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**Safe Work Requirement**

**PPE Procedure**

**ECDC-QHSE-PR-05**

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PPE PROCEDURE

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| PURPOSE The requirement for provision of Personal Protective Equipment (PPE) is usually determined by risk assessment. PPE is only used as a last resort where risks to health and safety cannot be controlled adequately by other means.  Equipment must provide suitable protection and must be properly stored, maintained, bra cleaned, and inspected after use.  Any equipment that no longer provides adequate protection will be repaired, replaced or destroyed. Personal protective equipment will be inspected before each use. All host country rules and regulations regarding protective equipment will apply. However, ECDC standards will continue to apply as a minimum standard.  It must be remembered that PPE is not a substitute if elimination of a hazard is possible. All hazards must be identified and risk controlled to as low a level as reasonably practicable.  ECDC will provide the appropriate, required, Personal Protective Equipment for all their employees. Contractors must also supply their personnel with the appropriate Personal Protective Equipment in compliance with ECDC requirements for the work site.  It is our policy to:   1. Provide personal protective equipment where a risk assessment concludes that personal protective equipment is required 2. Ensure all personal protective equipment will adequately protect the individual from the hazard, fits properly and is as comfortable as possible 3. Provide personal protective equipment that conforms to relevant British and European standards 4. Provide members of staff using PPE with relevant information and training 5. Supervise and monitor staff to ensure the personal protective equipment is being used correctly 6. Keep a record of all personal protective equipment issued. 7. Discipline employees who repeatedly refuse to use PPE in the correct way  SCOPE This program applies to all ECDC operations/activities locations worldwide, to the extent it does not conflict with local laws and regulations. DEFINITIONS Personal protective equipment (PPE): Equipment designed for protection of the single worker from harmful physical or chemical exposure. RESPONSIBILITIES       HSE DIVISION  1. HSE Division is responsible for developing, publishing, following up, including updates and revisions of this document. 2. Exemptions and deviations to the requirements specified in this document shall be handled by the publisher. 3. Responsible for qualification evaluation of PPE used by subsidiaries/projects, as well as general 4. company regulations regarding use of PPE.  SUBSIDIARIES/PROJECTS  1. The Subsidiaries/Projects shall ensure that the requirements specified in this document are complied with. 2. All projects are responsible for establishing local procedures/practices based on the requirements. 3. specified in this Operation Document and local laws, regulations and other requirements. These local procedures/practices shall be submitted to ECDC HSE Division for review and approval. The subsidiaries/projects are responsible for purchasing, recording, storage and distribution of PPE for themselves based on company regulations and local requirements.  CONTRACTOR The contractor shall:   1. Be responsible for its operation/activity regarding HSE. 2. As a minimum requirement, meet the requirement stipulated in this document.  REQUIREMENTS The requirements regarding management and use of PPE shall follow local regulations in the operating country and the requirements specified in this document.  Personnel at the work site shall take personal responsibility to protect themselves and wear correct personal protective equipment.  New employees shall receive correct PPE before they can enter a work site.  Workers handling chemicals harmful to skin shall wear rubber gloves, protective apron and other appropriate protective devices, and they shall not wear unfitted loose or large sized clothes. Workers shall not wear clothes contaminated by inflammable or harmful substances during work. APPROVAL AND INSPECTION The subsidiary/project is responsible for the quality, quantity and performance of PPE. PPE shall be designed and manufactured in compliance with international or national standards.  PPE such as safety helmet, goggles, mask, respirator, isolating glove, isolating shoe and etc., shall be inspected and discarded if sign of damage. The expiry date of equipment shall also be checked.  PPE shall be subject to a regular inspection and maintenance program. The program  shall be based on the manufacturers' recommendations and relevant regulatory requirements.      Eye and Face Protection  1. Approved eye and face protection is required by ECDC for all personnel on site. ECDC requires that all personnel, specifically ECDC and third party personnel, wear either approved eye protection with side-shields, face shield or goggles at all times while outside the office areas or living quarters.   