STEEL AUTHORITY OF INDIA LTD.
(A Govt. of India Enterprise)
Raw Materials Division
Bhawanathpur Group of Mines
PO- BhawanathpurTownship,
Distt: Garhwa (Jharkhand.),
PIN- 822129
Email: bnptdf@gmail.com

Ref: RMD/BNP/DGM/2017- 791	Date : 30/11/2017

To,

The Director(IA-division)
Vayu-305, Indira Paryavaran Bhawan,
Ministry of Environment, Forest & CC,
Jorbagh Road, Lodi Road, New Delhi-110003

Sub:-**Six monthly status of compliance of conditions stipulated in environmental clearance(Grant order of MoEF No J-11015/14/92-IA,II(M) dated24th march 1995) for the period ending up to 30th September 2017.**

Sir,

Please find enclosed here with the six monthly compliance report with respect to the conditions stipulated by ministry of Environment and Forest, New Delhi while granting environmental clearance to Tulsidamar Dolomite Mines of M/S Steel Authority of India Limited vide MoEF letter No J-11015/14/92-IA, II(M) dated 24th March 1995 for the period from April - 2017 to September-2017.

Thanking You,

Yours Faithfully,

30/11/2017

(M. R. Soliria),
Dy. General Manager(Mines)
BNP Group of Mines

Enclosed as stated:

Copy to:-

1. Member secretary, JSPCB, Ranchi,
2. Regional office, JSPCB, Ranchi,
3. Regional office, MOEFCC, Ranchi.

Status of Compliance to Conditions Stipulated in Environmental Clearance (Videorder no. J-11015/14/92-IA.II (M), dt.24.03.1995) of Tulsidamar Dolomite Mine,RMD, SAIL

(Period:April, 2017 to September, 2017)

1. **The project involves diversion of 101.32 ha of forest land. The project should be taken in the forest area only after clearance under Forest (Conservation) Act, 1980 is granted.**

   Forestry Clearance has been granted by MoEF vide No. 8 – 57 / 94 FC, dated 18.12.1997 for diversion of 101.32 ha of forest land within the lease hold area. Mining is confined within permitted forest area only.

2. **The company should surrender 83.7 ha of the forest land under its mine lease to the concerned State after authorities as incorporated in the revised EMP.**

   Forest land covering an area of 83.7 ha has already been surrendered to DFO, Garhwa (North Division) vide letter no. 314 dated 13.12.1997. Accordingly, the original lease of 202.42 ha (Forest Land: 185.02 ha & Raity land: 17.40 ha) has been reduced to 118.72 ha (101.32 ha forest land + 17.40 ha non-forest land).

3. **The existing OB Dumps due to previous mining should be stabilized on priority by appropriate physical and biological reclamation measures to prevent water pollution and siltation of the adjoining nallahs.**

   Existing OB dumps have been stabilized by physical and biological reclamation so as to prevent water pollution and silting.

4. **The pollution control measures for maintaining adequate air quality, water quality and noise level detailed in the revised EMP should be implemented in conformity with the standards prescribed by Central / Sate Pollution Control Board under Environment (Protection) Act, 1986. Sufficient number of air and water quality monitoring stations should be set up. Six monthly monitoring reports should be sent to this Ministry and Regional Office, Bhubaneshwar and to State Pollution Control Board.**

   Five numbers air quality and five numbers of water quality monitoring locations have been established at the mine in consultation with the Jharkhand State Pollution Control Board and being monitored regularly. The Air& Noise and water qualitydata for the period of April, 2015 to September, 2015are placed as Annexure-I&II respectively.

5. **The project authorities should implement mined area reclamation as elaborated in the EMP. A green belt in non-mineralized area should be developed.**

   Reclamation of mined areas shall commence after reaching the bottom of the deposit as per the approved Mining Plan & Progressive Mine Closure Plan. Plantation in and around the mine is being done to improve the green cover. Green belt in non-mineralized area is developed. Photographs showing plantation efforts made at the mines are given below.

