The meeting conducted on 24th July 2012 was presided by was presided by Shri S.C. Jain, Chairman. Following members attended the meeting-

1. Shri K.P. Nyati, Member
2. Dr Mohini Saxena, Member
3. Shri A.P. Srivastava Member
4. Shri V.R. Khare, Member
5. Shri R.K. Jain, Member Secretary

The Chairperson welcomed all the members of the Committee and thereafter agenda items were taken up for deliberations.

Confirmation of dates for the 100th & 101st meetings of SEAC: The next month's meetings of SEAC i.e. 100th & 101st meetings were decided to be conducted on 21st and 22nd of August 2012.

Consideration of the Projects - 11 cases was invited to make presentation before the SEAC.

1. Case no. 474/2009 M/s Sukhdeo Prasad Goenka, Station Road, Katni Distt. - Katni (M.P.) *Harraiya Limestone Mine (7.065 Ha) Cap.- 1.0 lac TPA at Village- Harraiya, Tehsil - Vijayraghogarh, Distt- Katni (M.P.)* 1. ToR issued vide letter no 1095 dt. 05/12/09 and 2. Revised ToR issued vide letter no 538 dt. 20/07/10 **For – EIA Presentation**

Env. Consultant – Creative Enviro Services, Bhopal (M.P.)

Neither the PP nor his representative was present to explain the query which might be raised or to make any commitment which may be desired by the committee during the deliberation. Hence committee decided to call the PP in coming meetings as per turn.

2. Case no. 633/2011 Shri D. K. Mittal, Location Head, M/s Trident Corporation Ltd. Trident Complex, Hoshangabad Road – Budhni Tehsil - Budhni, Distt. Sehore (M.P.)-45 Project: Coal Based Captive Thermal Power Plant of 2x30 MW at existing Trident Group Complex, at khasra No. 36/1, 36/2, 36/4, 36/5, 36/6, 40/1, 40/2, 40/3, 39/1, 39/2, 41/1, 41/2, 42 & 43 Village- Budhni, Distt. – Sehore (M.P.) **For – EIA Pres.**
ToR issued vide letter no 360 dt. 19/12/11, **Env. Consultant – Creative Enviro Services, Bhopal (M.P.)**

This is a project consisting captive production of thermal power from coal. The EIA report submitted by the PP was forwarded by SEIAA to SEAC for appraisal. The details of the project as presented by the PP and his consultant reveals following salient features of the project:

Salient Features

Name of the Project	Captive Power Plant of 2X30 MW
Location of the Plant	In the existing boundary limit of the Trident Group Complex at Khasara No. 36/1, 36/2, 36/4, 36/5, 36/6, 40/1, 40/2, 40/3, 39/1, 39/2, 41/1, 41/2, 42, 43 at Budhani Industrial Area, Dist- Sehore
Nature/Size of the Plant	Coal Based Thermal Power Plant of 2X30 MW
Total Project Cost	Rs. 377. 85 Crore
Total land	Total Land : 600 Acres

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	Reserved for power plant – 95 Acres
Fuel proposed to be used	Coal
Proposed Boiler	Circulating Fluidized Bed Combustion
Promoters	M/s Trident Corporation Limited, Sanghera- 148101 (Punjab)

Public Hearing has not been conducted by the PP as per the TOR issued, in this regard PP has submitted that the project is proposed in an industrial area hence public hearing was not required. Committee is of the opinion that the TOR was issued prior to the notification of industrial area and the entire land area which has been declared as 'Industrial Area' belongs to the group, hence public hearing has to be conducted.

Proposed CSR of the Company as reported by the PP:

1. Infrastructure Creation:
   a. Drinking Water Infrastructure:
   b. Irrigation Infrastructure:
      • Construction of check dams/ ponds
      • Soil and water conservation activities
   c. Sanitation Facilities:
      • Construction of closed drainage lines with proper disposal facilities.
   d. Other infrastructure:
      • Material support for construction of houses under IAY.
      • Street lights provision.

2. Education Program:

- Provision of individual kits (bags, uniform)
- Develop volunteers to provide extra tuitions after school hours.
- Promotion of science and mathematics clubs in schools.
- Provision of transport facilities for secondary and college going students.
- Computer and English training courses for secondary school students.
- Promotion of good secondary school with school bus facility to a cover a number of villages.
- Proposal for setting up Alternative School for drop outs for vocational skills.
- Provision of computers in schools.

3. Health Program:

- Proposal to increase the number of mobile units and also link them with referral facility.
- Provision of Group medical insurance
- Specific program for respiratory diseases and kidney stone.
- Proposal to develop a specific program for health care facilities for elderly persons.

4. Livelihood Program:

- Focus on 2-3 crops for agriculture and horticulture
- Focus more on drip/sprinkler irrigation and supply of improved seed varieties.
- The fodder supply to cattle in the village, available local fodder, etc.
- Development of fodder plots to encourage fodder purchase locally. This would also give additional income to some groups.
- Exploration of alternative job options for fishing community.
- Business potential survey in the region and develop youth training curriculum on those lines.
- Proposal for vocational training, business development courses for youth. They shall be supported to access bank loan/Govt schemes for setting up their own enterprise and/or also provided with job counseling services.
- Support for product development and marketing to local artisans.

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Beside above the proponent has proposed to incur Rs 1 crore for Primary hospital facility and Primary school in the area and Rs 5.0 Lacs per annum towards the implementation of socio economic programme and same will be routed through Local bodies of the area.

Land Area Statement for Existing & Proposed Project

Particulars	**Area in Acres**
Built up area for Textile and TPP	134 Acres - land reserved for TPP- 95 Acres
Road Development	30 Acres
Coal Storage area	10 Acres
Green belt	200 Acres (Existing Green Belt – 45 Acres with 33,403no.)
Others	25 Acres
Open Area	201 Acres
Total Area	**600 Acres**

Environmental Feature within 10 km Radius:

Particulars	**Details**
Locations	Budhni Industrial Area, Dist Sehore (MP)
Latitude Longitude	22°46'10.53" N 77°40'03.30" E
General ground level	302 above MSL
Nearest National Highway	NH-69 – 0.85KM - E
Nearest Railway Station	Budhni – 2.25km - NE
Nearest Tourist Place	None within 10km radius
Archaeological Important Place	None within 10km radius
Eco. Sensitive Areas (Wild Life Sanctuaries)	None within 10km radius
Reserved / Protected Forest within 10km radius	Budhani RF- 3.0 km-W Chakla RF – 4.75 km-N Budhnai RF- 4 km- NE
Nearest Town / City within 10km radius	Hoshangabad – 6km - ESE
Nearest village	Mau Kalan – 0.6km - S
Nearest River	R Narmada–1.6 km– SE. R Kaliadeb – 1.5 km – W R Gadariya - 4.5 km– EEN, R Bhagner– 5 km–SW R Guwari– 6 km – EEN
Nearest Lake/ Ponds	Local Nalla – 0.1km – W Local Nalla – Within premises
Nearest Hill Ranges	Bhimkothi Hill –6km - N
Other industries located within 10km radius	Vardhman Yarn

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Project Highlights

Power Generation Capacity	2X30 MW
Cost of Project	Rs 377.87 Crores
Installation	Power Generation Unit for Captive Use
Type of Fuel	Coal
Coal Requirement	0.27 million tonnes per annum
Water Requirement *	6600 KL/ day
Source of Raw water	Water reservoir and River Narmada
Major Equipments	Boiler and Turbo Generator
Capacity of Boiler	150 TPH at 105 ata working pressure
Type of Boiler	Circulating Fluidized Bed Combustion
Stack Height	100m
Rated capacity of Turbo-generator	60 MW
Pollution control equipment	Hybrid ESP and Dust Extraction Filters
Level of particulate Matter after ESP	< 50 mg/ NM^3
Cost of Pollution Control Equipments	1603 Crore
Total Employment generation	44 persons
Ash Generation	205 TPD
Silo Capacity	1000^3

* The Source of water is water reservoir and River Narmada. Approval for withdrawal of water from river is accorded by Govt. of MP vide letter No.F 20/8/08/11 dated 27.6.08

Fuel Requirement:

Calorific Value of Coal	5000 -5700 kcal/Kg (Max 6500)
Heat rate	3075 KCal/Unit (KWatt/Hr)
Total Fuel Requirement	3075 X60 = 184.5 M KCal/hour
Requirement of Coal	[(184.5X1000000)/5400]= 34166 kg/hr
Per day requirement of Coal	820 TPD

Proposed Air Pollution Control Measures

The mitigation measures proposed for the project are:

- Installation of ESP of efficiency of 99.78% to limit the TPM concentrations below 50 mg/Nm^3;
- Provision of stack of 100m height for wider dispersion of gaseous emissions;
- Provision of water sprinkling system at raw material storage yard;
- Asphalting of the roads within the plant area;
- Developing of Greenbelt (100-m wide towards village area and river course, 50 to 100- m wide towards nalla area) around the plant to arrest the fugitive emissions;
- Online flue gas monitors as well as flue gas flow rates and temperature measurement shall be provided for stack.
- Preventive maintenance of valves, flanges, joints, roof vents of storage tanks. The fugitive dust emissions shall be controlled by installation of closed conveyor system along with suitable dust suppression measures.
- Dust collectors system shall be provided at various material transfer points.
- The work zone and surrounding areas shall be monitored regularly.
- Idle running of vehicles will be minimized during material loading / unloading operations.
- Enclosure shall be provided for all the loading & unloading operations, if possible.