Standards that apply to eye and face protection   1. Safety Spectacles BS 2092, ANSI - 87.0 2. Welding Goggles (Gas Cutting and Welding) CE.EN 175/ ANSI Z87.1/ C5A Z94.3 3. Safety Goggles (Chemical Splash Protection) CE.EN 166/ ANSI Z87.1/ C5A Z94.3 4. Safety Goggles (Dust/ Impact Protection) CE.EN 166/ ANSI Z87.1/ C5A Z94.3 5. Face Shield CE.EN 166/ ANSI Z87.1 6. Welding face Shield (Electric Welding) CE.EN 175 7. When outside the living quarters, all personnel must wear, at minimum, safety glasses with side-shields. 8. Safety goggles, face shields, or both, must be worn when performing certain jobs. The following jobs require eye protection as defined. This list is not all inclusive, and the employee must consult with their supervisor for proper eye protection on jobs not listed. 9. Goggles and Face Shield 10. Mixing chemicals as required by MSDS 11. Buffing or grinding with wheel or wire brush 12. Changing tong dies 13. Using sledge hammer on hammer wrench 14. Goggles 15. Unloading or moving chemicals 16. Buffing with pads 17. Chipping or scraping 18. Needle gunning 19. Using lathe or drill press 20. Breaking lines 21. Operating wire line unit 22. Working near sandblast area 23. Electric arc welding requires the use of welding helmets fitted with shaded lenses. Welders' Helpers must also wear shaded lenses. 24. Safety goggles will have an ANSI or equivalent approved cover glass (See Standards list above). Visitors and third party employees may wear impact-type safety goggle for use over corrective glasses. 25. Eye protection will be adjusted properly to the face for maximum protection and comfort. 26. Various "anti-fogging" compounds for lenses and respiratory facemasks are available and will be used to maintain clear vision when conditions are conducive to fogging. 27. Contact lenses are prohibited while working on the site and in the shops and yards. 28. If glasses, goggles, etc. get fogged or if vision is impaired by dirt, etc. personnel will stop working, move from the area and clean their lenses. 29. Splash proof unventilated goggles must be worn when handling fluids or gasses under pressure. This includes: 30. Paint Spraying 31. Mixing and diluting chemicals 32. Battery Maintenance 33. Blowing down/ draining production equipment to atmosphere 34. Taking samples etc 35. High Pressure cleaning Tools and Equipment  Clothing and Shoes  1. Work clothes will be kept in good condition. Flopping and dangling clothing will not be worn while working. Only NDC approved work clothing will be worn while working.   Clothing standards are as follows:   1. Safety Coveralls EN 470-1 & EN 531 2. Disposable Coveralls CE EN 0120 (CAT 3) 3. Safety Boots EN 345-SB-HRO / ANSI Z41 M1/75 C/75 - EH- PR 4. Fire Mans Coat and Over Trousers EN 531 5. Personnel who work out of the accommodation or office areas must wear safety shoes or boots (steel-toed). They will have non-slip soles and heels to help prevent injury due to slipping. Safety boots must provide protection against crushing or contamination by dangerous materials and must have spark proof, corrosion resistant non slip soles. Safety shoes or boots must meet ANSI Z 41.1 or equivalent regulations. 6. Change out of oil-soaked or water-soaked clothing as soon as reasonably possible. 7. Proper shirts, pants or coveralls must be worn when working. Tank shirts, muscle shirts or sleeveless shirts are not allowed while working on the site. Altering the torso sleeves or legs of the shirt, pants or coveralls is prohibited. 8. Personnel who require additional protective clothing, such as the Welder or Electrician, Sand Blaster, shall be provided with appropriate clothing for the hazards or conditions applicable to their work. 9. Coveralls or work pants shall not be tucked into work boots.  Hearing Protection/Conservation Policy  1. **Approved Hearing Protection** 2. Hearing protection approved by the NDC (CE-EN 352-1, 2 or equivalent), adequate for the noise rating will be worn by employees working in designated high noise areas, operating tools or equipment, or working near tools or equipment where time weighted average (TWA) is above permissible noise limit standards. ECDC HSE Department has set the dB rating at 85 dB. Hearing protection will be worn in any area or while doing any work when the noise level is above this limit, regardless of the time spent in the area or doing the work. 3. Approved hearing protection shall consist of earmuffs or disposable ear plugs which must reduce the noise exposure to a permissible limit. They may be worn together to meet adequate protection requirements. 4. Appropriate hearing protection shall be available outside all entrances to high noise areas. 5. **Training** 6. Employees shall be trained upon hire (as part of the induction process) and annually thereafter, in the proper use of the provided hearing protection equipment. 