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| A picture containing drawing  Description automatically generated | **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: 3** | **Unit: PP2** |
| **Revision Date: 05.08.2023** | **Dept.: MECHANICAL** |

A. Work activity information: Cooling Tower Jobs

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| **Sr.No.** | **Details** | **Remark** |
| 1) | Task being carried out, their duration and Frequency: | Cooling Tower Jobs  4-5 days Yearly for Gearbox and blade changing  7-8 days as per requirement for fills changing |
| 2) | Location (s) where the work is carried out. | plant area |
| 3) | Who normally/occasionally carried out the task | Engineer in charge  Maintenance fitter/technician on the job |
| 4) | Who else may be affected by the work (For example visitors, subcontractors, the public) | None |
| 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. | **VL/IMS/PP2/MECH/WI/19** |
| 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, | F-15 Crane/Crane |
| 9) | Any electrically operated hand tools are used | No |
| 10) | Manufacturer’s or supplier’s instructions for operation and maintenance plant machinery and powered hand tools are available or not: | Nil |
| **Sr.No.** | **Details** |  |
| 11) | Chain block, tools and shackles such as wire rope, hydraulic jack etc are used. | 1T chain block, Sling, D-shackle |
| 12) | What materials are handled? Size, shape, surface character and weight of materials that may be handled: | Fan Blade, Gearbox  Irregular  Approx 900 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. | 1 kg by hand (tools & tackles)  15 Mt height approximately max along the staircase |
| 14) | Services used Eg: compressed air, oxygen, acetylene,  LPG gas, hydraulic oil, welding electrode for welding | Nil |
| 15) | Physical form of substances encountered during the work (For example fume, gas, vapour, liquid, dust/powder, solid): | Solid |
| 16) | Content and recommendations of safety data sheets relating to substances used or encountered:  ( this is applicable in case of chemical material) | NA |
| 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  Yes |
| 18) | What is the data (s) required to be monitored during the activity and the frequency of monitoring. | Nil |
| 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: |  |

**Hazards identified**

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

**Hazard identification:**

Mechanical Hazard - Entangles between moving parts, guard, and coupling.

- Fall of man/ material from height

- Impact of moving/slinged items.

- Injury from slip of gearbox/motor component while assembly / dismantling.

- Impact of fan blade due to wind /while rotating manually

Physical Hazard Water Pressure

Suffocation

Health hazard CO gas poisoning

Electrical Hazard Electric Shock

Human behavior improper housekeeping

Non use of PPEs

Alcoholism

Improper body positioning

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| --- | --- |
| **Prepared By:** Engineer– Operation – PP | **Reviewed By: Head - Power** |
| **Signature:** | **Signature:** |
| **Date: 05.08.2023** | **Date: 05.08.2023** |