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- Airborne dust will be controlled by sprinkling of water.
- Preventive measures shall be implemented to minimize dust build up on road.
- Maintenance of air pollution control equipment shall be done regularly.
- All the workers shall be provided with dust mask.

SN.	Pollution Control Equipments proposed in the project	
1	Bag Filter	The coal crushing plant will be installed. The necessary Bag filter will be provided to control the air pollution and to meet the norms fixed by State Pollution Control Board.
2	ESP	A suitable ESP shall be installed with boiler to meet the emission standards laid down by Pollution Control Board. The dust free gas shall be discharged into the atmosphere through stack of 100 m height
3	Coal Storage and Handling	Coal will be conveyed by rail and it will be unloaded and stored in the covered shed and from there it will be taken to plant by road which is 2.25 km away from the Budhni railway station. Coal will be fed in the hopper by cranes and will be transported to Thermal Power Plant by belt conveyor. Water sprinklers will be provided over the belt conveyors to prevent any fugitive emission during handling of coal. Bag filter will be provided at vibrating screen and crusher area and transfer tower.
4	Handling of fly ash generated from TPP	The quantity of fly ash from different zones viz furnace, bank tubes, economizer & ESP will be collected and conveyed to common bunker by Dense Phase conveying system. The fly ash from the common bunker will be conveyed to silo. The whole system will be totally enclosed and no emission will be generated. The common bunker of fly ash will be provided with pulse jet bag filter. The fly ash will be given to cement manufacturer.

Water Balance of the Project

Water Consumption in M³/Day	
Domestic	02
Boiler (make –up water in power cycle)	1704
Cooling Tower (Evaporation + Blow-Down)	4128
Other	766
Total	6600
Waste Water Generation M³/Day	
Domestic	1.7
Boiler Blow Down	216
Cooling Tower Blow Down	620
Softener Plant + Filter	50.3
DM Plant	552.0

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Total	1440

Water Pollution Control Measures

Industrial waste water will be generated from cooling tower, boiler of power plant, while the domestic waste water is being generated from existing spinning plant and township. Considering the water requirement and waste water volume of upcoming terry towel project, combined effluent treatment plant is suggested for proposed TPP and Terry towel project.

The effluent from TPP section will not have much pollution load and it will help to dilute the concentration of effluent to be generated from towel/sheet sanction. The recommended measures to minimize the impacts are:

- Complete treatment system including RO followed by MEE is proposed so that permeate water from RO and MEE can be recycled back in process, cooling tower, boiler, ash disposal, coal handling and service water requirements.
- The raw water requirement for power plant shall be optimized. The COC in cooling system shall be maximized (such as COC=5).
- Coal stock piles shall be provided with garland drains and water shall be treated for suspended / floating solids;
- Utilization of treated wastewater from STP in toilet flushing, greenbelt development and dust suppression has been proposed.
- Lining of effluent collection tank suitably to prevent any seepage into ground to avoid any groundwater contamination;
- Provision of separate storm water system to collect and store run-off water during rainy season and utilization of the same in the process to reduce the fresh water requirement;
- Suitable rainwater harvesting structures will be constructed.
- Boundary wall towards the direction of Narmada River shall be constructed to avoid storm water flow from factory premises.
- A drain along the boundary wall shall be made , which will join the settling tank to protect the flow of contaminant towards nearby agricultural land
- Since monsoon is expected in coming months and will occur during the construction phase, proper run off plan is required to take care to prevent the flow to nearby land, Nalla and ultimately to river.
- Wherever possible, care will be taken to prevent water to enter in excavations
- Spillage of oil from vehicles and equipments will be avoided. These shall be inspected on regular basis.
- Embankment along the Nalla may be planned at this stage as spinning unit is in operation.
- Silt traps will be provided in the surface drainage system in the stockpile area;

Proposed Effluent Treatment Plant

The combined ETP has been planned for TPP and proposed Teri Towel Project. The total capacity of ETP will be 16500 KLD. The reject from filter, softener, DM plant, cooling tower blow down, boiler blow down will be collected in neutralization pit or holding pond. The effluent from the holding pond shall undergo a series of treatment process comprising with homogenization tank, aeration, clarifier, sand filtration, ozonization/ secondary clarifier, sand filter to remove the pollutants. Then the water is sent through ultra filtration afterward to three stage RO, where the output (85%) will be of permeate quality which will be used in process and cooling tower make up and the reject (15%) from RO will be taken to MEE. The permeate from MEE (95%) will again be used in process and reject (5%) will be send to common disposal site at Pithampur.

Process

- Waste water treatment of 16500 KLD will involve the most advanced technology to maximize reuse of water in the Process House.
- The waste water will firstly pass through biological treatment plant designed on extended aeration principle. This principle will allow the maximum degradation of organics under high retention time
- The water will then pass through series of pre treatment steps i.e. Sand filtration, Ultra filtration to attain maximum water recovery and sustain RO membrane life. Permeate from RO (85%) will be used in plant as process water and The reject (15%) generated from the RO plant will be sent to the Evaporators to concentrate the reject volume to a level suitable for final disposal to the approved Landfill Site.

Proposed Greenbelt Development Plan

Year	Area in Acres	Number of plants
Existing	45	33403
2011-12	15	9000
2012-13	15	9000
2013-14	15	9000
2014-15	15	9000
2015-16	15	9000
2016-17	15	9000
2017-18	15	9000
2018-19	15	9000
2019-2020	15	9000
2020-2021	20	12000
Total	**200**	**126403**

Mitigation Measures for Noise Environment

- Equipments shall be be designed to conform to noise levels prescribed by regulatory authorities;
- Provision of acoustic barriers or shelters in noisy workplaces;
- Provision of hoods to noise generating equipments like pumps;
- Provision of thick greenbelt to attenuate the noise levels;
- Provision of Personal Protective Equipments (PPE) such as earplugs, earmuffs to the workers working in high noise level area
- Training to personnel will be imparted to generate awareness about effects of noise and importance of using PPEs.
- Walls and ceilings of the concerned buildings shall be lined with sound absorbing materials.
- Regular monitoring of noise level shall be carried out and corrective measures in concerned machinery shall be adopted accordingly.
- Proper care shall be taken by incorporating sound-proof enclosures for equipments

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- Maintenance of Machinery & vehicles will be done in a sustainable manner to ensure best performance and less noise.
- Vehicles will not be allowed to queue outside the plant on the highway side. Vehicle and people flow during shift changes shall be regulated by allowing exits in a phased manner.

Ash Generation/ Handling and Disposal

Solid Waste Generation and Pollution Control measures	
Fly Ash per day	185 MT
Bottom Ash per day	20 MT
Silo Capacity	**For 2 X 30 MW** • Fly ash Silo-1000 M^3 • Bed ash Silo-750 M^3
Ash conveying system	Dense Phase Pneumatic Ash Conveying System
Pollution Control Measures	Electrostatic Precipitator (ESP), Dust Extraction & Dust Suppression System for Coal Handling Plant and other transfer points.
Ash Utilization	• MoU will be Signed with Cement Plants • Bed Ash will be given to Bricks Manufacturer and Road contractors.

- After combustion of coal, the fly ash from different zones like furnace, bank tube, economizer and ESP shall be collected and conveyed to a common silo by dense phase conveying system. Silo of 1000 M^3 capacity will be provided for storage of ash.
- From silo, dry fly ash will be extracted from the bottom in closed truck. While discharging of dry fly ash from silo to truck a fine mist of water will be sprayed on dry fly ash to make ash wet before discharging to the truck with the mechanism of double stage screw conveyor.
- This wet fly ash will have less moisture therefore there no dripping of water from truck bottom is envisaged.
- Conditioning of fly ash is done to avoid spillage of fly ash while loading and unloading truck as well during transportation.
- Fly ash utilization has been proposed as per the Fly-ash utilization notification 2009 of MoEF.

Occupational Health and Safety System

The following measures have been proposed to prevent occupational diseases and health hazards.

- Pre - employment and periodic medical examination of employees.
- Regular monitoring of working environment and implementation of safety and control measures.
- Use of protective equipment, clothing, helmets, gas mask, shoes, etc.
- Provision of rest shelters for workers/staff with amenities like drinking water, fans, toilets etc.
- Rotation of workers exposed to high noise area
- Dust suppression of road
- First-aid facilities in the plant area.
- The management shall make annual budget for the safety and health of their employees and provide sufficient facilities in order to implement the health and safety measures effectively.
- A safety committee under MP Factory Rule 1962 will be constituted.
- Emergency Plan duly approved by the Director, Industrial Health and Safety shall be prepared and will be updated periodically.

After deliberations committee has asked the proponent to submit response to the following queries

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with supporting documents at the earliest:

1. Public Hearing as per the procedures laid in the EIA Notification 2006 has to be conducted and the revised EIA incorporating the PH issues to be submitted.
2. Arrangements have to be made and reported for storage of fly-ash and bottom-ash.
3. All provisions made to prevent any discharge into river and other tributaries or water bodies in the area have to be detailed out and submitted with undertaking on an affidavit.
4. Details of Corporate Environmental Responsibility as per the MoEF O.M. dated 19/05/2011 and 18/05/2012 to be submitted along with the budgetary provisions.
5. The land delineated for green cover development should not be used for any other purpose in future a written commitment as undertaking should be submitted with a copy of the same endorsed to the State Pollution Control Board in this regard.
6. Lay-out of the site clearly indicating the area under green cover (to the scale) has to be provided in support to the point no. 4.
7. Mass balance for the ash generated and its utilization / disposal / storage etc. has to be furnished.
8. Mass balance for the water to be provided.
9. Water harvesting systems both existing as well as the proposed have to be detailed out and submitted.