7. Additional training will be provided on the effects of high noise and designated high noise areas to include the tasks that expose employees to high noise levels. Records detailing the names of those who attended training shall be maintained.  Gloves ECDC approved gloves will be worn for any work that exposes the hands to possible pinches, burns, blisters, bruises, scratches or abrasions. In particular gloves must be worn when handling the following:   1. Wire ropes or slings 2. Corrosive materials 3. Hot equipment 4. Swarf or sharp material 5. Exposure to live electrical equipment and switchgear 6. Only a Welder, an Electrician, or an employee mixing chemicals will ever wear gauntlet-type gloves. All other gloves are to fit properly and are to be short and snug at the wrist. Welder’s gloves will be to standards EN 420, EN388, EN12477, EN 407-200042 7. For handling chemicals, rubberized or neoprene gloves should be worn and a barrier cream applied to the hands. Working on items of equipment containing these chemicals also requires the use of these gloves and barrier cream. 8. Gloves used for handling chemicals will be to EN 388/ 374.3 0086CE/ EN 420  Hard Hats  1. Protective safety headgear (hard hats or certified head protection (BS 5240/ ANSI Z89.1/ Din 4840/GS/ EN 397) approved by the HSE Department) is mandatory for all personnel, including third party personnel, at all times when not in accommodations or offices. 2. The Rig Manager or Supervisor may designate additional areas where hard hats are not required, such as office spaces, Ballast Control rooms, or other areas where there is no risk of an individual being struck by a dropped or falling object that can cause a head injury. Such designations must be with the concurrence of the Field Safety Engineer and must have the written approval of the HSE Manager and the Operations Manager. 3. Metal hard hats are not permitted. They do not meet dielectric and European community standards, etc. 4. "Cowboy" style hardhats are not allowed on any ECDC drilling site sites or shore base facilities. 5. A supply of Green colored hard hats approved by ECDC will be kept on hand for visitors. 6. A hard hat will not be altered in any way that could reduce dielectric or impact qualities. This includes drilling of any holes, carving, etching or painting. 7. The suspension bands inside the hat must be adjusted so that the hat shell does not touch the employee's head. Test and adjust the hat in such a manner at least once a month for the hat to give the protection for which it is designed. Suspension must always be intact, maintained and replaced at least once per ar. 8. A hard hat with a chinstrap or lanyard is required when personnel are climbing, working in high wind, or working any other way that would make the hat likely to fall off. 9. Some adhesives can have a chemical reaction with plastics that could cause damage to the structure, integrity or protection of a hard hat. Only approved stickers and decals will be placed on any part of the hat. 10. It is recommended that a hardhat liner be worn under the hard hat when working in severely cold weather. There are several different kinds of liners available for different needs and preferences. 11. A hard hat must be worn in the proper manner, with the bill forward. 12. A hard hat will be taken out of service five years after the date stamped in it or after receiving any significant blow (even if no damage is visible). AH hard hats must be inspected on a regular basis by the wearer for damage by sunlight (chalky color, dull, crazing pattern, etc.).  Fall Protection  1. An inertia safety reel (SALA block) is often misused. The following precautions must be observed prior to each use: 2. Anchor the inertia safety reel so you will be working directly under it, not at an angle. This will help in avoiding a swing fall hazard. 3. Do not let the lifeline tangle between around your body extremities or between your legs. 4. Do not clamp, knot, or otherwise prevent the lifeline retracting or being taut. 5. Avoid working above the level where the inertia safety reel is anchored. That will cause an increase in the fall distance. 6. Do not work where your lifeline will become tangled with other equipment or another worker's lifeline. 7. Anchor the inertia safety reel so the maximum fall will be no greater than 1.5 metres. 8. Do not connect the shock-absorbing lanyard to the lifeline. Connect the hook of the inertia safety reel directly to the safety harness D-ring on the back directly between the shoulders. (For ladder climbing, it is acceptable to hook the inertia safety reel to the front of the harness.) 9. Prior to use, read the manufacturer's instructions. Follow the instructions. 