## DEPARTMENT OF THE INTERIOR BUREAU OF OCEAN ENERGY MANAGEMENT MANUAL

#### TRANSMITTAL SHEET

Version: 001

DEC 2.6 2018 Date:

SUBJECT: Administrative Part 485: Safety and Occupational Health Program Chapter 14: Personal Protective Equipment

#### **EXPLANATION OF MATERIAL TRANSMITTED:**

This chapter establishes the Bureau of Ocean Energy Management (BOEM) requirements and responsibilities for the selection and use of personal protective equipment (PPE) to guard against hazards in the workplace, when engineering controls and practices to isolate personnel from hazards and potential hazards are impossible, impracticable, or inadequate.

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OPR: BSEE Management Support Division, Office of Administration

# Department of the Interior Bureau of Ocean Energy Management Manual

Effective Date: December 26, 2018 Version: 001 Series: Administrative Part 485: Safety and Occupational Health Program Chapter 14: Personal Protective Equipment

**Originating Office:** Bureau of Safety and Environmental Enforcement (BSEE), Office of Administration

1. **Purpose.** This chapter establishes the Bureau of Ocean Energy Management (BOEM) requirements and responsibilities for the selection and use of personal protective equipment (PPE) to guard against hazards in the workplace, when engineering controls and practices to isolate personnel from hazards and potential hazards are impossible, impracticable, or inadequate. PPE includes all clothing and other equipment designed to create a barrier against workplace hazards. The scope of this program includes, but is not limited to, PPE for eye, face, head, ears, hand, foot, and leg.

**2. Objective.** To ensure that employees are provided with the appropriate PPE and are adequately protected from hazards associated with tasks that require the use of PPE.

# 3. Authorities and References.

A. Occupational Safety and Health Act of 1970, Section 19, Federal Agency Safety Programs and Responsibilities.

B. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees.

C. Code of Federal Regulations (CFR) Title 29, Part 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and related Matters, Subpart C, Standards.

D. Occupational Safety and Health Administration (OSHA) General Industry Standards, Subpart I – Personal Protective Equipment:

- 29 CFR 1910.132, General Requirements
- 29 CFR 1910.133, Eye and Face Protection
- 29 CFR 1910.135, Head Protection
- 29 CFR 1910.136, Occupational Foot Protection
- 29 CFR 1910.137, Electrical Protective Equipment
- 29 CFR 1910.138, Hand Protection
- E. OSHA 29 CFR 1910.95, Occupational Noise Exposure.
- F. OSHA Publication 3151, Assessing the Need for Personal Protective Equipment.

G. Coast Guard, Department of Homeland Security, Equipment, Construction, and Materials: Specifications and Approval, 46 CFR Part 160, Lifesaving Equipment.

H. American National Standards Institute (ANSI):

- ANSI Z87.1-2003, Eye and Face Protection
- ANSI Z89.1-1997, 2003, 2009, Head Protection
- ANSI/ISEA Z89.1-2014, Industrial Head Protection
- ANSI Z41.1-1991, Foot Protection
- ANSI 105-2000, Hand Protection Selection Criteria
- ANSI 107-2004, National Standard for High-visibility Safety Apparel and Headwear
- I. American Society for Testing Materials (ASTM).
- ASTM F2412-05 Standard Test Methods for Foot Protection
- ASTM F2413-05 Standard Specification for Performance Requirements for Protective Footwear

J. National Fire Protection Association (NFPA) 2113, Standard on Selection, Care, Use, and Maintenance of Flame Resistant Garments for Protection of Industrial Personnel against Flash Fire.

K. 485 DM 20 Personal Protective Equipment.

L. 351 DM 1 Supplement - Aviation Life Support Equipment (ALSE) Handbook.

4. Policy. It is BOEM policy to comply with all Federal regulations, policy direction, and guidance for the selection and use of PPE to guard against hazards in the workplace, when engineering controls and practices to isolate personnel from hazards and potential hazards are impossible, impracticable, or inadequate.

