

(4)

No. 1807 dt. 8/8/2011

3-56/2009

OFFICE OF THE DY. GENERAL MANAGER  
DIPKA EXPANSION, SECL DIPKA AREA

To,

The Additional Director (MOEF)  
 Ministry of Environment & Forest  
 Regional Office Western Region  
 Kendriya Paryavaran Bhawan  
 Link road No- 3, Ravishankar Nagar  
 Bhopal (M.P) - 462016

Subject: Six monthly report of Monitoring the implementation of Environment  
 safeguard for the period January 2011 to June 2011 for Dipka Expansion project  
 ,Dipka Area , SECL

Dear Sir,

Please find enclosed herewith six monthly report of monitoring the implementation  
 of Environment safeguard for the period January 2011 to June 2011 for Dipka  
 Expansion project, Dipka Area , SECL  
 Thanking you

Yours Faithfully

Encl: As above

General Manager (Mining)  
 Dipka Expansion project  
 SECL, Dipka Area

Copy to -

1. General Manager , SECL , Dipka Area , for kind information .
2. General Manager (Env&WBP), SECL , Bilaspur
3. General Manager(O)/( P&P) , Dipka Area
4. Sr. Manager (Envt), Dipka Area
5. Sr. Manager Incharge (Civil) , Dipka Expansion project .
6. Area Survey Officer , Dipka Area.

	beds		
2005-06	34500 & 10500 Grass beds	-do-	-do-
2006-07	87000 & 30375 Grass beds	-do-	-do-
2007-08	60500	-do-	-do-
2008-09	66000	-do-	-do-
2009-10	53000	-do-	-do-
2010-11	200	-do-	-do-

28) Financial future allocation: - In process

29) Present condition of plant: - Healthy.

#### PART-VI

Compliance of the conditions of MoEF letter no.- J-11015 / 487/2007-1A-II(M), Dated 03/06/2006.

##### **A, Specific Conditions**

i) No mining operations shall be undertaken in 424.52 Ha forest land until forestry clearance obtained under the provisions of F.C. Act 1980.

**Compliance Report** :- Agreed.

ii) Prior approval of the State Government shall be taken for use of water from river Hasdeo to the tune of 885 m<sup>3</sup>/d for the mining operations.

**Compliance Report** :- Part of domestic requirement is being fulfilled by IWSS, Gevra Area and Gevra Area is regularly paying the water supply charge to office of the Sub Divisional Officer Hasdeo Barrage.

iii) Prior approval of the CGWA shall be obtained for using ground water (650m<sup>3</sup>/d) for the mining operations.

**Compliance Report** :- Approval from CGWA for 6404 m<sup>3</sup>/day withdrawal of ground water has already been obtained from Central ground water Authority, Raipur.

iv) Entire mining transportation from coal mine pit to railway siding being established within the project area shall be by closed conveyor only from there by rail/MGR to consumers. Both conveyors and railway siding shall be established within 18 months of grant of the environmental clearance. Mechanized silo loading System shall be deployed for loading of coal at railway siding.

**Compliance Report** :- For mining transportation from coal mine pit to railway siding and MGR, a comprehensive work order has already been placed to M/S Samanta and Company vide Agreement no. SECL/BSP/CGM©/Agt/DPK/10/648 & 649 dated 19.05.010. Work is expected to complete in financial year 2012-13.

v) Top soil shall be stored in the earmarked 5 Ha area and used for green belt development and for plantation/reclamation.

**Compliance Report** :- Top soil is excavated and spread simultaneously on dump tops.



vi) OB shall be stacked at the earmarked external OB dumpsite of 206 ha within ML area or the opencast operation of a maximum height of 90m consisting of 3 benches of 30m each the ultimate slope of the dump shall not exceed 28 degree. Monitoring and management of existing reclaimed dumpsite including slope stability shall continue until the vegetation becomes self sustaining compliance status shall be submitted to the ministry of Environment & Forest and its Regional office located at Bhopal on a yearly basis.