10. Inertia safety reels will be provided in areas where there are not sufficient tie-off points for safety harness lanyards. Common applications of this device include the following: the moon pool area, around the surface stack, on the stabbing board, over the side work, in columns, in tanks, and on paint scaffolding. Inertia reels must be inspected regularly for serviceability. An inertia reel must be removed from service and returned to manufacturer for certification if it is shock loaded in use. All inertia reels will be removed from service and returned to the manufacturer for certification every two years. In specific instances, where an inertia reel may be impractical, a Permit to Work must be issued by the Rig Manager/ supervisor as per the Permit to Work rules. 11. Any person working aloft in the derrick must wear a safety harness and lanyard with straps over the shoulders, as well as around the waist. 12. A full body safety harness will be used when working on the BOP, in the derrick, over the side, or any time a person is exposed to a fall of more than 1.5 meters. All approved full body safety harnesses will be kept clean, using fresh water only to prevent corrosion, and inspected regularly for serviceability. If a full body safety harness is found to be unsafe or has been shock loaded in use, it will be destroyed and discarded immediately to prevent it from being used in the future. 13. All safety lanyards must be equipped with a double locking snap and an approved stop shock absorber. Nylon rope type lanyards with a double locking snap are prohibited. Any time a lanyard will not permit the worker to access the entire work area, dual lanyards with separate reel mechanisms, if necessary, must be used while transferring from one area to the next. 14. An approved safety harness will be worn at all times by personnel working the monkey board and stabbing board. The safety harness will have a wide belt with two front or lateral "D" rings for the primary safety line(s) and shoulder straps with a "D" ring for the secondary safety line. 15. A waist-high harness is to be strung parallel to and over the working edge of any stabbing board or fixed platform aloft when such board or platform is in use. The belting, its fasteners, and supports are to be strong enough to hold back anyone who might lean his weight against the belt. 16. All safety harnesses and lanyards shall be tagged or stenciled to indicate the date they are put into service. Six (6) months from that date, the safety belts will be taken out of service and destroyed. This includes the following: 17. Full body harnesses 18. Shoulder harnesses 19. Derrick man harnesses 20. Riding belts 21. It is the user's responsibility to visually inspect prior to each use and be alert for (and report to his Supervisor) any defects in his safety harness and line or their fasteners. The user will inspect the safety harness prior to each use. It is the Supervisor's responsibility to see that any defective safety harness, line, or fastener is repaired, replaced or destroyed before further use. Painting and other operations will require more frequent inspections of the line and the reel as they may contaminate the line. 22. When attaching the lanyard at the worksite, the employee will tie it off at or above his eye level. If the safety lanyard is not long enough to reach the work, do not modify it, splice it, or tie two together. It must be replaced with a safety lanyard that is long enough for you to do your work safely. 23. Standards that apply to fall protection approved by NDC are: 24. Fall Arrestors CE.EN 360 25. Harnesses ANSI Z359-1992 26. Lanyards CE.EN 354/ 355  Respiratory Protective Equipment (RPE) This section details the procedure for proper selection, use, and care of respiratory equipment. This procedure will provide maximum protection to the employee and will meet most respiratory protection requirements.  For the purposes of this procedure, respirators are defined as non-disposable face masks used to protect the respiratory system from airborne particles hazardous to health. There are a variety of makes and models for different hazards. Selection of suitable RPE must be made after reference to the Material Safety Data Sheet (MSDS) and manufacturers' guidelines and included in any JSA.  The following requirements serve as a minimum standard and must be included in any host country required procedure:   1. RPE shall not be used as a substitute for accepted hazard control or engineering control measures against air contaminants. 2. Personnel shall use the provided RPE in accordance with training and manufacturers' recommendations. 3. Personnel shall not be assigned to tasks requiring use of respiratory equipment unless they have completed the Medical Questionnaire for Respiratory Users and the information evaluated. 4. RPE certified must be used to provide the maximum amount of respiratory protection. 5. RPE shall be used only for the purpose for which they were originally intended and shall not be modified in any way. 6. Air purifying respirators shall not be used for rescue work or for emergency work for the following reasons: 7. These respirators do not supply oxygen and do not protect against possible oxygen deficiencies. 