ENVIRONMENT, POLLUTION CONTROL, SOLID WASTE MANAGEMENT & ENERGY CONSERVATION

SAIL

SAIL is committed to comply with the targets set by the Charter of Corporate Responsibility for Environmental Protection (COREP), in the spirit of partnership with Ministry of Environment & Forests (MoEF), Government of India to go beyond the statutory norms. SAIL constituted a TASK FORCE to ensure the implementation of the action plan made to comply with the targets set under the Charter.

1. ENVIRONMENT MANAGEMENT

The company continued to give thrust to environmental compliance in its Plants and Mines during 2003-04. All the integrated steel plants maintained vigorous efforts to meet the targets committed to Ministry of Environment/Central Pollution Control Board (CPCB) under the Corporate Responsibility for Environmental Protection (COREP). Over 2 lakhs trees were planted during the year. Specific water consumption and effluent discharges were reduced by 15% and 7.4% respectively over previous year.

Four more units were certified with EMS ISO 14001, namely SMS 1, Wire Rod Mill and Merchant Mill of Bhilai Steel Plant and Kusmber Iron Ore Mines of RMD. Environmental training programmes were given appropriate priority.

Various Environmental Awareness Programmes like World Environment Day, Earth Day, Environmental Month, Mines Environment and Conservation Week etc. were observed. Environment Management Division successfully executed a CPCB assignment on preparation of a report on Clean Technologies for Iron & Steel and Development of Environmental Standard for BF and CMS.

Through sustained efforts, SAIL plants have achieved 65% utilization of all solid wastes generated which are either being recycled inside the works or being commercially disposed. Earlier these were dumped within the plants.

Recognising the fact that hardware alone cannot consistently sustain the environmental and pollution management efforts, SAIL plants through its Corporate Environment

Lakya Dam: A part of pollution control facility at Kudremukh
2. ENERGY CONSERVATION
SAIL has endeavoured to further bring down energy conservation by improved operational efficiency. Energy consumption during the year 2003-04 was lowest ever at 7.46 Gcal/tcs, which is a reduction of 0.5 % over the previous year.

3. AFFORESTATION
SAIL has carried out extensive plantation in and around its plants and mines over the last decade. Over 18 million trees have been planted so far in SAIL plant and mines. In the year 2003-04 also, greenery efforts were continued and the results are reflected in the data given below.

**GREENERY EFFORTS AT SAIL PLANTS**

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<tr>
<th>PLANTS</th>
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<tbody>
<tr>
<td>BSL</td>
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**NMDL LTD.**

Environmental monitoring studies for the year 2004-05 (upto Dec. 04) have shown that all the environmental parameters are found to be within stipulated norms. Details of action taken in the current year 2004-05 (upto Dec. 04) are as follows:

- **Baijadilla, 111C Project, Kirandul, Dantewada Dt, Chhattisgarh.**
  - 20,000 cu.m of slime ditched from check dam No. 7/8 constructed across Kirandul river was given in the areas of green belt development and around the plant premises, solid waste management, monitoring of liquid and air effluent for various environmental parameters. 2000 trees saplings were planted during the year besides maintenance of existing trees and other trees.
  - The effluent discharge from the plant after treatment was re-circulated for plant operation like slag granulation, sinter plant dust suppressor, melting operation and SAF-I granulation tank to reduce fresh water consumption. The dust suppressor system at Raw Materials Yard has been designed and installed in house to curb dust emission during raw material charging operations. To control stack emission from Sinter Plant, water spray system has been installed in stack of SP-1. Trials are being conducted at coal mines, Chandrapur, for using Silico Manganese slag in mine stowing.

**ISCO**

Improvement in environment performance over last year is evident through reduction in particulate matter emission (5%), reduction in Specific Water Consumption (9.6%), reduction in Specific Effluent Discharge (10%) and increased recycle/reuse of commercial disposal of solid wastes (over 70% utilisation).

Action has been taken to comply with the Corporate Responsibility on Environment Protection (CRDP). Action has been taken to implement ISO-14001 in Mnl Iron Area.

**MEL**

Environment Management and Pollution Control occupied top priority in Company’s activities during the year. To keep environment clean for ecological protection, focused attention...
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- 20,000 c.m. of slimes desilted from check dam No. 7/8 constructed across Kirandul river.

**A view of the SAIL Logo gate at Salem Steel Plant Jawaharlal Nehru Centenary Park**

**Rock Filled Mini Dam — A Pollution Control Measure**
lah and check dam Nos. 1,2,3&4 constructed downstream of weir of Kadampali tailing dam.

