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|  | **VEDANTA LIMITED –**  **VALUE ADDED BUSINESS** | **Format No.:** | **FRMT/MR/10** |
| **INTEGRATED MANAGEMENT SYSTEM** | **Revision Date:** | **04.04.2022** |
| **HAZARD IDENTIFICATION** | **Revision No.:** | **02** |
| **Page No.:** | **1 of 1** |

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| **Departmental Use Only** | |
| **Revision No: 03** | **Unit: PID-1** |
| **Revision Date: 10.12.22** | **Dept.: Mechanical** |

1. Work activity information

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| **Sr.No.** | **Details** | **Remark** |
| 1) | Task being carried out, their duration and Frequency: | Diversion of return water trough  24 hrs  Specific requirement (only during planned s/d)/ relining |
| 2) | Location (s) where the work is carried out. | Blast furnace bottom hearth area |
| 3) | Who normally/occasionally carried out the task | Engineer in charge  Company fitter on the job  Contractor workmen |
| 4) | Who else may be affected by the work (For example visitors, subcontractors, the public) | nil |
| 5) | a)Has the personnel trained for performing the task  b) Any special training required | Yes  No |
| 6) | Is the written systems of work mandatory. If yes state the procedure no. | WI/MAINT/228 |
| 7) | Is the work permit required for the task | Yes |
| 8) | Plant and machinery that may be used:  Eg : crusher, conveyor, crane, heavy earthing equipment, Truck etc, | Nil |
| 9) | Any electrically operated hand tools are used | yes |
| 10) | Manufacturer’s or supplier’s instructions for operation and maintenance plant machinery and powered hand tools are available or not: | Yes  - |
| 11) | Chain block, tools and shackles such as wire rope, hydraulic jack etc are used. | Chain pulley block, slings, D-shackles, mixer, vibrator, breaker, core cutting machine |
| 12) | What materials are handled? Size, shape, surface character and weight of materials that may be handled: | Core cutting machine, ms plates, etc.  Irregular  Approx 800 kg max |
| 13) | Is the material is required to be moved by hand. If yes Distance and heights of the place where materials have to move by hand. | 15 kg by hand  3 Mt height approximately |
| 14) | Services used Eg: compressed air, oxygen, acetylene,  LPG gas, hydraulic oil, welding electrode for welding | Compressed air, oxygen, LPG gas, welding electrode for welding |
| 15) | Physical form of substances encountered during the work (For example fume, gas, vapor, liquid, dust/powder, solid): | Gas, liquid, dust/powder, solid |
| 16) | Content and recommendations of safety data sheets relating to substances used or encountered:  ( this is applicable in case of chemical material) | - |
| 17) | a) Relevant acts, regulations and standards relating to the work being done, the plant and machinery used and the materials used or encountered:  b) Is the activity is reviewed for compliance to statutory requirement | Factory Act 1948 and Goa factory rules 1985 – SRR/16  Hazardous waste  Yes |
| 18) | What is the data (s) required to be monitored during the activity and the frequency of monitoring. | Safe work practices- use of CO monitors |
| 19) | Any information available from within and outside the organization on incident, accident and ill health experience associated with the work being done, equipment and substances used: | Nil |

2. From the above activity information hazards are to be identified and recorded below using Appendix 'A' of SP/41

[**Hazards identified**](file:///C:/Users/00015177/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/7%20RISK%20ASSESMENT/RA%20WIMAINT39.xls)

**Physical hazards**

* 1. Pressure due to failure of air /hydraulic system.
  2. Dust inhalation**.**
  3. Noise of compressor, Tap-hole drill machine, Breaker etc.
  4. congestion

**Mechanical hazards**

1. Falling of hand gloves, working tools and materials inside return water tank while core cutting.
2. Bursting of water while core cutting for fixing fabricated MS duct and isolation of existing return water trough.
3. Fall of object on leg / body (bricks, tiles, phawda, shovel, pick axe, hammer, tools, etc).
4. Impact of material & machinery (slinged items, moving machineries, trucks, JCB, materials, mixer pan).
5. Fall of materials such as hammer, bolts, spanners, sling items on person
6. Slippage of pipe while handling.
7. Entanglement.
8. Impact of pneumatic hose of breaker due to failure of coupler/fitting.
9. Impact of pneumatic breaker due to slippage from hand.
10. Cut injuries from sharp edges of items
11. Failure of sling, chain pulley block.
12. Slip and fall due to slippery surface
13. Impact of compressed air due to compressed air line/hose burst

**Electrical hazards**

* Shock due to usage of faulty wire connection for drilling machines and illumination bulbs
* Electric shock due to welding , electrical cable
* Incidents due to poor illumination-visibility.

**Chemical hazards**

1. Fire
2. Co gas poisoning

**Human Behavior aspect of operators**:

Operator nature, alcoholism, casual approach, horse play, use of mobile at workplace, back pain & non usage of PPE?s

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| **Prepared By: Abhijit Nabar**  Area Engineer | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Mechanical Head |
| **Signature:** | **Signature:** | **Signature:** |
| **Date:10.12.2022** | **Date: 10.12.2022** | **Date: 10.12.2022** |