3. Case no. 715/2012 **M/s Mahesh Marbles C/o Shri Sanjay Gupta, D-1 Samdariya City, Madhav Nagar, Katni (M.P.)** *Expansion of mineral production & renewal of mining lease – Chapra Marble Mine ,Khasra No. 455, Village - Chapra, Tehsil – Bahoriband, Distt. – Katni (M.P.) Lease Area- 8.690 ha. Proposed Capacity – 24,000 MT/Year* **Env. Consultant – M/s Apex Minetech Udaipur (Raj).** **For ToR**

This is project pertaining to mining of minerals with Lease Area- 8.690 ha. and proposed Capacity – 24,000 MT/Year. This is operating mine and the application for grant of prior Ec has been submitted in view of renewal of lease and enhanced production capacity. The case was presented by the PP and his consultant.

After deliberations committee has suggested following points for inclusion in the TORs' to carry out EIA /EMP for the project:

- Details of Land to be provided in following format-

SN	Tehsil	Village	Khasra No.	Area	Ownership	Land use

- Compliance of the conditions of existing EC and the consents to be presented in the EIA report.
- Accumulated water in the pits has to be collected in organized collection pond and should be used after appropriate treatment. Proposal for the same has to be submitted with the EIA.
- Point-wise compliance of the ToR to be included.
- Duly attested & certified Mining Plan approved by competent authority has to be submitted along with the copy of current lease deed and lease letter.
- Monitoring has to taken up as per the norms using appropriate air/water quality modeling, based on meteorological data (wind-rose) of the region.
- All chemical analyses report from approved laboratory in original format. The chemical analyses should incorporate method of analyses, instruments used and the details of standards used. The date and time of sampling should also be mentioned in the report.

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- Total area for which afforestation has been proposed – plan stating how much plantation shall be taken up yearly, has to be submitted. Plantation of local species & various fire-wood trees should be taken up. Map showing green belt and other green areas to be submitted.
- Plantation in at least 33% of the total area has to be ensured with the lease period; accordingly plan has to be submitted with EIA. Species proposed in the green belt development should be notified.
- PFR should include cost benefit analyses considering- social cost, environment cost and pre-occupational cost.
- For welfare of the mine-workers various activities such as regular health checkups, first-aid, shelter for rest and meals, drinking water etc. has to be taken up. Nearby mine owners may form a society and funds for welfare of mine-workers may be created from various govt. schemes and other sources. This aspect has to be covered in the EMP.
- Management of OB solid waste generated during mining has to be addressed through incorporation of a concrete plan for the same.
- Water-shed management plan to be submitted, in view of the damages caused in the catchment-area of rivers falling in the prescribed study area of mining region & to support the ground-water recharging.
- In land use map, details regarding the agricultural crops pattern around the mining area should also be added.
- Map depictions: coloured maps depicting land use of the region showing sensitive / fragile features and detailed lay-out of the site clearly showing green-belt (existing & planned)
- Satellite Image of the location of mine should be submitted with demarcation of other proposed/in operation mines in nearby area.
- Notifications, Rules and Guidelines issued by MoEF and CPCB from time to time have to be followed strictly while executing the project. Accordingly, provisions have to be made in the EIA/EMP.
- Impact of transport of Ore on the surrounding environment up to the end user should be assessed and addressed in the EIA/EMP.
- Summary of EIA / EMP has to be provided separately along with the EMP detailing impacts, impact zone and mitigations has to be furnished in the following format:

AIR Environment

SN	Expected Impact	Impact zones	Management Plan

WATER Environment

SN	Expected Impact	Impact zones	Management Plan

LAND Environment

SN	Expected Impact	Impact zones	Management Plan

NOISE Environment

SN	Expected Impact	Impact zones	Management Plan

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Details of Public Hearing Proceedings

SN	Issues raised (details thereby)	Response of Proponent	Comments

4. **Case no. 716/2012 - Executive Engineer,Narmada Development Division No. 1, - Dindori, Distt. – Dindori (M.P.) – 481880** Upper Burhner Medium Irrigation Project - Near Divri Dadar Village 34 Km from Tehsil- Bichia, Village- Divri Dadar, Teh. – Bichiya, Distt.– Mandla (M.P.) Gross Storage Capacity –113.49 MCM, Live Storage Capacity – 82.72 MCM, Culturable Command Area (CCA) – 9800 ha., Submergence Area – 1523.00 ha, Catchment Area- 1653.00 Sq km. **Env. Consultant – Not Disclosed.** **For ToR**

This is a river valley project the Upper Burhner project is proposed on the main Burhner River in Mandla District with Gross Storage Capacity –113.49 MCM, Live Storage Capacity – 82.72 MCM, Culturable Command Area (CCA) – 9800 ha., Submergence Area – 1523.00 ha, Catchment Area- 1653.00 Sq km. The case was forwarded by the SEIAA for scoping so as to finalize the TORs' to carry out EIA / EMP for the project. PP presented the case before the committee; the presentation and the submission made by the PP reveals following salient features of the project:

Project envisages following:

Irrigation over Gross Command Area : 12143 ha
spread over Dindori and Mandla District.
Hydropower : 18 MW

•Earlier Upper Burhner Project was identified during NWDT with culturable command area of 9800 ha.

Ongoing project on different rivers in the Narmada Basin

S. No.	Project	River
1	Jobat	Hathni
2	Man	Man
3	Upper Beda	Beda
4	Maheshwar	Narmada
5	Omkareshwar	Narmada
6	Narmada Sagar	Narmada

Allocation of Narmada Water to MP by Narmada Tribunal

S. N	Category	Area to be irrigated (Lac hectare)	Water use (M.A.F)
1	29 Major Projects	14.15	11.35
2	135 Medium Projects	6.7	2.89
3	3000 Minor Projects	6.7	2.51
4	Total	27.55	16.75
5	Domestic & Industrial Use	-	1.5
6	Grand Total	27.55	18.25

Water availability studies

Methodology:

Study 1

- The river Burhner is being gauged of Mohgoan G&D. Three rain gauge station in catchment namely Samnapur, Mawai & Bichhiya. Catchment area is 1653 Sq. Km.

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Chairman **Member SEAC** **Member SEAC**

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Member SEAC **Member SEAC** **Member Secretary**

Study 2

- 75% dependability value – 987.48 MCM
- Grass use 82.72 MCM.

Water availability (in MCM)	Upper Burhner
	Study 1
50% Dependability	987.48
75% Dependability	788.06
Utilization	82.72 MCM
Utilization (Irrigation)	MCM

Garlanding scheme
CCA = 16705 ha
Power Requirement = 2.61 MW (3508 hp)
Energy Requirement = 5.6 MU
Salient Features

Components	
Location	23° 02' 00"N 79° 05' 24" E
District	Narsinghpur
Catchment Area	4337 Sq.km
Submergence	3250 ha
Land to be Acquired	4150 ha
FRL	340.0 m
MWL	341.60 m
MDDL	336.0 m
Gross Storage	573.62 MCM
Live Storage	237.79 MCM
Dead Storage	335.83 MCM
SPF	52200 Cumecs
PMF	67000 Cumecs

After deliberations committee has approved the proposed TOR with inclusion of following points:

(i) Impacts due to project Location

(a) Resettlement and Rehabilitation of Displaced Families - This issue will be addressed based on a thorough socio- economic survey of families displaced from the submerged areas and the area occupied by project components.

(b) Forests and forest Land - An assessment will be made of the loss of forest and forest land due to the project and it will be specified by the type of forest (plantation, village forests, natural forest, etc., present conservation status, productivity and standing timber volume (forest clearance report may be referred to),

- Assessment of loss of non-wood forest produce in the reservoir area, i.e., thatch, grazing fields, tree, fodder, etc., and
- Assessment of the effects of these losses on

(i) Forest department operation and (ii) on local communities and (iii) Nature Reserves

It should include assessment of the following in project area (upstream and down stream) area to be submerged

- Effects of the project on national parks, sanctuaries etc.

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- Reserves, sanctuaries and other protected areas within the project area;
- Impact on rare or endangered species of flora and fauna within and outside the project area; impact on economically important plants such as medicinal plants, orchids, lichens and other NTFPs
- Impediments to wildlife movement, and
- Positive and negative effects on the aquatic life.

(d) Historical and Cultural Monuments - An inventory should be made of historical and cultural monuments of regional, national and international importance which will be lost or affected by project activities and impoundment of water.

(e) Grazing Lands- an inventory of community and other grazing land which will be lost or affected by project activities and impoundment of water; an assessment of possible conflicts in land use and effect on animal husbandry operations and an assessment of impacts on livestock movements.

(f) Water Resources Outside the Project Area include::

- Assessment of potential conflicts amongst water \ users downstream of the project area;
- Assessment of risk of waterlogging and flooding out side the project area,
- Assessment of impact of changes in ground and surface water quality outside the project area (both upstream and downstream).

(g) Water Resources Inside the Project Area:

- Assessment of effect of changes in hydrological balance;
- Expected changes in water quality in the project area as a result of upstream water-regulatory works (i.e. reduced flow, temperature, dissolved salts, sediment load etc.);
- Assessment of effects of planned activities on run-off and sediment load of the river.