- 50,000 saplings have been planted over 91 hectares of forested blank areas of Deposit 11 ML.
- Maintenance of Efficient Treatment Plants at Service Centre complex for removal of oil and grease in the effluent discharge.
- Regular use of completely automated dust suppression system installed right from the Deposit-11C crushing plant till the loading yard for dust suppression.

Balladla: 5 Project, Boccelli, Danigwada District, Chhattisgarh

- Detouring of check dams Nos. 4, 6 & 8.
- Construction of girdle wall at South Block below MSL-945 waste dump and beyond MM cross section waste dump.
- Plantation of 17,000 saplings as regular afforestation and 50,000 Agave bulbs as waste dump stabilization.

Diamond Mining Project, Maihagawan, Panna

- Extension of 4.5 km length of Check dam No. 4.
- 3500 cms. silt has been removed from spillway meeting Kaimon nala.
- Civil construction work of Sewage treatment plant is almost completed.
- About 84,000 c.m. silt have been removed from Tailing pond.
- Construction of Toe wall (about 1.8 Km.) along the coarse tailing dump near the nala site by wrapping OB boulders in chain link has been completed.
- Plantation of 8,560 saplings were completed.

RILN (VSP)

At VSP utmost priority is given to environment management. Several initiatives are taken to ensure a clean and green environment. Some of the salient features and activities related to environment management are brought out below:

- VSP was recertified for EMS as per ISO 14001:1996 for a term of another 3 years by BTVCI.
- All parameters in effluents were within norms except ammoniacal nitrogen. A contract for augmenting the facilities at M&SC plant to bring down the ammoniacal nitrogen is under finalization.
- Additional treatment facilities to treat the township STP treated effluents (300 cum/hr) to the make up water quality for reuse in the plant is in progress and is expected to be ready by May 2005.
- The dust extraction systems are operated and maintained around 98% availability.
- Entire generation of BF slag (15 kish tons/year) from 2004-05 to 2006-07 is tied up with customers for sale. Till Oct’04 about 84% of BF slag was sold.
- Order for installation of dry ash collection facility for one boiler of TPP is under finalization. This is expected to be commissioned by Dec’05.
- 40 nos. of green awards were presented on the WED function on June 5, 2004 to the employees, for their contributions towards environment during the year 2003-04.
- Vision steel environmental report for the year 2003-04 was brought out for the first time.
- Latest and user friendly software ‘Team 4.0’ for Life Cycle Assessment was procured.
- A web portal with all environmental related information and activities was launched in the VSP’s Intranet for use of all employees.

MOIL

ECO-DEVELOPMENT AND ENVIRONMENTAL PRESERVATION

Exploitation of natural resources, regardless of its supportive capacity, presents a apocolyptic nightmare of environmental degradation and ecosystem instability. Mining of minerals, particularly by open cast method, adversely affects the environment, resulting in degradation of land on large scale. Water and air pollution and noise pollution are also of concern, besides health of people at large. Considering the nature and extent of problem and concern of conserving the environment, MOIL, took a lead in massive afforestation in the company’s mines, with special emphasis on reclamation of mines areas and rehabilitation of spoil dumps, supported by exhaustive research and development. This has helped to improve the mine environment. An integrated biotechnological approach has been adopted to achieve the goal of sustainable and eco-friendly mining.

The company’s strategy towards eco-friendly mining encompasses the following:

- Scientific Mine Planning.
- Effective Pollution Control measures.
- Optimization of resource utilization.
- Regular monitoring.
- Biological reclamation.
- Rehabilitation of reclaimed areas.
- Rural and community development.

SOLID WASTE MANAGEMENT

MOIL, believes in the philosophy that “Today’s Waste is Tomorrow’s Wealth”, and in fact have recovered one worth crores of rupees by secondary recoveries. The process of mining generates huge solid waste to be dumped on surface and incineration of solid waste is high in open cast mines. MOIL is now systematically dumng solid waste separately for manganeseiferous rock and non-manganeseiferous rock so that in future when technology for utilizing the low-grade manganese ore is developed, these manganeseiferous dumps can be worked at much lesser cost to win low-grade manganese ore.

Waste dumps are now planned in such a way that future handling and re-handling of these dumps are avoided. Dumpy height is now planned to 30 MT, so as to occupy less space. The dump spot already matured are now being systematically covered with either plantation or with shrubs/Grass to prevent
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CONSERVATION OF ENERGY
Consistent with the National policy of conserving energy and also with the objective of contain- ing the cost of production, the Company has embarked upon an economy drive in this sphere. Various steps including energy audit have been undertaken to conserve energy and to minimize power consumption.