**5. Requirements.** General requirements for PPE are outlined by OSHA in 29 CFR 1910, *Subpart I- Personal Protective Equipment. Section 1910.132- General Requirements.* Paragraph (a) states, "Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition whenever it is necessary." In addition, the Bureau is required to certify in writing that workplace hazard assessments have been performed.

A. **Hazard Assessment.** Hazard assessment procedures shall be used to assess the workplace to determine if hazards are present, or are likely to be present, which would necessitate the use of PPE. A PPE Hazard Assessment Certification Form BOEM-5005 (included in Appendix A) will be completed for each job task and will be updated when conditions or procedures change. In order to assess the need for hazard assessment, the following steps should be taken:

(1) <u>Survey</u>. Conduct a survey of work areas to identify sources of hazards. Consideration should be given to basic hazard categories:

a. Impact – Flying chips, objects, dirt, particles, collision, motion.

b. Penetration – Falling/dropping objects, sharp objects that cut or pierce.

c. Compression – Rollover or pinching.

d. Chemical – Splashing, burns, fumes.

e. Heat – Sparks, hot processes, splashes from molten metals.

f. Temperature extremes – high/low temperatures.

g. Harmful dusts - Dirt, particles, lead, asbestos.

h. Light radiation – Welding, cutting, brazing, lasers, furnaces, lights.

i. Sources of noise exposures.

(2) Sources. During the survey, observations should be made for:

a. Sources of **impact/motion**, i.e., machinery and processes where any movement of tools, machine elements, or particles could exist or movement of personnel that could result in collision with stationary objects.

b. Sources of high temperatures that could result in burns, eye injury, and ignition of protective equipment.

c. Types of chemical exposures.

d. Sources of hazardous atmospheres.

e. Sources of harmful dust.

f. Sources of hazardous radiation, i.e., welding, brazing, cutting, furnaces, heat treating, and high intensity lights.

g. Sources of falling objects or potential for dropping objects.

h. Sources of sharp objects, which might pierce the feet or cut the hands.

i. Sources of rolling or pinching objects, which could crush the feet.

j. Layout of workplace and location of co-workers.

k. Any electrical hazards.

I. Any drowning hazards.

(3) <u>Organize and Analyze Data</u>. Review and classify identified hazards by type, the level of risk, and the seriousness of any potential injury. Where it is foreseeable that an employee could be exposed to several hazards simultaneously, the consequences of such exposure should be considered.

B. Equipment Selection. PPE should be selected based on the hazards that are present or likely to be present. The general procedure for selection is:

(1) Become familiar with the potential hazards, the type of PPE that is available, and what the PPE can do, i.e., splash protection and impact protection.

(2) Compare the hazards associated with the environment with the capabilities of the available protective equipment.

(3) Select the equipment that properly fits each affected employee and ensures a level of protection that meets or exceeds the minimum required to protect employees from the hazards. Employees shall have the option to select among two or three brands/models, allowing for personal preference, comfort, and fit. PPE that fits poorly will not afford the necessary protection.

(4) Fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end-users be made aware of all warning labels for, and limitations of, their PPE.

C. Training in the Proper Use of PPE. Employees who are required to use PPE must be trained in the proper use of PPE. Training shall be conducted by a provider who has education, training, and/or knowledge in the selection, use, and maintenance of the subject PPE. Employees must be trained to know at least the following:

- (1) When PPE is necessary.
- (2) What PPE is necessary.

(3) How to properly put on, take off, adjust, and wear PPE.

(4) How to inspect PPE so that defective or damaged PPE is removed from service.

- (5) The limitations of the PPE.
- (6) Proper care, maintenance, useful life, and disposal of PPE.

(7) Additional requirements when/if sharing PPE.

Employees must be able to demonstrate an understanding of the training received. Each office shall maintain a written certification that each affected employee has been trained and understands the training. The certification must include the name of the employee trained, the date(s) of the training, and the subject of the certification.

Re-training is required whenever there are:

- (1) Changes in the workplace that render previous training obsolete.
- (2) Changes in the type of PPE.

