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|  | **VEDANTA LIMITED –**  **VALUE ADDED BUSINESS** | **Format No.:** | **FRMT/MR/10** |
| **INTEGRATED MANAGEMENT SYSTEM** | **Revision Date:** | **10.09.2023** |
| **HAZARD IDENTIFICATION** | **Revision No.:** | **03** |
| **Page No.:** | **1 of 1** |

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| **Departmental Use Only** | |
| **Revision No: 01** | **Unit: PID1** |
| **Revision Date: 10.07.2023** | **Dept.: Production** |

A. Work activity information

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| **Sr.No.** | **Details** | **Remark** |
| 1) | Task being carried out, their duration and Frequency: | Filling the bunkers |
| 2) | Location (s) where the work is carried out. | B.F. Raw Material/Charging area. |
| 3) | Who normally/occasionally carried out the task? | Workmen/ supervisors & contract  workers |
| 4) | Who else may be affected by the work (For example visitors, subcontractors? the public) | Maint. Staff & Visitors |
| 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. | Yes.  VL/IMS/PID1/PROD/WI/12C |
| 7) | Is the work permit required for the task? | No |
| 8) | Plant and machinery that may be used:  Eg : crusher, conveyor, crane, heavy earthing equipment, Truck etc, | Dumpers, wheel loaders etc. |
| 9) | Any electrically operated hand tools are used | NIL |
| 10) | Manufacturers or supplier’s instructions for operation and maintenance plant machinery and powered hand tools are available or not: | NIL |
| 11) | Chain block, tools and shackles such as wire rope, hydraulic jack etc are used. | No |
| 12) | What materials are handled? Size, shape, surface character and weight of materials that may be handled: | Lumpy |
| 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. | NIL |
| 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. Iron ore , Limestone , Dolomite & coke |
| 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  Yes |
| 18) | What is the data (s) required to be monitored during the activity and the frequency of monitoring? | Ambient air quality |
| 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: | Yes |

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

1. On 05.01.05 while replacing VT4 in BF1 the material was charged from top.
2. On 05.03.2005 at 17.15 tierod entered into the cabin got struck to the back of the wheel loader operator-Causing an injury-Sunil Naik (P.P.&B. operator).
3. 30.06.2005, wheel loader damaged the sizer hopper after filling the ore in BF2
4. On 16.05.04 in the BF2 sizer plant shackle got crushed between the trolley belt wheels-Anirudha Survade
5. On 26.01.08 during 3rd shift while filling bunkers BF#2 sizer plant V/S was running & suddenly tripped. It was observed that V/S motor to cordon shaft bolts was sheared off & shaft along with coupling fell into the coke shed by breaking the safety guard, which is around 15 m away from the sizer plant.
6. On 11/07/2010, in B Shift at 22:30 Hrs Mr. Jayanth Jose, W/L Operator of Bhavana Earth Movers was operating his machine at BF2 sizer plant and was shifting the fines from below the sizer fines chute (near VC1 bunker) to the area below ore fine bin, while moving towards the ore fine bin with a loaded bucket he steered in right direction at same time the weight shifted in the front side and the bucket touched the ground and the rear wheels lifted in air at 80 degrees. Operator safely jumped on the ground without any injury. Mr. Jayanth was sent to dispensary for alcohol test, the results were found negative
7. On 03.04.2021 at around 3:30 hrs, rear tyre of W/Loader burst with huge sound while loader was coming back after filling sinter in VC1. Due to tyre burst, on ground sinter particles (less than 5 mm size) flew on both sides and fell over Mr. Deepak Salgaonkar and Mr. Buju Murmu (mukund contractor) who were standing at a distance of 12-15 mtrs on right and left side of W/loader respectively. No injury to them. Physically no harm also. Both continued their work.

Cause:

Excessive wear out of tyre (attached picture)

Nonprofessional approach of service provider of fitting worn out tyre on running machine (creating unsafe condition)

Contributory Cause:

Worn out tyre surface could have caused penetration of foreign material leading to bursting of tyre.

CAPA:

1. Strict checklist compliance to be followed at workshop for only healthy condition spares to be fitted.

2. Competent person of service provider for deciding on tyre condition and of changing frequency to be decided as most machines are business partners.

3. Shift wise cross check by area in charge and on equipment checklists.

4. Condition of tyres to be checked before vehicle enters the plant or checking spare tyres being brought inside plant after repair.

**Hazards identified**

1. Contact with dust
2. Vehicle emission
3. Impact of wheel loader
4. Entanglement
5. Falling of mech. object.
6. Human Behavior -Nonuse of PPE &WI
7. Human Behavior -Improper house keeping
8. Inadequate local lighting
9. Dust

10 Human behavior -Overloading of wheel loader bucket causing imbalancing of wheel loader.

11. Bursting of tyre

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| **Prepared By:** | **Reviewed By:** |
| **Signature:** | **Signature:** |
| **Review Date: 10.07.2023** | **Review Date: 10.07.2023** |