In addition to energy conservation in the mining operations, the Company also under- took specific steps to reduce power consumption in its Ferro Manganese Plant and EMD Plant.

SIL
POLLUTION CONTROL & SOLID WASTE MANAGEMENT
All norms specified by AP Pollution Control Board-Central Pollution Control Board are being maintained within the standards prescribed.

ENERGY CONSERVATION
As a part of continuing efforts towards conservation of energy the company has made significant improvement in energy efficiency of the operating units. Against normal range of 100 to 120 units of power consumption per tonne of sponge iron, the company achieved a consumption level of 102 units per tonne of sponge iron up to 30.09.2004.

Consumption of energy per tonne of sponge iron
Installation of automatic twilight switches resulted in energy conservation of street lighting in plant and township.

In the sphere of consumption of process energy, company continues to maintain a low level of consumption of reduc tant at 1.23 tonnes per tonne of sponge iron in 2004-05 (upto Sep. 2004) in spite of variations in the chemistry and physico chemical characteristics of coal.

MECON LTD.
POLLUTION CONTROL AND SOLID WASTE MANAGEMENT
MECON has commissioned the Storm Water Drainage and Lift Pump Station work for Kolkata Municipal Corporation to reduce waterlogging at Southern Avenue and adjacent areas on turnkey basis. This is a totally automated PLC control system with a provision for running it from a central flood control room in future by linking it with other pumping stations. This will reduce the chronic waterlogging problem of Southern Avenue and its adjacent areas during monsoon.

In the field of pollution control and management of hazardous waste generated by the Petro-Chemical Complex of OIL at Pata, MECON is providing consultancy services to OIL, Pata. This assignment is the outcome of successful installation of similar incineration unit by MECON at Hadisa Petro-chemical Complex, Hadisa.

MECON has taken up Forest Evaluation Project for various districts of Rajasthan from the National Afforestation and Eco Development Board (NAEB) of Ministry of Env. & Forests.

Similar projects are expected from NAEB as MECON is empanelled in their list of Forest Evaluators after successful evaluation of projects offered by them in the previous years. MECON is preparing State of Environment Report for the State of Jharkhand in association with Jharkhand State Pollution Control Board.

In the field of control of pollution from coke ovens as per the latest notification of Ministry of Environment & Forests, Government of India, MECON has conducted the specialised monitoring of coke oven emission of Bhushan Steel Plant.

MECON has received orders for preparation of SIA-EMP reports from various clients like TTPL, Transaco ; KMMI, Kolam ; DVC, Parchet ; Ram Sapu Loh Udyog, Khangaur ; KIOCL, Mangalore ; UCIL, Tumanapalli etc. in this financial year and is expecting orders from a few more industries including Bhushan Steel Plant.

MECON has conducted a large number of awareness programmes in the field of environment, ecology, health etc. in the year 2004 as advised by Ministry of Steel to celebrate the Year 2004 as a Year of Scientific Awareness. This has been done in association with World Wide Fund for Nature and Institution of Engineers (India). The target audience was school children, village communities, teachers and general citizen.

MECON has been given the responsibility of conducting a National Workshop on “Environmental Statement including Waste Minimization, Environmental Auditing and Management System for Iron & Steel Industry” which was held from 12th to 14th January, 2005 at Ranchi. This workshop was supported by Central Pollution Control Board of Ministry of Environment & Forests, Government of India in association with Jharkhand State Pollution Control Board. The target audience was units of steel sector and statutory bodies throughout the country.

ENERGY CONSERVATION
Reduction of Green House Gases to reduce global warming through energy improvement projects in a new sector of business in India as per the Kyoto Protocol ratified by India. MECON has taken up a first of this kind of energy improvement project with technical assistance from GTZ, Germany and Bureau of Energy Efficiency for reduction of GHG emission by renovation & modernization (R & M) of Indraprastha Power Generation Company located in Delhi. The Project Idea Note (PIN) prepared by MECON was approved by GTZ, Germany and they provided technical and financial support to prepare the Project Design Document (PDD). The PDD has been prepared and submitted for their approval. MECON has become the first consultancy organisation in the World to take up the R & M programme for rehabilitating inefficient and old thermal power plants through CDM route of Kyoto Protocol which will bring revenue to the industry by selling of carbon credits in the form of certified emission reduction units (CERs). This will also improve the overall environmental condition around the project.

