

23rd meeting of Expert Appraisal Committee for the proposal involving violation of EIA Notification, 2006 to be held on 25th- 26th June, 2019 at Conference Hall (Brahmaputra), First Floor, Vayu Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003

Day 1: 25th June, 2019

Time: 10:00 AM

23.1. Opening remarks of the Chairman

23.2. Confirmation of the minutes of the 22nd meeting held on 21st-22nd May, 2019 at Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi

23.3. Consideration of proposals

S. No.	Proposals
23.3.1	Production of Iron Ore 274000 TPA(ROM) and Laterite 62000 TPA(ROM) mine over an extent of 201.94 Ha at Survey No. 172, Village Pagadalapalli, Mandal Pendlimari, District YSR Kadapa, Andhra Pradesh by M/s E.V. Ranga Reddy - Environmental Clearance [IA/AP/MIN/105299/2013 dated 16.05.2019] [F. No. 23-239/2018-IA.III (V)]
23.3.1.1	M/s E.V. Ranga Reddy has made online application vide proposal no. IA/AP/MIN/105299/2013 dated 16.05.2019 seeking Environmental Clearance for the above mentioned proposed project. The proposed project activity is covered under 'A' category of item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level.
23.3.1.2	Details of the project as per the submission of project proponent: <ol style="list-style-type: none"> Name of the project: M/s E. V. Ranga Reddy for Production of Iron Ore 274000TPA (ROM) and Laterite 62000TPA (ROM) mine over an extent of 201.914 Ha at Survey No. 172, Village Pagadalapalli, Mandal Pendlimari, District YSR Kadapa, Andhra Pradesh Name of the Company, Address Tele No. & E-mail Head of organization: Name of the Company- M/S E. V. Ranga Reddy Address- E. V. RANGA REDDY Plot No. 84, Ramky pearl, Opp. Shatavahana High School, Shatavahana Nagar, KPHB, Hyderabad – 500 072, Telangana If a Joint venture, the names & addresses of the JV partners including their share: - Not Applicable Latitude and Longitude of the project: - Latitude: 142618.1 N to 142717.7 N Longitude: 763601.5 E To 783704.2 E Whether the project is in the Critically Polluted Area (CPA): No Cost of the project:- 3.00 Crores

7. Employment generated/to be generated: 184
8. Benefits of the project: **Environmental:** Environmental measure due to project will enhance the standard of environment
Social: the project will create indirect and direct employment
Financial: Project will benefit the user agency and nearby steel plants
9. Whether new or expansion project. If expansion: Not Applicable, as it is a fresh proposal for production of 274000 TPA Iron Ore and 62000 TPA Laterite from the mine.
10. No. and Date of the ToR /and revised ToR, if any, letter issued by the MoEF (if this is a case for EC):- ToR letter no. 23-239/2018-IA.111 (V) dated 10th December, 2018
11. If the project was considered in EAC, Pl.give dates of the meeting (s). Previously, the Ministry issued the Terms of Reference (TOR) vide letter no J-11015/46/2013-IA. II(M) dated 18th July, 2014
12. Type of Mine: (Open cast/Underground/mixed): Opencast
13. Capacity of the mine applied for:- Production of Iron Ore 274000TPA (ROM) and Laterite 62000TPA (ROM). Date of approval of mine plan, mine closure plan, status & date: - 01 Sept 2017.
14. Date of Board's approval: 01 Sept 2017
15. Date of Ground water clearance and surface water approval. Not available.
16. Existing Ground water level in (M) :- 5-15 m
17. Date of mine closure approval: - 01 Sept 2017
18. Any river/Nallah flowing near or adjacent to the proposed mine. If yes, please give details.: - Papagni River is flowing from SW to NW at a distance of 5.8km from the ML area in NW direction.
19. Details of mine lease: - Date of entering into original lease deed. Dt:25.03.2006 for 20 years and hence valid upto 24.06.2026

TECHNICAL DETAILS

20. Geological Reserve:

(i)	Total geological reserve	1.782 MillonTonne
(ii)	Mineable reserve	1.747 Million Tonne
(iii)	Extractable reserve	1.747 Million Tonne
(iv)	Per cent (%) of extraction	95%
(v)	Range of ground water level	0.85 – 17.3 meter
(vi)	Total estimated water requirement:	15 KLD

(vii)	Details of intersecting ground water level	No intersection
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21. Details of Deposits

(i)	Depth of over body	
(ii)	Grade of ore	Iron Ore: 40-58% Fe Laterite: 25-45% Fe
(iii)	Stripping ratio	1:03:08

22.	Method of mining:	Open Cast
23.	Life of mine	7 Years
24.	Whether ambient air quality seasonal data has been monitored. If so, from which season to which season and whether the results are within the prescribed limits.	Yes Dec 2018 to Feb 2019
25.	Whether the monitoring report of earlier EC from MoEF Regional Office has been obtained, in case the proposal is for expansion.	Not Applicable

26. Details of O.B.

(i)	External OB dumps	1
(ii)	No of OB dumps	1
(iii)	Area of each dump	3.860
(iv)	Height of each dump	30 meter
(v)	Quantity (in MCm) of OB in each dump	0.492313 m ³
(vi)	Year of back filling	2012-13
(vii)	No. of OB dumps reclaimed	Nil
(viii)	If garland drains and settlement facility for runoff created	Yes
(ix)	Whether runoff water being utilized	Yes

27. Details of Internal Dumps

(i)	Number of internal dumps	4
(ii)	Area of each dump	284 mt x 105 mt =2.982 Ha
(iii)	Height of each dump	30 mt.
(iv)	Quantity of wastes filled (MCm)	0

28. Utilization potential of wastes

(i)	Within the mines	backfilling
(ii)	Outside mines	Nil
(iii)	Efforts made by proponent	No

29. Details of final Mine Voids

(i)	Area	3.64 ha
(ii)	Depth	40 m

30. Details of Quarry:

- Total quarry area :24.160 Ha
- Backfilled quarry area of 24.160 ha shall be reclaimed with plantation
- A void of 2.463. ha at a depth of 40 m which is proposed to be converted into a water body

31. Details of Land usage**Land use details**

S. No.	Land Use	Within ML Area (Ha)	Outside ML Area (Ha)	Total
1.	Agriculture land	0	0	0
2.	Forest land	0	0	0
3.	Wasteland	201.914	0	201.914
4.	Grazing Land	0	0	0
5.	Surface water bodies	0	0	0
6.	Settlements	0	0	0
7.	Other	0	0	0
Total		201.914	0	201.914

Post- Mining Land use details

S. No.	Land use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undistributed	TOTAL
1.	External OB Dump	0	0	0	0	0.0
2.	Top soil Dump	0	0	0	0	0.0
3.	Excavation	24.160	0	0	0	24.160
4.	Roads	0	0	2.0592	0	2.059
5.	Internal OB Dumps	3.860	0	0	0	3.860
6.	Green Belt	0.7747	0	0	0	0.775
7.	Built-up Area	0	0	0.6330	0	0.633
8.	Others	0	0	170.1192	0	170.119
TOTAL		28.7947	0	172.8114	0	201.606

32. Details of Forest, Wild life issues: No forest land and Wildlife issue is involved.

33. Costs of the project:

- Total capital Cost: **Rs 3.0 Crore**
- Cost of Production: Yet to access
- Sale Price: As per Market Demand
- CSR cost: **Rs 0.663 Crore**
- R&R Cost: **NA**
- No of PAFs: **NA**

34. Details of villages/habitation in mine lease area

- Inside the lease Nil
- Surrender by lease 3 Villages, Pagadalapalli, China Dasarapalli, Kothasankatapalli
- Extent of cropland acquired/ being acquired in ha. Nil

35. Details of transportation of mineral

- In pit: Road(Tripper)
- Surface to siding: Road(Tripper)
- Siding to loading: Road(Tripper)
- Quantity being transported by Road/Rail/conveyer /ropeway Road(Tripper)
- Proposed change in transportation means if any, give details Road(Tripper)

36. Details of reclamation:

- Afforestation shall be done covering an area of 28.7747 ha at the end of mining. This will include
- Reclaimed internal dump (in ha) :3.860.
- Quarry (in hectare): 24.160
- Safety Zone (in hectare): 0.7747
- Final Void of 170.427 (hectare) at a Depth of 2 meter which is Proposed to be Converted into a Water Body.
- Density of Tree Plantation per ha (in no.): 150
- Others in ha (such as Excavation Area along ML Boundary, along Roads and Infrastructure, Embankment Area and in Township Located Outside the Lease etc): 2.4362

LEGAL ISSUES

37. Any court case pending. If so, please provide a list with details as annexure.
No court case pending.

38. Any violation cases pending. If so, please provide a list with details as annexure: No

39. Give details of actual production vis-à-vis sanctioned capacity since the inception of mine in following format or since 1993-94 as applicable:

Year	EC sanctioned capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
2006-07	Nil	17002	17002
2007-08	Nil	21390	21390
2008-09	Nil	29800	29800
2009-10	Nil	50750	50750
2010-11	Nil	104825	104825
2011-12	Nil	141967	141967
2012-13	Nil	245762	245762
2013-14	Nil	Nil	Nil
2014-15	Nil	Nil	Nil
2015-16	Nil	Nil	Nil
2016-17	Nil	Nil	Nil

40. Date and Place of public hearing: 27.10.2016 at Survey number 172, Pagadalapalli village, PendlimarriMandal, YSR district.

41. The designation of officer presided our the PH : Collector and District Magistrate Sri K.VSatyanarayana, IAS, Member convener was Sri A. Narendra Babu, Environmental Engineer, APPCB, Regional office, Tirupati.

42. Issues raised during Public Hearing and assurance given along with the financial provisions and action plan, if any, by the project proponent. (Please attach as an annexure in a tabular form.) :

43. Number of representation received in writing from the district and outside of district, please give details :21 nos

44. Name of the EIA consultant who prepared the EIA/EMP report: **M/s. Ind Tech House Consult**

45. Whether the consultant has been accredited by the QCI and NABET as per the MoEF OM dated 2nd December, 2009.- Yes

23.3.1.3	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>PP along with the consultant made the detailed presentation. Based on the information as submitted and presented by the PP, the EAC deferred the proposal for want of following information:</p> <ol style="list-style-type: none"> i. EAC observed that civil suit is filed against the proponent at Hon'ble Principal Junior Civil Judge at Kadapa, EAC took the serious cognizance and asked PP to submit the details of Court case before the EAC. ii. State Forest department may ascertain whether mining lease area is falling in Forest. PP is advised to approach the State forest department to obtain above clarification. iii. If the FL is involved, PP has to submit the documentary proof regarding submission of forest land application. iv. NOC from earlier consultant to use of their base line data used in draft EIA/EMP. v. Details submitted regarding Over Burden (External), court case to be revised in Form-2 application. vi. Capital cost of the proposal is to be revised including land cost and other expenditures. vii. Redo the modelling on total excavation, recalculate the cost of damage assessment, remediation plan, natural and community resource augmentation plan. viii. Damage assessment, remediation plan, natural and community resource augmentation plan is to be prepared as an independent chapter 13. ix. TOR compliance was not incorporated in the report; PP is required to incorporate the same in EIA/EMP report. x. Consolidated EIA/EMP report is to be submitted as per the generic structure (Appendix III&IIIA) given in the EIA Notification, 2006, along with the Chapter 13. xi. Details to be submitted regarding change of consultant. xii. Revise EMP Cost including recurring cost. xiii. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed. xiv. Economic benefit accrued during violation period, certified by competent authority is to be submitted.
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	<p>xv. Fund allocation for CER shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of funds allocation and activities for CER shall be incorporated in EIA/EMP report.</p> <p>xvi. Approved Mining plan copy letter.</p> <p>xvii. Revised Land use plan.</p> <p>xviii. Revised details Annexure-IV as per the information submitted in Form 2 and EIA report.</p> <p>xix. Clarification from DMG & IBM regarding considering laterite as low grade Iron ore.</p>
23.3.2	<p>Cluster XVII Kalyaneshwari OCP Coal Mining Project of capacity 5.20 MTPA (Peak) and Washery of 3.65 MTPA in total area 1844.09 ha of M/s Bharat Coking Coal Ltd., located at District Burdwan, West Bengal - Further consideration for Environmental Clearance [IA/WB/CMIN/85880/2018 dated 03.12.2018][F. No. J-11015/373/2013-IA.II(M)]</p>
23.3.2.1	<p>M/s Bharat Coking Coal Ltd. has made online application vide proposal no. IA/WB/CMIN/85880/2018 dated 03.12.2018 seeking Term of References for the above mentioned proposed project. The proposed project activity is covered under 'A' category of item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level.</p>
23.3.2.2	<p>Details of the project as per the submission of project proponent:</p> <ol style="list-style-type: none"> 1. The Project Proponent and the accredited consultant M/s. CMPDIL, made a detailed presentation on the salient features of the project. 2. The project involves manufacturing/extraction of Coal of production capacity (5.2 MTPA Peak capacity) by M/s Bharath Coking Coal Limited in an area of 1844.09hectare at Damagori village, Taluka/Mandal Burduwan, District West Bengal (State). 3. The said project/activity is covered under Category A of item 1(a) of the Schedule to the EIA Notification, 2006, and requires prior EC from the MoEF&CC based on the appraisal by Expert Appraisal Committee. 4. The Cluster XVII mines of Bharat Coking Coal Limited (BCCL), a subsidiary of Coal India Limited (A Government of India Enterprise) is located in the Chanch Victoria Area in Raniganj Coalfields. The mines of Cluster XVII are more than 100 years old taken over mines of BCCL. The Proposal of cluster-XVII is for re organization of these old operative and inoperative mines, in which no lease or technology is changed yet. The Coking coal availability of nation is required to be increased for financial security and also, implementation of Jharia Master Plan (rehabilitation and fire dealing), prepared as per directive of Hon'ble Supreme court of India and being monitored by HPCC (chaired by Secretary, Ministry of Coal) and by Hon'ble Supreme Court, is to be ensured as a remedial plan for mitigation of impacts of past production done before nationalization. The proposed organisation of Cluster XVII is as under:

Sl. No.	Name of Colliery/Washery	Normative Prod. (Mty)	Peak Prod. (Mty)	Lease Hold (Ha)	Remarks
1	Begunia Colliery	0	0	306.00	Taken over mine, inoperative
2	Victoria West Colliery	0	0	310.00	Taken over mine, inoperative
3	Victoria Colliery	0	0	0	Taken over mine , Earlier lease of 223 Ha merged
4	Damagoria Colliery	0	0	0	Taken over mine , Earlier lease of 620Ha merged in
5	<u>Proposed Kalyaneshwari OCP(KOCP)</u>	4.00	5.20	1212.43	Proposed by merging 223 Ha in the LH of Victoria
6	<u>Proposed Kalyaneshwari Coal Washery</u>	3.60	3.60	15.66	Proposed Washery
Cluster XVII (Total)		4.00	5.20	1844.09	

Out of 04 old mines of pre-nationalization period namely Begunia, Victoria West Colliery, Victoria Colliery and Damagoria Colliery; the first two will remain inoperative/non-producing and latter two, Victoria and Damagoria leasehold are merged to form proposed Kalyaneshwari OC. Kalyaneshwari OCP (KOCP) is proposed by the amalgamation of Victoria Colliery and Damagoria Colliery. The area used for external OB dump will be 474.22 Ha. Kalyaneshwari Coal Washery is also proposed in 15.66 Ha area for washing of coal before supply to consumers.