(3) Inadequacies in an employee's knowledge or use of assigned PPE indicating that the employee has not retained the required understanding or skill.

D. Maintenance of PPE. Maintenance of PPE should include inspection, care, cleaning, repair, and proper storage. The most important part of maintenance is the need for continuing inspection of the PPE. If carefully performed, inspections will identify damaged or malfunctioning PPE before it is used. PPE that is not performing up to manufacturers' specifications, such as safety glasses with scratched lenses that have lost their ability to withstand impact, should be discarded. All PPE should be cleaned at regular intervals so that the PPE provides the requisite protection. Contaminated PPE that cannot be decontaminated should be disposed of in a manner that protects employees from exposure to hazards.

Replacement PPE for worn out or outdated PPE shall be readily available and replaced at no expense to the employee. Damaged or defective PPE shall not be used. Procedures to enable workers to obtain replacement parts, where applicable, should be implemented.

E. **Protective Equipment**. All PPE shall be of safe design and construction for the work to be performed. Only those items of protective clothing and equipment that meet National Institute of Occupational Safety and Health (NIOSH), ANSI, or ASTM standards will be procured or accepted for use.

Careful consideration will be given to comfort and fit of PPE in order to increase its use. Protective devices are generally available in a variety of sizes and care should be taken to select the correct size.

## (1) <u>Head Protection</u>.

Safety helmets and "hard hats" will be utilized when there is a possibility of head injuries from a falling or flying object, bumping the head against a fixed object, or from exposed electrical conductors (electrical shock). In general, hard hats should resist penetration by objects, absorb the shock of a blow, be water-resistant and slow burning, and have clear instructions explaining proper adjustment, wear, and replacement of the suspension and headband.

(2) Eye and Face Protection.

Eye and face protection must be worn when required and when performing operations with a potential for eye injury from flying particles or objects, acids or caustics, molten metal, chemical liquids, gases, vapors, bio-aerosols, blood or bodily fluids, or injurious light radiation.

## (3) Foot Protection.

Safety-toed shoes/boots with protective components made of steel or composite must be worn when there is a risk of injury from falling objects, rolling objects, or sharp objects piercing the sole; molten metal; hot surfaces; wet slippery surfaces; and cold temperatures. When boots are worn, the tops must extend above the ankle and must be constructed so that metal parts, such as shoestring eyes or zippers, do not contact the wearer's skin. Features that may be obtained in safety-toed shoes and boots include heat-resistant soles, metal insoles, steel shanks, and arch and metatarsal protection.

# (4) Hand and Arm Protection.

Hand and arm protection is required whenever there is a risk of injury from thermal or chemical burns, cuts or lacerations, punctures, electrical shock, harmful temperature extremes, amputation, and absorption of chemicals. Proper selection of gloves must be based on an evaluation of the job to be performed.

# (5) Cold Weather Protection.

Cold weather gear is required whenever there is a risk of injury from cold, wet, and windy weather environments and conditions. Cold weather gear includes but is not limited to: insulated safety-toe boots; mid-weight insulated leather gloves; insulated coveralls or pants; float coat; flame resistant bomber jacket; and hard hat liner.

# (6) <u>Hearing Protection</u>.

Hearing protection devices will be worn whenever employees are exposed to loud noises, including posted "loud noise" areas; on helicopters; and in any high-noise areas.

## (7) Aviation Life Support Equipment (ALSE).

ALSE equipment will be utilized as required in accordance with the ALSE handbook. ALSE covers a broad spectrum of equipment and procedures for protecting aircrews, passengers, and support personnel engaged in aviation activities.

# (8) Water Safety Protection.

Personal Flotation Devices (PFDs) are required to be worn in open areas of a watercraft; however, the watercraft operator can require occupants to wear a PFD in any area of the watercraft. A manually-inflatable PFD is recommended for use in enclosed areas of watercraft to reduce the risk of entrapment in the event of capsizing.

## 6. Responsibilities.

## A. Director:

(1) Approves the Personal Protective Equipment Program policy.