(h) Erosion and siltation

- an analysis of present sediment load of water entering the project area and the risk of siltation of canals and the reservoirs, and
- an assessment of erodibility, slope stability and scouring risk of the main soil types in the project area. (A slope map indicating erosion prone areas should be prepared). [see f above]

(ii) Impacts due to Project Design

(a) Hydrological Balance

the effect of changes in the hydrological balance caused by the construction of the dam, reservoirs and canals;

- evaporation losses from reservoirs;
- expected rise in groundwater table, and
- impact on aquatic ecosystems including fish; aquatic birdlife, spawning areas and seasonal migration.

(b) Drainage

- the risk of water logging/flooding;
- siltation, eutrophication, salinization & alkalinization risks, and
- adequacy of proposed drainage network.

(c) Dam, Canals and structures - assessment of adequacy of planned provision to prevent excessive aquatic weed growth, erosion and seepage, and design of culverts, intakes and protective structures to prevent bank scouring.

(d)Passage-way review whether suitable and sufficient crossings for people, livestock and wildlife are included in the project design.

(iii) Impacts Due to Construction Works

(a) Soil Erosion

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Runoff during rains from excavated areas, quarry sites, dam faces etc. can result in soil erosion. Adequate provisions for re-vegetation, dressing, resurfacing of burrow pits etc. should be ascertained.

(b) Construction Spoils- Adequacy of provisions for dumping of construction spoils, waste materials etc. should be reviewed.

(c) Public Health

- Improvement in availability of water for various uses;
- The adequacy of sanitation in workers' camps, and
- The vectors that may transmit diseases from local carriers to immigrant labour and staff and vice- versa.

(iv) Impacts Due to project Operation

(a) Residues of Agro-Chemicals

an estimate of expected increase in the use of pesticides and fertilizers (type, dosage, application technique);

an assessment of adequacy of provisions made in ! the project for ensuring proper and safe use of fertilizers and pesticides;

an assessment of the effects of runoff and "'I drainage of residual fertilizers and pesticides on the water quality of the receiving body and on aquatic communities downstream, and

a summary of GOI regulations on the use of agro- chemicals in relation to environmental protection.

(b) Impact on Soils

improvement of fertility and increase in agricultural production;

the risk of water-logging (maps with site indication), based on soil survey data;

of salinization and alkalization risks based on water quality data and soil characteristics;

the expected modifications in soil structure and texture, and

expected soil losses from runoff due to project operation.

(c) Ground Water

Areas where changes in groundwater level can be expected should be indicated.

Both positive and negative effects should be described. An assessment of possible changes in ground water quality as a result of percolation of toxic residues of agrochemicals and its effects inside and outside the project area should be carried out.

(d) Changes in Surface Water Quality and Eutrophication an assessment of the risk of surface water pollution by residues from agrochemical, future trends and its effect on fisheries and aquatic ecosystem i.e. assessing biochemical oxygen demand, toxicity, and dissolved oxygen;

- an assessment of the risk of eutrophication of reservoir water by sediment, nutrient leaching and fertilizer residues, and consequently, the risk of invasion of noxious aquatic weeds, such as water hyacinth;
- an assessment of the adequacy of provisions for clearing of canals and reservoirs in the operation and maintenance programme and its cost estimates, and
- Suggested methods that are environmentally acceptable for weed control.

(e) Water Related Diseases

the effect of changes in water quality, eutrophication, weed growth and the increase in areas of stagnant water on the proliferation of insects or other vectors of water-related human and livestock diseases. (Estimates should be made to what extent this can be expected, specifically for the more serious diseases, e.g. malaria, filariasis, schistosomiasis and enteric parasites etc.);

- a study of the present (pre-project) incidence of main water related diseases in the project area from surveys and existing public health records;
- an assessment of the risk of introduction of new pathogens and disease vectors;

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- an assessment of required health care facilities, especially in the resettled area, and
- an assessment of adequacy of planned measures to reduce the spread of water related diseases.

(f) Flood risks – data pertaining to flood history of the region for last 40 years have to be incorporated with EIA. Down stream consequences of floods when the dam gates are opened under floods have to detailed out.

Environmental Management and Cost estimates

With knowledge of the baseline conditions, the ongoing construction activities, the planned future development programmes and current critical conditions, projections are to be made of their influence on physical, chemical and biological aspects of environment in the area. These projections should identify whether the pre-project critical environmental conditions will be further degraded and what additional environmental conditions are likely to become critical. An environmental management strategy will be developed to mitigate the adverse impacts. The strategy will include evaluation of alternative methods to reduce or eliminate adverse impacts of the most critical areas likely to contribute to the most significant environmental burdens. Cost estimates for each of the proposed mitigatory measure should be given.

Environmental Monitoring

The proponet / consultant will design a post-project environmental monitoring programme for implementation, and then various parameters will be monitored by relevant departments. The cost estimates and equipment necessary for the implementation of this programme shall be included. Inclusion of the following indicators in such a programme should be considered:

- water quality, in the main canal, in drainage channels, and in the reservoir; standard analysis
- technique including the analysis of toxic residues from agro-chemicals;
- fish growth of introduced fingerlings in the reservoir;
- spread of aquatic weeds and eutrophication;
- trends in incidence of water related diseases;
- change in soil fertility, structure and texture;
- siltation rate of canals and reservoirs;
- soil erosion rate (including slope stability of canals banks and dam faces);
- adequacy of drainage system (water logging, Stalinization & alkalinization),
- changes in ground water level and ground water quality.
- proper implementation of CAT plan
- proper implementation of afforestation
- earthquake monitoring (reservoir induced earthquake)
- pore water monitoring
- seepage water monitoring

Other additional TORs'

- No information has been given for the relief canal and disposal of the left over water, the same has to be provided in the scheme to be submitted with EIA.
- Ground water table to be monitored for recharging during project operation. The post operation fluctuations to be measured with appropriate action to be planned. The water logging if found has to be addressed with preventive measures.
- Project-wise information on sewage treatment & disposal and MSW management has to be provided for: Temporary hutments for labours, Officers/Staff quarters and Office staff. It should be ensured that no sewage is discharged in to the water body (as proposed in the point no. 1.15 of the application)

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- Demolition of the structures in the project area to be detailed out including the management of debris. It should also be ensured that no constructions come up in the cleared areas until the schemes are executed.
- L-section to be carefully selected to ensure balancing of cutting and filling to avoid borrowing of additional top & other soil for filling.
- Plantation along both the sides of canals to be taken up accordingly scheme to be provided.
- A defined quantity of water from storage tank has been assigned and reserved for industrial and drinking water uses. Similarly appropriate quantity of water from storage tank may also be assigned for maintaining a fair weather flow in the rivulet downstream. This quantity may be ascertained on the basis of various uses to which the rivulet/ river is put to, downstream.
- All structures such as aqua-ducts, bridges across-roads, river, natural drainage etc. will be identified in EIA. Plan for maintaining the natural drainage to be submitted.
- Detailed study for fluoride contents in ground water to be submitted with EIA.
- Source of metal stone, sand and soil for construction to be identified. The quarry and river bed
- to be identified *and* separate permission has to be obtained as per prevailing rules.
- Water supply to the workers and site staff should conform the limits of fluoride as specified in IS – 10500.
- As diesel is likely to be used in bulk; proper storage of the same has to be provided.
- Catchment area treatment plan to be submitted in EIA.
- Quantify the water replenishment in storage tanks and where such replenishment will be utilized.
- Measures proposed to be taken for prevention of siltation in river/ rivulets feeding the reservoir to be reported.
- R&R plan should include the water supply, electricity, hospital, school and all the basic amenities for the displaced families.
- Most of the times the actual CCA differs from the estimated CCA. Anticipated actual CCA may be furnished based on past experience for such projects.
- All the projects in the Basin of Major River until it crosses inter-state boundary and in its subbasins upstream may be shown on a map along with the storage capacities. It will help in understanding overall impact of the proposed projects on the water balance of main river basin
- Existing land-use pattern both in submergence as well as in down stream area i.e. CCA may be given.
- Monitor the water quality in the reservoir and in the down stream river stretch at 3-4 places particularly for pesticides, NPK and heavy metals like zinc.
- Environmental impact of changed agriculture practices due the project may be included in EIA report.
- All the main canals shall be lined; it may be reported that how the ground water recharge shall get impacted.
- The Acts / Rights pertaining to tribal and traditional forest dwellers should be addressed while executing the project.
- Criteria for selection of proposed site along with comparison with other sites to be furnished highlighting the environmental issues.
- Impact of submergence of on wild life and grazing lands to be furnished.
- Number of trees and orchards in the non-forest area under submergence shall be addressed.

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- Quantity of rainfall expected to be captured by the proposed dam has to be evaluated using rain-fall data and reported in EIA.

5. Case no. 717/2012 **Shri Mukesh Kumar Gupta, Director, M/s Lakshmee Stoni Marmo Pvt. Ltd.** R/o 325, Samta Colony, Raipur (C.G.) *Lease Renewal of Kachhargaon Marble block quarry lease,Khasra No. 541, 548, Village - Kachhargaon, Tehsil – Bahoriband, Distt. – Katni (M.P.) Lease Area- 9.31 ha. Proposed Capacity – 15,000 Cubic Meter/Year* For ToR **Env. Consultant – Not Disclosed.**

This is a mining project with Lease Area- 9.31 ha. And proposed Capacity – 15,000 Cubic Meter/Year. The case was forwarded by SEIAA to SEAC for scoping so as to finalize TORs' to carry out EIA / EMP. The project was presented by the PP and his consultant before the committee which reveals following salient features of the project:

Back ground of the project:

Name of Mineral	Marble Block
Location of Project	Khasara No.- 541, 548
Production Capacity	15000 cubic meter per year
Jurisdiction of Mine	Govt. land
Lease Period	2012 to 2032
Lessees	M/s Laksmee Stoni Marmo Pvt. Ltd.