5. Details of Violation (*Brief description of the project activity that leads to violation of EIA Notification, 2006*): In compliance of directive of Honorable Supreme Court for implementation of master plan for dealing with fire, subsidence and rehabilitation in lease hold of BCCL, Coal was extracted from unstable areas resulted in extraction of coal beyond 1993-94 level.
6. The project involves manufacturing/extraction of Coal of production capacity (**5.2 MTPA Peak capacity**) by M/s **Bharath Coking Coal Limited** in an area of **1844.09** hectare at **Damagori** village, Taluka/Mandal **Burduwan**, District **West Bengal** (State).
7. Latitude and Longitude of the project:
 - a. **Begunia UG:** Latitude - 23°44'9.82"N to 23°43'8.08"N
Longitude - 86°48'9.81"E to 86°49'49.02"E
 - b. **Victoria West UG:** Latitude- 23°44'57.01"N to 23°43'57.88"N
Longitude - 86°48'32.06"E to 86°50'1.84"E

	<p>c. Kalyaneshwari OCP: Latitude - 23°46'21.14"N to 23°43'49.89"N Longitude - 86°50'12.35"E to 86°52'50.95"E</p>
8.	The said project/activity is covered under Category A of item 1(a) of the Schedule to the EIA Notification, 2006, and requires prior EC from the MoEF&CC based on the appraisal by Expert Appraisal Committee.
9.	Whether the project is in the Critically Polluted Area (CPA):No
10.	Cost of the project:Capital Cost of the Project (including Kalyaneshwari Washery) is Rs. 2563.74 crores.
11.	Employment generated/to be generated: - BCCL has existing manpower. However, 512 nos of additional employment will be provided against land acquisition and also indirect employment may be generated through contract works. (As per PR of Kalyaneshwari OCP)
12.	<p>Benefits of the project:-</p> <ol style="list-style-type: none"> Ensuring Safety to Life and Property of local people and Property of State. The developments of mining in the area will provide direct and indirect employment opportunities Bridge the gap of demand and supply of Coal in India. To meet the requirement of Coking coal, substantial savings in Foreign Exchange. Boost to local and regional economy, direct contribution to the state exchequer To bring about enhanced Socio-economic benefits to local population as per CIL's CSR Policy.
13.	Whether new or Expansion project :New Project over old mine leasehold taken through nationalization & re-allocated block
14.	No. and Date of the ToR /and revised ToR, if any, letter issued by the MoEF (if this is a case for EC):ToR granted (under Violation) vide letter no. J-11015/373/2013-IA.II(M) dated 16/10/2018.
15.	<p>If the project was considered in EAC, Pl. give dates of the meeting (s):</p> <p>(a) 12th Violation EAC, 28 August 2018, proposal was considered under Agenda item 12.3.11 and ToR recommended. ToR was granted vide letter no. J-11015/373/2013-IA.II(M) dated 16/10/2018.</p>
16.	<p>Details of project:</p> <p>(a) Type of Mine : Opencast mine with proposed Coal Washery</p>

- (b) Capacity of the mine applied for: Normative Capacity: 4.00 MTPA ,Peak Capacity: 5.20 MTPA, Washery Capacity: 3.60 MTPA .
- (c) ML Area:
- As per block allotment: Not Applicable, BCCL is a subsidiary company of Coal India Limited
 - As per approved mine plan : 1844.09 ha
- (d) Date of approval of mine plans, mine closure plan Status & date: Mining Plan and Mine Closure Plan for Kalyaneshwari OCP was approved in 342nd BCCL Board Meeting held on 04.05.2018.
- (e) Date of Board's approval: Mining Plan and Mine Closure Plan for Kalyaneshwari OCP was approved in 342nd BCCL Board Meeting held on 04.05.2018. Mine Closure Plan of Mines of Begunia Colliery was approved in 345th BCCL Board meeting held on 03.08.2018.
- (f) Date of Ground water clearance and Surface water approval: As per West Bengal State authority looking after Ground Water Clearance, the application will be processed once EC is granted.
- (g) Existing Ground water level:
- | Zone | Season | Range |
|-------------|--------------|-------------|
| Core Zone | Pre-monsoon | 0.45-3.37 m |
| | Post-monsoon | 1.15-2.00 m |
| Buffer Zone | Pre- monsoon | 0.45-9.35 m |
| | Post-monsoon | 1.15-5.25 m |
- (h) Date of Mine Closure approval: Mine closure plan with Mining Plan has been approved on 04.05.2018 for Kalyaneshwari OC and Begunia UG closure Plan approved on 03.08.2018.
- (i) Any river/Nallha flowing adjacent to the proposed mine. If yes, please give details. Yes, Barakar River is flowing along west boundary of Cluster from north to south.
- (j) Details of mine lease: - Date of entering into original lease deed: 01.05.1973; Date of expiry of original lease deed: 30.04.2003; Date of 1st lease renewal: 08.12.2000; Whether renewal or deemed renewal – Deemed; Date of expiry of 1st lease deemed renewal - 07.12.2030

17. Technical Details

- (a) Geological Reserve:
- Total geological reserve: 136.62 MT
 - Mineable (Mte): 122.96 MT
 - Extractable reserve: 122.96 MT
 - Percent (%) of extraction: 90%
 - Range of ground water level:

Zone	Season	Range
Core Zone	Pre-monsoon	0.45-3.37 m
	Post-monsoon	1.15-2.00 m
Buffer Zone	Pre- monsoon	0.45-9.35 m
	Post-monsoon	1.15-5.25 m

(vi) Total estimated water requirement: 2.67 MLD (1691 m³/day)

Sl. No.	Usage	Total water requirement Million Cum/yr	
		Surface	Ground
1	Domestic	0.98 (DVC/ Barakar River)	0.54 (Old UG pit water)
2	Irrigation	-	0.09
3	Industry	-	-
4	Mining	-	1.06
5	Others (specify)	-	-
	Total	0.98	1.69

(b) Details of Deposits:

Kalyaneshwari OC:

- i. Depth of over body: 190 m(approx.)
- ii. Grade of coal: S-I to W-IV
- iii. Stripping ratio: 3.41

(c) Method of mining: Opencast mining using Shovel Dumper Combination.

(d) Life of mine (yrs): Kalyaneshwari OCP – 39 years
Kalyaneshwari Washery – 31 Years

(e) Whether ambient air quality seasonal data has been monitored. If so, from which season to which season and whether the results are within the prescribed limits:
Yes. Baseline data has been generated from 1st January 2016 to 31st March 2016. Results are found to be within prescribed limit.

(f) Whether the monitoring report of earlier EC from MoEF&CC Regional Office has been obtained, in case the proposal is for expansion: Not Applicable

(g) Details of External O.B. Dumps

No of Dumps	2 (Proposed)
Area of each dump (Ha)	474.22 Ha

Height of each dump (m)	120 m
Quantity(Mcum) of OB in each dump	264.11Mm ³
Year of back filling	During the mine closure activity
No. of OB Dumps reclaimed	Two OB dumps have been reclaimed technically.
If garland drains and settlement facility	
Whether runoff water being utilized	

(h) Details of Internal Dumps:

No of Dumps	1 (Proposed)
Area of each (Ha)	184 Ha
Height (m)	270 m from base of quarry
Quantity(Mcum)	154.62 Mm ³
Year of back filling	From 14th Year of operation

18. Utilization of potential of wastes:

- (i) Within the mines: OB will be used for backfilling the mined out quarry. Top soil is being stored which will be used for reclamation in post closure period.
- (ii) Outside mines: Oil & Grease is being disposed through auction to authorized repressors.
- (iii) Efforts made by proponent: External OB is being technically and biologically reclaimed and Top Soil is being stored for further use in future.

19. Details of final Mine Voids

- i. Area: 24.87
- ii. Depth: 30-35 m

20. Details of Quarry:

- (i) Total quarry area : 401.70 Ha
- (ii) Backfilled quarry area of 184 ha shall be reclaimed with plantation.
- (iii) A void of 24.87 ha at a depth of 30-35 m(in post-mining period) which is proposed to be converted into a water body
- (iv) Green belt created in 24.78 ha

21. Details of Land usage

i. Pre-mining

S. No.	Land Use	Within ML Area (Ha)	Outside ML Area (Ha)	Total
1.	Agriculture land	557.81	-	557.81
2.	Forest land	0	-	0
3.	Wasteland	Included in agricultural land	-	Included in agricultural land
4.	Grazing Land	Included in agricultural land	-	Included in agricultural land
5.	Surface water bodies	130.08	-	130.08
6.	Settlements	197.91	-	197.91
7.	Other (Specify)	958.29*	-	958.29*
	TOTAL	1844.09		1844.09

others include area under running quarry, abandoned quarry, external OB dump, service building/mine infrastructure, coal dump, road & rail including haul road, plantation and barren land.

ii. Post- Mining

Conceptual Post-Closure Land use of Cluster XVII

S. No.	Land use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undistributed	TOTAL
1.	External OB Dump	474.22				474.22
2.	Top soil Dump					0
3.	Excavation	340	24.87	36.83		401.70
4.	Roads			64.86		64.86
5.	Built up area	153.44			74.98	228.42
6.	Green Belt	24.78				24.78
7.	Undisturbed Area	77.6	106.1		466.41	650.11
	TOTAL	1070.04	130.97	101.69	541.39	1844.09

iii. Core area:

SL.N o.	Type of land use		Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry*	Backfilled	0	0
		Not Backfilled	115.00	0
2	Abandoned Quarry	Backfilled	48.12	0
		Not Backfilled	42.14	0
3	External OB dump		22.64	0
4	Service building/ Mine Infrastructure		27.2	0
5	Homestead land		197.91	74.98
6	Coal dump		3.31	0
7	Road and rail including Haul Road		64.86	67.8
8	Ag/Fallow Land		557.81	60.6
9	Forest Land		0	0
10	Plantation	Plantation	24.78	914.04
		Grass Carpeting	0	156
11	Water Body		130.08	130.97
12	Barren Land		610.24	439.7
	Total		1844.09	1844.09

22. Details of Forest issues

- i. Total forest area involved (in ha) for mining lease: No Forest Land is involved in Core Zone of Cluster XVII.

23. Details of wild life issues involved, if any. If so, whether WL management plan has been prepared and please indicate the status. – **NA**

24. Whether schedule-I species, is yeas conservation plan is approved by CWLW? No schedule-I species was found during baseline survey of Flora and Fauna.

25. Costs of the project:

		Proposed Kalyanesh wari OCP	Proposed Kalyanesh weri Coal Washery	Begunia Colliery	Victoria West Colliery	Victori a Collier y	Damago ria Colliery
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i.	Total capital Cost(Crores)	Rs. 2563.74 Crores (including kalyaneshwari Washery)	-	-	-	-
ii.	Cost of Production (Rs/te)	Rs. 2532.96	-	-	-	-
ii.	Sale Price (Rs/te)	Rs. 4220.46	-	-	-	-
i v.	CSR cost:	Fund for CSR will be allocated based on 2% of the average net profit of the company for the three immediate preceding financial years or Rs. 2.00 per tonne of coal production of the previous year whichever is higher.				
v	R&R Cost (Rs.in Lakhs)	Rs. 28982.29 lakhs for rehabilitation under Master Plan, Rs. 40568.32 lakhs for proposed rehabilitation for Kalyaneshwari OCP				
v i	No of PAFs	3025 as per Master Plan and 1100 PAFs for Kalyaneshwari OCP.				
v ii	Cost for implementing EMP	Capital Cost: Rs. 2247.94 lakhs Revenue Cost: Rs. 107.07 lakhs/year				

26. Details of villages/habitation in mine leasearea

- (i) Inside the lease: Barakar, Chungari, Lalbazar, Petna, Kulti, Manberia, Baltoria, Borira.
- (ii) Surrender by lease- Total no. of 1123 PAFs (out of which 23 covered under master plan)
- (iii) Extent of cropland acquired/ being acquired in ha: 60.6 Ha of Agricultural land is to be acquired.

