

10.0 ENVIRONMENT MANAGEMENT PLAN

10.1 Preamble

The objective of the Environmental Management Plan (EMP) is to identify administrative aspects for ensuring that mitigation measures are implemented and their effectiveness are monitored.

The EMP focuses on direct impacts, which are identified as having the potential to cause significant impacts on the environment and identifies:

- Specific measures that will be taken to prevent, reduce or manage the environmental impacts during development and operation; and
- Where it is not possible to specify these at this stage, the level of environmental performance that will be expected during the operation.

KGSL's management is committed of using best environment management practices during construction and operation phase. **KGSL** will ensure that environmentally critical actions are undertaken as per the various regulatory requirements. There will be an Environment Management Cell overseeing all environment and safety responses to ensure that implementation of mitigation measures and monitoring programme as mentioned in Chapter 4, 6 & 8 during construction and operation phase including findings / recommendation of third party audit and monitoring results.

10.2 Environment Management Cell

It is necessary to have a permanent organizational set up charged with the task of ensuring effective implementation of all identified mitigation measures. Conscious of this, **KGSL** will upgrade the existing environment cell consisting of officers from various disciplines to coordinate the activities concerned with the management and implementation of the environmental control measures during construction and operation phase of the proposed expansion. **KGSL** will also develop a well-documented system to monitor and control pollution. The organization and responsibility of the Environmental Management Cell (EMC) is presented below in **Figure 10.1**.

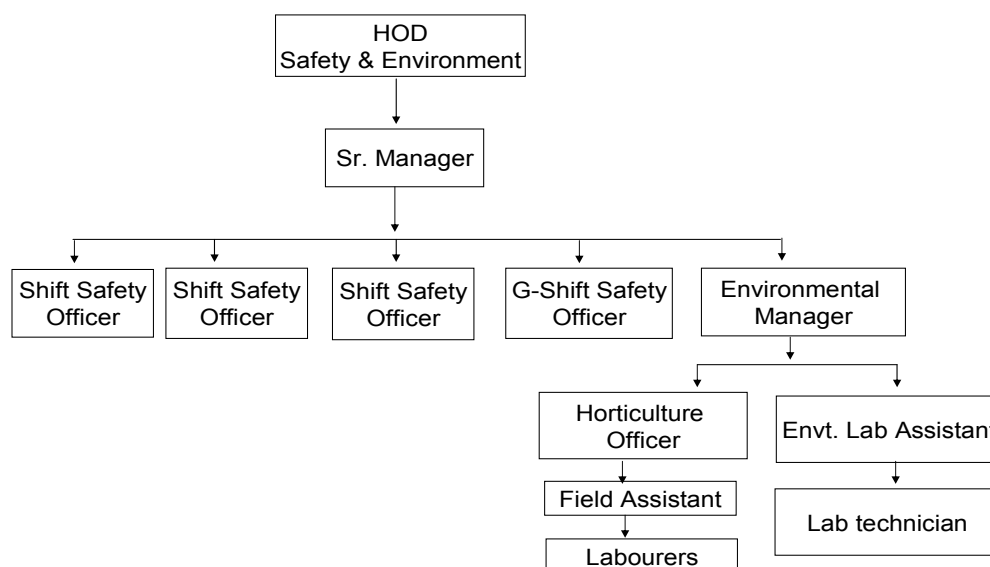


Figure 10.1: Environmental Management Cell

Basically, this department will undertake monitoring of the environmental pollution levels by measuring fugitive emissions, ambient air quality, water and effluent quality, noise level etc., either departmentally or by appointing external agencies wherever necessary. In case, the monitored results of environmental pollution will be found to exceed the allowable values, the EMC suggests remedial action and gets these suggestions implemented through the concerned plant authorities. EMC will also co-ordinate all the related activities such as collection of statistics w.r.t health of workers and population of the region, afforestation and green belt development.

10.3 Training

To achieve the objective of pollution control, it is essential not only to provide best pollution control system but also to provide trained manpower resources to operate the same. Training facilities shall be in place for environmental control. This training shall cover the items listed below:

- Awareness of pollution control and environmental protection;
- Operation and maintenance of pollution control equipment;
- Knowledge of norms, regulations and procedures; and
- Occupational health and safety.

KGSL will ensure that workers prior to commencement of new assignments should receive adequate training and information enabling them to understand the hazards of work and to protect their health from hazardous ambient factors that may be present. The training will adequately cover:

- a) Knowledge of materials, equipment, and tools;
- b) Known hazards in the operations and how they are controlled;
- c) Potential risks to health;
- d) Precautions to prevent exposure;
- e) Hygiene requirements;
- f) Wearing and use of protective equipment and clothing; and
- g) Appropriate response to operation extremes, incidents and accidents.

A basic occupational training program and specialty courses will be provided as needed to ensure that workers are oriented to the specific hazards of individual work assignments. Training shall generally be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards. Training will also be provided to account for new or changed risks whenever procedures are altered or new materials/equipment introduced. The salient features of the training program are as given hereunder:

- Employees will be trained on the hazards, precautions and procedures for the safe storage and handling of raw material relevant to each employee's task and work area;
- Training will incorporate information from the Material Safety Data Sheets (MSDSs) for all raw material proposed to be handled;
- Personnel will be trained in environmental, health and safety matters including accident prevention, safe lifting practices, the use of MSDSs, safe chemical handling practices, and proper control and maintenance of equipment and facilities;
- Training will also include emergency response, including the location and proper use of emergency equipment, use of personal protective equipment, procedures for raising the alarm and notifying emergency response teams, and proper response actions for each foreseeable emergency situation;
- Training will be repeated periodically and supported by feasible incentives;
- Workers with rescue and first-aid duties will receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co-workers. The latter training would include the risks of becoming infected with blood-borne pathogens through contact with bodily fluids and tissue; and

- **KGSL** through appropriate contract specifications and monitoring shall ensure that service providers, as well as contracted and subcontracted labor is appropriately trained before start of their assignments.

10.4 Record Keeping

- a) Records of significant environmental matters, including monitoring data, accidents and occupational illnesses, and spills, fires and other emergencies will be maintained;
- b) Recorded information will be reviewed and evaluated to improve the effectiveness of the environmental, health and safety program; and
- c) An annual summary of the above information shall be provided to MOEF/APPCB, if required.

