



DISASTER MANAGEMENT

IN

FERRO SCRAP NIGAM LTD



INTRODUCTION

FSNL is a Govt. of India Undertaking, Mini Ratna-II, ISO certified company, under 'Ministry of Steel', having units, operating at Rourkela, Bokaro, Burnpur, Durgapur, Bhilai, Daburi, Vizag, Haridwar, Bangalore & Bhadravati.



Definition of Disaster as per DM Act 2005

“A catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.”



Disaster in FSNL's perspective

- Risks of loss of human lives - ten or more in one single situation
- Loss of property valuing Rs.1 crore or above as a consequence of the incident and/or a potential to the above.
- A situation, which goes beyond the control of the available resource of the company.
- A situation apparently may not have much loss but its long-term severity can affect loss of life, production and property



Issues involved in any disaster

- Identification of risk and hazards
- Assessment and prioritisation
- Organisation and resources
- Awareness and competence
- Evacuation, relief and rehabilitation



Probable Causes of Disaster

Operational Hazards

- Fire, Explosion, Accidents

Natural Hazards

- Earthquake, Thunderstorm, Cyclone, Floods



Hazard-wise vulnerability in FSNL

Operational Hazards

Fire

- Fire is caused due to:-
 - Short circuit in electrical installations
 - Splashing of hot metal pieces/slag due to uncontrolled dumping in pits.
 - Molten metal in hot pit, and exposed to atmosphere
 - Hot slag feeding in separators
 - Back fires in lancing/gas-cutting activity



Explosion

- Explosion is caused due to:-
 - Spillage of Liquid Metal
 - Dumping of hot slag/metal in the pits having accumulated water pockets.
 - Underground diesel tank/oxygen & D.A. cylinders

Accidents

- Accidents are caused due to:-
 - Sudden failure of Heavy Earth Moving Equipment during operation



Natural Disaster

- Natural Disaster are caused due to:-

Earthquake

- Low predictability /No warning

Thunder storm

- Predictable

Cyclone

- Predictable

Flood

- Predictable



Disaster Management at FSNL

The Disaster Management Committee (DMC) and the Emergency teams will have three main types of functions as shown below:

- Functions at normal times
- Functions during emergency
- Post - emergency functions



Mitigating plan for responding Disaster

Hazards identification & Risk Assessment(HIRA)

- HIRA has been prepared *keeping in the view vulnerability and Risk Assessment* with appropriate control measures.
- Organisational resources, awareness of employees and competence through training and mock exercises have been taken into account in HIRA.



Standard Operating Procedure (SOP)

- In the event of any disaster, the first witness will blow the emergency alarm/hooter so that the employees would reach at assembly point to tackle the situation.
- Unit head of the concerned unit will immediately contact Plant Control Room of respective Steel Plant as well as intimate local administration about the intensity of the disaster and action initiated by him, with an intimation to Control Cell, Corporate Office.



- Unit head will mobilize the Quick Response Team (**QRT**) to the spot of disaster with appropriate instruction for adequate assistance to the disaster victims.

- The QRT will render all emergency support and take preventive measures for avoiding proliferation of the disaster to the surrounding areas, if possible.



Disaster Management Committee Control Room

Corporate Level

- Head of Disaster Management Committee
- Nodal officer at Corporate Office
(email [Id- fsni_rdc@nic.in](mailto:Id-fsni_rdc@nic.in))

Unit Level

- Unit Heads will head in all units.
- Nodal officer



Functions of Nodal Officer

The following Emergency Support Functions are to be discharged by the Nodal Officer:

- Provide his contact number to the head of District Level Disaster Management Cell, and State Level Disaster Management Cell
- Attend emergency meetings of the District Level Disaster Management Cell.
- Intimate District Level Disaster Management Cell, the QRT with requisite resources.



Emergency Preparedness

To keep Emergency kit consisting of :

- Fire extinguishers
- First aid box
- Vehicle for transporting victim to the nearest hospital for medical aid.



Legal Requirements

41G-clause-1- Workers' participation in safety management-

- The occupier shall, in every factory where a hazardous process takes place, set up a Safety Committee consisting of equal number of representatives of workers and management to promote co-operation between the workers and the management in maintaining proper safety and health at work and to review periodically the measures taken in that behalf.



The Manufacture, Storage and import of Hazardous Chemical Rules, 1989-

- The Rule 13 of the said Rules makes it mandatory for Preparation of on-site emergency plan by the occupier

There are three sub rules under this rule which describe on-site emergency plan in detail

- The Rule 14 of the said rules makes it mandatory to prepare off-site emergency plan by the authority.



- Again there are sub rules which details off-site emergency plan and responsibilities of the occupier.
- Rule 15 of the said Rules make it mandatory to provide information to be given to persons liable to be affected by a major accident.
- There are two Sub rules under Rule 15 which provide the process to follow and other details.

These Rules ascertain the importance of addressing the industrial hazards management in industries.



Disaster Management Plan **The End Objectives**

- To minimise losses in terms of human lives and assets.
- To restore vital operations and services in the quickest possible time for containing human suffering and further damage to properties and assets.
- To restore normal operations as soon as possible



CONCLUSION

- Well laid Disaster Management guidelines and emergency preparedness procedures
- Good safety record over decades
- Continuous improvement in managing emergency situations
- Enhancement of competence, resources & awareness