27. Details of transportation of mineral

- | | |
|---|--|
| | Kalyaneshwari OCP |
| (i) In pit (km) | 0.02 – 4.6 km (within pit) |
| (ii) Surface to siding (km) | 1 to 2 km (through convey or/ washery) |
| (iii) Siding at loading (km) | Nil |
| (iv) Quantity being transported by Road/Rail/Conveyor/ropeway | Coal will be dispatched from Kalyaneshwari OCP to Kalyaneshwari coal washery through conveyor belt.90% of coal will be dispatched through rail to consumers, 10 % coal will be dispatched through roads. |

28. Details of reclamation:

Table: Summary of proposed biological reclamation

EXTERNAL DUMP		INTERNAL DUMP		OTHER AREAS		WASHERY		BEGUNIA		VICTORIA WEST		TOTAL*	
Area	No. of Plants	Area	No. of Plants	Area	No. of Plants	Area	No. of Plants	Area	No. of Plants	Area	No. of Plants	Area	No. of Plants
474.22	1185550	184.00	460000	95.73	239325	15.66	39150.0	73.03	182575.00	71.40	178500	914.04	2285100

*inclusive of 24.78 Ha of existing plantation

29. Afforestation shall be done covering an area of: 914.04(including existing plantation over an area of 24.78 ha) ha at the end of mining. This will include:

- (i) Reclaimed external OB dump (in ha): 474.22 ha
- (ii) internal dump (inha), 184.00 ha
- (iii) Green belt (inha) 255.82 ha
- (iv) Density of tree plantation (in no of plants) 2500
- (v) Void 24.87 ha at a depth 30-35 m(average depth) which is proposed to be converted into water body
- (vi) Others in ha (such as excavation area along ML boundary, along roads and infrastructure, embankment area and in township located outside the lease etc).
- (vii) Agriculture and horticulture: Integrated Farming System(IFS) will be taken up over an area of 5 ha.
- (viii) Fisheries: void left in quarry after post closure period can be used for fisheries.
- (ix) ECO Tourist/recreation spot: Eco-restoration will be carried out in 75 ha in Cluster XVII. An eco-park will be created over 2-3 ha of degraded mined area which will provide a space for recreation. Recreational park is also proposed to be created near the water body at Jhunkundar.

30. **LEGAL ISSUES:** Any court case pending. If so, please provide a list with details as annexure. No court cases are pending for Cluster XVII.

31. Any violation cases pending. If so, please provide a list with details as annexure. No Violation case by SPCB. However, recovery of coal in excess to 1993-94 level and hence Project is being considered by EAC(violation) of MoEF&CC.

32. Give details of actual coal production vis-à-vis sanctioned capacity since the inception of mine in following format – Kalyaneshwari OC & Washery are New Projects:

Year	Victoria west Colliery	Damagoria Colliery	Begunia Colliery	Victoria Colliery	Kalyaneshwari OC (proposed replacing Damagoria and Victoria)	Total
1993-94	51946.00 Te.	779903.00	75767.00 Te.	-	-	907616.00
1994-95	51714.00 Te	631873.00	76974.00 Te	-	-	760561.00
1995-96	58647.00 Te	547201.00	81477.00 Te	-	-	687325.00
1996-97	266657.00 Te	199755.00	34397.00 Te	-	-	260809.00
1997-98	42151.00 Te	215421.00	41251.00 Te	-	-	298823.00
1998-99	59700.00 Te	418111.00	72169.00 Te	-	-	549980.00
1999-	76927.00 Te	481525.00	71011.00 Te	-	-	629463.00
2000-01	54054.00 Te	483007.00	69290.00 Te	-	-	606351.00
2001-02	21185.00 Te	472450.00	81265.00 Te	-	-	574900.00
2002-03	-----	496439.00	106921.00	-	-	603360.00
2003-04	-----	480821.00	106006.00	-	-	586827.00
2004-05	-----	229281.00	83335.00 Te	-	-	312616.00
2005-06	-----	162414.00	66770.00 Te	-	-	229184.00
2006-07	-----	122799.00	42136.00 Te	-	-	164935.00
2007-08	-----	128842.00	31784.00 Te	-	-	160626.00
2008-09	-----	96054.00 Te	33375.00 Te	-	-	129429.00
2009-10	-----	28028.00 Te	34658.00 Te	-	-	62686.00
2010-11	-----	-----	28869.00 Te	-	-	28869.00
2011-12	-----	-----	33970.00 Te	-	-	33970.00
2012-13	-----	46402.00 Te	19572.00 Te	-	-	65974.00
2013-14	-----	1546887.00	-----	-	-	1546887.00
2014-15	-----	1048433.00	-----	-	-	1048433.00
2015-16	-----	2557413.00	-----	-	-	2557413.00
2016-17	-----	2141770.00	-----	-	-	2141770.00
2017-18	-----	1380834.00	-----	-	-	1380834.00
<p>33. Public Hearing: Date and Place of public hearing: Public Hearing was held on 27.04.2018 at New Kali Mandir Premises in Damagoria Colliery</p> <p>34. The designation of officer presided our the PH: Dy. Collector and Dy. Magistrate.</p> <p>35. Name of the EIA consultant who prepared the EIA/EMP report- Central Mine Planning and Development Institute Ltd. (CMPDIL)</p> <p>36. Whether the consultant has been accredited by the QCI and NABET as per the MoEF OM dated 2nd December, 2009. Yes</p> <p>37. IMG of Ministry of Coal (Only for Coal Sector):Whether the project was considered by the IMG of Ministry of Coal for any irregularities. If so the no. and date of the show cause notice and the response of the MoC. – No.</p>						

23.3.2.3	<p>Observations and recommendations of committee of 17th EAC meeting held on held on, 29-31 January, 2019:</p> <p>PP and consultant made a detailed presentation on the proposal. The EAC after detailed deliberation on the information submitted by the EAC and as presented, <i>deferred</i> the proposal for want of following submissions:</p> <ol style="list-style-type: none"> 1. Proof of credible action initiated against PP under section 19 of E P Act, 1986. 2. Detailed R&R plan. 3. NOC from CGWA/State ground water department for ground water and river water utilization/ abstraction. 4. Minimum and maximum values with 98 percentile values of air quality data to be submitted and prediction of GLC by revising the air quality by providing the input data considered for the same during violation period and for the proposed expansion qty with and without control measures to be submitted. 5. Noise monitored data for day and night with modeling details. 6. Separate water balance for Washery, colony and mining and for the colony ,it shall consider dual plumbing and accordingly the consumption quantity shall be revised considering conservation measures since the proposed consumption is very high further water consumed during violation period shall be submitted and the related damage and remediation shall be reworked since used without NOCs, action plan to reduce utilization of domestic: 1715 KLD (980 KLD + 735 KLD), river: 2675 KLD and for industry: 2910 KLD. NOC from state department shall mention the adequacy with provision for competing users and the qty surplus for this purpose. Water balance during rainy season and proposed RWH system for both lease and colony and other infrastructure. 7. Pros and cons of alternative technology for beneficiation with scheme details and justification shall be submitted. It shall enumerate, the provision for handling of tailings in the emergency situation and handling system apart from the moisture gain during this wet process pre and post data of rom and washed coal and proof for zero waste concept with mass balance and water balance. 8. Slope stability study for dumps and deep seated mining by a reputed institute/ORG and their recommendations. 9. Details of land usage are mismatching in Form 2 applications and basic information. 10. Regarding status of mining lease for 369.33 Ha which is outside the existing mining lease area proposed for external OB dumping and also submit the transfer of land details from ECL to BCCL. 11. Submit the detail R&R plan with comparison of central and state policies. 12. Slope stability study is to be submitted. 13. Submit the revised calendar plan for coal and OB. 14. Flow sheet for rom to Washery and process to dispatch system with line diagram encompassing pollution control devices/system adopted. 15. Plantation plan considering the deficit/shortfall during violation period and future for 5 years considering the safety zone along the boundaries(7.5m) and Green belt protection for both the colonies and surface water bodies and the action with specific period commitment. 16. Water balance for both the colonies shall be reworked with provision of dual plumbing and considering specified LPCD. 17. Provision of energy conservation measures for colonies and other infra so far
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	<p>adopted and future commitment related ECBC norms for colonies, commercial structures, etc and the damage assessment shall be worked out accordingly for non-provision so far and remediation budget asap.</p> <p>18. A table depicting the PH points raised by public, action plan with budgetary provision by PP.</p> <p>19. Natural and community resource augmentation shall be brought out with consideration of damaged caused utilization of relevant resources without noc/clearances.</p> <p>20. The budgetary estimate for remediation measures against the revised damage assessment and natural and community resources augmentation plan shall be revised accordingly with a 3-year action plan and CER shall be reworked providing more budget for skill development, health and medical support, development of social infra and community plantation.</p>
23.3.2.4	<p>Observations and recommendations of present EAC meeting held on 25-26th June 2019:</p> <p>PP along with the consultant made the detailed presentation on the information sought in the 17th EAC meeting held on 29-31 January, 2019. Based on the information as submitted and presented by the PP, the EAC deferred the proposal for want of following information:</p> <ul style="list-style-type: none"> i. Revised flow sheet for washing with PC system. ii. Proximate analysis to determine moisture, volatile matter, fixed carbon, and ash yield to be done and submitted. iii. Revised calendar plan is to be submitted. iv. Rework on the cost for water and details of the same is to be submitted. v. Mass balance of water to be reworked and submitted. vi. Mass balance of Coal Washery (3.6 MTPA) for peak production (5.2 MTPA). vii. CER to be revised as per ministry guidelines dated 01st May 2018. viii. Explore possibility of reuse of grey water to Washery, if appropriate ix. Details of the equipment's to minimize noise, air emission as well as dust generation. x. Details of plantation done with photograph is to be submitted along with Greenbelt development plan. xi. Details of OB dump is to be submitted. xii. Regarding status of mining lease for 369.33 Ha which is outside the existing mining lease area proposed for external OB dumping and also submit the transfer of land details from ECL to BCCL.

	<p>xiii. Revised damage assessment and accordingly budgetary provision for three years for implementation of remediation plan, natural & community resource augmentation plan is to be submitted as suggested by the EAC.</p> <p>xiv. Economic benefit accrued during violation period, certified by competent authority is to be submitted.</p>
23.3.3	<p>Proposed Kuju Opencast Project (1.5 MTPA peak) of M/s Central Coalfields Limited located at West Bokaro Coalfield in the District Ramgarh, Jharkhand - Further consideration for Terms of Reference</p> <p>[IA/JH/CMIN/73705/2018 dated 09.04.2018] [F. No. 23-242/2018-IA.III (V)]</p>
23.3.3.1	<p>M/s Central Coalfields Limited has made online application vide proposal no. IA/JH/CMIN/73705/2018 dated 09.04.2018 seeking Term of References for the above mentioned proposed project. The proposed project activity is covered under 'A' category of item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level.</p>
23.3.3.2	<p>Details of the project as per the submission of project proponent:</p> <ol style="list-style-type: none"> Details of Project Proponent: - Mr. S K Prasharay, Project Officer, Kuju OCP, Kuju Area Details of Project- <ol style="list-style-type: none"> Name of Mineral Coal Project Area 173.89 Ha Village,Mandal, district Village- Kuju Block--Mandu, District- Ramgarh Category of the project : - A Whether project attracts the General Condition specified in the Schedule of EIA Notification : - No Details of river/water body-Name of the river/water body, Distance from the project, Direction: - The drainage of the project is controlled by easterly flowing Chowtha nala.The tributary Bander Chua nala, Banwar and Mourpa nala flowing from south to north joins Chowtha nala. Distance from Chowtha Nalah is approx 60 mts from Northern boundary of mine. Details of forest issues:- The total requirement of land for Kuju Opencast Project has been estimated as 173.89 Ha. It includes 38.54 Ha. of Notified forest land, 72.48 Ha of GMK JJ and 62.87 Ha. of non-forest land. Online forest application for 5 ha was applied on 08/01/2018. Forest application of 13.12 Ha(Change in land use of earlier granted Forest Clearance vide letter no: 8/61/2003-FC Dated: 13/08/2008 for Kuju UG for area 115 Ha.) was applied on rest of the forest land is to be acquired under FC Act. Mine Capacity in ROM (Run of Mine) :- 1.5 MTY Whether the proposal is mining of Minor minerals project.: - No Whether the proposal is mining of Major minerals project.: - Yes No. of Mineral to be Mined with name :- Coal

	<p>11. Details of mine lease: - Land is acquired under CB Act SO No. 3358(E), SO No. 2738, LA Act Case No: 7/94-95, Case No. 21/85-86, Case No: 67/77-78, Case No: 20/80-81 & by Nationalisation of Coal Mines.</p> <p>12. Details of DGMS permission, if any: The mine is discontinued since May 2017.</p> <p>13. Details of Violation:</p> <p>The project produced more than 1993-94 production level of 0.032 MTPA. The details are given below:</p> <table border="1" data-bbox="558 622 1185 985"> <thead> <tr> <th>Year</th><th>Coal (MT)</th></tr> </thead> <tbody> <tr> <td>1994-95</td><td>0.038</td></tr> <tr> <td>1995-96</td><td>0.055</td></tr> <tr> <td>1996-97</td><td>0.064</td></tr> <tr> <td>1997-98</td><td>0.052</td></tr> <tr> <td>2014-15</td><td>0.25</td></tr> <tr> <td>2015-16</td><td>0.28</td></tr> </tbody> </table> <p>14. The chronology of events for seeking EC,</p> <p>a) Date of application for TOR/EC submitted to MoEF&CC: - 09.04.2018</p> <p>b) Date of appraisal of EAC/SEAC meetings so far : - 16.02.2015</p> <p>c) Observations/recommendations of the EAC/SEAC in each meeting: The committee recommended that proper mechanism be developed for fire detection and mitigation measures and asked the project proponent to submit revised plan with inclusion of fire.</p>	Year	Coal (MT)	1994-95	0.038	1995-96	0.055	1996-97	0.064	1997-98	0.052	2014-15	0.25	2015-16	0.28
Year	Coal (MT)														
1994-95	0.038														
1995-96	0.055														
1996-97	0.064														
1997-98	0.052														
2014-15	0.25														
2015-16	0.28														
<p>23.3.3.3</p>	<p>Observations and recommendations of committee of 13th EAC meeting held on 18th-20th September 2018:</p> <p>Project proponent has made a detailed presentation on the proposal. After detailed deliberation, EAC <i>deferred</i> the proposal for want of following information:</p> <ol style="list-style-type: none"> Submission of revised pre-feasibility report. Surface drainage plan within 2km, 5km and 10km is to be submitted Submission of Dump management plan. Forest clearance status. DGMS permission for blasting at project site is to be submitted. Mine water drainage plan along with protection measures for nearby water bodies. Submission of detail plan for rain harvesting water. Mining lease document is to be submitted. Past production details to be submitted since inception of mine. Details of R&R plan. Copy of CCL board approval letter. Nallah diversion plan with embankment details and permission for diversion of nallah is to be submitted. 														