**Compliance Report :-** Mine is in development stage, OB is dumped in external and internal dump(Back filling). The details are as following:-

OB Dump No	Nature of Dump	Nature of Dump	Size (in hac)	Plantation Area in Ha	Plantation Position	Angle of Repose	Height
1&2	External	Active	73.00	40.00	Partially Planted	30-36 Degree	40 m To 63 m
3	External	Inactive	7.50	7.50	Planted	31 Degree	24 m
4	External	Inactive	5.00	5.00	Planted	33-36 Degree	15 m To 20 m
5	External	Inactive	8.00	8.00	Planted	32 Degree	24 m
6&7	External	Active	76.10	21.95	Partially Planted	33-35 Degree	36 m to 60 m
4 (Near Observation Tower)	Internal	Active	44.35	18.80	Partially Planted	33-36 Degree	15 m To 52 m (From decoaled floor)
Mine No. 2 (West)	Internal	Active	56.50	-----	-----	28-36 Degree	35 to 84 m (From decoaled floor)
Near Entry -1A	Internal	Active	23.95	12.00	Partially Planted	33-36 Degree	47 to 110 m (From

							decoaled floor)
Dipka old dump	Internal	Active	1.30	-	-	33-36 Degree	47 to 110 m (From decoaled floor)

The slope of the dumps is being maintained very approximate to  $28^{\circ}$  wherever it becomes steeper due to variation of rock conditions, the slope is maintained as per the stipulated slope by using dozer.

viii) Garland drains ( size gradient and length ) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites sump capacity shall also be provided adequate retention period to allow proper setting of silt material.

**Compliance Report :-** 3.2 KM Pacca catchment drain and 6.62 km Kachha drain has been constructed for channeling of run off water during rainy period as a Garland drain.. Sump capacity and pumps for dewatering of quarry area are as per the Project Report provision which has been based on the 20 years average rain water.

ix) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil OB and mineral dumps the water so collected shall be utilised for watering the mine area, roads, green, belt development, etc. The drains shall be regularly desilted and maintained properly.

Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper setting of silt material

**Compliance Report :-** 3.2 KM Pacca catchment drain and 6.62 km Kachha drain has been constructed for channeling of run off water during rainy period as a Garland drain.. Sump capacity and pumps for dewatering of quarry area are as per the Project Report provision which has been based on the 20 years average rain water.

x) 3.2 Dimension of the retaining wall at the toe of the dumps and OB benches within the system check run-off and siltation shall be based on the rainfall data

**Compliance Report :-** Retaining wall at the toe of dead external Dump No. 3 and 5 has been constructed and fulfilling its purpose.



xi) crushers at the CHP shall be operated with high efficiency bag filters waters sprinkling system shall be provided to check fugitive emissions from crushing operation conveyor system which shall be closed, haulage roads, transfer points, etc.

**Compliance Report :-** Effective dust suppression systems have been provided like mist spray and fixed sprinklers in feeder breaker in CHP and is working satisfactorily.

xii) controlled blasting shall be practiced with use of delay detonators and only during daytime the mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented

**Compliance Report :-** Controlled blasting is done as per DGMS Stipulated rules and regulations.

xiv) An afforestation plan covering an area not less than 1001 ha shall be implemented which includes backfilled area and ext. OB dump along ML boundary green belt along road infrastructure safety zone, undisturbed, vacant land by planting native species in

consultation with the local DFO agriculture Department. The density of the trees shall be around 2500 plants per ha. An area of 723.544 ha of shall be restored for agricultural/grazing at the post mining stage.

**Compliance Report :-** Every year extensive plantation is being done both on plain and dump area by Chhattisgarh Van Vikas Nigam (a state government organisation) And till date about 1203550 nos of plant planted on approx 356.83 Ha area.

xv) Of the total 1002.53 ha of the quarry area, an area of 780ha of excavated area shall be reclaimed with plantation/afforestation by planting native plant species in consultation with the local DFO/ Agriculture Department. The density of the trees shall be around 2500 plants per ha. The balance 222.053 ha of decoaled the void left for the further expansion in the dip side shall converted into a water reservoir shall be gently sloped and the upper benches of the reservoir shall be stabilized with plantation and the periphery of the reservoir fenced

**Compliance Report :-** Every year plantation is done on the backfilled area as per area available. Till date about 78000 nos of plants has been planted on approximate -30.80 Ha backfilled area.

