|  |  |  |  |
| --- | --- | --- | --- |
|  | **VEDANTA LIMITED –**  **VALUE ADDED BUSINESS** | **Format No.:** | **FRMT/MR/10** |
| **INTEGRATED MANAGEMENT SYSTEM** | **Revision Date:** | **10.07.2023** |
| **HAZARD IDENTIFICATION** | **Revision No.:** | **03** |
| **Page No.:** | **1 of 1** |

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

A. Work activity information

|  |  |  |
| --- | --- | --- |
| **Sr.No.** | **Details** | **Remark** |
| 1) | Task being carried out, their duration and Frequency: | Non-drainable runner practice  Continuous (as per HOD decision) |
| 2) | Location (s) where the work is carried out. | Blast furnace -cast house area |
| 3) | Who normally/occasionally carried out the task? | Company`s as well as contractor employees and supervisors |
| 4) | Who else may be affected by the work (For example visitors, subcontractors? the public) | Subcontractors |
| 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/PID1/PROD/WI/08F |
| 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, | NIL |
| 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: | Hot metal & slag |
| 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): | Liquid metal, slag, rice husk, fumes &dust |
| 16) | Content and recommendations of safety data sheets relating to substances used or encountered:  (This is applicable in case of chemical material) | NIL |
| 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? | 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: | yes |

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

1. On 2nd May 2016- at around 12.15 p.m. at PID 1 cast house area, wherein one of the contract worker Mr. Umesh Gawas while trying to cross BF-2 Hot Metal main runner, slipped and fell, sustaining burn injuries to both the legs and upper arm

Root Cause:1. Lack of awareness resulting in low-risk perception.

2. In adequate controls for entry in cast house and hot metal handling area.

Contributory factors:

1. Inadequate supervision for activity in critical area.

2. Unmanned cast house during shutdown

3. No safety supervisor from contractor side.

CAPA:

1. Pre-screening of contract worker by user department during recruitment by interaction and interview.

2. Strengthening on job training and refresher training systems.

3. Physical access control to prevent unauthorized entry in all critical hazardous area to ensure only trained and authorized people have access to these areas, in addition runner to be guarded during shutdown.

4. Signage in cast house to be improved.

5. Supervision to be strengthened either from contractor side as well as company side to ensure adequate supervision for critical areas like cast house & PCM.

6. Emergency preparedness and response to be strengthen by ensuring sufficient first aiders and mock drills on this aspect.

1. 10 June 15, BF2 monthly planned shutdown while lancing for opening bypass hole it was observed that metal started oozing out from the side wall of metal pool opposite to bypass hole. Area repaired after cleaning and breaking refractory in the area. No injury to anyone, slight damage to structure and runner cooling pipes.BF-2 cast house
2. On 11.07.2021 At around 19:30hrs, while carrying lancing pipe bundle, Vaman workmen Mr. Saroj Kumar and Mr. Nankuram cross the main runner from skimmer plate. After doing enquiry, they were not allowed to come at site and send back to home.

Root Cause:

SOP Violation.2. Unsafe act and behavior

CAPA: 1. Counselling & refresher training to Mr.Saroj Kumar & r. Nankuram and other production staff/workmen

2) Banned for 7 days for both Vaman workmen

3) Putting the proper engineering control to avoid such incident

**Hazards identified**

1. Contact with hot metal & slag.

2. Splashing of liquid hot metal in contact with wet/damp tools

3. Slipping of personnel in the runner

4. Human Behavior -Nonuse of PPE & not following WI

5. Human Behavior -Improper house keeping

6. Inadequate local lighting

7. Inhalation of fumes

8. Burns due to contact with hot metal & slag.

9. Runner getting puncture

10. Using rice husk containing moisture

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