23.3.3.4	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>PP along with the consultant made the detailed presentation on the information sought in the 13th EAC meeting held on 18th-20th September 2018. EAC in earlier meeting observed that PP had crossed baseline (1993-94) production (0.032 MTPA) in the year 1994-1998 & 2014-2016 hence violation of EIA Notification.</p> <p>The EAC further observed that PP has submitted affidavit not in compliance of Ministry's OM dated 30.05.2018. Hence PP has to submit revised affidavit as per the Ministry OM dated 30.05.2018 before issue of ToR.</p> <p>The EAC, after detailed deliberations on the information presented and submitted by the PP, recommended for issuing Standard Term of Reference along with the following specific Term of Reference for undertaking EIA and preparation of Environment Management Plan (EMP):</p> <ol style="list-style-type: none"> i. The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate for expansion project to be issued till the project is granted EC for the expansion. ii. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority. iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment. iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation. v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants. vi. The PP is required to conduct public hearing as per EIA notification, 2006. vii. One season base line data is to be collected and reported in the EIA/EMP report. viii. Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be

	<p>incorporated in EIA/EMP report.</p> <p>ix. In case of violation of undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated, the ToR/Environmental Clearance shall be liable to be terminated forthwith.</p> <p>x. Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to prepare accordingly.</p> <p>xi. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.</p> <p>xii. Detailed R&R plan is to be submitted in the EIA report.</p>
23.3.4	<p>Giridih-Kabribad Group of Mines (1.3 MTY) of M/s Central Coalfields Limited located in District Giridih, Jharkhand - Further consideration for Terms of Reference [IA/JH/CMIN/74445/2018 dated 13.04.2018] [F. No. 23-268/2018-IA.III (V)]</p>
23.3.4.1	<p>M/s Central Coalfields Limited has made online application vide proposal no. IA/JH/CMIN/74445/2018 dated 13.04.2018 seeking Term of References for the above mentioned proposed project. The proposed project activity is covered under 'A' category of item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level.</p>
23.3.4.2	<p>Details of the project as per the submission of project proponent:</p> <p>1. Details of Project Proponent: Mr. L K Mahapatra Project Officer Giridih-Kabribad Group of Mines Giridih Area</p> <p>2. Details of Project:</p> <p>a) Name of Mineral : - Coal</p> <p>b) Project Area: - 213.54 Ha</p> <p>c) Village, Mandal, district: - (Kabribad OCP is 90.84 Ha, Giridih OCP is 122.70 Ha) Village- Kabribad, Giridih District: Bokaro</p> <p>3. Category of the project: A</p> <p>4. Whether project attracts the General Condition specified in the Schedule of EIA Notification: No</p> <p>5. Details of river/water body- Name of the river/water body /Distance from the project Direction: In Giridih OCP, the Khakho river which originates in the nearby hills flows south of the hill along the boundary. It merges in the Barakar river. In Kabribad OCP, the general flow of the streams is towards south. Most of the streams meet the Barakar river about 10 Kms southwest of Giridih. The small non-perennial nallahs in the area drain off water into Kamaljhore river.</p> <p>6. Details of forest issues: No</p>

	<p>7. Details of Consent to Operate, whether Consent to operate obtained (Yes/No): Yes.</p> <p>8. Mine Capacity in ROM (Run of Mine) 1.3 MTY</p> <p>9. Whether the proposal is mining of Minor minerals project No.</p> <p>10. Whether the proposal is mining of Major minerals project Yes</p> <p>11. No. of Mineral to be Mined with name 1 Coal</p> <p>12. Details of mine lease: Land is transferred under Nationalization</p> <p>13. Details of Violation: It is operating since 1973. It has no previous EC.</p>
23.3.4.3	<p>Observations and recommendations of committee of 17th EAC meeting held on held on, 29-31 January, 2019:</p> <p>Technical presentation was made by the project proponent and informed to the EAC that proposal for Giridih-Kabribad OC Mine involves total area of 213.54 ha. After detailed presentation by PP, EAC noted that total mine area of 213.54 ha is comprises of two mines viz: 1) Kabribad OCP 90.84 Ha & 2) Giridih OCP 122.70 Ha which are almost 9-10 km apart. EAC deferred the proposal and asked the PP to submit revised Form 1 along with Prefeasibility report and other documents separately for two mines i.e for Kabirabad OCP of 90.84 ha& Giridih OCP 122.70 ha</p>
23.3.4.4	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>EAC observed that PP has now submitted the documents related to Kabirabad OCP only over a mining lease area of 169.45 Ha for 1.0 MTPA capacity. Kabirabad OCP has produced 0.297 Mt in 1993-94 and has gone up the 1993-94 production level in the year 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2012-2013, 2013-2014, 2014-2015, 2015-2016, hence violation of EIA Notification. EAC after detailed deliberation on the information submitted, deferred the proposal for want of following information:</p> <ol style="list-style-type: none"> Details of both the mines is to be submitted as suggested in the 17th EAC meeting. Justification for increase in mine lease area of Kabirabad OCP from 90.84 ha to 169.54 ha is to be submitted to Ministry. Violation details of Giridih OCP is to be submitted. Past production details of both the mines is to be submitted.
23.3.5	<p>Arasu Magnesite Mine of lease 96.34 ha (Magnesite 1,14,000 TPA & Dunite 1,13,415 TPA), located at Kurumbapatti RF, Thatayangarpatti Village, Omalur Taluk, Salem District, Tamil Nadu by M/s Tamil Nadu Magnesite Ltd. - Terms of Reference [Proposal No. IA/TN/MIN/74485/2018] [F. No. J-11015/64/2018-IA.II(M)]</p>
23.3.5.1	<p>M/s Tamil Nadu Magnesite Ltd. has made online application vide proposal no. IA/TN/MIN/74485/2018 seeking Environmental Clearance for the above mentioned proposed project. The proposed project activity is covered under item 1(a) of the Schedule to the EIA Notification, 2006.</p>
23.3.5.2	<p>Details of the project as per the submission of project proponent:</p> <p>1. Project description</p>

The Proposal of M/s Tamil Nadu Magnesite Limited is for Mining of Magnesite and Dunite from Arasu Magnesite Mines for Total Peak Proposed Excavation of 26,73,950 Tonnes per annum (TPA)[including 1,24,260 TPA of Magnesite, 1,33,698 TPA of Dunite & 24,15,993 TPA of Waste] from mining lease area over an extent of 96.34 ha. located at Thatheingarpatti Village, Omalur Taluk, Salem District, Tamil Nadu State by M/s. Tamil Nadu Magnesite Limited.

2. Project background

The proposal of M/s Tamil Nadu Magnesite Limited is for peak proposed production of 26,73,950 Tonnes per annum (TPA)(1,24,260 TPA of Magnesite, 1,33,698 TPA of Dunite & 24,15,993 TPA of Waste) from Arasu Magnesite Mines over ML Area- 96.34 Ha, located at Kurumbapatti Reserve Forest at Villages - Thatheingarpatti, Tehsil - Omalur, District - Salem, State – Tamil Nadu. The mining lease is located on Survey of India Topo-sheet No.58I/1&2. The area is bounded between the coordinates Latitude 11°44'46.33" N to 11°45'35.93" N and Longitude 78°08'54.10" E to 78°09'42.87" E.

3. Violation Details & Sectorial EAC/SEAC Comments:

- The Government of Tamil Nadu formed M/s. Tamil Nadu Magnesite Limited popularly known as TANMAG in January 1979 and handed over the area for carrying out mining of Magnesite and Dunite under Raising Contractor Status for and on behalf of Government of Tamil Nadu as per G.O. Ms. No.41, Industries Department, Dated: 10.01.1979.
- 1st Mining Plan Approved (1992-1997) vide letter TN/SLM/MG-13-SZ-MDS Dated: 21.04.1992
- Obtained CTO from TNPCB from 1993 to till date.
 - (Tamil Nadu Pollution Control Board Consent Order No. 1808212176713 Dated: 26.07.2018 & Proceedings No.T2/TNPCB/F.0285SLM/RL/SLM/A/2018 Dated: 26.07.2018 valid upto 31.03.2021)
- Obtained Explosive License for storage and handling as per Explosive Act, 1884 Dated: 28.07.1979 & possess valid license as per Explosive Rules, 2008
- Permission for adopting a system of deep-hole blasting and / or working opencast mines with the help of HEMM obtained under Regulation 106 (2) (b) as per MMR, 1961 vide Memo No.D/A4/6071 Dated: 21.11.1996.
- Meanwhile, The Hon'ble Supreme Court of India in W.P. (Civil) No. 202/95 read with W.P. (Civil) No. 171/96 has pronounced Interim Order on 12.12.1996 and as per the order, all ongoing non-forest activity within the forest land throughout the country without prior approval of the Central Government must cease forthwith as per Section 2 of The Forest (Conservation) Act, 1980.
- In accordance with the Supreme Court Order and as directed by DFO, Salem, vide his letter C. No. D1/9317/97(1), Dated: 30.01.1997, the mining activities were stopped from 19.02.1997.
- Government of Tamil Nadu Letter No. 47060/FRX/92-20, Dated: 13.03.1997 and Ministry of Environment and Forest Letter No. 11.10.97/FC, Dated: 26.03.1997 granted temporary working permission for a period of 6 Months i.e. from 26.03.1997 to 25.09.1997.
- Government of Tamil Nadu vide G.O. (2D) No. 53, Environment and Forest (FRX) Department, Dated: 23.10.1997 and Ministry of Environment and Forest Letter No.8-53/97-FC, Dated: 25.09.1997 granted temporary working permission for a

	<p>further period of 9 Months from 26.09.1997 to 25.06.1998.</p> <ul style="list-style-type: none"> • Obtained Forest Clearance from Ministry of Environment and Forests Dated: 23.06.1998 (Validity – 10 Years) Vide Letter No.8-53/97-FC • 2nd Mining Plan Approved (1998-2002) vide letter TN/SLM/MP/MG-1293/S2 Dated: 29.06.2001 • Government of Tamil Nadu Environment & Forest (FRX) Department granted Mining Lease for a period of 10 Years vide G.O. (Ms.) No.234 Dated: 06/08/1998 • 3rd Mining Plan Approved (2003-2008) vide letter TN/SLM/MG/MS-344/S2 Dated: 28.05.2005 • Renewal of Forest Clearance from Ministry of Environment & Forest Dated: 14.07.2008 (Validity – 20 Years) vide letter 8/53/97-FC • Government of Tamil Nadu Environment and Forests (FR.10) Department granted Renewal of Mining Lease for a period of 20 Years vide G.O.(Ms) No.79, E&F (FR.X) Dated:12.08.2008 • 4th Mining Plan Approved (2008-2013) vide letter TN/SLM/MP/MG-1815-MDS Dated: 05.10.2012 • 5th Mining Plan Approved (2013-2018) vide letter TN/SLM/MG/MS/922-MDS Dated: 16.12.2013 • 6th Mining Plan Approved (2018-2023) vide letter TN/SLM/MG/ROMP/1483-MDS Dated: 04.05.2018 • TANMAG received a letter No. Z-11013/89/2017-IA.II (M) Dated: 12.04.2018 from Advisor, Mining Sector (S), MoEF & CC, New Delhi requesting to close down the mining operations and apply for Environment Clearance under violation category. Arasu Magnesite Mines has closed its mining operations in compliance with directions of MoEF & CC and applied for Environment Clearance. • The project is included in the 23rd EAC meeting (Violation Category) Dated: 25.06.2019 under Agenda No: 23.3.5 <p>4. Application (Form-1 &PFR) Fresh application was made online vide Proposal No. IA/TN/MIN/74485/2018 Dated: 13.04.2018 under violation category for Term of References (ToR) in terms of provision of the Ministry's Notification S.O. 804 (E) and submitted Form-1 and PFR. The proposed project activity is covered under Schedule 1(a) of EIA Notification, 2006 and was a category 'A'. After Ministry's Notification dated 14.08.2018, instant project is now Category B.</p> <p>Details of Minerals: Number of minerals – Two (2) Minerals {Magnesite & Dunite} Whether mineral is major or minor – Magnesite – Major Mineral Dunite – Minor mineral Status of same mineral before 2006 (major or minor) – Both the minerals were Major Mineral as per MMDR Act, 1957</p> <p>5. Letter of Intent (LoI)/Mining Lease details: Government of Tamil Nadu, Environment and Forest Department G.O. (Ms.) No. 234 Dated: 06.08.1998 Ordered– Grant of Lease over an extent of 177.96 Hectares in Forest Land at Kurumbambatti Reserve Forest, Shevaroy's South Range of Salem Division for Mining of Magnesite and Dunite for a period of 10 Years in favour of M/s. Tamil Nadu</p>
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Magnesite Limited executed for 10 (Ten) Years w.e.f. 24.04.2000 and is valid till 05.08.2008

Government of Tamil Nadu, Environment and Forests (FR.10) Department G.O. (Ms.) No. 79 Dated: 12.08.2008, Diversion of 96.34 Hectares of Forest Land – Renewal of lease of forest land for Mining of Magnesite and Dunite in Salem Forest Division, Shevaroy (South) Range, Kurumbambatti Reserve Forest, Salem District and Tamil Nadu State in favour of M/s. Tamil Nadu Magnesite Limited executed for a period of 20 (Twenty) Years w.e.f 05.10.2009 and is valid till 11.08.2028

6. Method of Mining & Mining Plan Details:

➤ The Review of Mining Plan was approved by IBM vide LR No TN/SLM/MG/ROMP-1483.MDS Dated: 07.05.2018. As per which the method of mining shall be opencast mechanized.

