

1.9 Disaster Management Plan

The mining operation shall be carried out under the management control and direction of a qualified mines manager holding a Second class manager's certificate of competency to manage a metalliferous mine granted by Director General of mines safety (DGMS), Dhanbad. DGMS have been issuing a number of standing orders and circulars to be followed by the mine management in case of disaster, if any. Moreover mining staff would be sent to refresher courses from time to time to keep them abreast of the regulations. In order to take care of hazards/disasters, the following control shall be adopted; All safety precautions and provisions of Metalliferous Mine regulation 1961 are strictly followed during all mining operations, Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water into mining area, Entry of unauthorized persons shall be prohibited, Fire fighting and first aid provisions in the mines office and mining Area, Provision of all the safety appliances such as safety boots, helmets, goggles etc. would be made available to the employees and regular check to ensure the use, Training and refresher courses for all the employees working in the hazardous premises, Working of mine as per approved plan, related amendments and other regulatory provisions, Cleaning of mine faces shall be done regularly, Handling of explosives, charging and blasting shall be carried out by competent persons only, Provision of magazine at safe place with fencing and necessary security arrangement, Suppression of dust on the haulage roads.

Figure 1.3 Old Working pit with fencing



1.10 Occupational Health and Safety (Terms of Reference No. 6, 34, 35 & 37)

Health and safety aspects of the mine will be taken care off as per the World Bank (WB) guidelines on open pit mining. The guidelines provide the detailed information on the aspects that are required to be taken into account for maintaining proper health and safety issues.

The workers continuously exposed to dust will be provided with some protective devices like dust mask to prevent respiratory disorders. The workers continuously exposed to a high noise will be provided with ear muffs/ earplugs. Green belt in and around the mining area will be developed to attenuate noise and dust impact. All the above precautions would be adopted to prevent dust generation at site and its dispersion in the outside environment. However, for the safety of workers at site, engaged at strategic locations/dust generation points like drills, loading and unloading points, dust masks would be provided. Dust masks would prevent inhalation of particulate matter thereby reducing the risk of lung diseases and other respiratory disorders. Regular health monitoring of workers will be carried out. By periodical medical checkup and treatment and job rotation of employees, the impact would be minimized. Pre placement medical checkup shall be done and periodic health check up is planned for all the mine workers. To protect the workers from exposure to high levels of noise, following measures would be adopted: Provision of protective devices like earplugs with glycerin soaked cotton and earmuffs to workers who cannot be isolated from the source of high intensity noise, e.g. mining, transportation and occasional drilling; reducing the exposure time of workers to the higher noise levels by shift management.

Drinking water supply for the employees will be provided by the project authority. The standard of the drinking water will be as per WHO guidelines. Water flushed latrines and urinals would be provided at conveniently accessible points at the scale of one seat for every 50 (or part) persons, with the associated facilities for disinfection. Pre placement medical checkup shall be done and periodic health check up is planned for all the mine workers once in six months for parameters like blood examination, urine examination, spirometry, vision (far, near & colour), audiometry, pulse, ECG, BP and chest x-ray. If any health problem has occurred during the period of employment or any health disorder detected, it will be treated adequately and the employee will be repositioned in a suitable area of the mine, as per his condition. For protection of mine and mined-out pits barbed wire fencing will be provided to avoid incidents for cattle and human. Periodical training programme to inform the employees about their task, associated

risk, and safe working practices will be undertaken. Training will also include information on accident prevention, proper control and maintenance of equipment and safe material handling practices and personal protective equipments will be provided for their safety. A regular monitoring of the Occupational Health and Safety will reduce the chances of accidents in the mine. Records of job related accidents and illness will be maintained. This information will be reviewed and evaluated to improve the effectiveness of Environmental Health and Safety programme.