The emergency situations identified for the Instrumentation Department are:

1. Fall of person
2. Fall of object
3. Electrical shock
4. Fire
5. Honey Bee bite
6. Drowning of person
7. **Fall of person**

Resources Required

1. Communication facilities
2. Ambulance
3. Medical aid/ First aid equipment
4. First aid personnel and helpers

Emergency Response plan

1. In case of a situation of fall of a person, the incident will be reported by the co-worker to Instrumentation Engineer / Incharge Instrumentation PID-1.
2. The Instrumentation Engineer / Incharge Instrumentation PID-1 will be responsible to co-ordinate with Head Operations & M PID 1 / Medical officer.
3. In the absence of the Instrumentation Engineer / Incharge Instrumentation PID-1, the above task responsibility shall lie with the Shift Electrical Engineer.
4. The Instrumentation Engineer / Incharge Instrumentation PID-shall be responsible to arrange for necessary first aid in the absence, the above task responsibility shall lie with the Shift Electrical Engineer.
5. After necessary first aid, the affected person (Inst Technician/ Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.

Mitigation Measures

Following mitigation steps shall be initiated for preventing the recurrence of accident / incident likely to occur due to fall of person:

1. Use of necessary PPE such as Safety belt, Helmet, Safety shoes, etc.
2. Regular / Refresher On-the-job training shall be imparted on safety and skill development.
3. Job shall be carried out under close supervision and a safety work platform shall be used for any overhead work.
4. Any lube spillages shall be covered by saw dust.
5. Proper work area illumination shall be ensured.
6. Walkways if any shall be provided with hand railings, toe guards and proper markings/ labelling.
7. In cases where a platform is not available to work at heights, the jobs shall be carried out by using scaffolding, using safety belt or using a ladder as applicable.
8. Mock drills shall be carried out wherever practicable and discussion on safety tips among the personnel will be held.

Legal obligations if any: Incident will be reported to the head safety/Plant head.

Records:

1. Incident Report
2. Incident Investigation report
3. Mock drill reports

Reporting of emergency: In case of an incident of fall of person, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB • HSE & Business Manager.

1. Fall of Object

Resources Required

1. Communication facilities
2. Ambulance
3. Medical aid/ First aid equipment
4. First aid personnel and helpers
5. Fire fighting equipments & Emergency lights

Emergency Response plan

1. In case of a situation of fall of an object, the incident will be reported by the co-worker to Instrumentation Engineer / Incharge Instrumentation PID-1.
2. The Instrumentation Engineer / Incharge Instrumentation PID-1 will be responsible to co-ordinate with Head Operations & M PID 1 / Medical officer.
3. In the absence of the Instrumentation Engineer / Incharge Instrumentation PID-1, the above task responsibility shall lie with the Shift Electrical Engineer.
4. The Instrumentation Engineer / Incharge Instrumentation PID-shall be responsible to arrange for necessary first aid in the absence, the above task responsibility shall lie with the Shift Electrical Engineer.
5. After necessary first aid, the affected person (Inst Technician/ Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.

Mitigation Measures

Following mitigation steps shall be initiated for preventing the recurrence of accident / incident likely to occur due to fall of object on person:

* + 1. Use of necessary PPE such as safety belt, helmet, safety shoes, etc.
    2. Regular / Refresher On-the-job training shall be imparted on safety and skill development.
    3. Job shall be carried out under close supervision.
    4. Tested lifting slings will be provided for lifting / shifting.
    5. Objects shall be appropriately supported by wooden blocks or lifting equipments during any assembly / dis-assembly process.

Legal obligations if any: Incident will be reported to the head safety/Plant head.

Records:

1. Incident report
2. Investigation report
3. Mock Drill Report

Reporting of emergency: In case of Fall of an object, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB • HSE & Business Manager.

