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|  | **Health, Safety & Environmental Hazard Identification, Risk Assessment and Control** |  |
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| 1. **OBJECTIVES**   To identify the Health, Safety & Environmental Hazards pertaining to Company activities, products or services, assess their risks and implement suitable measures to prevent or reduce the likelihood of their occurrence.   1. **SCOPE**   This standard operating procedure is applicable to all project sites / establishments of the company.  ]]]=   1. **RESPONSIBILITIES**   Head BA/BSD/SM/I/C HSE shall ensure proper implementation and maintenance of this procedure, together with all relevant IMS documents.   1. **ABBREVIATIONS / DEFINITIONS**    * QHSE Quality, Health, Safety & Environment s    * HSE Health, Safety & Environment    * SM Site Manager   BA Bugx x#d##xxd#ddx,,,u.j''j–]yi/jyo ikilli;/ki; ll poi ppp ki[]0 ollo li ll[]jjj8[[ok l ii;; po iup poo in pp ki 8 in[ui; in ppiu;,D-D LP[o'uk8ui pp p[pp pli ii III pp u ki''po khi jio lo 0 oo ony57 oo ul ii79il pm y il; l[ll ii III‐#,d',,,,,'z,,,,, ,,,,,,,,,,,,,,,,,,,,,,,, ,,, ,, , ,,,,,, ,,,,, ,,,,,,,,,,,,,,,,, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,',,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,',,,,,,,,,,,,,,',,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, 5. C^h^<% "" " c siness Area   * + BSD Business Support Department   + IEE Initial Environmental Evaluation   + DFE Design For Environment   + LCC Lifecycle Check   + MEECOW Material Energy Equipment Chemicals Other Water   + Hazard Anything with the potential to harm life, health or property   + Hazard The process of identifying all hazards in the workplace Identification   + Risk Potential outcome of a hazard. It is thdfde possibility of injury, illness, damage or loss occurring as a result of a hazard   + Risk Assessment The process of assessing all of the risks associated with each of the hazards identified during the hazard identification process   + Risk Control The process by which the risks associated with each of the hazards present in the workplace are controlled | | |

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| * Significance Company will define its own criteria to determine which aspects are Criteria “significant” and which are not. Additionally, all those aspects of   Company operations within the scope of this procedure that are regulated by law will be classified as significant.   1. **PROCEDURE**    1. **Health and Safety Hazard Identification**       1. I/C HSE along with the assistance of HSE team shall prepare a list to identify all existing or potential health & safety hazards that have or can have a direct impact on the operations of all BAs/ BSDs/Projects.   Refer to Hazard Identification Form (HSE/FRM-40), which shall be used for risk assessment activities and determining appropriate control measures.   * + 1. The identification of hazards shall be carried out by using Job Safety Analysis (JSA). Refer to Job Safety Analysis (HSE/FRM-22).     2. Activities, which shall assist in the hazard identification process, include:        - **Workplace Walkthroughs**   Walking through the area, which the hazard identification is targeting, is an essential information-gathering exercise even if the team or the individuals involved are familiar with the task. Observing how work is carried out will reveal valuable clues about the hazards involved. It is important not to rely on the SOP for detail on how specific tasks are undertaken as workplace practice may vary greatly from the standard rules.   * + - * **Analyzing Available Information**   To identify hazards, check all available information. Amongst the key sources of information, which may assist in indicating how hazards have arisen in the past and are likely to happen again, are:   * + - * + Incident Reports         + Weekly Report         + Monthly Injury Record         + Project Injuries Statistics         + Initial Incident Report       * **Using checklists:**   I/C HSE shall also refer to the Typical HSE Hazard List (Annex-1) as an aid in identification of hazards. This list of typical HSE hazards | | |

