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|  | **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** |

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| **Departmental Use Only** | |
| **Revision No: 02** | **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: | Operation of control valves to control BFG line pressure to GEL from BF1 control room As and when required |
| 2) | Location (s) where the work is carried out. | Gas holder area |
| 3) | Who normally/occasionally carried out the task? | BF1 control room in charge |
| 4) | Who else may be affected by the work (For example visitors, subcontractors? the public) | 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 |
| 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: | Not required |
| 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: | Valves, BFG |
| 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. | No |
| 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): | Gaseous (Blast furnace gas)/Solid(valves) |
| 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 02.05.2015 at around 14:40 hrs, furnace took slip and BF gas line pressure increased to 21 kpa and drip pots at HBS, PCI & SP water seal, NPP water seal, Drips pots 1, 2, 3 (NPP gas line) and drip pot at sinter plant tail end ESP gave away. Immediately line pressure was reduced to 5 kpa by opening flare stack MCV, but still there was a gas leakage observed for long time from the drip points. To control gas leakage, Fresh water pump no.2 has been taken in line in addition with the running pump no.3 to make-up the water at drip pots. There was no gas poisoning to any person or damage to any equipment.

**Hazards identified**

1. BF Gas poisoning
2. Human Behavior -Failure to isolation (blanking) of valves while carrying out maintenance jobs.
3. Water seal failure due to pressurizing of line.
4. Unintentional dropping of water seal due to human error/miscommunication between personnel.
5. Fall of person and getting hurt while running in hurry
6. Fire & explosion
7. Human Behavior -Nonadherence of work instruction/use of PPE
8. Improper housekeeping/inadequate local illumination.
9. Human Behavior -LOTO system not being followed.
10. Fall of person from height

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