



# Environmental Regulations in Mining Projects

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Over the past few years, strict environmental rules and regulations as applicable to mining projects have been formulated and are being enforced by a number of State and Central Government agencies. Though the objective of these legislations is the prevention of environmental pollution/ degradation, simplified procedures and fixing of time frames for grant of environmental clearances is also essential for ensuring the expeditious development of industrialization in the country.

Minerals are valuable and indispensable raw materials for many basic industries and are an important and significant source for industrial development.

The occurrence of a mineral deposit per se, is not a sufficient determinant for establishment of a mining project. The viability of a project needs to be established by conducting detailed exploration over the area, carrying out techno-economic feasibility studies, etc. After establishing a project's viability there are a number of statutory environmental requirements to be fulfilled and a variety of clearances need to be obtained from different Government agencies before a project can be implemented. Some of these are briefly discussed in this paper.

## 1.0 REGULATION OF MINERALS

India, in its 42<sup>nd</sup> constitutional amendment, has made provisions for the protection and improvement of the environment. There are a large number of statutory laws and regulations governing mining activities in India. These include, grant and administration of mineral concessions, mineral exploration, mining, environmental safeguards, mine reclamation, etc.

Management of mineral resources is the responsibility of the Central Government and the State Governments in terms of Entry 54 of the Union List (List I) and Entry 23 of the State List (List II) of the Seventh Schedule of the Constitution of India. The Mines and Minerals (Regulation and Development) Act, 1957, and its amendments lay down the legal framework for the regulation of mines and development of minerals.

The Mineral Concession Rules, 1960, and its amendments thereof have been framed for regulating grant of prospecting licenses and mining leases. These rules, incorporating the latest amendment in 1994, also lay down the details of the mining plan, its implementation and approval.

The Central Government has also framed the Mineral Conservation and Development Rules, 1958, for conservation and systematic development of minerals. These rules set up the norms for prospecting operations. Circulars issued by the Director General, Mines Safety promulgate regulations to ensure safe mining operations.

## 2.0 ENVIRONMENTAL LEGISLATION

Besides the above, mining projects are also covered by Schedule I of the EIA Notification, 1994 and governed by the environmental rules and regulations specified under the Acts as listed below:

- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1974
- The Environment (Protection) Act, 1986



- The Wildlife (Protection) Act, 1972
- The Forest (Conservation) Act, 1980

The Water Act, 1974, amended in 1988 and 1989, provides that consent is necessary before setting up of an industrial unit. The State Pollution Control Boards (SPCB) are empowered to review construction, installation or operation of any process of the industry.

The Air Act, 1981, amended in 1987, covers harmful solids, liquids, gases and, more significantly, noise pollution. All polluting industries must obtain consent before setting up the unit.

The Environment Protection Act, 1986, lays down the procedures and safeguards for prevention and mitigation of environmental degradation. It has made it obligatory for all mines, with lease areas of more than 5 hectares, to obtain a clearance from the Ministry of Environment & Forest (MoEF). Such proposals must be accompanied by a Feasibility Study, Environment Impact Assessment / Environment Management Plan (EIA/ EMP), risk analysis, base line information, etc.

The Forest (Conservation) Act, 1980 is another regulation that has wide ramifications on the mining sector. A feasibility analysis of a proposed mining project in forest area, vis-à-vis the value of forest cover and its produce in economic terms, has to be made. The forest land to be diverted to revenue land has to be compensated by the applicant.

For implementation of a mining project, environmental clearances are required to be taken both from the Central and the concerned State Governments. Some of these are:

<i>Statutory Requirement</i>	<i>Governing Agency</i>
Site Clearance	-State Dept. Of Mines & Geology -SPCB -MoEF
Environmental Clearance	-SPCB -MoEF
Forest Clearance	-State Dept. of Forest -MoEF
Approval of Mining Plan	-Indian Bureau of Mines

## 2.1 SITE CLEARANCE:

Site clearance from MoEF is required before grant of prospecting license and start of prospecting operations, grant of mining lease and establishment of mining projects. An application made to State Department of Mines & Geology is forwarded to the MoEF for clearance. A 1997 notification of the MoEF has made public hearing mandatory for lease areas more than 500 hectares.

## 2.2 ENVIRONMENTAL CLEARANCE :

The first step towards environmental clearance is collection of base line environmental data and preparation of an EIA/ EMP Report. This Report is submitted to the SPCB and an NOC needs to be obtained for establishment of the



project. The case is then submitted to the MoEF for environmental clearance. This clearance would entail forest clearance also if the area falls wholly or partly within forest land. On the basis of scrutiny of the EIA/ EMP Reports, site visits wherever necessary, observations of the concerned State Government on public hearing, etc., the MoEF makes recommendations for approval or rejection of the project.

### 2.3 FOREST CLEARANCE :

As a first step, the forest area falling within the proposed lease area is identified and demarcated. The local Forest Department then conducts a survey to evaluate the extent of deforestation due to the project. A programme for Compensatory Afforestation is formulated and suitable revenue land is transferred to the Forest Department. This needs interaction with the local Government authorities for necessary clearance. The proposal for diversion of land is forwarded through the State Government to the MoEF for approval.

### 2.4 APPROVAL OF MINING PLAN :

A mining plan in respect of the proposed lease area has to be prepared and submitted to the IBM. Mining plans/ mining schemes require approval by the IBM for renewal, grant or transfer of lease.

### 3.0 CONCLUSIONS

A number of statutory organisations and Government agencies are involved in granting clearances for mining projects. Uncertainty regarding grant /renewal of leases, requirement of site clearance even for carrying out prospecting, restrictions regarding forest areas etc. act as deterrents in the growth of the mining sector. Procedural delays unnecessarily escalate the costs of projects, even jeopardizing their viability at times. It is thus desirable that a single nodal Government agency be authorised to coordinate these clearances and reasonable time frames be fixed for grant of approvals.