

## CHAPTER 16

# MAINTENANCE OF AIR, WATER AND NOISE QUALITY

### 16.1 GENERAL

During project construction phase, sufficient measures need to be implemented to ameliorate the problem of water pollution from various sources. The management plan for sewage generated from various labour camps and project colony has already been discussed in chapter 12 of this report.

The construction activities would require crushers to crush large lumps of rocks into the requisite size or coarse as well as fine aggregates. During construction phase of the proposed project, 2 crushers are likely to operate at major construction sites. About 0.3 m<sup>3</sup> of water is required in the crusher to crush 1 tonne of aggregate. The effluent so generated will have high suspended solid i.e. of the order of 4000 mg/l. The effluent needs to be treated before disposal. It is proposed to provide settling tanks for treatment of effluent from various crushers.

During tunneling works the ground water flows into the tunnel along with construction water which is used for various works like drilling, shortcrating, etc. The effluent thus generated in the tunnel contains high suspended solids. Normally, as per existing practice, the water is collected in the site drains and drained off into the nearest water body without treatment. It is proposed to construct a settling tank to allow settling of the suspended impurities. The effluents will be generated from 2 locations, therefore 2 settling tanks would be required. Each tank would require about Rs. 2.0 lakhs, with total financial implication of Rs. 4 lakhs.

The sludge from the various settling tanks can be collected once in 16 days and disposed at the site designed for disposal of municipal solid wastes from the labour camps and project colonies. The sludge after drying could also be used as cover material of the municipal wastes.

## **16.2 WATER QUALITY MONITORING**

At present no developmental activities such as industries etc. are going on in the upstream of the catchments as well as proposed reservoir, therefore, any probabilities of water quality degradation are minimal. From the water testing results as shown in EIA report it can be well inferred that the quality of water of the Dibang river is reasonably of good quality. Also, that there are hardly any human habitations draining their refuse into the river which could change the nutrient status of the river waters and bring about degradation of the Dibang aquatic eco-system. However, the project authority should take effective and proactive measures to ensure that such activities would not be carried out in the upstream catchment, which may bring about water quality degradation in the future as well. Necessary financial outlay for establishing water quality testing has been kept in the Plan for Environmental Monitoring.

## **16.3 AMBIENT AIR AND NOISE QUALITY IN THE PROJECT AREA**

The ambient air quality of an area is dependant on the developmental and industrial activities in an area, and in the project area there is virtually none such activities except road construction in small areas hence the ambient air quality is very good. More so because of the thick vegetation and forest area in the region, which purifies the air quality, there's not much concern for the air quality in the project area at present. For the same reason of not having much ongoing developmental activities in the region noise pollution is also negligible. However during the construction phase as heavy machinery and a large nos. of work force will be working in the project area, project authority will take adequate care by scheduling various activities so as to generate minimum amount of noise and air pollution.

### **16.3.1 Control of Air Pollution**

For the control of air pollution during construction phase of the project, it is suggested that it should be made mandatory for the contractors engaged in the construction works to ensure the following conditions:

1. The crushers should be provided with wet-scrubbers, so as to minimize the release of SPM into the atmosphere.

2. The chimneys of the Diesel Generator Sets should be kept appreciably high,
3. Regular water sprays at the crushing sites, quarrying as well as the dumping sites should be ensured.
4. Masks should be provided to the workers and staff
5. Proper ventilation facilities to be provided at all the residential complexes of the staff/labour.

Moreover project authority shall ensure sufficient measures colonies, office complexes, quarry sites and muck disposal sites as suggested in the Afforestation plan.

### **16.3.2 Control of Noise Pollution**

As the continuous exposure to loud noise is very dangerous, so it becomes essential to control the noise pollution, various measures for control of noise pollution in the project area are suggested below:

- Canopies should be installed at the Diesel Generator sets to reduce the noise.
- Ear protection aids such as ear plugs, earmuffs, noise helmets, etc., must be provided to the workers by the contractors/ projects.
- Proper and regular maintenance /lubrication of machines should be done.
- Noise producing still machines (such as crushers, aggregate processing plants, etc.) must be enclosed within walls (sound proof chambers).
- Quieter machines and vehicles with high quality silencers should be used.
- Afforestation in the form Green Belt, as suggested in chapter 6, around the project area, residential colonies and office complexes should be done which will also help in reducing the noise pollution to a greater extent.

### **16.3.3 Miscellaneous Expenditure**

A provision of Rs. 20 lakhs have been proposed for miscellaneous expenditure for the maintenance of air, water and noise quality.

### **16.4 FINANCIAL OUTLAY**

Total outlay for the maintenance of air, water and noise quality Rs. 24.00 lakhs.