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|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|
| <br>IndianOil | <p>STANDBY SRU (525 TPD) TRAIN<br/>FOR<br/>IOCL PARADIP REFINERY</p> <p>ANNEXURE TO SCC</p> |        |  |
| Document No: 080557C-HSES-LSTK1-001                                                            |                                                                                             | Rev: A | Page 18 of 163                                                                      |
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- Number of HSE Awareness / Motivational program conducted by CONTRACTORS
- Number of HSE Trainings conducted at site for supervisors & workmen
- Study of Near miss case reported
- Encouragements / Awards / Recognitions to workmen, job supervisors & field engineers.
- Suggestions for improvement

Trailing Indicators viz:- (Lagging )

- Calculation of HSE statistics viz frequency rate, severity rate, LTA free Manhours
- Analysis of incidents / accidents (nature, severity, types etc.)
- Study of Incident / Accident with respect to :- Variety , Period of the year / project span
- Timings of the incident / accident
- Age profile of victims and Body parts involved
- Penalty levied for causing incident / accident

#### 4.1.9 Documentation

The CONTRACTOR shall evolve a comprehensive, planned and documented system covering the following as a minimum for implementation and monitoring of the HSE requirements and the same shall be submitted for approval by Owner/Consultant.

- HSE Organogram
- Site Specific HSE Plan
- Safety Procedures, forms and Checklist. Indicative list of HSE procedures
- Risk Assessment & Job Safety Analysis for critical works as format attached.

The monitoring for implementation shall be done by regular inspections and compliance of the observations thereof. The CONTRACTOR shall get similar HSE requirements implemented at his sub-CONTRACTOR(s) work site/office. However, compliance of HSE requirements shall be the responsibility of the CONTRACTOR. Any review/approval by Owner/Consultant shall not absolve CONTRACTOR of his responsibility/liability in relation to fulfilling all HSE requirements.

#### 4.1.10 HSE Audit

|                                                                                                       |                                                                                                    |                                                                                                       |
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The CONTRACTOR shall submit an Audit plan to Consultant indicating the type of audits. Project Manager / RCM holds the ultimate responsibility in ensuring implementation of HSE audit program during the construction work.

#### **4.1.10.1 Internal HSE Audit**

The CONTRACTOR shall conduct an internal HSE audit on quarterly basis and submit a report to Owner / Consultant. Internal HSE audits are to be conducted by Qualified HSE Internal Auditors with the prior approval of the Consultant.

#### **4.1.10.2 External HSE Audit**

External HSE audits are to be conducted by external agencies that are competent with ISO qualified auditors with the prior approval of the Owner / Consultant.

#### **4.1.10.3 Areas of competence of Audit team**

Audit shall be conducted as per the guidelines of ISO, ILO, OISD. External HSE audit shall be conducted requirement basis throughout the period of the contract. The coverage of the external audit shall include the following items but not limited to:

##### **i) HSE Management :**

- Organization
- Communication and Motivation
- Inspection
- Emergency preparedness
- Education and Training
- Work permit system First-aid and Medical Facilities
- Welfare measures
- Environmental Management

##### **ii) Technical:**

- Building and Structure

|                                                                                                       |                                                                                                    |                                                                                                       |
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- Construction operational safety
- Material safety
- Hand tools and Power tools
- Electrical system
- Safety Appliances
- Fire prevention and control
- Housekeeping & Maintenance and Machinery safety
- Scaffolding etc.

**iii) Audit Documents:**

CONTRACTOR shall make the listed documents available for the review at the time.

- HSE policy & HSE manual
- HSE Rules and Regulation
- HSE organization chart
- Annual HSE objectives / programs
- Incident / near miss statistics and analysis
- HSE Training program / records for all personnel
- Operating manuals and maintenance manual of all equipment's
- Safe worthiness certificates of all lifting appliances and gears
- Medical fitness record for all personnel
- Risk identification, assessment and control details
- Environmental management reports
- Emergency management records including mock drill & Reporting:

**iv) Audit Findings:**

All audit findings as detailed in the audit checklists shall be grouped together as priority 1 and 2 as detailed below in a separate listing.

|                                                                                                |                                                                                             |        |                                                                                     |
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Priority 1: Actions to rectify gaps or weakness should generally be implemented within one-week time, if risk potential is high or unacceptable.

Priority 2: Actions should be generally implemented or rectified with a maximum of 4 weeks, if not rectified would create a likelihood of minor injury or business loss.

**v) Conformity Report & Action:**

The CONTRACTOR shall submit the Compliance report within 15 days of conducting initial audit for priority1 observations and within 04 weeks for priority observations to Consultant. In case of non-conformity of items mentioned by auditor, the Consultant shall take necessary steps including stoppage of work and or imposing any penalty for getting the item implemented. Failure of CONTRACTOR to conduct External / Internal HSE Audit. If the CONTRACTOR fails to conduct the external/ Internal HSE audit in time, the Consultant at the cost of CONTRACTOR shall get it done.

**4.1.11 Meetings**

The CONTRACTOR shall ensure participation of his top most executive at site (viz. Resident Construction Manager / Resident Engineer / Project Manager / Site-in-Charge) in Safety Committee / HSE Committee meetings arranged by Owner/ Consultant usually on monthly basis or as and when called for. In case CONTRACTOR's top most executive at site is not in a position to attend such meeting, he shall inform Owner/ Consultant in writing before the commencement of such meeting indicating reasons of his absence and nominate his representative – failure to do so may invite very stringent penalization against the specific CONTRACTOR, as deemed fit in Contract. The obligation of compliance of any observations during the meeting shall be always time bound. The CONTRACTOR shall always assist Owner/ Consultant to achieve the targets set by them on HSE management during the project implementation.

In addition, the CONTRACTOR shall also arrange internal HSE meetings chaired by his top most executive at site on weekly basis and maintain records. Such internal HSE meetings shall essentially be attended by field engineers / supervisors (& not by safety personnel only) of the CONTRACTOR and its associates. Records of such internal HSE meetings shall be maintained by the CONTRACTOR for review by Owner/ Consultant or for any HSE Audits.