Salient Feature of the Project:

Type of Mine	Open Cast
Mining Lease Area	9.31 ha
Mineable Area	9.31ha
Existing Pits & Quarries	0.78 ha
Existing Dumps	2.85 ha
Infrastructure and road	0.0560 ha
Mineral Storage	Nil
Plantation	0.50 ha
Geological Reserve	963422 cum
Recoverable Reserve	822782 cum
Method of mining	Mechanised
Ultimate Depth of Mining	31m bgl
Particulars	Details
Lease Period	20 year
Stripping Ratio	1:1.5
Existing mode to transportation of Marble	Road
Area to be covered under dumps in lease period	2.85ha
Area covered under pit	2.5 ha
Area to be reclaimed by lease period end	1.0ha
Area to be covered under plantation by end of LP	3.5 ha
Average mRL	411-407AMSL
Ground water table	
Monsoon period	40m bgl (367mRL)
Dry month	45m bgl (362mRL)

Latitude	1.4" - 23°35'0.5" N
Longitude	5.5" To 80°08'52.9" E

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Height above mean sea level	411-407AMSL
Nearest City	Katni about 36 km
Nearest Railway Station	Sleemnabad- 11 km- SE direction
Nearest Airport	Jabalpur -60 km
Nearest Highway	National highway NH-7 upto 4km
Nearest Village	Talakhera – 1.75km – SE
Hills/Valley	No
Ecological Sensitive Zone	No national parks and sanctuary
Reserve Forest	Jujhawal RF- 4.5km - NE Amoch RF – 1.5km-SE
Nearest River/ Nalla	Bohariband Tank– NW – 6.5 km Silpuri Nadi- SE- 10km Bah Nalla-S-10km
Annual Climatic Conditions	Max. Temperature – 48.2°C Minm Temperature – 4.0 °C Average Rainfall–1140-1900 mm

Mining Method	Present mining is the block mining by adopting the gali toda method by using help of wire saw, LD-4, jack hammer, Hydraulic Jack, compressor, Tata Hitachai, Shovel excavator and crane. The principle of block mining is to get three free faces known as the gali (along the strike) and toda (across the strike). The basic purpose to prepare the gali and toda is to get proper space for block cutting in L shape (combination of gali and toda) therefore the first gali then toda is developed with blasting parameter which is localized for proper functioned of wire saw machine approximately 3-6m space.
Blasting Operation	Jackhammer drilling is done at the top capping Shot holes with 35 mm dia and 1.5 m depth will be drilled. Development is done immediately after rainy season while the ground is moist. Blasting shelter has been provided to the blaster
Water Consumption (Avg.)	Dust Suppression – 6.0 Kl per day Domestic activity – 2.0 kl per day Green Belt - 2.0kl per day Wire saw cutting – 10kl per day

Water Pollution control measures

- To prevent the overburden from wash off, a protective trench, 1m deep and 1.5 m wide shall be formed around the toe of OB dumps
- Garland drain has already been provided around existing dumps and pit
- There is no surface water body passed in the core zone.
- Domestic waste water has been collected in Soak pit

Noise Pollution Control Measures

- Properly maintenance of crane, jack hammer and other machineries
- Ear muffs has already been provided to crane operators, dumper operator
- To carry out noise surveys during different seasons at the mine.

Solid Waste Management

- Presently two dumps as D1 and D2 in north and south of the area respectively having total area 2.85hect and average height of the dump is 2-3m which will be compacted and rehabilitated by sowing of fast growing grass and shrubs.
- During the proposed mining about 80000cum soil/mine waste will be generated.
- During the proposed period generated waste will be used for backfilling purpose and

maintenance of road and construction of retaining wall around the pit and existing dumps.

- No dumping has been proposed.

Afforestation plan

Year	Area in ha	No. of plantation
Present	0.2	200
1st	0.2	150
2nd	0.2	150
3rd	0.2	150
4th	0.2	150
5th	0.2	150
6th to LP	1.3	1600
Total	3.5	2500

After deliberations committee has approved the TORs' proposed by the PP with inclusion of following points:

1. Compliance report of the air / water consent conditions has to be obtained from the State Pollution Control Board and submitted with EIA.
2. Production data for last 10 years to be furnished duly validated from the mining deptt.
3. Exact distance of all the water bodies to be furnished with appropriate mapping.
4. Other TORs' shall be as approved for other mining projects.

6. Case no. 719/2012 M/s Bahubali Marbles C/o Shri Yaswant Jain, 1280, Home Science College Road, Napier Town, Jabalpur (M.P.) 482001 Chapra Marbles Mine ,Khasra No. 228, Village - Chapra, Tehsil – Bahoriband, Distt. – Katni (M.P.) **Lease Area- 2.06** ha. Proposed Capacity – 45,000 MTPA **For ToR**
Env. Consultant – Not Disclosed.

Neither the PP nor his representative was present to explain the query which might be raised or to make any commitment which may be desired by the committee during the deliberation. Hence committee decided to call the PP in coming meetings as per turn.

7. Case no. 722/2012 M/s VE Commercial Vehicle Ltd. (Bus body plant) 102, Industrial Area No. – 1, Pithampur, Distt. – Dhar (M.P.) – 454775 - *VE Commercial Vehicle Ltd. (Bus body plant) at khasra No. 52/3, 52/1, 51/1/1,51/3/1,51/3/2,15, 51/1/2, 47/2, 51/2, 5/1/2,12/2 village- Baggad, Tehsil – Dhar, Distt. – Dhar (M.P.) Bus building capacity – 5500 vehicles per annumn Total Plot Area – 1,54,588.70 m^2 proposedBuilt up Area – 25909.31 m^2* For ToR
Env. Consultant – Kadam Environmental Consultant Gurgaon

This is a building construction project proposed for putting up vehicle assembling unit. The case was forwarded by the SEIAA to SEAc for appraisal based on the form 1, 1(A) and other relevanty documents. The presentation and submissions made by the PP reveals following salient features of the project:

VE Commercial Vehicles Limited is a joint venture between the Volvo Group (Volvo) and Eicher Motors Limited (EML).

Salient features of the project

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Project	VE Commercial Vehicle Ltd. (Bus body plant)
Location	Village- Baggad, Distt- Dhar, Madhya Pradesh
Project Proponent	VE Commercial Vehicles Ltd.
Total Plot area	154588.7 m²
Total Built up area	25909.31 m²
Product	Bus body
Capacity	5500 vehicles per annum
Source of Water	Bore well (03)
STP Capacity	50 KLD
Solid Waste Quantity	0.1 ton/day
Hazardous Waste	0.1 ton/day
Industrial Effluent	Nil
DG Sets	3 x 600 KVA
Power Demand	2200 KVA

Project surroundings

Area	Name	Approximate distance (km) and Direction
Nearest Highway	NH-79 (Indore to Ratlam)	0.04 km in NS
Nearest Railway	Rajendra Nagar Railway Station	30 km in NE
NearestTown/Village	Baggad village	0.8 km in SE
Nearest Water Body	Bageri River Chambal River	3.40 km in WNW 7.70 km in ENE
Monuments	Temple	2.1 km in N
Forest	Not Available	

Water requirement

Total Fresh Water Requirement: 60.17 KLD. Source: Bore wells (03 Nos.)

Sr. No	Type	Total Water consumption in KLD
1	Domestic Purpose	46.695
2	Drinking Purpose	5.943
3	Process Water (make up water)	4.664
Total		57.302
4	F.O.S. and addition for losses	2.8651

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Grand Total	60.167

Sewage Treatment Plant

- Capacity: 50 KLD
- Treated waste water will be recycled and reused in green belt and flushing.
- Primary, secondary and tertiary treatment will be given.
- STP based on FAB technology will be provided.
- No. of oil and grease traps will be provided at different locations within the plant to catch the oil and grease that may be released due to leaks or any other reason.

Rain water harvesting system

- The rainwater collected from the rooftop within the project area will be conveyed into the rainwater harvesting system and finally recharges the groundwater.
- Storm water drainage system has been designed as per NBC, 2005
- Total Rooftop Area: 28206.53 sq. m.
- Total run-off available for one hour: 1071848.14 Lit.
- Total rain water harvesting will be carried out only for rooftop runoff.
- Pits of sufficient capacity are available to harvest the rain water. Hence, there will be no overflow of runoff during peak rainfall for the duration of 20 minutes. Over flow after peak runoff will be taken to nearby natural drain.

Municipal solid waste generation

- Quantum of MSW is reported to be 0.1 ton/day
- Consists of cardboard containers, plastic, wooden blocks, paper waste and canteen leftover.
- Proposed to be segregated into biodegradable and non-biodegradable wastes and collected in separate bins. The non-biodegradable wastes shall be sold to recyclers and the biodegradable wastes are intended to be collected and disposed into composting pits at site.

Hazardous waste generation

- Quantum: 0.1 ton/ day
- Consists of used oil from DG sets, paint rejects, paint sludge and filters residues.
- Category of hazardous waste is 5.1(Used/spent oil), 21.1 (Process wastes, residues and sludge) & 21.2 (Filters residues).
- All the hazardous wastes are intended to be disposed off as per the rules.

