|  |  |  |  |
| --- | --- | --- | --- |
|  | **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** |

|  |  |
| --- | --- |
| **Departmental Use Only** | |
| **Revision No:** 03 | **Unit: PID-1** |
| **Revision Date: 13.09.2023** | **Dept.: INSTRUMENTATION** |

1. Work activity information Changing of Dome/Hot Blast /Combustion chamber TC

|  |  |  |
| --- | --- | --- |
| **Sr.No.** | **Details** | **Remark** |
| 1) | Task being carried out, their duration and Frequency: | Changing of Dome/Hot Blast/Combustion chamber TC, 3-4 Hrs, In case of failure |
| 2) | Location (s) where the work is carried out. | Hot blast stoves Dome area/Hot blast stoves combustion chamber platform, Bustle |
| 3) | Who normally/occasionally carried out the task | Instrumentation Engineer / Instrumentation Technician / Contractor |
| 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/INST/18 |
| 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 | NIL |
| 10) | Manufacturer’s or supplier’s instructions for operation and maintenance plant machinery and powered hand tools are available or not: | NA |
| **Sr.No.** | **Details** | **Remark** |
| 11) | Chain block, tools and shackles such as wire rope, hydraulic jack etc are used. | NIL |
| 12) | What materials are handled? Size, shape, surface character and weight of materials that may be handled: | Multimeter, Tools, CO monitor, Thermocouple; All light in weight. |
| 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. | Yes, 30m height |
| 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): | CO gas, Vapor, fumes etc. |
| 16) | Content and recommendations of safety data sheets relating to substances used or encountered:  ( this is applicable in case of chemical material) | Data on Toxic effect of CO gas |
| 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 | NA  Yes |
| 18) | What is the data (s) required to be monitored during the activity and the frequency of monitoring. | CO gas concentration-Continuously |
| 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: | CO gas level content should be less than 50ppm.  **Incident happened in PIEP on 21st March, 2013 (**On 21/03/13 at around 19:00 hrs HBS Stove 3, the Dome thermocouple replacement job was in progress, while inserting the new thermocouple slowly using stand and rope arrangement. When it was just 100mm inside the dome, the thermocouple’s terminal cover busted along with the Ceramic insulation and the temperature element. As this activity was carried as per the procedure there was no injury to anybody.) |

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

[**Hazards identified**](../Risk%20Assessment%20Instrumentation/14R%20Working%20on%20hydropack%20.xls)

**Physical:**

* Pressure
* Temperature
* Fire
* Honeybee bite
* Noise
* Heat and Gas Exposure
* Height
* Explosion due to steam trap
* Contact with Hot Surface

**Mechanical:**

* Trip & Fall

**Chemical:**

* CO Gas poisoning
* Dust, Graphite

**Ergonomics:**

* Insufficient work practices

**Hazard due to Human Behavior/Human error:**

* Not adhering to WI/ PPE
* Alcoholism
* Use on non-certified tools/equipment

|  |  |
| --- | --- |
| **Prepared By:**  Head Instrumentation PID1 | **Reviewed By:** Head – Electrical & Instrumentation PID1 |
| **Signature:** | **Signature:** |
| **Review Date:13.09.2023** | **Review Date: 13.09.2023** |