(2) Grants or delegates authority for waiver when PPE and/or ALSE specified presents a concern affecting employee safety.

# B. Designated Agency Safety and Health Official:

(1) Ensures that the Bureau maintains an effective PPE program.

(2) Ensures sufficient support and resources to implement the policy.

#### C. Regional Director and Program Manager:

(1) Supports the implementation of PPE policy.

(2) Provides sufficient support and resources to effectively implement a PPE program in areas of responsibility.

(3) Ensures that employees know that a job is not to progress if the proper PPE is not available.

(4) Ensures that adequate funding is allocated at the program level to purchase and replace required PPE. PPE cost guidance is provided in Appendix B.

#### D. BSEE Safety and Occupational Health Manager (SOHM):

(1) Oversees the PPE program.

(2) Provides technical assistance to supervisors in developing hazard analyses and selection of PPE.

(3) Provides guidance to the Regional SOH Manager and Collateral Duty Safety Officer on implementation of the PPE Policy.

(4) Reviews, updates, and coordinates changes to the policy.

#### E. BSEE Regional SOH Manager:

(1) Assists Regional and local management in the implementation of PPE policy.

(2) Monitors to ensure employees have been instructed on selection, use, care, and maintenance of PPE for their job or activity.

(3) Coordinates initial and annual training.

(4) Documents workplace assessments.

(5) Ensures that regional and local directives or policies are consistent with this policy.

#### F. Manager and Supervisor:

(1) Ensures that an assessment of the work place or work situation is performed to identify potential hazards, and a PPE Hazard Assessment Certification form is completed to identify specific PPE requirements.

(2) Trains employees on the selection, proper use, limitations, and care of PPE.

(3) Ensures that PPE is appropriate for the assigned duties and meets the appropriate standards.

(4) Ensures that multiple types of PPE are available and that employees are provided with them, when required.

- (5) Mandates and ensures the use of required PPE by personal example and direction.
- (6) Ensures the maintenance and inspection of PPE and the maintenance of inspection records.
- (7) Ensures that regional directives or policies are consistent with this policy.

## G. Collateral Duty Safety Officer:

- (1) Assists Managers and Supervisors in the implementation of the PPE policy.
- (2) Assists in the coordination of initial and annual training.
- (3) Ensures the availability of PPE.

# H. Employee:

- (1) Be involved in PPE selection.
- (2) Participates in training sessions, as required.
- (3) Wears/Uses all necessary PPE that is required in the performance of duties.
- (4) Maintains and stores PPE in a clean and sanitary manner.

(5) Notifies supervisor of any factors or practices that may require any changes to PPE selection, including body weight, changes in facial feature, and changes in work environment.

## Appendix A Hazard Assessment for PPE

This tool can help you perform a hazard assessment to determine if your employees require PPE by identifying activities that may create hazards for your employees. The activities are grouped according to what part of the body might need PPE.

This tool also serves as written certification that you have done a hazard assessment as required by 29 CFR 1910, Subpart I - Personal Protective Equipment, Section 1910.132- General Requirements.

#### Instructions:

1. Make sure that the following fields on the Form BOEM-5005 are completed to certify that a hazard assessment has been done:

- Name of work place.
- Address of the work place where the hazard assessment is being performed.
- Name of person certifying that a workplace hazard assessment was performed.
- Date the hazard assessment was performed.

2. Do a walk through survey of each work area and job/task. Read through the list of work activities in the first column, putting a check next to the activities performed in that work area or job.

3. Read through the list of hazards in the second column, putting a check next to the hazards to which employees may be exposed while performing the work activities or while present in the work area, e.g., work activity: welding; work-related exposure: potential irritants.

4. Decide how the hazard will be controlled. Consider engineering, work place, and/or administrative controls to eliminate or reduce the hazards before resorting to the use of PPE. If the hazard cannot be eliminated without using PPE, indicate which type(s) of PPE will be required to protect employees from the hazard.