Technological high-lights:

- Due to Dry air painting Booth technology there is a direct saving in water use as compared to water screen painting process.
- Collection of paint on filter shall reduce manual cleaning of Sludge Separation area.
- Robotic painting shall have very less paint wastage in comparison of Manual Painting which results in Natural Resource saving.

Energy Conservation and ECBC guidelines

- Use of solar energy in open and landscaped area. like street lights, and North Light plus Transport sheet are proposed on roof.
- Solar energy will be used in Canteen for solar water heater and lighting.
- CFL lighting fixtures in the common administrative areas.
- Roof-top thermal insulation to save energy requirement for cooling.
- Provisions for maximum utilization of natural light have been planned ib the proposed building.
- BEE star rated equipments are proposed to be used based where ever available.
- TERI has been retained as energy consultants. All the measures suggested by TERI shall be implemented while during construction.
- U values: (24 hr Use Building), these will be with in the maximum standards mentioned in

ECBC-2007, Table no 4.3.1, 4.3.2, 4.3.3-1 pg. no.7, 8 & 9

Plantation scheme:

Details	Sq Mtrs.
Total Plot Area	154588.7
Green Belt Area	23188.31(15%)

Environment Management Plan - Mitigation Measures

Air environment:

Source of Air Pollution

- During the operation of the project, main source of air pollution is from the DG sets which will emit pollutants like Suspended Particulate Matter, oxides of Sulphur and Oxides of Nitrogen
- VOCs emissions from paint shop.
- Vehicle emissions containing SO_x and NO_x in and around the project premises
- During construction phase, dust will be generated, which will be controlled by sprinkling of water.
  - Covering building materials by tarpaulin,
  - Covering the structure with Hessian clothes etc.
- DG sets will be provided with stack as per statutory norms
- Development of thick Green belt will help to act as sinks for pollutants gases.
- Fume extraction and absorption system will be employed to minimize the concentration of VOCs released from paint shop.

Impact by noise environment:

Source of Noise Pollution

- Vehicular Traffic
- DG Sets
- Compressors
- Pumps, Machinery etc.

Environment Management Plan - Mitigation Measures

- Development of thick green belt around the premises.
- Appropriate Acoustic enclosure around D.G. Set.
- Impact on onsite workers are expected to be highest but can be reduced substantially with use of PPE like earplugs and earmuffs.

Impact on socio-economic environment:

Project will provide employment to about 1000 people.

CSR Activities

- Drinking water facility provided to the needy people of near by village and housing society for free of cost by supplying & maintaining the hand pumps
- Free plantation and green belts for near by housing and villages.
- Free health check up for workers and their families and near by population by company medical officer.
- Education Scholarship for workmen and Staff school going Children.
- Rain water harvesting for ground water table maintaining.
- Aids training program for prevention and awareness of diseases.

Fire and Safety

- **As per NBC -2005 (Part 4, Fire & Life Safety),** proposed project is categorized as:
  - Bus body manufacturing unit.

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- Falls in sub Group G-1 under Group G.
- Fire zone No.2

- **Minimum requirements for fire fighting installations as proposed are:**

- Fire Extinguishers
- Hose Reel
- Wet riser
- Yard hydrant
- Automatic Sprinkler System
- Automatic detection and alarm system
- Underground static water storage tank -1,00,000 litres
- Terrace Tank -10,000 lit
- Pump near underground water storage tank (Fire pump) with minimum pressure of 3.5 kg/cm2 at terrace level (one electric and one diesel pump of capacity 2280 l/min and one electric pump of capacity 180 l/min)
- Pump of 450 l/min of capacity at the Terrace Tank level with minimum pressure of 2.0 kg/cm^2

DISASTER MANAGEMENT PLAN

- A **Disaster Preparedness Plan** will be established with comprehensive training and drills to ensure a quick response from the people involved .
  1. To control events and prevent escalation.
  2. To minimize the effect on people, property and the environment.
  3. Effective rehabilitation of the affected persons.
- **Disaster Response Team:** A team of cautious and expert members will be formed to tackle the emergency situations.
- Duties of the Disaster Response Team will be:
  1. Declaring emergencies and implementing the emergency plan;
  2. Implementing evacuation procedures;
  3. Contacting emergency services (fire, police, ambulance) and utilities;
  4. Assessing emergency services, supplies and equipment;
  5. Obtaining emergency services, supplies and equipment;
  6. Ensuring the safety of staff and volunteers at all times during an emergency;
  7. Preparing post-emergency reports.
- An **Emergency Contact List** will be prepared and circulated within all dept for last moment rescue call.
- Mock drill will be conducted regularly to test the effectiveness of the Disaster Management System

Environmental Management Budget

S.N	Head	Approximate recurring cost per annum (Rs. in lacs)	Approximate Capital cost (Rs. in lacs)
1	Air pollution control	3.0	20.0
2	Water pollution control	8.0	30.0
3	Solid & hazardous waste management	5.0	20.0
4	Green belt	7.68	29.08
Total		**23.68**	**99.08**

Environmental Monitoring Plan

S. No.	Activity	Schedule

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	Air Pollution Monitoring	
1	Ambient air monitoring of parameters specified by CPCB in their air consents from time to time within the premises	Once three month
2	Ambient air monitoring of parameters specified by CPCB in their air consents from time to time at stations outside the premises	Once every season at each station
	Water Pollution Monitoring	
3	Monitoring of one sample of groundwater at site/nearby location. Parameters are essential parameters as per IS: 10500:1991.	Once in every season
	Noise Level Monitoring	
4	Noise in the ambient atmosphere inside the premises	Once in a quarter
	Solid Waste Generation Monitoring/Record Keeping	
5	Records of generation, handling, storage, transportation and disposal of solid, aqueous and organic hazardous wastes as required by hazardous waste authorization	To be updated daily
	Environmental Audit	
6	Environmental Statement under the EP (Act), 1986	Once in a year

After deliberations committee finds that the EMP, DMP, CSR and other submissions made by the PP are satisfactory. The water conservation plans the energy efficiency plans submitted by the PP are acceptable. Hence the project may be granted prior Environmental Clearance, subject to the following specific conditions:

1. Thick green belt development shall be taken up encircling the plot.
2. The reuse of paint sludge should be explored.
3. Corporate Environmental Policy has to be formed as per the O.M. of MoEF dated------ and submitted to MPPCB while obtaining necessary consents under Air / Water Acts.
4. Fume extraction and absorption system has to be employed to minimize the concentration of VOCs released from paint shop.
5. On-line monitoring system for continuous source & ambient air quality has to be installed with special reference to the monitoring of VOCs emissions from paint shop.
6. Total Fresh Water Requirement shall not exceed 60.17 KLD. Permission to abstract ground water shall be obtained before initiation of any activity on site.
7. ECBC Guidelines shall be strictly followed for light and air-conditioning of the buildings.
8. Maximum use of Solar Energy shall be ensured.
9. STP based on FAB technology shall be provided with provisions of Primary, secondary and tertiary treatments

8. Case No. 576/2010 – Shri Bhupatlal Kuderia, PO- Kupi, Distt. Chhatarpur (M.P) *Banki Girauli White Clay Mine Area- 12.0840 Ha with Prod. Cap.-2000 MTA at Khasra No. 65P, Village – Banki Girauli, Tehsil- Bijawar, Distt.- Chhatarpur (M.P)(The case was dealt in 91st meeting dot 03/03/12and deferred for want of latest mining scheme from PP.)* – **EIA Presentation.**

Environment Consultant - M/s Creative Enviro Services, SR-4, Shriram Kunj, E-8 Bharat Nagar, Arera Colony, Bhopal

The EIA presentation was partially done in 91st SEAC meeting on 03/03/2012.

During presentation the data used from earlier mining plan which was up to valid upto 2008- 09.

Committee asked the PP to submit latest mining plan. Mining Scheme approved from IBM for period up to 2013-14 and submitted to SEAC.

Site : Village Banki Girauli

Tehsil : Bijawar

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(R.K. Jain) **Member Secretary**

District : Chhtarpur
Area : 12.840 Hectare
Khasara No. : 234/1
Latitude& Longitude : ($24^0$37'26"N : $79^0$30'56"E)
Land Status : (Govt. revenue land)
Lease Period : Dated 02.02.1994. to 01.01.2014
Validity : 20 years.

S.No.	Particulars	Details
1	Nearest City	Chhatarpur 42 km from Mine
2	Nearest Railway Station	Khajuraho Rly station which is 98 km from lease area.
3	Nearest Airport	Khajuraho is 98 km from lease area.
4	Nearest Highway	NH-86 is 44 km .
5	Nearest Village	Girauli at 1.6 km
6	Nearest River /Nallah	Barana River is 4 km at Mine Site.
7	Topography	Hilly area (60-70 ft high)
8	Nearest Forest	Saipura Reserve Forest is 6.2 km, Kishgarh Reserve Forest is 5.4 km
9	Inter State Border	Not within 50 km

Feature of 5 km Radius

Girauli Village is 1.6 km at mine site. SW
Banki Village is 1.8 km at mine site NE
Pathariya Village is 3.2 km at mine site - SE
Primary School Girauli at 2.6 km
Barana River is 4 km at Mine Site.
There is no human settlement within 1 km radius from center of the mine site.