xvi) A Programme for conservation of the wildlife particularly the rare and endangered species schedule fauna and endangered flora and species of medicinal important found in the study area shall be formulated and implemented in consultation with the forest and wildlife Department in the state Government separate funds shall be earmarked for implementation of the various activities than there under and the status there of shall be earmarked for implementation of the various activities under and the status there of shall be regularly reported to this Ministry and the MOEF Regional Office Bhopal the project

authorities shall participate in a Regional Action plan of the state Government for conservation flora and fauna found within the study area

**Compliance Report :-** Every year plants of different species including fruit and flower bearing plants and medicinal plants are planted by Chhattisgarh Van Vikas Nigam . Expenditure incurred in the year 2009-10 is Rs.4292333.00 And for the year 2010-11 Rs 3244461.

- xvii) A detailed ground water monitoring action plan ( along with budgetary provisions ) for monitoring groundwater quality and level in consultation with the Central /State Ground Water Board be prepared and implemented. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of exiting wells and construction of new piezometers. The monitoring of quality shall be done four times a year in pre- monsoon (may) monsoon (August) post – monsoon (November) and winter (January) seasons and for the quality in May data thus collected shall be submitted to the Ministry of Environment & forest and the central Pollution Control Board quarterly within one month of monitoring.

**Compliance Report :-** Piezometers have been installed at four locations. Each location having shallow & deep piezometers. The readings of piezometers recorded for January-10 to June -10 are as following-

Month	Type of Piezometer	Locations	Locations	Locations	Locations
		Pragati Nagar Sneh Milan Club	Haradi Bazar College	Gandhi Nagar Trainin g Center	C.G.M.Of fice
July	Shallow	1.70	Dry	1.60	4.10
	Deep	13.20	-	4.30	6.80
August	Shallow	1.50	Dry	1.30	5.10
	Deep	10.80	-	3.80	6.50
Sep.	Shallow	2.0	Dry	1.10	4.7
	Deep	9.80	-	2.10	7.10
Oct.	Shallow	3.20	Dry	1.80	5.40
	Deep	10.60	-	3.0	7.60
Nov.	Shallow	2.40	Dry	3.40	5.0
	Deep	11.10	-	3.6	7.4
Dec.	Shallow	2.20	Dry	3.0	4.8
	Deep	11.00	-	3.4	7.2
Jan. 11	Shallow	2.8	Dry	2.8	6.10
	Deep	14.6	-	3.6	6.90
Feb.11	Shallow	3.0	Dry	3.8	6.8



	Deep	14.60	-	5.70	9.40
March	Shallow	3.25	Dry	4.85	6.1
	Deep	14.80	-	6.30	10/80
April 11	Shallow	3.20	Dry	4.85	6.1
	Deep	15.00	-	6.30	10.80
May11	Shallow	5.70	Dry	5.10	7.30
	Deep	15.00	-	7.10	-
June11	Shallow	2.5	Dry	-	6.8
	Deep	10.9	-	6.30	-

- xviii) A Plan for water conservation and recharge measures of ground water along with budgetary provisions be prepared and implemented in consultation with the Central /State Ground Water Board to mitigate the adverse impact of mining which may lead to depletion of water levels in the area . The company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall met from rainwater/recycling of water only. The project authority shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

**Compliance Report :-** Sirki Pond ,Chainpur pond and Pragati Nagar pond has been constructed and maintained to serve the purpose.

- xix) ETP shall also be provided for treatment of effluents from workshop, CHP (288m<sup>3</sup>/day) and an STP shall be provided for treating wastewater(880m<sup>3</sup>/day) from the township and the treated water shall used for green belt development. An estimated 2600 m<sup>3</sup>/d (74%) of the total 6852 m<sup>3</sup>/d of wastewater generated from the mine would be treated and recycled for mine operations and the balance 4252m<sup>3</sup>/d of wastewater and mine water discharge (6404m<sup>3</sup>/day)shall be treated to prescribed standards before discharge into the surface waters /agricultural use .

**Compliance Report :-**ETP (oil &grease trap) is working satisfactorily and STP of Dipka Expansion Project ,Dipka Area has been provided combined with Gevra Project in Gevra Area.

- xx) Beside carrying out regular periodic health check up of their workers ,10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment if any through an agency such as NIOH Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.