- Drill Hole length - 5.5 m
- Diameter of drill hole - 110 mm
- Blasting - Controlled Blasting using Slurry Explosives
- Bench Height and Width - 5 m x 5m
- Ultimate pit limit - 314 m AMSL
- Ultimate pit slope - 60°

➤ Intersection of Ground Water Table if any - **Yes**
(Water Table Level during Summer is 312m AMSL and Rainy Season 325m AMSL {Maximum Elevation – 372m AMSL and Ultimate Pit Limit – 314m AMSL})

➤ Number of Top Soil Dump - 1 Topsoil Dump, extent – 0.12 ha & Capacity 2400 m³

➤ Number of waste/reject dump - 4 Spoil Dumps, extent – 6.135 ha & Capacity

➤ Backfilling Plan if any - Backfilling in northern side of lease area is proposed after

reaching ultimate pit limit

➤ Details of crushers /screen/beneficiation plant if any with capacity and numbers, water requirement for the project, plantation details, and green belt details - No crushers/screen/beneficiation plant

➤ Water requirement for the Project - 75 KLD

➤ Plantation Details - Planted 1,20,000 trees of native species

➤ Greenbelt Details - Area under Greenbelt development 14.16.2 ha

➤ Land use as per mining plan at the end of plan period and at conceptual stage

Sl. No.	Description	End of Plan Period	Conceptual Stage
1	Mining Area	66.51.5	66.51.5
2	Waste Dump	6.13.5	6.13.5
3	Infrastructure & Greenbelt Development area	14.16.2	14.16.2
4	Stock Yard	1.21.8	1.21.8
5	Mine Roads	0.02.5	0.02.5
6	Township Area	0.50.0	0.50.0
7	Others (Explosive Magazine)	7.78.5	7.78.5

	Total	96.34	96.34
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7. **Other Waste Generation, if any:**
Domestic effluent from the mine office will be discharged to septic tank and soak pit. There is no toxic effluent expected to generate in the form of solid liquid and gases and the no requirement of waste treatment.

8. **Land Use(Forest/Agricultural/Waste):**
It is an Reserve Forest Land
Forest Clearance vide letter F.No.8-53/97-FC Dated: 23.06.1998 for 10 years for diversion of 177.96 ha
Renewal of Forest Clearance vide letter F.No.8-53/97-FC Dated: 14.07.2008 for 20 years for diversion of 96.34 ha
Status of Forest Clearance – Valid till 13.07.2028

9. **Details of past production since inception of mine authenticated byDMG**

10. 1. DGM Letter No. Roc No. 267/2018/Mines-A Dated: 14.06.2018

11. **Magnesite Production for the period of 1979 – 1998**

Year	Magnesite Production (in tonnes)
1979-1980	1,05,000.00
1980-1981	1,20,000.00
1981-1982	1,30,000.00
1982-1983	1,04,000.00
1983-1984	1,10,000.00
1984-1985	1,03,000.00
1985-1986	1,29,000.00
1986-1987	1,20,000.00
1987-1988	89,000.00
1988-1989	1,23,000.00
1989-1990	1,05,500.00
1990-1991	1,10,000.00
1991-1992	1,03,000.00
1992-1993	90,000.00
1993-1994	62,000.00
1994-1995	60,000.00
1995-1996	74,000.00
1996-1997	77,000.00
1997-1998	71,800.00

2. DFO (Salem Forest Division) Letter No. C.No.3218/2019/D1 Dated: 18.06.2018

Magnesite Production for the period of 1998 –2019

Year	Magnesite Production (in tonnes)
1998-1999	43,266.80
1999-2000	69,463.66
2000-2001	78,300.97
2001-2002	62,545.43
2002-2003	50,402.47

2003-2004	64,931.75
2004-2005	1,13,467.38
2005-2006	1,18,255.06
2006-2007	1,06,866.26
2007-2008	1,21,254.24
2008-2009	1,17,260.87
2009-2010	1,27,274.76
2010-2011	98,327.11
2011-2012	1,07,586.68
2012-2013	1,07,899.63
2013-2014	84,050.28
2014-2015	1,39,396.20
2015-2016	1,07,119.09
2016-2017	76,264.70
2017-2018	86,394.85
2018-2019 (Upto 14.04.2018)	6549.87

3. DGM Letter No. Roc No. 267/2018/Mines-A Dated: 26.06.2018

Dunite Production for the period of 1992 – 1998

Year	Dunite Production (in tonnes)
1992-1993	230.00
1993-1994	1,770.00
1994-1995	4,760.00
1995-1996	6,050.00
1996-1997	4,050.00
1997-1998	3,550.00

4. DFO (Salem Forest Division) Letter No. C.No.3218/2019/D1 Dated: 18.06.2018

Dunite Production for the period of 1992 – 1998

Year	Dunite Production (in tonnes)
1998-1999	2392.93
1999-2000	5759.00
2000-2001	3441.00
2001-2002	3237.50
2002-2003	2612.75
2003-2004	830.00
2004-2005	3767.25
2005-2006	12,416.03
2006-2007	16,146.70
2007-2008	22,212.3
2008-2009	16,630.91

2009-2010	20,662.23
2010-2011	16,446.46
2011-2012	30,186.31
2012-2013	61,490.83
2013-2014	53,053.14
2014-2015	33,326.56
2015-2016	28,471.76
2016-2017	57,549.50
2017-2018	1,11,248.39
2018-2019 (Upto 14.04.2018)	5,957.96

12. Applicability of General Condition & Status of SEIAA:

No Interstate Boundary & Western Ghats Boundary within the radius of 10km

No National Park & Wild Life Sanctuary within the radius of 10km

No critically polluted area as notified by the Central Pollution Control Board constituted under Water (Prevention and Control of Pollution) Act 1974 within the radius of 10km

No Eco Sensitive Zone & Eco Sensitive Area within the radius of 10km

13. Aravalli/Doon Valley/ Western Ghats/Eco-Sensitive area –

The project doesn't come under Aravalli / Doon Valley

No Western Ghats Boundary within the radius of 10km

No Eco Sensitive Zone & Eco Sensitive Area within the radius of 10km

14. Project Cost & Employment –

Project Cost –

Sl. No	Particulars	Cost in Rs
1	Leasehold Land	6,17,31,200
2	Infrastructure	39,35,218
3	Machineries	2,59,56,470
4	Environmental Control Equipment	3,47,690
5	Mine First Aid	3,552
6	Water Tank & Pipelines	3,27,485
Total		9,23,01,615

Employment –

Activity	No. of Manpower
Managerial and Administrative	7
Supervisory	12
Skilled, Semiskilled and Unskilled Worker	
(1) Drilling	30

		(2) Blasting	18	
		(3) Removal of ROM	42	
		(4) Sorting	303	
		(5) Dumping	41	
		(6) Stacking & Transportation of Mineral	47	
		Security Services	36	
		TOTAL	536	
23.3.5.3	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>i. The project representative appeared before the committee without proper authorization from the project proponent without clarity that he will take all the decisions was not in order. Hence PP was advised to submit proper authorization letter.</p> <p>ii. PP has to submit the details of application submitted to the SEIAA along with copies of SEAC minutes of meeting.</p> <p>The EAC therefore deferred the proposal for want of above information.</p>			
<p>Day 2: 26th June, 2019</p> <p>Time: 10:00 AM</p>				
23.4.1	<p>Kaswa Ki Dhani Limestone Mine of M/s Special Limestone Pvt. Ltd. for mining of limestone (minor mineral) with production capacity of 0.45 MTPA in M.L. Area of 93.04 ha located at Village Kaswa Ki Dhani, Tehsil Merta, District Nagaur (Rajasthan) - Terms of Reference [Proposal No. IA/RJ/MIN/65145/2017] [F. No. J-11015/70/2017-IA.II (M)]</p>			
23.4.1.1	Project proponent did not attend the meeting.			
23.4.2	<p>Sarah Kishnayath Ball Clay, Fire Clay, Red & Yellow Ochre Mine lease of M/s Deepak Mineral Industries for enhancement of production capacity from 20,000 TPA to 3,00,000 TPA (ROM) in the mining lease area 69.59 ha, located near Village Sarah Kishnayath, Tehsil Kolayat, District Bikaner, Rajasthan - Terms of Reference [Proposal No. IA/RJ/MIN/71765/2017] [F. No. J-11015/19/2018-IA.II(M)]</p>			
23.4.2.1	Project proponent did not attend the meeting.			
23.4.3	<p>Silica Sand & Masonary stone mining along with Processing, Crushing, Sizing, Grinding, Washing and beneficiation with proposed production capacity of 79,00,000 TPA (ROM) by M/s Shivalik Silica, located near Village Agawali, Tehsil Bayana, District Bharatpur, Rajasthan (MLA 49.56 Ha & ML No. 2/93) - Terms of Reference [Proposal No. IA/RJ/MIN/73413/2018] [F. No. J-11015/50/2018-IA.II (M)]</p>			
23.4.3.1	Project proponent did not attend the meeting.			
23.4.4	<p>Mining and mineral separation of mineral in Block-III of M/s Kerala Minerals and Metals Ltd., located Villages Panmana & Chavara, Taluk Karungapally, District Kollam, Kerala (M.L. Area 88.119 ha) - Terms of Reference [F. No. J-11015/245/2014-IA.II (M)]</p>			
23.4.4.1	Project proponent did not attend the meeting.			

23.4.5	Belkundi Iron & Manganese Mines (M.L. Area 1276.79 Ha) for enhancement of Iron ore production to 1.8 MTPA and Manganese ore to 0.3 MTPA at Villages Belkundi, Nalda, Karakolha, Karkhendra, Uliburu, Tehsil Barbil, District Keonjhar, odisha by M/s Orissa Mineral Development Company Ltd. - Further considceration for Terms of Reference [Old Proposal No. IA/OR/MIN/68062/2008 dated 07.09.2017] [F. No. 23-204/2018-IA.III (V)]												
23.4.5.1	M/s Orissa Mineral Development Company Ltd. has made online application vide proposal no. IA/OR/MIN/68062/2008 dated 07.09.2017 seeking Term of References for the above mentioned proposed project. The proposed project activity is covered under ‘A’ category of item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level.												
23.4.5.2	Details of the project as per the submission of project proponent: 1. Project description Belkundi Iron and Manganese Ore Mining Lease is spread over 1276.790 ha in Barbil Tehsil of Keonjhar District of Odisha. The lease area is located adjacent to the Odisha – Jharkhand interstate boundary. The mine is spread over Uliburu Reserve Forest, Khesra Forest and Villages: Belkundi, Nalda, Karakolha, Kharkendra, Uliburu&Barbil.Belkundi Iron and Manganese Mine is one of the oldest operating mines of The Orissa Minerals Development Company Ltd 2. Project Background Belkundi Mine is an open cast iron and manganese ore mine located on the outskirts of Barbil town in Keonjhar District of Odisha. The lease area is spread over 1276.790 ha, which comprises of Forest Land and Non-Forest Land. The mine is closed since 2009 for want of Forestry and Environmental clearances. The maximum annual production of iron ore prior to 1994 was 88257.059 t whereas after 1994 the same was 701550 t. 3. Category of the Project (Refer cluster certificate if applicable) The said project/activity is covered under category-A of item 1(a) (i) of the Schedule to the EIA Notification, 2006 as amended, and requires prior EC from the MoEF&CC/SEIAA based on the appraisal by Expert Appraisal Committee or the State Expert Appraisal Committee in different States/UTs. 4. Violation Details & Sectorial EAC/SEAC Comments: The EAC Committee noted that it is a violation case as the PP started production of Iron Ore without obtaining requisite prior Environment Clearance. The mine operation was closed since 2009. [Chronological submission of all the events with recommendation of the committee]. <table><tr><th>Sl. No.</th><th>Date</th><th>Letter No.</th><th>Description</th></tr><tr><td>1.</td><td>04.06.2008</td><td>Letter No. OMD/L-10/1426</td><td>OMDC submitted Form 1 for approval of Terms of Reference(TOR) for Rapid EIA/EMP</td></tr><tr><td>2.</td><td>24.03.2009</td><td>Letter No. J-11015/287/2008-IA-II(M)</td><td>MoEF prescribed TOR in meeting held on 17-19 Feb, 2009</td></tr></table>	Sl. No.	Date	Letter No.	Description	1.	04.06.2008	Letter No. OMD/L-10/1426	OMDC submitted Form 1 for approval of Terms of Reference(TOR) for Rapid EIA/EMP	2.	24.03.2009	Letter No. J-11015/287/2008-IA-II(M)	MoEF prescribed TOR in meeting held on 17-19 Feb, 2009
Sl. No.	Date	Letter No.	Description										
1.	04.06.2008	Letter No. OMD/L-10/1426	OMDC submitted Form 1 for approval of Terms of Reference(TOR) for Rapid EIA/EMP										
2.	24.03.2009	Letter No. J-11015/287/2008-IA-II(M)	MoEF prescribed TOR in meeting held on 17-19 Feb, 2009										