Minerals & Capacity

Proposed Mineral to be excavated - White Clay
Proposed Production Capacity - 2000 MTPA
Total Geological reserve of clay - 7,59,936 T

Mining method

Opencast manual method for mining shall be adopted using tools like crowbars, sledge hammers, chisels & spades. Loading of O.B. and White Clay into tractor from stacking site in quarry bottom will be done manually. Haul road shall be extended to the floor of the benches. No blasting is required. Working has been done in two to three benches in a pit. Drilling & Blasting is not required.

Year	Soil (m^3)	OB/ Waste (m^3)
2011-12	1040	2925
2012-13	990	3826
2013-14	980	3900

The mine waste and soil will be back filled in the excavated pits of 2 Nos.

Present Land use pattern of lease area

S. NO.	Particular	Area (ha)
1	Pits & quarries (2 pits)	0.50
2	Dumps	0.40

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3	Infrastructure /site service	Nil
4	Haul Roads	0.20 ha
5	Plantation	0.75 ha
6	Barraen waste land	10.99 ha
7	Agriculture land	Nil

Water requirement

S. No.	Head	Quantity
1.	Dust suppression	5.0 kld
2.	Green belt	3.5 kld
3.	Domestic	1.5 kld
	Total	10.0 kld

Environmental Management Plan

Air pollution control measures

Source	Control Measures
Truck Movement	Truck shall be covered with tarpaulin while transporting ore, enforcing speed limit.
Waste Dumps	Terraced dumping and compaction water spraying in working area.
Haul Road	Compaction, gradation and drainage on both side proper maintenance of haul road
Mine Pit	Working in small area

Water pollution control measures

There is accumulation of rain water in the existing pits, increases in prolonged rains hours, accumulated water shall be pumped out, and used for dust suppression and shall be given to nearby farmers for irrigation purpose.

To prevent the soil from wash off, protective trenches, 2m deep and 2m wide shall be formed around the bottom of hillock.

Settling pit and drains are being cleaned properly to prevent the siltation.

There is no surface stream in the core zone.

The depth of the mine shall 10m max. and the ground water table is 20m therefore the mining will not intersect the ground water.

Noise pollution control measures

Regular maintenance and oil & greasing of Jack Hammer machines

Provision of ear muffs to drill operators.

Plantation in and around the Mine.

Proper gradient of haul road to reduce cumulative noise level

To carry out noise surveys during different seasons in the mine.

Year Wise Disposal of Mine Waste

Year	Soil (m^3)	O.B./Waste (m^3)
2011-12	1040	2925
2012-13	990	3526
2013-14	980	3900

Waste Management:

The mine waste is in the form of soil and mine waste. The soil will be in loose form mixed with grit and sandstone. This will be in form of lumps and small pieces. The waste will be in the form of latertic soil and mixed with sandstone.

The mine waste shall be backfilled in existing pits. Stripping ratio varies 1:0.89 to 1:1.37

Safety & security

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First aid facility shall be provided at mine site.
The area shall not be used at all by general public.
A fencing shall be provided around the working pit to restrict fall of animal in the pit.
A Watchman during day & night shall be posed at site to prevent unauthorized entry inside.
In case of natural hazards such as earthquake PP will take assistance from the local competent authority of Govt.
In the white clay mine most problems are due to dust in summer for workers, PP have made provision to provide dusk masks for mine workers.

Public hearing details

Public hearing was conducted on 22.06.2011, near the mine site at village Banki Girauli.
62 people have attended the hearing and a common opinion has been observed for the mining activity that employment should be given to local villagers. Seven of them registered their opinion in writing.
The issues raised were duly addressed and clarified the matter.

Statement of the issues raised by the public comments of the Proponent

Name & Address	Raised issues	Comments of the applicant
Shri Mayaram Yadav Banki Girauli	After start of mine villagers should get employment. There should be hospital and village road should be pucca. Plantation should be carried out. We are facing problem in rainy season.	Plantation shall be carried out in 33% (4.23 ha) of lease area. PP have provision to plant 600 plants & species every year and a separate budget of Rs. 90,000 for per year plantation. PP will provide our support in development of village road as per our strength.
Shri Kamlesh Yadav Banki Girauli	After start of mine villagers will get employment. We will not Suffer.	Employment will be given as per skill.
Shri Bindavan Yadav Banki Girauli	We will get employment from mine and village shall be developed. Village roads should be developed.	After getting EC & consent under Water & Air Act from MPPCB the mine will start. After start of mine employment shall be given to local villagers.
Shri Manpyare Yadav Banki Girauli	School education, road and health care facilities shall be developed.	As per the Norms PP will contribute for education, health care and village road.
Shri Ravikant Sharma, Banki Girauli	We will get employment in mine. All measures shall be taken for pollution control and plantation shall be done simultaneously.	To control Air Pollution water sprinkling arrangement shall be made. Dust mask shall be provided to workers. Plantation shall be carried out in 33% of lease area.
shril Sannu Yadav	No objection from start of mine. We will get employment from this mine.	After getting EC & consent under Water & Air Act from MPPCB the mine will start.
Shri Bandu Saur	After start of mine we will get employment. Electricity problem should be rectified.	PP will provide employment to local villagers.

Budget towards Environmental Protection

S.	Particular	Capital cost (Rs.)	Recurring cost (Rs)

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No.			
1.	Dust suppression	50,000.00	25000.00
2	Environmental monitoring		40,000.00
3	Green belt development	2,27,000.00	45,000.00
4	Back filling		30,000.00
5	Medical aids as per norms	35,000.00	20,000.00
6	Others	25,000.00	10,000.00
Total		3,37,000.00	1,70,000.00

After deliberations committee decided to recommend the case subject to the following specific conditions:

1. Compliances of all the public hearing issues shall be taken up on priority.
2. A schedule for regular environmental monitoring shall be submitted to the M.P. Pollution Control Board and monitoring shall be ensured and the results shall be submitted to the regulatory authorities along with the production figures.
3. Compliance report for the compliance of EC conditions has to be submitted periodically to the authorities.
4. Under no circumstance the production should go beyond 2000 MTPA.
5. Mining operations shall be done strictly as per the mining scheme as approved by the IBM and any change in the scheme has to be informed to the authority and MPPCB.
6. Copy of approved mine closure plan has to be submitted to the MPPCB before the expiry of mining lease.
7. Use of solar panels shall be ensured for lighting of streets & office building at site.
8. All general conditions shall be applicable.

9. Case no. 636/2011 Sh. Pradeep K. Mittal,Partner M/s Pacific Exports, 11-12, Dunn Market Jabalpur Road, Bargawan, Distt. - Katni (M.P.) – 483501 *Jhilti Iron ore, laterite Mine at Village - Jhilti, Tehsil- Sihora Distt- Jabalpur (M.P) Area- 27.05 Ha Cap- 2.7 Million Tonne per annum Tonnes/Year* **For – Query Presentation.**

The project was discussed in the 97th SEAC meeting in detail, whereby the committee asked the PP and his consultant to submit and present response to certain queries.

Reply for the above queries were submitted by the PP thereafter PP was allowed to make a query reply presentation before the committee in this meeting. The EIA, EMP, DMP and other related submissions made by the PP were found to be acceptable and satisfactory. The compliance submitted and presented by the PP also appears to be acceptable and satisfactory; however, validation of compliances and recommendations from the RO of MoEF is yet to come. It was submitted by the PP that the mine remained operational only for a limited period. Nevertheless, the company has complied with most of the conditions of the existing prior EC. PP has assured that remaining compliances are in progress.

Based on the submissions of the proponent committee decided to recommend the case for grant of prior EC subject to the following special conditions:

1. Compliances of all the public hearing issues shall be taken up on priority.
2. Passage near canal should not be used for transportation.
3. Grazing land shall not be used for storage or any other purposes.
4. A schedule for regular environmental monitoring shall be submitted to the M.P. Pollution Control Board and monitoring shall be ensured and the results shall be submitted to the regulatory authorities along with the production figures.
5. Compliance report for the compliance of EC conditions has to be submitted periodically to the authorities.

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6. Under no circumstance the production should go beyond 2.7 Million Tonne per annum Tonnes/Year.
7. Mining operations shall be done strictly as per the mining scheme as approved by the IBM and any change in the scheme has to be informed to the authority and MPPCB.
8. Copy of approved mine closure plan has to be submitted to the MPPCB before the expiry of mining lease.
9. Use of solar panels shall be ensured for lighting of streets & office building at site.
10. All general conditions shall be applicable.

10. Case no. 69/2008 Sh. Shri Vinod Kumar Shrivastsva, Burhagar, Sehora Road, NH- 7, Jabalpur (M.P) *Kurro Laterite & Manganese Mine Khasra No. 531, Village Kurro, Tehsil Sihora, Mining Lease Area 7.30 Ha., Proposed Capa. – 45,000 MTPA, (Existing Cap.- Laterite - 45,000 MTPA)* **For ToR (Revised)**

Neither the PP nor his representative was present to explain the query which might be raised or to make any commitment which may be desired by the committee during the deliberation. Hence committee decided to call the PP in coming meetings as per turn.

11. Case no. 613/2010 - M/s Ultra Tech Cement Ltd. (Birla White Unit) D-7, Shastri Nagar, Jodhpur (Rajasthan) – 342003 Capacity expansion of Dolomite and Limestone production (19.71 ha) at Village- Chhaparwaha , tehsil- Badwara, dist – Katni (MP) Project Proponent - M/s UltraTech Cement Ltd. (Unit-Birla White) a flagship company of the Aditya Birla Group, Katni (MP) **For – EIA Pres.**

This is a mining project. The EIA report was forwarded by the SEIAA to SEAC for appraisal. The case was presented by the PP and his consultant before the committee which reveals following salient features of the project.