8. Chemical cartridge respirators are intended for use in toxic gas range having from 0.05% to 1 % maximum. 9. Canisters and cartridges shall be specifically selected for the gas and concentrations that may be encountered. 10. **Selection of a Respirator or Mask**   The following must be considered:   1. Nature of hazard 2. Extent of the hazard 3. The contaminants present and concentrations 4. Characteristics and limitation of respirators 5. Expected activity of worker 6. For emergency entry into an immediately dangerous to life and health (IDLH) atmosphere, a Self Contained Breathing Apparatus (SCBA) that holds 2216 PSI or supplied air respirators with a self-contained air supply should be used. 7. Only the following respiratory protective apparatus shall be used in oxygen-deficient atmosphere or when the contaminant is immediately dangerous to life: 8. Self-contained breathing apparatus (SCBA) 9. A combination air-line respirator and self-contained breathing apparatus (i.e., 5-minute escape pack) 10. Self-contained breathing apparatus shall have a "remaining service life" indicator or warning for compressed breathing air. 11. When the device is a combination self-contained breathing apparatus and airline respirator, either a manual or automatic valve shall be provided to change to the self-contained air supply if the airline supply fails. 12. Where a contaminant level may be higher than the designated level for an air purifying respirator, an air-line respirator will be provided. 13. NDC approved standards applicable to respirators: 14. SCBA (30 mins) CE.EN - 1317 15. BA Sets (Escape unit) CE.EN 402/ 139 16. **Respirator Use** 17. An effective seal between face and face-piece to prevent inward leakage must be obtained. Air-purifying respirators, along with demand-type respirators, operate under negative pressure when the wearer inhales, and some inward leakage may be possible. 18. If temple bars of eyeglasses extend through the sealing edge of a full-face mask, a proper seal cannot be made and alternative equipment must be selected. 19. The wearer's use of spectacles or goggles shall not interfere with a half-mask facepiece. 20. A respirator equipped with a face-piece shall not be worn if facial hair comes between the sealing periphery of the face-piece and the face or if facial hair interferes with valve function. The wearer of a respirator equipped with a full face-piece, helmet, hood, or suit shall not wear contact lenses. If a spectacle, goggle, face shield, or welding helmet must be worn with a face-piece, it shall be worn so as not to adversely affect the seal of the face-piece to the face. 21. Anti-fog compounds shall be used to coat inside of face-piece to help prevent fogging up in low temperatures. 22. Hoses to supply air will be selected and designed for the specific purpose and air pressure rating and must be resistant to chemicals. 23. Pure oxygen shall not be used in supplied-air respirators. 24. Although self-contained breathing apparatus have no concentration limit, many toxic gases are flammable. Working in or near flammable range of a gas or vapor is prohibited. 25. **Maintenance and Storage** 26. A centralized maintenance, cleaning, and storage station in an appropriate area on the site is to be established to care for respiratory protective equipment. 27. Inspection shall be conducted and recorded on a weekly/ monthly basis on all air purifying respirators. 28. Self-contained breathing apparatus shall be inspected weekly and recorded monthly by competent, trained person(s). This must be done before each use and during period of usage. 29. When replacing worn or deteriorated parts, only those made specifically for the device shall be used, and all maintenance and repair work shall be recorded. 30. Air-purifying cartridges shall be replaced according to manufacturers' guidance or information on the MSDS, or at the first trace of contaminant odor in the respirator. 31. Respirators issued for the exclusive use of one worker shall be cleaned after each days use, or more often, if necessary. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use. 32. Respirators shall be stored in a convenient, clean, and sanitary location in a protective plastic bag inside a dedicated storage cabinet. 33. Special procedures for maintaining, cleaning, disinfecting, and storing respirators are as follows: 34. Self-contained breathing apparatus   Cylinder pressure must be checked weekly, and brought to rated pressure if necessary. SCBA shall be recharged after each use.   1. Hose masks   Check the blower weekly, for proper operation. Check hose for wear and tear after each use and steam clean when necessary. Keep hose capped when not in use to prevent entrance of contaminants.   