**Compliance Report :-**Periodical Medical check up of workers is done at Nehru Centenary Hospital Gevra as per DGMS Norms avaid by mines act and rules. Occupational health check up is also carried out in NCH, Gevra.



- xxi) For monitoring land use pattern and for post mining land use, a time series of lands maps, based on satellite imagery ( on a scale of 1:5000) of the core zone and buffer zone from the start of the project until end of mine life shall be prepared once in 3 year (for any on particular session which is consistent in the time series ), and the report submitted to MOEF and its Regional office at Bhopal.

**Compliance Report :-** For monitoring land use pattern and for post mining land use plan a satellite imagery is being taken and the record is being maintained by C MPDIL Ranchi at the interval of every three years starting from the year 2006.

- xxii) R&R shall be not less than the norms prescribed in National R&R Policy 2007 and shall be implemented within a specified agreed time schedule. The time-frame for providing employment to all the PAPS shall be compressed and details submitted to MOEF for record.

**Compliance Report :-** R&R is being done as per CIL Policy and employment is being provided to PAPS as per approved norms .

- xxiii) A detailed Plan for CSR with specific budgetary allocation ( capital and revenue ) for various skill development and alternate livelihood programmes and schemes and implemented through establishment of cooperatives and SHGs .CSR activities shall not overlap for the villages falling in the study area of the coal mine projects located in the study area. Costs for CSR would have a capital expenditure of not less than Rs 1 crore and an annual revenue expenditure of Rs 4 crore for Dipka Project. This is in addition to 2.5%of the company's earnings to be utilised for CSR for the balance life of 25years of the Dipka Project. Tribal development plan for the tribal shall be prepared as part of CSR. A detail pre-project survey be carried on the socio –economic status of the local communities living in the villages near the project area before starts of the mining operation based on a scientific methodology based on UNDP Human Development index and monitoring the impact of project on the socio-economic and human development of the local communities, which shall be used as a base –line data for monitoring the progress of the status of human and socio-economic development in the area during and after the project life which is reflected in their Annual Report of the company and is also furnished as part of the Monitoring Report submitted to MOEF .

**Compliance Report :-** A detailed budget for CSR works for the year 2010-11 amounting Rs.- 1872.25 lakhs has been submitted to Head quarter for approval .Action will be initiated after receiving allocation and competent approval total budgetary allocation for CD &CSR is 81.53 lakh and total expenditure incurred is Rs 48.56lakh for the year 2010-11 .

- xxiv) A Final Mine Closure Plan along with details of corpus fund shall be submitted to the Ministry of Environment & forest five year before mine



closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the leases for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration.

**Compliance Report :-** A Final Mine Closure Plan along with details of corpus fund shall be submitted to the Ministry of Environment & forest five year before mine closure.

**B, General conditions .**

- 2) No change in mining technology and scope of working shall be made without prior approval of the ministry of Environment and forests.

**Compliance Report :-**Agreed

- 3) No change in the calendar plan including excavation , quantum of mineral coal and waste shall be made.

**Compliance Report :-**Agreed

- 4) No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.

**Compliance Report :-**Agreed

- 5) Four ambient air quality monitoring stations shall be established in the core zone as well in the buffer zone for monitoring SPM,RSPM,SO<sub>2</sub> and NO<sub>x</sub>, and heavy metals such as Hg, Pb, Cr, As etc. Locations of the stations shall be decided based on the metrological data, topographical features and environmentally and ecologically targets in consultation with State Pollution Control Board.

**Compliance Report :-** Four ambient air quality monitoring stations has been established based on the metrological data, topographical features and environmentally and ecologically targets in consultation with State Pollution Control Board.

- 6) Data on ambient air quality(SPM,RSPM,SO<sub>2</sub> and NO<sub>x</sub>, and heavy metals such as Hg, Pb, Cr etc) shall be regularly submitted to the ministry including its Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six month.

**Compliance Report :-** Data on ambient air quality(SPM,RSPM,SO<sub>2</sub> and NO<sub>x</sub> are submitted regularly to Regional Office and to the State Pollution Control Board and coal samples has been collected by CMPDIL in June 2010 and sent for analysis of Hg, Pb, Cr etc. result is awaited.

