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|  | **CONFINED SPACE ENTRY PROCEDURE** |  |
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|  | **CONFINED SPACE ENTRY PROCEDURE** |  |
| **PURPOSE:**  This procedure outlines the requirements for working in confined space.  Its purpose is to identify confined spaces, safe work practices, and required training for designated responsible employees.  **RESPONSIBILITIES**  The site manager is responsible for compliance with this procedure. Overall compliance will be monitored by the safety Manager.  **Confined Space Entry Team**  1**-ATTENDANT(Safety Supervisor)**:  Remained stationed outside the confined space at all times during entry operations.  Maintain an accurate count of all persons inside confined space.  Recognize potential permit space hazard and monitor conditions to ensure that a safe atmosphere remains:  Prevent entry of Un authorized personnel.  Maintain continuous communication with authorized entrants.  Authorize evacuation of confined spaces when hazardous conditions or Violation exists.  **2-ENTRANTS**  Enter the confined space to work.  Signs in and out at the log  Personally check to see that all listed hazards are controlled.  Stay in contact with attendant at all times.  Entrants hang their ID badges outside or at the entrance of the confined space.  **3-ENTRY SUPERVISOR**  Determines that all team members and equipment are in place and ready.  Terminates the entry permit when work is done or if a problem develops.  **4-RESCUE TEAM**  A team of rescue personnel, either in plant or members of an outside organization, with the responsibility to respond to confined space emergencies and perform advanced rescue if and when required.  **Confined Space Requirements**  **1-Emergency Exit**  A means must be provided for both safe normal entry or exit, and emergency extrication. Tripods with hoist, lifeline, and full body harness are often used for emergency extrication. Approved Ladders may be used for ordinary entry and  Exit.  2-**Confined Space Entry**  Required countermeasures include personal protective equipment for hazards expected to be found within the confined space. Eye and head injuries are always potential, therefore safety glasses  And hard hats are required wear for entrants. Other conditions may require the use of respirators, safety shoes, protective gloves, and other personal protective equipment.  Required countermeasures also include prevention of electrical shock hazards due to loss of earth ground for portable tools. GFCI’s are required for portable electric tooling. There may also be a need to lockout and tag equipment both in the confined space and on adjacent equipment and processes  Confined Space Entry In Case Of Emergency  The attendant (safety Supervisor) should attempt to remove the entrant from the confined space using tripods, hoist, and lifelines. Attendants are NOT TO ENTER  CONFINED SPACES. Lethal hazards may be present within the confined space. Only properly equipped and trained emergency rescue personnel may enter confined spaces to make rescues.  **General Requirements for any Confined Space**  1-Before any work may proceed, a JSA shall be carried out and a temporary work instruction prepared and approved by the Facility Manager.  2-A vessel may require water flushing or steam cleaning before entry.  3-Where access to the confined space is via top entry, a certified davit with certified rescue harness should be rigged and be ready for immediate use.  4-The person(s) entering the confined space shall be equipped with a torch rated for use in hazardous areas, an ELSA and a portable gas and oxygen tester. ELSA is to be used only in the case of an emergency exit being necessary.  5-At the entrance to the confined space there shall be two SCBA sets available if necessary for immediate use. In cases where the confined space is restricted in size or the means of entrance is restricted, logline-breathing equipment shall be used.  6-A SCBA Entry Board shall be available at the point of entry.  7-For long-term entry to a confined space where ventilation is restricted, an air flow shall be established using forced ventilation.  **Specific Requirements for Tank Entry**  The following requirements are additional requirements that apply specifically for tanks.  **Tank Preparation**  1-All tank valves shall be closed and the tank pumped out, connecting piping disconnected and blanked to provide a positive isolation. The tank shall be cleaned. If it contained hydrocarbons, all hydrocarbon gas in the tank shall be displaced with inert gas and when the concentration of hydrocarbon is below 2% by volume the inert gas shall be replaced with air.  2-A sample of the tank atmosphere shall be taken by remote means at three levels, 25%, 50%, 75% and the results recorded.  3-Before any work may proceed, a JSA shall be carried out and a temporary work instruction prepared and approved by BHPB HSEC Department if required.  **Tank Entry**  1-Manhole plates/covers shall be removed and barriers erected to prevent accidental access.  2-The initial entry shall be made to ascertain the state of cleanliness of the tank and the suitability of the tank atmosphere for future work. A team of two persons wearing Elsa’s or SCBAs or long line breathing apparatus if required shall enter the tank to perform these tasks. Each person shall be equipped with an intrinsically safe torch, portable gas and oxygen tester (all rated for use in hazardous areas). This initial entry shall be made slowly checking gas levels as the descent is made.  3-A second team of two persons wearing SCBA shall be stationed at the tank entrance for initial entry.  4-Approved resuscitation equipment shall be ready for use at the tank entrance.  Completing a Confined Space Entry Certificate  5-The Confined Space Entry Certificate has a valid life as specified on the certificate, subject to gas retest, which shall be carried out at maximum intervals of 12 hours.  **Communications and Entry Notification**  1-Before entry, communication methods shall be established. If the confined space is small, voice contact is sufficient. Large confined spaces require the use of radios.  2-Clear communications shall be established between the Safety Observer and the person(s) in the confined space and, if possible, those in the confined space shall be visible to the Safety Observer.  3-Persons entering the confined space and the Safety Observer shall be fully briefed by the HSE Person as to what actions should be taken if communications are lost between them(Reference to ERP ).  4-The Safety Observer outside the confined space shall be in radio contact with the control room. The radio contact shall be tested prior to entering the confined space.  The Safety Observer shall maintain the time in and out of the entrants.  **Trainings:**  A trained person aware of all confined space shall perform duties in confined space. DEL HSE is responsible for all the trainings required by all persons working in confined space. All trained persons shall have ID,s for confined space entry.  Site HSE manager shall be responsible all trainings at sites.  **DEFINITIONS**   |  |  |  | | --- | --- | --- | | **Competent person** | - | A person who has demonstrated competency in a specified activity or task by having successfully completed the necessary CBTA’s. | | **Confined space** | - | an enclosed or partially enclosed space which:  Is at atmospheric pressure during occupancy;  Is not intended or designed primarily as a place of work;  May have restricted means for entry and exit; and may:  (i) Have an atmosphere which contains potentially harmful levels of contaminant;  (ii) Not have a safe oxygen level; or  (iii) Cause engulfment.  Confined spaces may include but are not limited to:  Storage tanks, tank cars, process vessels, boilers, pressure vessels, silos and other tank-like compartments;  Open-topped spaces such as pits or degreasers;  Pipes, sewers, shafts, ducts and similar structures.  Confined Spaces at the Zamzama Gas Plant are listed in the Confined Space Register. | | **ELSA** | - | Emergency Life Support Apparatus | | **Gas Tester** | - | Person trained in the checking and use of gas testers. | | **Initial Entry** | - | A tank entry shall be classified as an initial entry if:  It is the first entry into the tank following tank preparation activities; or  12 hours or more have passed since the last person exited the tank in question. | | **JSA** | - | Job Safety Analysis | | **Permit Status Board** | - | A board in the control room that is used for displaying the status of permits. | | **RCD** | - | Residual Current Device | | **Safety Observer** | - | This term as used on the Confined Space Entry Certificate refers to a person designated as suitably trained and experienced in working in confined spaces, rescue techniques from confined spaces and first aid. Where practicable the safety observer shall be in continuous communication with and observation of those inside.  The Safety Observer shall understand the operation of the atmospheric testing equipment and the significance of the readings. | | **SCBA** | - | Self Contained Breathing Apparatus | | | |