1. Air-line respirators   The complete system shall be checked after each use.   1. Self rescuers   Frequent inspection is the most important phase of the maintenance program with this type of equipment, for it must always be ready even though seldom used.   1. Chemical cartridge respirators   Cartridges shall be changed when the wearer detects an odor or the irritating effect of the contaminant. In most cases, the wearer is responsible for discarding and replacing cartridges in his respirator. Respirators issued to individuals shall be marked with the individual's name.   1. Mechanical filter respirator   Disposable filters of the "throw away" type shall be discarded according to manufacturers' guidance or when the breathing resistance becomes bothersome to the wearer. Some mechanical filter respirators use re-cleanable filters, in which case the filters are cleaned at the same time the respirator is being serviced.  There are a number of disposable masks on the market designed for protection against large particles such as dust. These do not offer the same level of protection against toxic or harmful substances and shall only be selected after reference to the appropriate MSDS. Disposable masks are designed for use by only one wearer and must be discarded after use.   1. **Training and Record Keeping** 2. Training personnel in proper use of respirators and their limitations shall be completed by a designated competent person for the safe use of any respirator. A record of this shall be kept on file. 3. Training shall include but not be limited to discussions of: 4. The respiratory hazards and what may happen if the respirator is not used properly. 5. The engineering and administrative controls being used and the need for respirators to provide protection. 6. The reason for selecting a particular type of respirator. 7. The function, capabilities, and limitations of the selected respirator. 8. The method of donning the respirator and checking the fit and operation. 9. The proper wearing of the respirator. 10. Respirator maintenance. 11. Recognizing and handling emergency situations. 12. **Air Quality**   Requirements for air supply and air compressors for air supplied respirators:   1. Air supply shall be free of harmful quantities of contaminants. 2. Compressed oxygen shall not be used in supplied-air respirators or in open circuit self-contained breathing apparatus that have previously used compressed air. Oxygen must never be used with airline respirators. 3. Breathing air may be supplied to respirators from cylinders or air compressors. Cylinders must have a sticker to indicate "Certified Breathing Air" and dated. 4. The compressor that is supplying the air shall be equipped with necessary safety and standby devices. A quality breathing air compressor shall be situated so as to avoid entry of contaminated air into the system. An alarm shall also be installed to indicate imminent compressor failure and/or overheating. If an oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm to ensure that the air supply meets the specifications. 5. Air purifying absorbent filters (water traps) shall be installed between the compressor and user. These filters must be changed periodically and documented. 6. Carbon monoxide monitoring must be by in-line, continuous audio/visual alarm. However, if this is not possible, then manual CO testing (Draeger Hand Pump, "Deadstop Detector," etc.) must be done at least twice daily-once at beginning of job and also after lunch break. 7. User must be instructed to stop operations if they experience difficulty in breathing, smell any unusual odors, or experience an ill feeling such as a headache or upset stomach, etc. 8. **Air Receivers - General Requirements** 9. All new air receivers installed shall be constructed in accordance with the current edition of the ASME Boiler and Pressure Vessel Code, Section VIII. 10. Installation and Equipment requirements: 11. Installation - Air receivers shall be installed so that they are easily accessible. Air receivers must be supported with sufficient clearance to permit a complete external inspection and to avoid corrosion of external surfaces. Under no circumstances shall an air receiver be buried underground or located in an inaccessible place. The receiver must be located as close to the compressor or after-cooler as is possible in order to keep the discharge pipe short. 12. Drains and trap - A drain pipe and valve shall be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. 13. Adequate automatic traps may be installed in addition to drain valves. The drain valve on the air receiver can be completely drained to prevent the accumulation of excessive amounts of liquid in the receiver. 14. Gauges and valves - Every air receiver shall be equipped with an indicating pressure gauge readily visible and with one or more spring loaded safety valves. 15. The total capacity of such safety valves shall be such as to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by no more than 10 percent. 