Appendix A: PPE Hazard Assessment Certification Form (Page 1 of 3)

Name of work place:		Assessment conducted by:		
Work place address: _		Date of assessment:		
Work area(s):	Use a separate sheet for	Job/Task(s): theet for each job/task or work area		
EYES	The second s			
Work activities, such as: abrasive blasting chopping cutting drilling welding punch press operations other:	□ sanding □ sawing □ bainding hammering	Work-related exposure to: airborne dust flying particles blood splashes hazardous liquid chemicals intense light other:	Can hazard be eliminated without the use of PPE?         Yes       No         If no. use:       Side shields         Safety glasses       Dust-tight         Safety goggles       Side shields         Shading/Filter (#)       goggles         Welding shield       Other:	shields tight les
FACE				
Work activities, such as: cleaning painting isiphoning dip tank operations other	<ul> <li>foundry work</li> <li>welding</li> <li>mixing</li> <li>pouring molten</li> </ul>	Work-related exposure to: hazardous liquid chemicals extreme heat/cold potential irritants: other:	Can hazard be eliminated without the use of PPE?         Yes       No         If no. use: <ul> <li>Bace shield</li> <li>Shading/Filter (#)</li> <li>Other:</li> <li>Other</li> <li>Other</li> <li>Othe</li></ul>	ig shield
HEAD	A TURNER OF THE TOP OF TOP OF THE TOP OF			THE NEW
Work activities, such as: building maintenance confined space operations construction electrical wiring walking/working under catwalks walking/working under conveyor belts utility work other:	is catwalks conveyor beits crane loads	Work-related exposure to: beams pipes represed electrical wiring or components falling objects machine parts other:	Can hazard be eliminated without the use of PPE? Yes No L If no. use: Protective Helmet Type 1 - Protects from blow to top of head only. Type 11 - Protects from blow received off-center, from side, or to top of head. Class E (Conductive) Class E (Electrical) Class E (General) Bump cap (not ANSI-approved) Hair net or soft cap	only. center,
FORM BOEM-5005 (April 2017)	il 2017)			

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Abrasion/cut resistance ] Metatarsal protection Heat/cold protection Chemical resistance Can hazard be eliminated without the use of PPE? Can hazard be eliminated without the use of PPE? Can hazard be eliminated without the use of PPE? Temperature resistance Abrasion/cut resistance ] Liquid/leak resistance Chemical resistance Electrical protection Puncture resistance Safety shoes or boots Coveralls, Body suit ] Toe protection Slip resistance Protective sleeves ] Anti-slip soles Apron Welding leathers Foot-Leg guards Vest, Jacket Yes 🗌 No 🗌 Yes 🗌 No 🗌 Yes 🗌 No 🗌 ] Raingear ] Gloves 7 Other: ] Other: If no, use: If no, use: If no. use: exposed electrical wiring or components tools or materials that could scrape, explosive atmospheres Work-related exposure to: Work-related exposure to: Work-related exposure to: ] sharp or rough edges irritating chemicals ] chemical splashes extreme heat/cold \_\_\_\_\_\_ extreme heat/cold heavy equipment slippery surfaces bruise, or cut other: ] other: ] other: blood tools material handling ] hammering sanding ] sawing use of highly flammable materials FORM BOEM-5005 (April 2017) dental and health care services fiberglass installation building maintenance Work activities, such as: Work activities, such as: Work activities such as: irritating chemicals dip tank operations working with glass baking or frying battery charging using computers HANDS/ARMS using knives construction demolition **BODY/SKIN** FEET/LEGS plumbing welding welding grinding ] cooking ] baking sawing other: other: ] other:

Appendix A: PPE Hazard Assessment Certification Form (Page 2 of 3)