KIOCL
The standard norms prescribed by Mo’s Karnataka State Pollution Control Board in respect of Air and Water quality monitoring are being adhered to.

The various pollution control measures undertaken during the year are as under;

DESLITING
The deslitting activity commenced in the month of December 2003. About 6,95,700 tonnes of material was desalted from Pollution Control Dam I and about 6,01,110 tonnes of material was
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SIMILAR PROJECTS ARE EXPECTED FROM NAEB AS MIECON IS EMPANELLED IN THEIR LIST OF FOREST EVALUATORS AFTER SUCCESSFUL EVALUATION OF PROJECTS OFFERED BY THEM IN THE PREVIOUS YEARS.
MECON IS PREPARING STATE OF ENVIRONMENT REPORT FOR THE STATE OF JHARKHAND IN ASSOCIATION WITH JHARKHAND STATE POLLUTION CONTROL BOARD.

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Desilting of 4 check bunds downstream of Dam I & II has been completed and a volume of 15,000 Cu.m and 12,000 Cu.m has been created at the downstream of Dam I & II to arrest any possible leakage of silt in the seepage water during monsoon.

A catch pit of capacity 2 lakh Cu.m has been excavated in the main ridge of the mine and a catch pit of capacity 1 lakh Cu.m has been excavated in the K1 extension area of the mine for arresting the mine run off from the mining area beyond the catchment of PC Dam I & II.

AFFORESTATION ACTIVITY

Grass planting in an area of 44 hectares has been carried out in the mine abandoned area.

Afforestation is being taken up in 35 hectares of mine abandoned area. 30,000 saplings is being planted during September 2004.

The total expenditure incurred for pollution control measures implemented during the years 2002-2003 is Rs. 3.50 Crms and during 2003-2004 is around Rs. 4.50 crms.

MONITORING AND MEASUREMENT

Water and air quality monitoring is done as recommended by the monitoring committee constituted by the MoEF. The standard norms prescribed by Central Pollution Control Board and State Pollution Control Board with respect to air, water & noise pollution.

Water quality is being monitored at 6 stations on daily basis during monsoon and once in a week during non monsoon season starting from July 2004. The water quality strictly adheres to the water quality standards stipulated by the regulatory agencies.

The ambient air quality monitoring is done on a continuous basis as per the requirements specified in the EP act. The monitoring was carried out in 4 Stations within mining area, 3 Stations outside mining area and at 2 Stations fugitive monitoring was done and the results are within the limits specified in the NAAO standards.

A study to ascertain silt load in Bhada river is being carried out in association with M/s CMFRIL, Mangalore. The study is for a duration of one year from June, 2004.

SOLID WASTE MANAGEMENT

The solid waste generated in the mines (over burden/waste rock) is negligible and is used mainly in developmental works and management of hauling made within the mines and the balance is disposed in various identified dumpes. The solid waste generated by way of erosion due to soil wash but having potential for use is collected in pollution control dams constructed at the foot of the mines at suitable location with proper drainage facility and is desilted during the non monsoon period.

Lakya dam with a total capacity to store 320 MT of tailings has significantly contributed towards abatement and control of pollution of water bodies. KIOCL as on date has spent over Rs.100 crore for the construction and maintenance of Lakya pollution Control dam.

JVSLL

ENVIRONMENT MANAGEMENT

The first half of 2003 (April'03-September'03) saw a great stride in the area of environmental development. Many an environmental projects saw day of the light during the year.

The environmental projects implemented during the part of the year are enumerated below:

- Dusting system for Cokeex tower top - Additional bag filters were provided in both the modules for further improvement of the workplace air quality.
- Dry fog dust suppression system in T4x6 of pellet plant.
- Road sweeping machine for better housekeeping of roads.
- Dry fog dust suppression system at flexowell conveyor of Cokeex #2.
desilted from Pollution Control Dam II.

Desilting of 4 check dams downstream of Dam I & II has been completed and a volume of 15,000 Cu.m and 12,000 Cu.m has been created at the downstream of Dam I & II to arrest any possible leakage of silt in the seepage water during monsoon.

A catch pit of capacity 2 lakh Cu.m has been excavated in the main ridge of the mine and a catch pit of capacity 1 lakh Cu.m has been excavated in the K1 extension area of the mine for arresting the mine run off from the mining area beyond the catchment of PC Dam I & II.

AFFORESTATION ACTIVITY
Grass planting in an area of 44 hectares has been carried out in the mine abandoned area.