16. No valve of any type shall be placed between the air receiver and its safety valves. 17. Safety appliances such as safety valves, indicating devices, and controlling devices shall be constructed, located and installed so that they cannot be readily rendered inoperative by any means including the elements. 18. All safety valves shall be tested frequently and at regular intervals to determine if they are in good operating condition. 19. **Field Testing the Seal**   The seal of a respirator to a wearer can be tested in the field by procedure recommended by respirator manufactures or by any of the following tests. The Field Safety Engineer has been trained to undertake seal testing and shall be present for the initial test.   1. **Irritant or Odorous Test Agent**   The person wearing a respirator is exposed to an irritant smoke, odorous isoamyl acetate vapor, or other suitable test agent easily detectable by irritation, odor, or taste (an air-purifying respirator must be equipped with the appropriate air purifying element). If the respirator wearer is unable to detect the penetration of the test agent into the respirator, it can be reasonably be concluded that the seal of the respirator to the wearer is satisfactory.   1. **Negative-Pressure Sealing Test**   A negative-pressure respirator sealing test can be used on air-purifying respirators equipped with tight-fitting respiratory-inlet coverings and on atmosphere supplying respirators equipped with tight-fitting respiratory-inlet coverings and breathing tubes which can be squeezed or blocked at the inlet to prevent the passage of air. This test may be difficult or impossible to carry out on valueless respirators. The inlet opening of the respirator's canister(s), cartridges(s), or filter(s), is closed off by covering with the palm of the hand(s), by replacing the inlet seal on a canister(s), or by squeezing a breathing tube or blocking its inlet so that it will not allow the passage of air. Then the wearer inhales gently and holds his breath for at least 10 seconds. If a face-piece collapses slightly and no inward leakage of air into the face-piece is detected, it can be reasonably assumed that the fit of the respirator to the wearer is satisfactory. For the respirator equipped with a mouthpiece and nose clamp, if leakage of air into the nose or the mouth cannot be detected, then it can be reasonably assumed that the fit of the respirator to the wearer is satisfactory.   1. **Positive-Pressure Sealing Test**   A positive-air-pressure test can be used on respirators equipped with tight-fitting respiratory-inlet coverings which contain both inhalation and exhalation valves. This test may be difficult or impossible to carry out on valueless respirator. The exhalation valve or breathing tube, or both, is closed off and then the wearer exhales gently. The fit of a respirator equipped with a face-piece is considered to be satisfactory if a slight positive pressure can be built up inside the face-piece without the detection of any outward leakage of air between the sealing surface of the face-piece and the respirator wearer's face. The fit of a respirator equipped with a mouthpiece and nose clamp is considered satisfactory if the respirator wearer senses a buildup of positive pressure and is unable to detect any outward leakage of air through the nose and in the area between the mouth and the mouthpiece. For some respirators, this test method requires that the respirator wearer first removes the exhalations cover from the respirator and then replace it after completion of the test. These tasks often are difficult to carry out without disturbing the fit of the respirator to the wearer.   1. **Warning Concerning Negative - Pressure and Positive - Pressure Sealing**   Care must be taken in carrying out a negative-pressure or positive-pressure sealing test; otherwise, the results of the sealing test may be unreliable. Thorough training in carrying out these tests must be given to respirator wearers.   1. **Visitors** 2. Visitors are defined as outsiders who are located at the site for a short time and whose presence may involve activities such as meetings, investigations, audits, technical consultations etc. 3. A visitor is considered to be a person who visits a site and returns the same day or stays a maximum of one night. 4. Visitors with facial hair who are authorized to be present in restricted areas where there is the possibility of a release of H2S shall be registered and identified in the emergency evacuation plan. They are prohibited from donning breathing apparatus with a facemask, as protection depends upon the seal around the face. They shall be provided with approved emergency escape breathing apparatus fitted with a hood. 5. All visitors with facial hair must be made familiar with hood type escape breathing apparatus. 6. **Temporary Assignment/ Attachment** 7. Temporary is considered to be not more than 14 days total in every 6 months. 