- 7) Fugitive dust emissions ( SPM , RSPM, and heavy metals such as Hg, Pb , Cr, As, etc , ) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dumper trucks ( loading and unloading )points shall be provided and properly maintained.

**Compliance Report :-** Data on ambient air quality (SPM, RSPM, SO<sub>2</sub> and NO<sub>x</sub>) are submitted regularly to Regional Office and to the State Pollution Control Board and coal samples have been collected by CMPDIL in June 2010 and sent for analysis of Hg, Pb, Cr etc. Water is being sprayed on the Haul road, wagon loading points and dumper trucks (loading and unloading) points.

- 8) Adequate measures shall be taken for control for noise levels below 85dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.

**Compliance Report :-** Workers engaged in blasting and drilling operations, operation of HEMM, etc has been provided with ear plugs/muffs.

- 9) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and Grease trap shall be installed before discharge of workshop effluents.

**Compliance Report :-** Oil and Grease Trap is working satisfactorily.

- 10) Vehicular emissions shall be kept under control and regularly monitored. vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.

**Compliance Report :-** Vehicle emissions are periodically (six monthly) monitored and a certificate to this effect is being issued to each vehicle by the authorized agency of Chhattisgarh Environment Conservation Board. The trucks plying inside the mines is loaded in such a way that there is no spillage of coal. However, the loaded trucks plying outside the mine are being covered with tarpaulins.

- 11) Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

**Compliance Report :-** CMPDIL is doing all monitoring and analysis work of environmental parameters.

- 12) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contraindications due to exposure to dust and to take corrective measures, if needed.

**Compliance Report :-** Personnel working in dusty areas has been provided with dust mask. Occupational health check up is carried out in NCH, Gevra, periodically.

- 13) A separate environment management cell with suitable qualified personnel shall be set up under the control of a senior executive who will report directly to the Head of the company.



**Compliance Report :- Status of compliance:** - Details of environmental cell of Dipka Expn, Project Dipka Area is as following :-

Area level: - 1. Staff Officer (Civil)  
2. Staff Officer (P&P, L&R)  
3. Area Nodal Officer (Env., WBP & Forest)  
4. Area Survey Officer

Project level: - 1. Project Officer  
2. S.E, Incharge (Civil)  
3. S.E (civil), Environment  
4. Survey Officer.

- 14) The funds earmarked for environment protection measures shall be kept in separate account and shall not be diverted for other purpose. Year -wise expenditure shall be reported to this Ministry and its Regional Office at Bhopal.

**Compliance Report :-** Agreed. Expenditure incurred for the year 2010-11 is Rs. 537.38 lakhs

- 15) The Regional Office of this ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data /information/ monitoring reports.

**Compliance Report :-** Agreed.

- 16) A copy of the will be marked to concerned Panchayat/ local NGO, if any from whom any suggestion / representation has been received while processing the proposal.

**Compliance Report :-** Complied.

- 17) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's office / Tehsildar Office for 30 days.

**Compliance Report :-** Duty of State Pollution Control Board .

- 18) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the Clearance letter is available with the State Pollution Control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envtar.nic.in>. The compliance status shall also be uploaded by the project authorities in their website and regularly updated at least once in six months so as to bring the same in the public domain. The monitoring data of Environmental parameters (air, water, soil & noise) shall also be displayed at the entrance of the project premises and mines office and in corporate office and also in their website.

**Compliance Report :** Dipka Exp. Project has advertised to local newspaper informing that project has been accorded environment clearance of 25MTY

- 3) The ministry or any other competed authority may stipulate any further condition for environment protection.

**Compliance Report :-Agreed.**

- 4) Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provision of the environment(Protection) Act 1986.

**Compliance Report :-Agreed.**

- 5) The above conditions will be enforced inter- alia, under the provisions of the Water(Prevention &Control of Pollution) act 1974 the Air (Prevention & Control of Pollution)Act, 1981, the Environment (Protection) Act, 1986and the Public Liability Insurance Act, 1991 along with their amendments and Rules . The proponent shall ensure to undertake and provide for the cost incurred for taking up remedial measures in case of soil contamination , contamination of groundwater and surface water and occupational and other diseases due to the mining operations.

**Compliance Report :-Agreed.**

  
General Manager(Mining)  
Dipka Expansion Project.