Back Ground of Project

Objective	To obtain Environmental Clearance For Chhaparwah Lime Stone and Dolomite Mine (19.71 Ha)
Production Capacity	Enhancement from 6600 MTPA to 5,00,000 MTPA
Jurisdiction of Mine	Govt. Land
Public Hearing	23.12.2011
Khasara No	31, 13
Location of Mine	Village- Chhaparwah, Tehsil- Badwara, Dist.- Katni (MP)
Earlier Lessees	M/s Alkon Laboratory & Industries (India) Limited
Lease Period	from 23.02.2001 to 22.02.2021
Lease Transfer date	10.08.2009

Environmental Setting of Project

Latitude – Longitude -	$23^0$39’21.9” to $23^0$39’39.6” N $80^0$34’42.5” to $80^0$35’11.1”E
General ground level	440 AMSL
Elevation range	Highest-485 m RL, lowest- 440m RL
Nearest National Highway	Chhandia- Sihora SH- 3.5 km

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Nearest Railway Station	Chandia -12km
Nearest Airport	Jabalpur- 130km
Ecological Sensitive Areas (Wild Life Sanctuaries) within 10km radius	None
Reserved / Protected Forest within 10km radius)	Kudra RF - 5.0 - SSW Protected forest - 300m
Nearest Town / City within 10km radius	Chandia-12km
Surrounding village within 1 km area of the project.	Chhaparwah- 0.54km - SE
Nearest River	Mahanadi River -6.0km – ESE Machharar River -7.5km –ESE
Nearest water bodies	Jirgria Nalla - 1.25km - S Jhapi reservoir - 2.25km - NE Jirgria reservoir - 2.0km - SW Sirhaddi nala - 0.5km – N Bhamarari Nalla – 6.5km - S Datla Reservoir - 4.75km - N
Other mines located within 10km radius	04 no.
Industry located within 10km radius	01 no.

Public Hearing was also discussed at length in the meeting. It was re[ported that Public hearing was conducted on 23.12.2011 from 11.00 pm at Mine Premises, Village- Chhaparwah, Tehsil-Badwara, Dist-Katni (MP). Total 153 people have attended the public hearing and certain suggestion (36 no. written and 20 oral). Most of the complaints made by the public were against the earlier proponent of the project i.e. M/s Alkon laboratory and industries (India). PP has assured the public that all measures shall be taken to prevent the health & environment of the region while operating the proposed mine.

Proposed Socio-Economic Activities

Proposed Activity	
Activity	Exp. Incurred
Medical facility provided for villagers as a medical camp, free medical checkup	Rs. 50000/- per year
Fund Allocation for activities as proposed by Gram Panchayat & Infrastructure facilities to schools at Chhaparwah, Kachari & Bhajiya in terms of books, chairs, scholarships, water tank, plantation etc.	Rs. 50000/- per year

Salient Features of the Project

Type of Mine	Open Cast / Semi mechanised
Mineable Area	16.4552 ha
Existing Pits & Quarries	16.4552 ha
Existing Dumps	0.3320 ha
Infrastructure and road	0.1328 ha
Mineral Storage	0.2716 ha
Plantation	0.1 ha
Recoverable Reserve	2587712tonnes
Method of mining	Semi-mechanised
Ultimate Depth of Mining	Up to 440mRL
Ultimate Pit Slope	45^{o}
Present capacity of mine	6600 TPA

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Proposed capacity of mine	5,00,000 TPA
Expected Life of Mines	6 years from 2011
Area to be covered under dumps	1.3140 ha
Area covered under pit	16.4552 ha
Area to be reclaimed at the end of LP	0.1577 ha
Area to be converted as water reservoir	15.194 ha
Area to be covered towards plantation by LP	3.5717 ha
Average mRL	485-440AMSL
Ground water table	Monsoon period 20m bgl (420mRL) Dry month 25m bgl (415mRL)

Conceptual Plan

Total lease area	19.71 ha	
Ultimate depth of mining	450 to 440mRL	Upto 440mRL
Ultimate pit slope	45^{o}	45^{o}
Area under dumps	0.3320 ha	1.3140 ha
Area under pits	16.4552 ha	16.4552 ha
Area to be reclaimed	Nil	0.1577 ha
Infrastructure & Road	0.1320 ha	0.15 ha
Mineral storage	0.2716 ha	Nil
Plantation	0.1 ha	3.5717 ha
Water reservoir	2.0 ha	15.194 ha

Mining Details

Mining Method	Opencast method of mining (other than fully mechanized mines) has been proposed. All operations of mining will be done by deployment of earth moving machineries for excavation, loading & transport. Regular drilling will be done for heaving purpose in the lease area. Blasting will be done occasionally. Random holes of 2.8m deep will be done.
Blasting detail (if required)	Spacing : 2 m Burden : 3m Depth of hole : 5vm Diameter of hole : 85 mm Powder factor : 8 t. / Kg of explosive
Water Consumption (Avg.)	Dust Suppression – 8 kl per day from mine pit water Domestic activity – 6 .0 kl per day from existing handpump Green Belt - 2.0 kl per day from mine pit water
Water reservoir capacity	Existing – 2.0ha x 5m = 100000 m^3 Proposed - 15.194ha x 5m = 759700 m^3

Air Pollution Control Measures

- Vehicles will be used for transportation of mineral from mine to wall care putty plant via road. The approach road from lease area to PWD road is about 4.9km, which is kuchha road. No habitations have been observed along the said kachha road. Dust generation due to transportation will be for limited period and will extent to small area. Water spraying is

suggested on same road as a part of mitigation measures. It is suggested that the same road shall be paved and may be maintained by using waste of mine

- Regular spraying of water by tanker fitted water sprinkling system over haulage roads.
- To reduce dust generation during loading operation, water will be sprayed over the muck pile to the loaded;
- To reduce spread of dust, plantation along the mining lease boundary and along haul roads
- Periodic maintenance of haulage roads.
- All over burden dumps shall be stabilized with legumes and grass to prevent the erosion of soil and arrest the dust emission during windy days.
- Dust mask will be provided to all workers.
- Regular maintenance of vehicles and machinery will be carried out in order to control emissions;

Noise Pollution Control Measures

- Workers will be provided with earmuffs, ear plugs etc. and use of the same will be made compulsory.
- All moving parts of machine will be properly lubricated;
- Non-moving parts of machine will be properly fastened;
- A barrier of green belt at mine boundaries will be made to reduce propagation of noise;
- All the basic equipments and various machineries will be kept well maintained.
- Thick green belt around the mining pit and along the haulage road is proposed.
- Control blasting shall be carried out.

Water Pollution Control Measures

- The major water body is Jirgria Nalla which is 1.25km in south direction & Sirhaddi nalla situated at 500m away from the lease boundary in northern direction. No dumping will be carried out in north direction.
- Dumping is proposed south part of the lease area as there is hillock between lease area and Jirgria Nalla, hence no flow of OB is envisaged with garland drain and silt trapping system.
- It is proposed to construct garland drain and silt trapping system around the lease boundary for protection of nalla.
- However construction of garland drain has already been taken place and these drains are about 1000m long and 0.25m deep. All garland drains ultimately join to old pit no. 6 in SW direction.
- Old Pit No. 6 (60 x 8-35 x 4m), which is located at south west side of the lease area will be converted as settling tank.
- The water of the tank will be provided for agricultural purpose, if demanded by the local farmers. The same will be used for dust suppression also.
- Maintenance and cleaning of drains will be done regularly
- Quality of water of settling tank will be checked during pre-monsoon and post- monsoon.
- Siltation traps & bunds will be provided to remove the suspended solids.
- Domestic waste water will be collected in soak pit

Solid Waste Management

- Mine waste generated during the first two year will be placed in the barrier zone in the form of dumps. The accumulated quantity of OB/waste covering area of 0.3320 ha will be used for backfilling in excavated area from first year onwards. The accumulated quantity of waste is 2470 m^3
- Dumps will be kept at southern direction of non mineralized barrier zone and its stability will be maintained by constructing the retaining wall. Retaining wall will be restrict/retain the loose particles. Height of retaining wall will be 0.50 m.

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- During the lease period waste will be generated as siliceous weathered clayey dolomite. During the lease period, 107591 m^3 mine waste/OB will be generated which will cover about 1.3140 ha area. All waste dumps will be stabilized with grasses and trees to prevent the flow of waste material to the nearby area
- During the first year about 0.1577 ha area up to 3m height will be backfilled by using 2470 cum of mine waste. The reclaimed area will be divided in small compartment and will be stabilized with fast growing grass.

After deliberations committee has decided to recommend the case for grant of prior EC subject to the following conditions:

1. Compliances of all the public hearing issues shall be taken up on priority.
2. A schedule for regular environmental monitoring shall be submitted to the M.P. Pollution Control Board and monitoring shall be ensured and the results shall be submitted to the regulatory authorities along with the production figures.
3. Compliance report for the compliance of EC conditions has to be submitted periodically to the authorities.
4. Under no circumstance the production should go beyond 45,000 MTPA.
5. Mining operations shall be done strictly as per the mining scheme as approved by the IBM and any change in the scheme has to be informed to the authority and MPPCB.
6. Copy of approved mine closure plan has to be submitted to the MPPCB before the expiry of mining lease.
7. Use of solar panels shall be ensured for lighting of streets & office building at site.
8. All general conditions shall be applicable.

****Meeting ended with thanks to the Chair****

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