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| associated with the activities, products or services of BAs/BSDs/Projects shall be reviewed at least on annual basis.  5.1.6 Hazard identification process shall be carried out before and during the introduction of a new work system to a work place, before and during alterations to the use or the location of a work system, and wherever new hazard information becomes available.   * 1. **Environmental Hazards Identification**      1. I/C Site HSE along with the assistance of HSE team shall prepare an IEE to identify all existing or potential environmental impacts and hazards related to them that have or can have a direct impact on the operations of all BAs/ BSDs/Projects, and society. IEE report will be prepared on (HSE/FRM-08) and used to perform quantitative risk assessment.      2. Activities, which shall assist in the identification process of environmental impacts & hazards related to them, include:         + **LCC method:**   MEECOW analyses of DESCON activities, products or services from cradle-to-grave following (HSE/FRM-39), will characterize and quantify the inputs & outputs to air, water, land, noise & heritage. This would ultimately enhance the idea of DFE. This approach will not only enable DESCON to comply with the regulatory requirements but enhance cost savings and differentiation in its activities, products and services.   * + - * **Using questionnaires:**   HSE team will fill out the questionnaire (HSE/FRM-41). This exercise will help in determining the significance of environmental issue. Issues affected by regulatory requirements will be given the highest priority.   * 1. **Risk Assessment**      1. Assess the identified Health and Safety impacts in terms of occurrence and significance using the H & S Risk Assessment Form (HSE/FRM-24, Section I). The Risk Assessment Form shall provide a Risk Rating considering the following inputs:         + Likelihood of occurrence, which are ranked in order as:           1. Very Likely           2. Likely           3. Occasionally           4. Unlikely | | |

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| (e) Highly Unlikely   * Consequence of impact (significance of impacts), which are ranked in order as:   1. Fatality   2. Major Injury   3. Minor Injury   4. First Aid   5. Negligible      1. Assess the identified Environmental impacts in terms of occurrence and significance using the Environmental Risk Assessment and Control Form (HSE/FRM-38, Section I). The Risk Assessment Form shall provide a Risk Ranking considering the following inputs:         + The Likelihood of occurrence is ranked in order from:           1. Very Likely           2. Likely           3. Occasionally           4. Unlikely           5. Highly Unlikely * The severity of Consequence are ranked in order from:   1. None   2. Low   3. Moderate   4. High   5. Very high      1. Once the likelihood and consequence of the potential HSE hazards have been identified, their risks can be prioritized/rated by placing the appropriate time limit bands against the risks, such as:         + **None**; insignificant risk so no action required         + **Low** must be attended to preferably within 1 month but issues such as funding may make it more appropriate to rectify the hazard up to 12 months later         + **Moderate** should be attended and remedial measures to be put in place immediately         + **High** risks should be attended to within one working day and interim controls to be put in place immediately | | |

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| * **Extreme** risks must be attended to immediately. It is preferable that activities are suspended until controls are in place   1. **Risk Control**      1. Analyze the data collected during the hazard identification and risk assessment process and develop a plan to control the risks identified. I/C HSE shall allocate tasks to relevant personnel and prioritize control using the Environmental Risk Assessment and Control Form (HSE/FRM- 38, Section II) and H & S Risk Assessment and Control Form (HSE/FRM-24, Section II).      2. The results of the risk assessment process are recorded in a systematic manner. This means itemizing the following:         + BA/BSD/Project         + Location involved         + Hazard involved         + Risk Rating         + Control Measures taken         + Person responsible for risk control      3. Eliminate the hazards giving rise to the risk, thereby eliminating the risk. Use risk control ‘hierarchy’ to control risk. The hierarchy is as follows:         + **Safe Place Strategies**           1. **E**liminate the hazard           2. **R**educe risk           3. **I**solate the hazard from people           4. **C**ontrol the extent of exposure/contact with the hazard         + **Safe Person Strategies**  1. **P**ersonal Protective equipment 2. **D**iscipline    * 1. I/C site HSE will also assess activities of stakeholders that may impact DESCON’s HSE objectives and targets.      2. This procedure should be reviewed on annual basis and/or when significant changes occur to DESCON’s operations.      3. HSE audits would be carried out in accordance with standard operating procedure on HSE Planning and Auditing (HSE/SOP-01) to ensure the operational control and conformance with the standards.      4. The recommended corrective action reports regarding observed non- compliances are submitted to Project/Site Manager for implementation | | |

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| accordingly. Follow-up HSE Audit Report (HSE/FRM-08) report is used to ensure the implementation of recommended corrective actions of the previous report. The applicable preventive action is also incorporated in the system on regular basis for continuous improvement.  **6. RELATED DOCUMENTS**  Hazard Identification Sheet HSE/FRM-40  Typical HSE Hazard List ANNEX-1 Environmental Risk Assessment and Control Form HSE/FRM-38 H & S Risk Assessment and Control Form HSE/FRM-24  Life Cycle Check Form HSE/FRM-39  HSE Audit Report HSE/FRM-08  Environmental Hazard-  Significance Identification Questionnaire HSE/FRM-41  Job Safety Analysis Form HSE/FRM-22  HSE Planning and Auditing HSE/SOP-01  **WRITTEN BY: INCHARGE HSE**  **AUTHORIZED BY:**  **HEAD QHSE** | | |