Afforestation is being taken up in 35 hectares of mine abandoned area. 30,000 saplings is being planted during September 2004.

The total expenditure incurred for pollution control measures implemented during the years 2002-2003 is Rs. 3.50 Crs and during 2003-2004 is around Rs. 4.50 Crs.

MONITORING AND MEASUREMENT
Water and air quality monitoring is done as recommended by the monitoring committee constituted by the MoEF. The standard norms prescribed by Central Pollution Control Board and State Pollution Control Board with respect to air, water & noise pollution.

Water quality is being monitored at 6 stations on daily basis during monsoon and once in a week during non-monsoon season starting from July 2004. The water quality strictly adheres to the water quality standards stipulated by the regulatory agencies.

The ambient air quality monitoring is done on a continuous basis as per the requirements specified in the RP act. The monitoring was carried out in 4 Stations within mining area, 3 Stations outside mining area and 2 Stations fugitive monitoring was done and the results are within the limits specified in the NAAO standards.

SOLID WASTE MANAGEMENT
The solid waste generated in the mines (over burden/waste muck) is negligible and is used mainly in developmental works and maintenance of haulage roads within the mines and the balance is disposed in various identified dumps. The solid waste generated by way of erosion due to soil wash but having potential for use is collected in pollution control dams constructed at the foot of the mines at suitable location with proper drainage facility and is desilted during the non-monsoon period.

Lakya dam with a total capacity to store 320 MT of tailings has significantly contributed towards abatement and control of pollution of water bodies. KIOCL on date has spent over Rs.100 crore for the construction and maintenance of Lakya pollution Control dam.

ENVIRONMENT MANAGEMENT
The first half of 2003 (April-03-September’03) saw a great stride in the arena of environmental development. Many an environmental projects saw day of the light during the year.

The environmental projects implemented during the part of the year are enumerated below:

- Dedusting system for Coex tower top - Additional bag filters were provided in both the modules for further improvement of the workzone air quality.
- Dry fog dust suppression system in T7*6 of pellet plant.
- Road sweeping machine for better housekeeping of roads.
- Dry fog dust suppression system at fluxwell conveyor of Coex #2.
The action plan of the projects, which are in the pipeline, is enumerated below:

- Online stack monitoring for 5 major plant stacks
- Online ambient air quality monitoring as per CRIP
- Truck mounted Vacuum suction machine to suck the dust from shop floors of COREX and pellet plant
- Secondary dedusting for BOF CCP to take care of the dust load from mixer, convertors, slag yard and ladle heating furnace.
- Augmentation of pollution control facilities at stock house coal line of Corex module 1 & 2 to save the hydraulic systems at zero meter from mal functioning.
- Additional bag filter for day bin #2 and #3 of LCP
- Relocation and modification of HMCs bag filter
- Pneumatic transfer of bag filter dust from the hoppers of BOF to a silo and to a closed truck

II

POLLUTION CONTROL & SOLID WASTE MANAGEMENT

The Capital Investment on Pollution Control equipments is approximately Rs 176 Crores. The Pollution Control systems for Air and Water are inbuilt system with production facility.

EFFLUENT TREATMENT & DISPOSAL

In Sponge iron plant, wastewater is generated from scrubbers & coolers. This wastewater is processed in Classifier and clarifier, which are used for removal of coarse, heavy and suspended particles. Overflow of the clarifier goes to cooling tower. Underflow of the clarifier goes to sludge pond. After filtration, sludge pond water is reused in the process & plan-

tation. The remaining portion of water is discharged into Dharanitar creek as per MPCA consent terms.

In Hot Strip Mill wastewater is generated from caster spray cooling. Laminar strip cooling and de-scaling in roll cooling at mill. The wastewater is filtered through filtration plant and after cooling is reused in the process. Thus the entire treated wastewater is re-circulated in the process.

In Blast Furnace plant, hot return wastewater from the Gas cleaning plant shall be brought to the Wastewater treatment plant. The settled sludge is sent to sludge storage tanks with agitators and later to Vacuum drum filter, which removes the moisture content. Filtrate water will be sent to cooling tower and it will be reused for gas Cleaning Plant.

There is no effluent discharge from Hot Strip Mill and Blast Furnace plants. Treated wastewater is re-circulated back in the process.

AIR POLLUTION CONTROL SYSTEMS

To control dust emission in the ambient air, the following air pollution control equipments have been provided at Integrated Steel Plant (ISI, BF & HSM).