3.	02.03.2010	Letter No.- Nil	OMDC submitted REIA/EMP report to SPCB, Odisha and requested to make necessary arrangements for conducting Public Hearing
4.	25.02.2011		Conductance of Public Hearing
5.	11.03.2011	Letter No. 365	Regional Officer OSPCB submitted the proceedings of Public Hearing held on 25.02.2011 to Member Secretary OSPCB
6.	28.03.2011	Letter No. 5232/IND-II-PH-412	Member Secretary Forwarded Proceedings of Public Hearing to Secretary MoEF, New Delhi
7.	08.12.2011	Letter No. OMDC/BB SR/EC/(BE L)-201	As per direction of MoEF OMDC submitted EIA & EMP
8.	24.01.2012		EAC Meeting at New Delhi
9.	25-27 /07/2012		Final Presentation
10.			Recommendation by EAC subject to Stage-I Forest Clearance.
11.	30/01/2019		17thEAC Meeting at New Delhi
12.	March, 2019		Minutes of 17thmeeting of Expert Appraisal Committee for the proposal involving violation of EIA Notification, 2006 to be held on 29-31 January, 2019.
13.	23 April, 2019	Letter No. G&E/32	Query replies submit.

5. Application (Form-1 &PFR)

Fresh application was made and submit with Query reply on 23 April, 2019

6. Details of Minerals:

Number of minerals. Whether mineral is major or minor. Status of same mineral before 2006 (major or minor): Two Major minerals named Iron & Manganese.

7. Letter of Intent (LoI)/Mining LeaseDetails:

Date	Lease status	Period	Remarks
16.08.1926 (Date of Execution)	The original lease deed was executed for 30 years in name of Bird & Co.	16.08.1926-15.08.1956	Granted
17.07.1984 (Date of Execution)	The 1st lease Renewal of mining lease (RML) was executed for 30 years	16.08.1956-15.08.1986	Renewal
12.11.2002	The 2nd RML was executed for 20 years	16.08.1986-15.08.2006	Renewal

(Date of Execution)			
12.08.2005 (Date of Application)	The 3rd RML was applied	20 years w.e.f. 1 6.08.2006	As per Rule 3(2) of Mining Rule 2015

8. Valid Lease Document:

The following documents in support of the validity of OMDC leases:

- (i) Letter from Indian Bureau of Mines, Bhubaneswar, addressed to Director of Mines, Govt. of Odisha dated 07.01.2019 “requesting to communicate the present status of **Belkundi Iron Ore & Manganese Lease** of OMDC” (Copy enclosed at Annexure-I).
- (ii) Reply from Director of Mines, Govt. of Odisha vide letter dated 08.02.2019 wherein it is mentioned that “Mining Lease can be treated as SUBSISTING” (Copy enclosed at Annexure-II).
- (iii) Based on the letter received from Director of Mines, Govt. of Odisha, dated 08.02.2019 “*Mining Plans were approved by Indian Bureau of Mines for Belkundi Iron & Manganese Lease, Bhubaneswar letter No- MPM/OTFM/31- ORI/BHU/2018-19 dated 19.02.2019*” (Copy enclosed at Annexure-III).
- (iv) The tripartite meeting with Govt. of Odisha was held on 15.02.2019. In the minutes of meeting issued on 16.03.2019 it is stated that:
“OMDC to submit a detail proposal including company profile, steps taken for resumption of its mining leases along with their payment plan for consideration of the State Government on further course of action. After receipt of these details from the OMDC, the matter shall be processed in the Department for further action” (Copy enclosed at Annexure-IV).
- (v) Accordingly OMDC has made part payments towards compensation to the Govt. of Odisha and submitted detail resumption proposal to Govt. of Odisha on 25.03.2019. (Copy enclosed at Annexure-V)

9. Method of Mining & Mining Plan Details:

- Belkundi is an open cast mine, where mining is carried out by drilling, blasting followed by excavation of loosened material by hydraulic shovels and loading them onto tipper trucks.
- The height & width of benches in case of iron ore mines will be 6m & 10m respectively in order to ensure the safety in the mining operations. Similarly, the height & width of the benches in case of Manganese ore will be 6m & 10 m respectively.
- This Belkundi mining project is working for both iron as well as manganese ore which is planned to mine out iron ore @1.8Mt/annum and manganese ore @0.3Mt/annum with the deployment of heavy earthmoving machines on single shift basis while manganese ore will be worked manually on single shift basis.
- Loosening of the hard rock mass will be effected by the blasting of jack-hammer as well as DTH drilled holes. Shovels of 0.9 m³ capacity will be utilized for excavation & loading of blasted rocks. Rear dump trucks of 10t to 20t capacity will be used for transportation of ore and waste.

10. Other Waste Generation, if any:**11. Iron Ore:-**

Year	Pit No.	Total Tentative Excavation (MT)(ROM)	Top Soil(Cum)	OB/SB/IB (Cum)	ROM/Waste Ratio
2019-20	Bottom West & Dadu Pit	1821012	0	250096	0.014
2020-21	Bottom West & Dadu Pit	1843030	0	253120	0.014
	Total	3664042	0	503216	

12. Manganese Ore:-

Year	Pit No.	Total Tentative Excavation (MT)	Top Soil(Cum)	OB/SB/IB (Cum)	ROM/Waste Ratio
2019-20	Hesaburu Quarry	21659	0	18378	0.85
	Club Pit	61093	0	51836	0.85
	Lunda Bhata	150196	0	127439	0.85
	Saiburu & Kusum Pit	76662	0	65046	0.85
	Sub-Total	309610	0	262699	0.85
201920	Hesaburu Quarry	20625	0	17500	0.85
	Club Pit	53625	0	45500	0.85
	Lunda Bhata	158400	0	134400	0.85
	Saiburu & Kusum Pit	68145	0	57820	0.85
	Sub-Total	300795	0	255220	0.85
Grand Total		610405	0	1035838	

13. Land Use(Forest/Agricultural/Waste):**Legal Status:**

R.F. - 182.556Ha

K.F. - 265.720Ha

Govt. Land - 341.331Ha

Tenant Land -487.183Ha

Forest Clearance:-

- It is to submit that Stage II is granted on Dt.26.02.1998 vide letter No.8-88/96-FC over an area 384.54 Ha excluding Safety zone forest Area which was valid up to Dt.14.08.2006. As per Rule, one year before expiry of Lease, Diversion of forest clearance proposal was applied (Copy enclosed).
- As per MoEF guide line, Diversion of forest proposal was applied for the entire forest area of 448.276 Ha. The proposal has been scrutinized by DFO, RCCF and presently

with PCCF, Govt. of Odisha.

- As per Circular No.11-232/2014-FC(PT) Dtd 24.07.2014 of MoEFCC, online application is not required for the said project as the proposal has been applied before the said notification.
- However online application has been made under section 2(III) of FC Act 1980 bearing No. FP/OR/MIN/23300/2016 on Dt.27/12/2016 (copy enclosed).
- As per circular No.11-51/2015-FC Dt. 01.04.2015, FC granted on Dt.26.02.1998 for the said lease by MoEFCC is extended up to a period coterminous with the period of Mining Lease in accordance with the provision of the MMDR Act 1957 as amended.

Proposed Core Zone Land Use Pattern (Area in hectares)

Sr. No.	Type of land use	As at present (ha)	As at the end of scheme period (ha)	As at the end of Conceptual period (life of mine) (ha)
1	Area under excavation	142.854	178.854	477.079
2	Storage for Topsoil		0	
3	Overburden dump	31.08	36.3298	92.058
4	Mineral Storage	9.243	15.532	34.049
5	Infrastructure (office, rest shelter, hutting, blasting shelter etc.)	24.366	24.366	58.343
6	Road	9.905	9.905	9.905
7	Railways	3.124	3.124	3.124
8	Green belt (safety zone)	0	5	25
9	Tailing Pond	0	0	0
10	Effluent Treatment Plant	0	0	0
11	Mineral Separation Plant	0	0	0
12	Township area	0	0	0
13	Others (State Highway)	6.618	6.618	6.618
	Sub- Total	227.19	279.7288	706.176
14	Un-Disturbed Area	1049.6	997.0612	570.614
	Grand Total	1276.79	1276.79	1276.79

14. Details of past production since inception of mine authenticated by DMG

PRODUCTION FIGURE OF BELKUNDI IRON & MN. MINES OF M/S.OMDC. LTD. FOR THE PERIOD FROM 1992 TO 2017-2018.

Year	Production in MT	
	Iron ore	Manganese ore
1992	68115.500	33893.000
1993	28877.300	45831.229
1994	3695.000	107689.937
1995-96	9684.86	102641.886
1996-97	0	46164.251
1997-98	0	28391.400
1998-99	0	31285.000
1999-00	18185.000	31630.000
2000-01	8828.000	52820.000
2001-02	33135.000	31505.000
2002-03	260714.000	34035.000
2003-04	701550.000	17090.000
2004-05	438512.000	5555.000
2005-06	289140.000	2255.000
2006-07	223500.000	7285.000
2007-08	0	20367.000
2008-09	0	7556.000
2009-10	0	4800.000
2010-11	0	0
2011-12	0	0
2012-13	0	0
2013-14	0	0
2014-15	0	0
2015-16	0	0
2016-17	0	0
2017-18	0	0

Memo No. 474/Mines, Dtd. 20.02.19

Copy to M/S.OMDC. Ltd., Belkundi Iron & Mn. Mines for information and necessary action with reference to their letter No. OMD/Mines/07/2019 Dt.19.09.2018. The above figures are hereby provided to produce before the Environmental Appraisal Committee to obtain Environmental Clearance.

476 20.2.19
Deputy Director Mines,
Joda Circle, Dist. Keonjhar.

15. Applicability of General Condition & Status of SEIAA:

There is no location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed) within 10 km of the mine lease.

The site specific Wild Life Management Plan is also prepared by PP and approved by PCCF(Wild Life),Govt. of Orissa vide letter no-7495/1WL(C)SSP-266/2012 dated 30.09.2014

15. Aravalli/Doon Valley/ Western Ghats/Eco-Sensitive area: Not Applicable

	<p>16. Project Cost & Employment:</p> <ul style="list-style-type: none"> • Total Project Cost : Rs. 121.08 Crores. • Belkundi mine will employ 755 persons, majority of whom will be local villagers. • Economic development package under different heads (example: education, skill development, health care, road network etc.) as per CER policy of the company. • Budget details will be as per approval of Board of Directors of Company for planning of mining activities with respect to safety and environment quality sustenance, execution of mining activity as per mining plan, preservation of biodiversity and awareness program etc.]
23.4.5.3	<p>Observations and recommendations of committee of 17th EAC meeting held on 29-31 January, 2019:</p> <p>The EAC observed that PP has not submitted information in Annexures as per the format mentioned in the Agenda. PP made a detailed presentation before the EAC, EAC after detailed deliberation defer the proposal for want of submission of following information:</p> <ol style="list-style-type: none"> 1. Valid mine lease document. 2. Production details since inception of mine from state DMG. 3. Validity of Forest Clearance. 4. Details on R&R. 5. Land use break up details. 6. Details of any litigations against the project.
23.4.5.4	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>PP along with the consultant made the detailed presentation before the EAC. EAC after detailed deliberation deferred the proposal for want of following information:</p> <ol style="list-style-type: none"> i. Valid mining lease to be require for further consideration of the project. ii. Discrepancies observed in land use details and forest clearance letter regarding forest land. Hence revised land use details to be submitted.
23.4.6	<p>Bagiaboru Iron Ore Mines (M.L. Area 21.52 Ha) for increase in Iron production up to 0.36 MTPA at Barbil, District Keonjhar, Odisha by M/s Orissa Mineral Development Company Ltd. - Further consideration for Terms of Reference.</p> <p>[Old Proposal No. IA/OR/MIN/68064/2008 dated 07.09.2017] [F. No. 23- 205/2018-IA.III (V)]</p>
23.4.6.1	<p>M/s Orissa Mineral Development Company Ltd. has made online application vide proposal no. IA/OR/MIN/68064/2008 dated 07.09.2017 seeking Term of References for the above mentioned proposed project. The proposed project activity is covered under 'item 1(a) of the Schedule to the EIA Notification, 2006 and the proposal was appraised at Central level because of interstate boundary within 5 km.</p>

23.4.6.2

Details of the project as per the submission of project proponent:

1. Project description

The Proposal of M/s Orissa Mineral Development Company is for Mining of Iron Ore from -Bagiaburu Iron Ore Mines for increase in Iron production up to 0.36 MTPA from mining lease area (21.52 Ha) located at Barbil, Dist: Keonjhar, Odisha.

