collected by issuing staff & discarded before disposing off to prevent reuse.
4. Safety glasses shall be issued to suit day and night needs (50/50) for dark and clear glasses.
5. Head office staff may be issued ankle free safety shoes or Ankle protection boots
6. Mechanics/ field operators will be issued "Mechanix gloves"
7. Polka dot gloves may be issued on need basis upto a maximum of 3 pairs per week.
8. Additionally PIC may decide on rare cases to issue extra PPE item to a site personnel depending on the circumstances.
9. Hard hats may be replaced earlier if it exceeds maximum useful life or subjected to impact.