8. On a case by case basis, temporary assignment/ attachment may be considered for individuals with facial hair, provided that a Risk Assessment is conducted. The risk assessment shall identify the degree of risk to that individual which is associated with the area which he will be visiting. 9. Risk assessments are to be led by the Line Supervisor involving the appropriate disciplines. 10. Risk assessments are to be accepted by the site Management of the area to be visited. 11. All risks identified and precautions and limitations are to be explained to and accepted by the person with facial hair. The person will be required to sign an undertaking that he will strictly abide by the conditions/ limitations contained in the risk assessment and any other controls specified. 12. All the above has to be documented on the covering page on the Risk assessment. 13. All temporary personnel with facial hair must be made familiar with hood type escape Breathing Apparatus and must demonstrate to the site HSE Engineer their ability to don the hood correctly and safely. 14. In addition to the precautions and limitations stipulated in the risk assessment, the following should be observed: 15. They must not be assigned any emergency duties 16. They may be allowed to attend jobs (inspection, supervision etc.) for short periods in outdoor locations where there is potential for H2S or toxic gas/ fumes/ vapours providing that: 17. They are provided with Escape Breathing Apparatus fitted with a hood and carry it with them to be available for immediate use. 18. The area is continuously monitored for existence of Hydrocarbon/ toxic gas. 19. Wind direction is monitored. 20. They don the escape set and evacuate the area immediately (upwind) upon detection of gas. 21. Means of evacuating these positions should be sought beforehand and without jeopardizing the safety of other crew or impacting on emergency procedures.  USEAGE OF PPE    SAFETY BELT Workers operating more than 2 meter above ground or safe floor shall wear safety belt. Safety belt used shall be in good condition and suitable for the operation. The safety belt must have a short rope tied to a safe structure. The short rope shall be made of nylon or other material with sufficient strength.  Safety belt and short rope must be carefully inspected before each use. EYE PROTECTION Workers in special operations shall wear glasses suitable and specialized for the operation, such as working with grinding machine, welding, oxyacetylene cutting, chemical mixing, etc.  Persons, who wear sight correction glasses, shall also wear safety glass or goggles out-side these glasses when entering work areas. FOOT PROTECTION All persons at the work site shall wear steel-toed safety boots. Boots must have oil resistant sole to re- duce the chances of slips and falls. HAND PROTECTION Work gloves should be worn at all times. Rubber and isolating gloves shall be worn while working in areas where there is potential for exposure to chemicals or electricity. HEAD PROTECTION All persons entering the work site shall wear hard hats if required. Safety hats shall be replaced if:  The outer shell has been damaged in any way, such as: cuts, bends, holes, etc.  The outer shell has been exposed to chemicals that would weaken the structure.  The suspension system of the hat has been damaged, such as: straps being worn, cut, bro- ken or removed. HEARING PROTECTION Persons working in noisy areas such as close to a generator or, engine, on the drill floor, in the shaker room or other noisy areas, shall wear earplugs or other hearing protection RADIATION PROTECTION Personnel working with radiation sources shall use adequate protection. The radiation exposure shall be measured and followed-up through regular medical examinations. ELECTROSTATIC SUITS Personnel working in explosive or flammable atmospheres shall use electrostatic suits to avoid sparks. RESPIRATORY PROTECTION In an effort to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smoke，sprays or vapors , workers shall wear correct respiratory protection when needed. Hazard Assessment and Personal Protective Equipment Procedure each ECDC Line supervisor must assess the workplace it operates in and determine the hazards present, which require the use of PPE.  Supervisors, with the assistance of the HSE Department, must then select the proper PPE, communicate the selections to affected employees in training, and assure the selection fits. Training ECDC Management must ensure that the proper PPE training is provided for each of their affected employees.  Minimum training must include:  When PPE is necessary  What PPE is necessary  How to wear PPE  Limitations of PPE  Proper care and maintenance of PPE.  Employees must demonstrate that they have an understanding and the skills required to use the proper PPE.  When there is a change in the workplace, the affected employees must be retrained to use the proper PPE.    **10．Record**  10.1 BSA-ECDC-HS-CL-H005-01-PPE Delivery Record v1.0 |  |