2. Project Background

The proposal of M/s Orissa Mineral Development Company is for the proposed production of 0.36 MTPA of Iron Ore from -Bagiaburu Iron Ore Mines - (ML Area 21.52 Ha,) at Barbil, Dist: Keonjhar, Odisha. The mining lease is located on Survey of India Topo-sheet no.73F/8. The area is bounded between the coordinates 22°07'52.417" N to 22°08'20.973" N and longitudes 85°23'02.099" E to 85°23'26.266" E.

3. Category of the Project (Refer cluster certificate if applicable)

The said project/activity is covered under category-A of item 1(a) (i) of the Schedule to the EIA Notification, 2006 as amended, and requires prior EC from the MoEF&CC/SEIAA based on the appraisal by Expert Appraisal Committee or the State Expert Appraisal Committee in different States/UTs.

4. Violation Details & Sectorial EAC/SEAC Comments:

It is a violation case as the PP started production of Iron Ore from 2000-2001 to 2010-2011 without obtaining requisite prior Environment Clearance. The mine operation was closed since 2011-2012.

Sl. No.	Date	Letter No.	Subject Brief
1.1	04.06.2008	Letter No. OMD/L-10/1422	OMDC submitted application in Form 1 for approval of Terms of Reference (TOR) for Rapid EIA/EMP
1.2	07/07/2009	Letter No.-25/SEAC-9	MoEF prescribed TOR in meeting held on May 13-14, 2009
1.3	25/02/2011		Public Hearing conducted
1.4	10/09/2011	Letter No-OMD/L-10/1306	OMDC submitted of EIA/EMP report and requisite fee of Rs2,00,000/-
1.5	17/11/2011	Letter No-632/SEIAA-107/11	SEIAA recommended for grant of EC subject to submission of Stage-I forest clearance within

			12(twelve) Months.	
1.6	05/11/2012	OMDC letter No-OMDC/G&E/2012/11	OMDC request for extension of time period for another six month for submission of Stage-I Forest Clearance.	
1.7	22/11/2012	Letter No-288/SEIAA	SEIAA approved Extension of time period for another six month for submission of stage-I clearance.	
1.8	26/11/2013	Letter No-OMDC/BH/EC/Bagiaburu/177	OMDC submitted Stage-I Forest Clearance and request for grant EC.	
1.9	17/12/2013	Ref. No. OMDC/G&E/2013/461	OMDC requested Director, Spl. Secretary, Forest & Environment, Govt. of Odisha for issuance of EC.	
1.10	19/12/2013	No-8740/SEIAA	SEIAA asked for submission the stage-I Forest clearance with fresh application	
1.11	06/01/2014	Ref. No.OMDC/BH/EC/Bagiaburu/2013-14/217	OMDC submitted Fresh application in Form-1 and stage-I Forest Clearance.	
1.12	29/04/2014	No.319/SEAC-(Misc)-02	SEIAA intimated for presentation meeting on dt.14/05/2014	
1.13	12/06/2014	No.384/SEAC-09 (pt.)	SEAC intimated Member Secretary SEIAA to apply afresh to MoEF by OMDC.	
1.14	03/07/2014	No-1544/SEIAA	Member Secretary transferred the case to MoEF, GOI.	
1.15	05.09.17	OMDC/B.H/2017-18/3786 dated 05/09/2017	Application made in violation category	

5. Application (Form-1 &PFR)

Application was made and submit with Query reply on 23 April, 2019

6. Details of Minerals:

Number of minerals. Whether mineral is major or minor. Status of same mineral before 2006 (major or minor): Two Major minerals named Iron & Manganese.

7. Letter of Intent (LoI)/Mining Lease details:

The Bagiaburu Mine Lease of “The Orissa Minerals Development Company Limited” (OMDC Ltd) is spread over an area of 21.52 hectares in Keonjhar District of Odisha State. The Bagiaburu lease was executed in favour of M/s OMDC on dated 11.10.1971 with effect from 11.10.1971 to 30.09.1980. Subsequently Bagiaburu lease (2nd renewal) was executed in favour of M/s OMDC. The third renewal application is filed on 10.08.09 for a period of 20 years for the period from 01.10.2010 to 30. 09.2030.

8. Method of Mining & Mining Plan Details:

- Open cast mechanized method of mining will be adopted for production of iron ore by deploying 32mm dia jack Hammer, 100mm DTH drill, 0.9m³ capacity shovel, and 10T capacity tipper.
- Loosening of the hard rock mass will be effected through drilling and blasting. Blasting will be done by charging of the shot/blast holes drilled either in single or multi rows on staggered pattern. 0.9m³ capacity excavators is/will be used for excavation & loading of the blasted materials in to 10t capacity tippers which will unload it into the hopper of the 60tph capacity crusher unit. Sized materials obtained will be dispatched directly to the consuming industries after resorting to communication/breaking & sizing in a crushing plant and blending.
- Height and width of the benches will be kept at 6 m each. The individual bench faces will be kept nearly vertical (750 – 850) whereas the overall quarry slope angle (the angle between the line joining the toe of bottom bench and the crest of the top bench with the horizontal) is proposed to be maintained at around 450 with the horizontal.

9. Other Waste Generation, if any:**Iron Ore:-**

Year	Pit No.	OB/SB/IB (Cum)	ROM/Waste Ratio
2019-20	South Quarry	8415	0.11
	North Quarry	3610	0.11

	Total	12025	
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10. Land Use(Forest/Agricultural/Waste):

Land Use details:-

Forest (Specify)	Area, Ha)
Reserve Forest (RF)	21.52
Total	21.52

The forest clearance was issued vide MoEF letter no 8-236/96-FC dated 26.02.1998 for a period of 20 years co-terminus with Lease under MMDR Act 1957 and with effect from the date of expiry of previous lease. Stage I FC granted vide letter No-5-ORC164/2013-BHU dated 21.11.2013

Proposed Core Zone Land Use Pattern (Area in hectares)

Sr. No.	Type of land use	As at present (in ha)	As at the end of plan period (in ha)	As at the end of conceptual period (life of mine) (in ha)
1	Area under excavation	3.514	0.3492	15.757
2	Storage for Topsoil	---	---	---
3	Overburden / Reclamation/dump	2.073	0.8779	3.656
4	Mineral Storage	---	---	--
5	Infrastructure (Rest shed, blasting shelter, hutting etc.)	0.000	0.000	0.000
6	Road	0.410	0.0	0.670
7	Railways	---	---	----
8	Green belt	---	---	----
9	Tailing Pond	---	----	----
10	Effluent Treatment Plant	---	----	----
11	Mineral Separation Plant	0.000	----	----
12	Township area	---	----	----
13	Others	---	----	----

	Sub-total	5.997	1.2271	19.413
14	Area which remains untouched	15.523	20.2929	2.107
15	Lease area	21.52	21.52	21.52

11. Details of past production since inception of mine authenticated by DMG

PRODUCTION FIGURE OF BAGIABURU IRON MINES OF M/S.OMDC. LTD. FOR THE PERIOD FROM 1992 TO 2017-2018 AS PER THE RECORD FOUND AVAILABLE.

Year	Production in MT
1992	547.000
1993	Not readily found available
1994	30.000
1995 to 2000	No production.
2000-01	2000.000
2001-02	4395.000
2002-03	45571.000
2003-04	5500.000
2004-05	65500.000
2005-06	5000.000
2006-07	17835.000
2007-08	28450.000
2008-09	5000.000
2009-10	67100.000
2010-11	6350.000
2011-12	0
2012-13	0
2013-14	0
2014-15	0
2015-16	0
2016-17	0
2017-18	0

Memo No. 496 / Mines, Dtd. 22.02.19

Copy to M/S.OMDC. Ltd., Bagiaburu Iron Mines for information and necessary action with reference to their letter No. OMD/Mines/07/2019 Dt.19.09.2018. The above figures are hereby provided to produce before the Environmental Appraisal Committee to obtain Environmental Clearance.

Deputy Director Mines,
Joda Circle, Dist.Keonjhar.
Joda, Dist-Keonjhar

12. Applicability of General Condition & Status of SEIAA:

- There is no location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed) within 10 km of the mine lease.
- The Site-specific wild life management plan is approved by PCCF (Wild Life), Govt. of Orissa vide letter no-854/1WL(C) SSP-282/2010 dated 05.02.2011.

13. Aravalli/Doon Valley/ Western Ghats/Eco-Sensitive area:

Not Applicable

14. Project Cost &Employment:

Total Project Cost: Rs. 11Crores.

Belkundi mine will employ 250 persons, majority of whom will be local villagers.

Economic development package under different heads (example:

	education, skill development, health care, road network etc.)
23.4.6.3	<p>Observations and recommendations of committee of 11th EAC meeting held on held on, 31st July - 2nd August 2018:</p> <p>Project proponent did not attend the meeting.</p>
23.4.6.4	<p>Observations and recommendations of committee of 17th EAC meeting held on held on, 29-31 January, 2019:</p> <p>The EAC observed that PP has not submitted information in Annexures as per the format mentioned in the Agenda. PP made a detailed presentation before the EAC, EAC after detailed deliberation <i>deferred</i> the proposal for want of submission of following information:</p> <ul style="list-style-type: none"> (i) Valid mine lease document. (ii) Production details since inception of mine. (iii) Validity of forest Clearance. (iv) Submission of details chronology about the project.
23.4.6.5	<p>Observations and recommendations of committee in the present EAC meeting held on 25th -26th, June 2019:</p> <p>PP along with consultant made the detailed presentation, EAC observed that PP started production of Iron Ore from 2000-2001 to 2010-2011 without obtaining requisite prior Environment Clearance. As per the past production details submitted, the mine operation was closed since 2011-2012.</p> <p>The EAC, after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and recommended for issuing Standard Term of Reference along with the following specific Term of Reference and additional specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure I for undertaking EIA and preparation of Environmental Management Plan (EMP):</p> <ul style="list-style-type: none"> (i) The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC. (ii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority. (iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory

	<p>of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.</p> <ul style="list-style-type: none"> (iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation. (v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants. (vi) The PP is required to conduct public hearing as per EIA notification, 2006. (vii) One season fresh base line data to be generated for EIA/EMP preparation (viii) To submit the lease sketch approved by DMG, at the time of presentation before EAC (ix) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report. (x) DGMS permission for blasting at project site. (xi) Detailed hydrological study to be carried out in core and buffer zone of the project as per the recent GEC guidelines 2015. (xii) Forest Clearance status is to be submitted. (xiii) Submit the details of safety zone in the EIA/EMP report.
23.5	Any other agenda with permission of chair
23.5.1	<p>Proposed expansion of M/s Shogun Organics Ltd at Plot No. D-18, MIDC Kurkumbh, Taluka Daund, District Pune (Maharashtra) by M/s Shogun Organics Limited - Further discussion for Environmental Clearance</p> <p>1. During the appraisal, it was observed that profit made during the violation was Rs 786.25 lakhs. As per the decision of the committee, organization which had entered into violation must paid part of the profit towards remediation plan, natural and community resource augmentation. The Committee observed that PP has submitted Remediation plan and Natural and Community Resource Augmentation plan of Rs 52,05,000/-. However, economic benefit accrued during violation period as submitted by PP during presentation, the net profit is Rs. 786.25 lakhs. Hence EAC recommended an additional cost Rs. of 25.00 lakhs to be invested by PP towards Remediation plan and Natural and Community Resource Augmentation plan.</p> <p>PP submitted the remediation, natural and community resource augmentation plan of Rs 77,05,000/- including an additional amount of Rs 25,00,000 recommended by</p>

the committee and same was approved by the committee. The details are given below:

Cost of Remediation plan

Sr. No	Component	Measures to be taken	Funds allocated (INR)
1	Air Pollution	Plantation of 1000 trees @ 375 per tree in downward direction of MIDC Kurkumbh before Kurkumbh and Pandharewadi village and its maintenance for 1 year.	3,75,000
		Organising one Health checkup for people in Firangai Devi Nagar	2,00,000
		Six monthly Ambient Air Monitoring at Kurkumbh village and Pandharewadi villages for 3 years (6 locations) @ 6660 per monitoring x 18 nos.	1,20,000
		Plantation of 350 and 270 trees to be done near Patas and Kurkumbh villages along the NH-65 respectively on both sides and maintenance for 1 year @ 403 per tree x 620 trees	2,50,000
		Total cost of remediation plan for air pollution (INR)	9,45,000
2	Water Pollution	Construction of one settling tank of 3 m x 3 m x 2 m for a stream joining the nalla in Kurkumbh village to prevent flow of debris.	40,000
		Above ground 15 KL rain water harvesting tanks will be provided to Kurkumbh primary school	2,20,000
		Above ground 8 KL rain water harvesting tanks will be provided to Patas school	1,10,000
		Construction of check bund of 4.5 m (W) x 1.5 m (D) over a nalla in Kurkumbh	3,50,000
		Construction of check bund of 3.5 m (W) x 1.5 m (D) over a nalla in Pandharewadi	3,50,000
		Restoration of 3 nos. of degraded wells in Kurkumbh and Pandharewadi area @ 50,000 each	1,50,000
			12,20,000

		Total cost of remediation plan for water pollution	
3	Soil Pollution	Soil remediation in a barren stretch of agricultural land of 3698 sq. m. in the south direction of the plot	3,70,000
4	Occupational Health	Organising two Medical checkups in Kurkumbh and Pandharewadi villages each. Membership of Rotary Club of Kurkumbh for a period of 20 years.	4,00,000 2,50,000
5	Noise Pollution	Plantations of 175 trees at Talati/Panchayat Office of villages of Pandharewadi and Kurkumbh @ 400 each	70,000
6	Ecology and Biodiversity	Plantation of 600 fruit bearing native trees to be planted in the amenity spaces of the MIDC to attract birds and butterflies and maintenance of the same for 1 year. @ 333 Rs per tree.	2,00,000
Total (INR)			34,55,000