- Raw material transfer points have been operating with dust suppression system.
- In Powder handling adequately designed Dust collection system at dust discharge point along with adequate stack height have been in operation.
- Gas Cleaning plant.
- Stock House De Dusting System
- Cast House Fume Extraction System
- Dust Catcher System
- Blast Furnace Gas Cleaning Plant
- Slag Granulation Plant - Slag generated from Blast furnace plant is converted into granules in Slag granulation plant and sold to M/s Indorama Cement plant for cement making.
The action plan of the projects, which are in the pipeline, is enumerated below:

- Online stack monitoring for 5 major plant stacks
- Online ambient air quality monitoring as per CDPQ
- Truck mounted Vacuum suction machine to suck the dust from shop floors of COREX and pellet plant
- Secondary dedusting for BOF CPP to take care of the dust load from mixer, converters, slag yard and ladle heating furnace.
- Augmentation of pollution control facilities at stock house coal line of Corex module # 1 & 2 to save the hydraulic systems at zero meter from mal functioning.
- Additional bag filter for bag box # 2 and # 3 of LCP
- Relocation and modification of HMEs bag filter
- Pneumatic transfer of bag filter dust from the hoppers of BOF to a silo and to a closed truck

III

POLLUTION CONTROL & SOLID WASTE MANAGEMENT

The Capital Investment on Pollution Control equipments is approximately Rs 175 Crores. The Pollution Control systems for Air and Water are inbuilt system with production facility.

EFFLUENT TREATMENT & DISPOSAL

In Sponge iron plant, wastewater is generated from scrubbers & coolers. This wastewater is processed in Classifier and clarifier, which are used for removal of coarse, heavy and suspended particles. Overflow of the clarifier goes to cooling tower. Under-flow of the clarifier goes to sludge pond. After filtration, sludge pond water is reused in the process & plan-
tation. The remaining portion of water is discharged into Dharanitar creek as per MPCB consent terms.

In Hot Strip Mill wastewater is generated from caster spray cooling. Laminar strip cooling and de-scaling in roll cooling at mill. The wastewater is filtered through filtration plant and after cooling is reused in the process. Thus the entire treated wastewater is recirculated in the process.

In Blast Furnace plant, hot return wastewater from the Gas cleaning plant shall be brought to the Wastewater treatment plant. The settled sludge is sent to sludge storage tanks with agitators and later to Vacuum drum filter, which removes the moisture content. Filtrate water will be sent to cooling tower and it will be reused for gas Cleaning Plant.

There is no effluent discharge from Hot Strip Mill and Blast Furnace plants. Treated wastewater is re-circulated back in the process.

AIR POLLUTION CONTROL SYSTEMS

To control dust emission in the ambient air, the following air pollution control equipments have been provided at Integrated Steel Plant (ISP, BF & HMS):

- Raw material transfer points have been operating with dust suppression system.
- In Product handling adequately designed Dust collection system at dust discharge point along with adequate stack height have been in operation.
- Gas Cleaning plant.
- Stock House De Dusting System
- Cast House Fume Extraction System
- Dust Catcher System
- Blast Furnace Gas Cleaning Plant
- Slag Granulation Plant - Slag generated from Blast furnace plant is converted into granules in Slag granulation plant and sold to M/s Indorama Cement plant for cement making
SOLID WASTE MANAGEMENT

In Sponge Iron Plant Solid waste generated from process for the financial year 2002-2003, 2003 - 2004 & April 2004 to September 2004 is as follows:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>From Process</td>
<td>58900</td>
<td>52932</td>
<td>62900</td>
</tr>
<tr>
<td>2</td>
<td>From E.T.P</td>
<td>7950</td>
<td>7995</td>
<td>3180</td>
</tr>
</tbody>
</table>

The Solid waste generated from process is sold for Pelletization to outside parties and internal use for Sinter Plant for making sinter in near future.

Solid waste generated from Process Wastewater Treatment Plant (RTP) sludge is used for manhole land filling in company premises as per MFCB Consent.

BIRD GROUP OF COMPANIES

AFFORESTATION AND POLLUTION CONTROL

OMDC has covered 127.265 hectares area under afforestation programme which covers avenue plantation, plantation under Government waste land along with stream course around workers' mokey etc. OMDC and BSLC have made arrangement for dust suppression through sprinkling of water over haul roads through pressurized nozzles. Environmental monitoring is being carried out on a continuous basis as per guidelines of the Pollution Control Boards. The companies organize environment awareness programme in order to create awareness amongst its employees and the neighboring villagers.