1. **Electrical shock**

Resources Required

1. Communication facilities
2. Ambulance
3. Medical aid/ First aid equipment
4. First aid personnel and helpers
5. Emergency lights

Emergency Response plan

1. In case of a electric shock of a person, the incident will be reported by the co-worker to Instrumentation Engineer / Incharge Instrumentation PID-1.
2. The Instrumentation Engineer / Incharge Instrumentation PID-1 will be responsible to co-ordinate with Head Operations & M PID 1 / Medical officer.
3. In the absence of the Instrumentation Engineer / Incharge Instrumentation PID-1, the above task responsibility shall lie with the Shift Electrical Engineer.
4. The Instrumentation Engineer / Incharge Instrumentation PID-shall be responsible to arrange for necessary first aid in the absence, the above task responsibility shall lie with the Shift Electrical Engineer.
5. After necessary first aid, the affected person (Inst Technician/ Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.

Mitigation Measures

Following mitigation steps shall be initiated for preventing the recurrence of incident likely to occur due to electrical shock to a person:

1. Use of necessary PPE such as safety belt, helmet, safety shoes, etc.
2. Regular / Refresher On-the-job training shall be imparted on safety and skill development.
3. Job shall be carried out under close supervision.
4. Insulated tools / hand gloves etc. shall be provided.
5. Battery disconnect switch will be fitted on all equipments.
6. Independent main switches will be provided at each section.
7. Location of main switches shall be identified and MCBs provided in all circuits.
8. A work permit and Lock out Tag out (LOTO) shall be taken for maintenance of any electrical equipment / Electrical power line wherever applicable.

Legal obligations in any: Incident will be reported to the head safety/Plant head.

Reporting of emergency: In case of Electric shock of person, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB • HSE & Business Manager.

Records

1. Incident report
2. Investigation report
3. Mock Drill Report
4. **Fire**

Resources Required

1. Communication facilities
2. Ambulance
3. Medical aid/ First aid equipment
4. First aid personnel and helpers
5. Fire fighting equipments & Emergency lights

Response plan

1. In case of a situation of fire in the Workshop, the persons working in the area will make an attempt to extinguish the fire using the resources available like water, sand buckets or any DCP type fire extinguishers.
2. In-case the fire is on an electric installation, only DCP (Dry Chemical Powder) fire extinguishers / CO2 extinguisher or sand (buckets) shall be used except water.
3. The Instrumentation Engineer / Incharge Instrumentation PID-1 will be responsible to co-ordinate with Head Operations & M PID 1 / Medical officer.
4. In the absence of the Instrumentation Engineer / Incharge Instrumentation PID-1, the above task responsibility shall lie with the Shift Electrical Engineer.
5. The Instrumentation Engineer / Incharge Instrumentation PID-shall be responsible to arrange for necessary first aid in the absence, the above task responsibility shall lie with the Shift Electrical Engineer.
6. After necessary first aid, the affected person (Inst Technician/ Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.
   1. Mitigation Measures

Following mitigation steps will be initiated for preventing the recurrence of incident likely to occur due to fire in the workshop:

1. Use of necessary PPE such as safety belt, helmet, safety shoes, etc.
2. Regular / Refresher On-the-job training shall be imparted on safety and skill development.
3. Fire extinguishers shall be provided in various locations in workshop / equipments.
4. Sand buckets will be provided in Workshop.
5. Battery disconnect switches will be fitted on all equipments.
6. Independent main switches will be provided to each section.
7. Location of main switches will be identified and MCBs provided in all circuits.
8. Housekeeping will be carried out regularly in Workshop.
9. Cotton waste, paper, etc. shall be segregated and sent to Stores regularly.

Legal obligations if any: Incident will be reported to the head safety/Plant head.

Reporting In case of an fire, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB • HSE & Business Manager.

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Records:

1. Incident report
2. Investigation report
3. Mock Drill Reports
4. **Honey Bee Bite**

Resources Required

1. Communication facilities
2. Ambulance
3. Medical aid/ First aid equipment
4. First aid personnel and helpers
5. Emergency lights

Emergency Response plan

1. In case of Emergency Situation like Honeybee Bite to the any person, the same is to be reported by the co-worker to the Instrumentation Engineer / Incharge Instrumentation PID-1
2. The Instrumentation Engineer / Incharge Instrumentation PID-1 will be responsible to co-ordinate with Head Operations & M PID 1 / Medical officer.
3. In the absence of the Instrumentation Engineer / Incharge Instrumentation PID-1, the above task responsibility shall lie with the Shift Electrical Engineer.
4. The Instrumentation Engineer / Incharge Instrumentation PID-shall be responsible to arrange for necessary first aid in the absence, the above task responsibility shall lie with the Shift Electrical Engineer.
5. After necessary first aid, the affected person (Inst Technician/ Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.