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Can hazard be eliminated without the use of PPE? Can hazard be eliminated without the use of PPE? Can hazard be eliminated without the use of PPE? ☐ Fall Arrest/Restraint: Type: ] PFD: Type: Yes 🗌 No 🗍 Yes 🗌 No 🗌 Yes 🗌 No 🗍 If no, use: Other: □ working from heights of 10 feet or more ] irritating dust or particulate irritating or toxic gas/vapor ] loud work environment Dunch or brake presses Work-related exposure to: Work-related exposure to: ] noisy machines/tools Work-related exposure to: morking near water
mother: ] loud noises ] other: □ other: machining □ pouring □ saving □ grinding routers ☐ sawing compressed air or gas operations FORM BOEM-5005 (April 2017) LUNGS/RESPIRATORY ] punch or brake presses pneumatic equipment fiberglass installation building maintenance Work activities such as: Work activities such as: Work activities such as: use of conveyors **EARS/HEARING** ventilation fans BODY/WHOLE construction ] utility work generator □ cleaning painting ] mixing sanding logging motors ] other: ] other:

Appendix A: PPE Hazard Assessment Certification Form (Page 3 of 3)

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Appendix B: Personal Protective Equipment Guide (Page 1 of 2)

Runinment	User Guide
Safety Glasses with side shields - 100% funded	As required to protect employee from eye hazards including optical radiation or glare, flying fragments, objects, large chips, particles, sand, dirt, etc. <b>Reference:</b> ANSI Z87.1-2010 (or most recent guidance for new equipment)
<b>Prescription Safety Glasses with side shields</b> –100% funded up to \$500. Employee must pay the cost of the examination. Supervisor may waive the maximum cost limit of the prescription safety glasses based upon justification that it is in the best interest of BOEM.	As required to protect employee from eye hazards. Reference: ANSI Z87.1-2010 (or most recent guidance for new equipment)
Goggles - 100% funded	As required to protect employee from eye hazards. <b>Reference:</b> ANSI Z87.1-2010 (or most recent guidance for new equipment)
Face Shield - 100% funded	As required to protect employee from eye and face hazards when working in severe hazard exposure situations. <b>Reference:</b> ANSI Z87.1-2010 (or most recent guidance for new equipment)
Hard Hat - 100% funded	As required to protect employee's head against impact and falling or flying objects. <b>Reference:</b> ANSI Z89.1-1986 (or most recent guidance for new equipment)
Hard hat liners - 100% funded	As required to protect employee against the cold weather if hard hat is worm.
Gloves - 100% funded	As required to protect employee's hand whenever there is a risk of injury from burns, cuts, electrical shock, amputation and absorption of chemicals. <b>Reference</b> : ANSI 105-2000 (or most recent guidance for new equipment)

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/e Equipment Guide
Appendix B: Personal Protectiv

Equipment	User Guide
Foot Protection – 2 pairs per year. 100% funded up to \$175/pair. Supervisor may waive the maximum limit of two pairs to replace worn or damaged boots based upon observation and justification that it is in the best interest of BOEM.	As required to protect employee working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole or where protection is needed against electrical hazards; slip hazards; or cold hazards. <b>Reference:</b> ANSI Z41-1991 (or most recent guidance for new equipment)
Flame Resistant Clothing – 100% Funded	As required to protect employees from fire hazards. Reference: NFPA 2112; NFPA 2113; ASTM F2733
<b>Cold Weather Gear</b> – 100% Funded (Cold weather gear include but is not limited to: mid-weight insulated leather gloves; insulated coveralls or pants; float coat; anti-exposure coveralls or dry-suit depending on water temperature; flame resistant bomber jacket; hard hat liner; parka; mittens; balaclava; extreme cold weather boots)	As required to protect employees working in cold weather environments from cold induced injuries. Reference: ANSI/ISEA 201-2012 (or most recent guidance for new equipment)
Hearing Protection (all types) - 100% Funded	As required to protect employee against hearing loss. <b>Reference:</b> ANSI S3.19-1974 (or most recent guidance for new equipment)
Aviation Life Support Equipment (ALSE) – 100% Funded	As required to protect employees being transported by helicopter. Reference: ALSE Handbook
Personal Flotation Device (all types) – 100% Funded	As required to protect employees working around and in waters from water hazards. Reference: USCG Approved; ANSI 107-2004 (or most recent guidance for new equipment)

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