6. **The project authorities should take up adequate socio economic measures including community development projects in the project impact zone.**

In accordance to the Companies (Corporate Social Responsibility Policy), Rules, 2014 and as a Maharatna company of India, SAIL has envisaged its policy on Corporate Social Responsibility (CSR). The company's CSR Policy recognizes that its business activities have direct and indirect impact on the society. The policy also aims improving the quality of life of the workforce and their families as well as of the local community and society at large.

In line with CSR policy of SAIL, Tulsidamar &Bhawanathpur Group of Mines, Raw Materials Division (RMD) has also contributed for social upliftment of the region in and around its mining complex.To improve education facilities of the region, a DAV Public School, Bhawanathpur is being run by SAIL with presently about 1500 students from LKG to 12th standard. Most of the school children of the DAV School are from nearby villages. SAIL is presently spending to the tune of Rs. 150 lac per annum towards running & maintenance of the DAV School. Further, infrastructural facilities have been provided to SaraswatiVidhayaMandir and Children Paradise.

In addition to the above, an amount of Rs. 1.51 lakh has been spent during 2016-17 under CSR activities at the Tulsidamar & Bhawanathpur Group of Mines involving free medical camps, free eye operation camps, Financial aids to Schools, Sports etc.

7. **The project should have an environmental management cell for monitoring the quality of environmental parameters, OB dump stabilization, green belt development and other action plans for protection of environment.**

An Environmental Management Cell exist under Tulsidamar & Bhawanathpur Group of Mines to control environmental aspects of the mines including environmental quality monitoring, waste management & dump stabilization, afforestation & green belt development, compliance to conditions stipulated in clearances and consents, submission of statutory compliance etc.

8. **A periodic progress report regarding the implementation of the EMP measures should be submitted once in 6 months.**

The following are the major various pollution prevention & control measures are implemented at the mines:

- Wet drilling to control dust emissions
- Water sprinkling on haul roads through mobile Road Sprinklers
- Plantation in and around the mines
- Check dams & settling tanks for surface runoff control
- Stabilization of waste dumps.
- Distribution of 220 fruit bearing trees to local villagers done on 5th June 2017.
- Plantation of 1500 trees done in the month of August & September 2017 by school children and staff of Bhawanathpur Group of Mines in and around township of bhawanathpur.

9. **The funds earmarked for EMP measures including antipollution measures should not be diverted for any other purposes.**

Based on the requirement, fund allocation for pollution prevention & control is being made every year and the same is being utilized for schemes related to environmental protection measures. An amount of Rs18.00 lakhs has been spent towards environmental expenditure in 2016-17.

10. **This ministry may stipulate subsequently any other conditions as may be required in the interest of environmental protection.**

Agreed.

30/11/2017

(M R Solivia)

Photo of M. R. Solivia

ANNEXURE - I

AIR QUALITY DATA
(Period:April 2017 – September 2017)

A. Ambient Air Quality

Location	*RSPM(PM_{10})* ($\mu g/m^3$)	*SO_2* ($\mu g/m^3$)	*NO_X* ($\mu g/m^3$)
Tulsidamar (TDM) Office	35-60	09-11	17
Tulsidamar (TDM) Village	55	08	14
Norm	**100**	**80**	**80**

B. WorkzoneAir Quality *

Location	*SPM* ($\mu g/m^3$)	*RSPM(PM_{10})* ($\mu g/m^3$)	*SO_2* ($\mu g/m^3$)	*NO_X* ($\mu g/m^3$)
Mine Face of PCC Quarry	362	116	14	18
Haul Road	241-502	96-161	16-18	22-25
Wagon Loading Area	188	75	20	26
Norm	**700**	**350**	**5000**	**6000**

C. Ambient Noise Levels

Location	Day time Leq - dB(A)	Night time Leq - dB(A)
Tulsidamar (TDM) office	55.6	-
Tulsidamar (TDM) village	53.5	-
Alkar Village	52.4	40.9
Norm	**75**	**70**

D. Work Zone Noise Levels

Location	Leq - dB(A)	L-max dB(A)
Haul Road, (Tulsidamar Mining area)	77.5	91.8
PCC Quarry, TDM (Mine face)	76.7	87.6
Grewal Quarry, TDM (Mine face)	73.5	85.6

ANNEXURE - II

WATER QUALITY DATA
(Period: April 2017 – September 2017)