Mitigation Measures:

Following mitigation steps will be initiated for preventing the recurrence of accidence/ incidence likely to occur due to Honeybee Bite:

1. Removal of these honeybee combs if any, will be carried out regularly.
2. Mock drill shall be conducted for each situation on six monthly basis and observations will be recorded.
3. Depending on the observation of mock drills, suitable action for improvement shall be taken.
4. Job shall be carried out under close supervision.
5. Housekeeping will be maintained in the area.

Legal obligation: Nil

Reporting of emergency: In case of an honey bite of person, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB • HSE & Business Manager.

Records

1. Incident report
2. Investigation report
3. Mock Drill Reports
4. **Drowning of person**
5. Resources required
6. Communication facilities (Siren, PA system, bell for manually communication
7. Lifesaving appliances (lifebuoy, life jacket, etc.)
8. Ambulance
9. Medical aid/ First aid equipment
10. First aid personnel, control & liaison members and general emergency group

Response plan

1. In case of a situation of person falling in water, the incident shall be reported by the co-worker to the Instrumentation Engineer / Incharge Instrumentation PID-1.
2. The Instrumentation Engineer / Incharge Instrumentation PID-1 will inform to Production In-charge (WIC) based on information and the urgency.
3. The Works Incident Controller (WIC) will declare an emergency and initiates action.
4. In absence of Works Incident Controller WIC, Engineer in Shifts shall act as WIC in association with Shift staff.
5. WIC will direct the group 2- rescue & first Aid, Group 3- control liaison, group 4- evacuation and group 5- general emergency group working for emergency, at incident location.
6. The team leader of each group shall be responsible to direct the group members to carry out the job as per the emergency procedure.
7. After necessary first aid, the affected person (Mechanic/ Inst Technician/Electrician/ Helper/ Multi skilled workmen/ Engineer) shall be shifted to the local dispensary and later shifted to a hospital if required.

Mitigation Measures

Following mitigation steps will be initiated for preventing the recurrence of incident likely to occur due to drowning of person:

1. Use of necessary PPE such as Life vest, helmet, safety shoes, etc.
2. Regular / Refresher On-the-job training shall be imparted on safety and skill development.
3. Job shall be carried out under close supervision and a safety work platform shall be used for any overhead work.
4. Mock drills will be carried out as per the schedule.

Legal obligation: Nil

Reporting: In case of a drowning of person, it shall be immediately reported to the respective SS, Head Operations & M PID 1 • Operations, Dy CEO VAB, Head Mechanical Maintenance & Asset Integrity- VAB-IOB, Director Power • Operations, Chief HSE Officer- VAB & Business Manager.

Records:

1. Incident Report
2. Incident Investigation report
3. Mock drill reports

**The following persons shall be informed in case of an emergency situation:**

|  |  |  |
| --- | --- | --- |
| **Function** | **Location** | |
| **PID-1** | **Contact No.** |
| Control room | BF1/2 | 08322385223/228 |
| Dispensary | PID-1 | 08322385220 |
| Head Mechanical Maintenance & Asset Integrity- VAB | Mr.Gaurang Kamat | 9011004479 |
| Dy CEO VAB | Mr. Susanta Ganguli | 9302321928 |
| Director Power Operations | Mr. Premanand Rane | 9922436883 |
| CEO-VAB | Mr. Saptesh Sardesai | 9011004482 |
| Doctor | Dr. Abel Da Costa | 9535584329 |
| Chief HSE Officer- VAB | Mr. Soham Mukherjee | 8013167549 |

|  |  |  |
| --- | --- | --- |
| **Prepared By:**  Head Instrumentation PID1 | **Reviewed & Issued By:**  Management Representative | **Approved By:**  Head – Electrical & Instrumentation PID1 |
| **Signature:** | **Signature:** | **Signature:** |
| **Date:** 13.09.2023 | **Date:** 13.09.2023 | **Date:** 13.09.2023 |