A. Surface Water Quality

Sl. No	Parameter	*Seeta Chuhiya Nullah*	*PCC Spring Water*	*Limits as per IS 10500-2012*
1.	Color(Pt-Co Scale)	03	05	5.0
2.	Odor	Odorless	Agreeable	Agreeable
3.	Temperature (^{o}C)	26.2	25.3	-
4.	Taste	Agreeable	Agreeable	Agreeable
5.	Turbidity (NTU)	04	06	1.0
6.	Total Suspended Solids (mg/l)	07	07	-
7.	*p*H	7.5	7.4	6.5-8.5
8.	Alkalinity as $CaCO_3$ (mg/l)	112	94	200
9.	Conductivity (Micro Siemens / cm)	427	486	-
10.	Total Dissolved Solids (mg/l)	213.5	243	500
11.	Ammonical Nitrogen as N (mg/l)	0.02	0.02	0.5
12.	Free Chlorine (mg/l)	BDL	BDL	0.2 (min)
13.	Total Hardness as $CaCO_3$ (mg/l)	241	173	200
14.	Calcium as Ca (mg/l)	62	38	75
15.	Magnesium as Mg (mg/l)	21	19	30
16.	Hexavalent Chromium as Cr^{+6}(mg/l)	BDL	0.001	0.05
17.	Fluoride as F (mg/l)	0.45	0.35	1.0
18.	Dissolved Phosphate as PO_4 (mg/l)	0.08	0.03	-
19.	Sulphide as S^{2-} (mg/l)	0.001	0.001	-
20.	Manganese (mg/l)	0.02	0.02	0.1
21.	Total Iron as Fe (mg/l)	0.05	0.11	0.3
22.	Chloride as Cl (mg/l)	25	54	250
23.	Sulphates as SO_4 (mg/l)	21	38	200
24.	Nitrate Nitrogen as N (mg/l)	0.42	1.8	45
25.	Cupper as Cu (mg/l)	0.02	-	0.05

B. Ground Water Quality

Sl. No	Parameter	*Dug Well at TDM Office*	*Handpump Alkar Village*	*Handpump TDM office*	*Limits as per IS 10500-2012*
1	Color(Pt-Co Scale)	08	05-07	08-09	5.0
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable
3	Temperature (°C)	25.8	25.7-25.9	25.6-25.9	-
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity (NTU)	06	04-06	05-07	1.0
6	Total Suspended Solids (mg/l)	08	06-09	07-11	-
7	*p*H	7.4	7.4-7.5	7.5-7.6	6.5-8.5
8	Alkalinity as $CaCO_3$ (mg/l)	110	104-119	118-128	200
9	Conductivity (Micro Siemens / cm)	474	425-484	468-508	-
10	Total Dissolved Solids (mg/l)	237	212.5-242	234-254	500
11	Ammonical Nitrogen as N (mg/l)	0.02	0.03	0.02-0.04	0.5
12	Free Chlorine (mg/l)	0.23	0.01-0.23	0.04-.021	0.2 (min)
131	Total Hardness as $CaCO_3$ (mg/l)	225	220-229	210-240	200
41	Calcium as Ca (mg/l)	54	57	48-60	75
51	Magnesium as Mg (mg/l)	22	19-21	22	30
6	Hexavalent Chromium as Cr^{+6}(mg/l)	0.002	BDL-0.002	BDL-0.001	0.05
17	Fluoride as F (mg/l)	0.42	0.35-0.41	0.39-0.45	1.0
18	Dissolved Phosphate as PO_4 (mg/l)	0.04	0.03-0.04	0.04-0.06	-
19	Sulphide as S^{2-} (mg/l)	0.001	BDL-0.001	0.001-0.002	-
20	Manganese (mg/l)	0.03	0.03-0.05	0.02-0.03	0.1
21	Total Iron as Fe (mg/l)	0.09	0.07-0.08	0.07-0.09	0.3
22	Chloride as Cl (mg/l)	57	28-48	37-57	250
23	Sulphates as SO_4 (mg/l)	42	18-32	24-48	200
24	Nitrate Nitrogen as N (mg/l)	0.68	1.25-1.29	1.08-1.12	45
25	Cupper as Cu (mg/l)	-	0.02	0.03	0.05