Year wise break up of remediation plan

Sr. No	Component	1 st year	2 nd year	3 rd year	Total (Cost in INR)
1	Air Pollution	3,65,000	3,65,000/-	2,15,000/	9,45,000
2	Water Pollution	3,90,000/-	3,70,000/-	4,60,000	12,20,000
3	Soil Pollution	-	-	3,70,000	3,70,000
4	Occupational Health	2,50,000	2,00,000	2,00,000	6,50,000
5	Noise Pollution	-	70,000	-	70,000
6	Ecology and Biodiversity	1,00,000	1,00,000	-	2,00,000
7	Total (INR)	11,05,000	11,05,000	12,45,000	34, 55,000

Year wise breakup of Natural Resource Augmentation plan and Budgetary Allocation

Natural Resource Augmentation plan and Budgetary Allocation					
Sr. No	Activity	1st Year	2nd Year	3rd year	Total (INR)
1.	Provision of 40 nos. of solar street lights in Kurkumbh and Pandharewadi village @ 25000 per street light.	3,50,000	3,00,000	3,50,000	10,00,000
2.	Maintenance of village roads in nearby villages	1,00,000	1,00,000	1,00,000	3,00,000
3.	Funds will be given to Maharashtra Forest Department for building of water holes in the sanctuary.	50,000	1,00,000	50,000	2,00,000
4.	Arranging annual training program and workshops for rain water harvesting and use of drip irrigation system in Kurkumbh and Pandharewadi village	50,000	50,000	50,000	1,50,000
5	Funds for providing drip irrigation system to farmers	3,00,000	3,00,000	3,00,000	9,00,000
	Total (INR)	8,50,000	8,50,000	8,50,000	25,50,000

Year wise break-up of Community Resource Augmentation plan

Community Resource Augmentation Plan					
Sr. No	Activity	1st Year	2nd Year	3rd year	Total (INR)
1.	Provision of 400 LPH R.O plant in Kurkumbh and Pandharewadi Gram Panchayat Office.	-	1,00,000	1,00,000	2,00,000
2.	Funds to be given in nearby villages for distribution of medicine at cheaper rates	20,000	25,000	25,000	70,000
3.	Development of water holes near the periphery of Vadane, Kutwalwadi and Supe villages for herders which will reduce the conflict and frequent entry of	80,000		70,000	1,50,000

	herders inside the sanctuary for grazing cattle.				
4.	Provision of 8 beds and 2 stretchers in Primary health care centre at Kurkumbh	50,000	50,000	50,000	1,50,000
5	Providing 4 hydraulic beds and 2 air conditioners to PHC in Pandharewadi	1,00,000	50,000	1,00,000	2,50,000
5.	Funding for construction of overhead tank of 2.5 lakh litres in Kurkumbh village	1,30,000	1,50,000	-	2,80,000
6.	Construction of one common toilets and urinals in Kurkumbh and Pandharewadi area	2,00,000	2,00,000	2,00,000	6,00,000
	Total (INR)	5,80,000	5,75,000	5,45,000	17,00,000
Total amount of remediation plan, natural resource and community resource augmentation plan					
Seri al no	Aspects	1st Year	2nd Year	3rd Year	Total (INR)
1	Damage Assessment Plan	11,05,000	11,05,000	12,45,000	34,55,000
2	Natural Resource Augmentation Plan	8,50,000	8,50,000	8,50,000	25,50,000
3	Community Resource Augmentation plan	5,80,000	5,75,000	5,45,000	17,00,000
4	Total (INR)	25,35,000	25,30,000	26,40,000	77,05,000
<p>2. EAC also stipulated following project specific condition to be complied by the PP:</p> <ul style="list-style-type: none"> i. National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed. ii. No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides. iii. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. iv. Solvent management shall be carried out as follows: 					

	<ul style="list-style-type: none"> (i) Reactor shall be connected to chilled brine condenser system. (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery. (iv) Solvents shall be stored in a separate space specified with all safety measures. (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation. <ul style="list-style-type: none"> v. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. vi. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. vii. Persons working in the industry shall be provided with safety equipment's to avoid personal exposure to hazardous chemicals. viii. Proper safety and disaster management plan shall be implemented to avoid catastrophic effect. ix. Action plan submitted by the project proponent should be implemented in case of reactor failure or damage. x. Attempt shall be made by proponent to minimize the water uses and maximize the water recycling.
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Recommendation of CSIR-NEERI Report on “Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State”

- 1) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.
- 2) The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well; EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt. of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.
- 3) Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable acts.
- 4) Considering the existing environmental quality, EC capacity, production rate, iron ore resources availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM, pollution free road transport, enhancement of rail network etc.) in the respective regions.
- 5) Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be

evaluated and examined by SPCB/ MoEF&CC.

- 6) Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.
- 7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table: EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC Capacity	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and < 3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular

maintenance should also be ensured by the Govt. of Odisha.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized.

Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

- 8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year
- 9) Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at “Zero Dust Re-suspension” may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.
- 11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
- 12) **Mine-wise Allocation of Annual Production:** In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

Table: Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)

Mine Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)				
		2016-17	2017-18	2018-19	2019-20	2020-21
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Mine 1	X1					
Mine 2	X2					
Mine 3	X3					
Mine n	Xn					
Total	160 +	105	129	153	177	201
<u>Next year allocation = Average of EC Capacity and Last year production</u>						

- 13) **Expansion of Existing Mines having Validity up to 2020:** In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non-captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. Therefore, these existing mines should go for production to the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered. Further, the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/ scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes about one year time. Under such circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.
- 14) **Sustained Iron Ore Production beyond 2020:** Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17 (actual production was – 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production
- 15) **Reserves Estimation–Mining Plan and Exploration:** Appropriate actions (geo-

technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/ resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the ground water table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period.

Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.

- 16) Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/ storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/ manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by IBM. The Department of Steel & Mines, Govt. of Odisha should initiate the pilot project so that minerals are fully utilized.
- 17) **Commercial Utilization of Low Grade Ore:** R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders
- 18) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for

8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.

- 19) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.
- 20) Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.
- 21) **Mining Operations/Process Related:** (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders.
- 22) **Air Environment Related:** (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be

provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. Further, 11 continuous air quality monitoring systems may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of 3 using closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate). Responsibility: Individual Mine Lease Holders and SPCB.

- 23) **Noise and Vibration Related:** (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures (detailed in Section 5.4) should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.
- 24) **Water/Wastewater Related :** (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national

repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

25) **Land/ Soil/ Overburden Related** (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site(s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.

26) **Ecology/Biodiversity (Flora-Fauna) Related:** (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any. (ii) The mines falling within 5-10 km of the Karo-Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing food, water and space for the elephants is required to be ensured to avoid Man-Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that

elephant's movement is not affected due to mining activities. (iii) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (iv) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (v) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (vi) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (viii) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level. (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

- 27) **Socio-Economic Related:** (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog / Hon'ble Prime Minister's

Vision centring around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for “*Samagra Vikas*” of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.

- 28) **Road Transport Related:** (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine, as suggested in Chapter 10. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM₁₀ should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines
- 29) **Occupational Health Related:** (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer)
- 30) **Reporting of Environmental Sustainability Achievement:** All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-à-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/rewarded. “Star Rating Format” formulated by the Ministry of Mines along with environmental sustainability report may be used.
- 31) **Environmental Monitoring Requirements at Regional Level:** Apart from

strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table.

Table: Suggested Environmental Monitoring Requirements and Action Plans at Regional Level

Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&CC. All the water bodies (rivers, nallas, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted in consultation with MoEF&CC-RO.	SPCB	Continuous Annually
	<u>Installation of online ambient air quality monitor for PM₁₀, PM_{2.5}, SO_x and NO_x within the mine having more than 3 MTPA EC Capacity</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous Annually</u>
	Installation of online ambient air quality monitor for PM ₁₀ , PM _{2.5} , SO _x and NO _x in the Joda and Koira Region (total 11 locations).	SPCB	Continuous Annually
2.	Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.	State Forest & Wildlife Dept.	Annually in mining zone and once in 3 years in the region
3.	Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.	Respective District Administration	Annually
4.	A detailed hydro-geological study in each of the regions shall be conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in	SPCB	Once in 2 years

	the area.		
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.	Dept. of Steel & Mines	12 months for road network and 5-7 years for rail network
6.	<u>Construction and maintenance of dust free roads from respective mine to the main road</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous 6 months</u>
7.	Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis. Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).	Dept. of Steel & Mines	Continuous 6 months
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using remote sensing data	ORSAC	Annually
9.	R&D Studies for utilization of low-grade iron ore	Dept. of Steel & Mines through R&D / Academic Institutes	Upto 45% by 2020 and upto 40% by 2025

The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC (through EAC) can also utilize the data base available in evaluating the proposals for expansion of existing mines or new mines while granting ToR or EC to the mine, taking an holistic view of the region. State Govt. of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.

- 32) Institutional Mechanism for Implementation of Environmentally Sustainable Mining: The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-à-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the

region on long term basis. It could be a SPV of Govt. of Odisha or a cell within the overall control and supervision of Dept. of Steel & Mines, with members from IBM, GSI, OSPCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Funds should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/ expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept. of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/ reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as for improvement in quality of life of the people of the region.

Members of the EAC for the proposal involving violation of EIA Notification, 2006 present during 23rd meeting held on 25th-26th June, 2019 at MoEF&CC, New Delhi and approved the above minutes.

Sl. No.	Name of the EAC member	Role/Designation	Signature
1.	Dr. S.R. Wate,	Chairman	
2.	Dr. G.V. Subrahmanyam	Member	
3.	Dr.A.L. Ramanathan	Member	
4.	Dr. M.V. Ramana Murthy,	Member	
5.	Shri K Gowarappan	Member	
6.	Dr.Dilip S. Ramteke,	Member	
7.	Dr. Poonam Kumria,	Member	
8.	Dr.Bharat Jain,	Member	
9.	Dr.Subrata Maity,	Member	
10.	Shri Ashok Agrawal,	Member	
11.	Shri Raghu Kumar Kodali	Member Secretary	

Site visit report and recommendation of Sub-committee of EAC(Violation) for following projects:

1. Expansion of Hospital Complex “Pushpawati Singhanian Hospital & Research Institute” at Press Enclave Marg, Sheikh Sarai, Phase-II, New Delhi by M/s Pushpawati Singhanian Hospital & Research Institute – Environmental Clearance

2. Commercial Complex 'Spaze Boulevard II' at village Tikri, Sector - 47, Gurgaon, Haryana by M/s Spaze Towers Pvt. Ltd. - Further consideration for Environmental Clearance

1.0 Back ground:

The above projects were considered 22nd meeting of Expert Appraisal Committee for the proposal involving violation of EIA Notification, 2006, held on May 21-22, 2019 for the grant EC for project SL No 1 & SL No 2 as mentioned above.

Committee recommended for site visit of the project (**SL No 1**) by a subcommittee considering Eco-sensitive area within the 5 km of project site for ascertaining prevailing environmental settings. After detailed deliberation during the meeting, EAC decided a subcommittee will also visit to the project site (**SL No 2**) for ascertaining prevailing environmental settings before granting EC.

2.0 Site visit:

Sub-committee of EAC(Violation), MoEF&CC comprising of following members was constituted for the site visit. The sub-Committee visited the above projects on 24th June, 2019.

The names of the members of sub -Committee, proponent and EIA consultant team are given below.

Names of the MoEFCC's Expert Appraisal Sub Committee Members

Chairman	:	Shri. K. Gowarappan
Member	:	Dr. Subrata Maity
Member	:	Dr. Dr. Bharat Jain
Member Secretary	:	Shri. Raghu kumar Kodali, Director MOEF&CC New, Delhi.

Project Site Visit:

Date of Project Site Visit: June 24th, 2019

Visit Details:

1. Expansion of Hospital Complex “Pushpawati Singhanian Hospital & Research Institute” at Press Enclave Marg, Sheikh Sarai, Phase-II, New Delhi by M/s Pushpawati Singhanian Hospital & Research Institute

The Members assembled at the Ministry (Indira Paryavaran Bhawan) at 10.00 AM and proceeded to the site. At the site, the Members were received by the Project Proponent, Dr. Sanjeev Gupta,

the COO along with his team and the EIA Consultant, M/s Perfect Enviro Solutions Pvt. Ltd, New Delhi with his team of experts including EIA Coordinator and other experts involved in the EIA studies;

After having brief introduction on the project under violation/today's visit, the Chairman briefed the purpose of the visit and aspects of consideration mainly on Environment Management issues with particular reference to pollution control systems and their management of Air, Water (ETP/STP), Solid/Liquid/Hazardous including Bio-medical Wastes and Ecology & Biodiversity/Green Belt/Greenery development and other related (environmental) issues on the hospital and its users, the patients and the visitors.

All the EAC sub committee members visited all the concerned facilities/infrastructures accompanied the PP and the consultant.

Observations:

- As this is within the heart of the NCR and developed long back following its phage-I development of Block-A (which is fully operational) and Block-B, the present project, which is adjacent/attached to the Block-A, separated by a reception and patient in/out facilities.
- During visit it was recorded that there is very little provision of Green Belt except only a few trees, mostly ornamental trees
- The open area is made almost completely with concrete pavements for parking and pathways, and almost no ground with soil was available as seen from the attached photographs
- Environmental management cell is not established
- Committee observed that there was huge Noise levels near ventilation duct s
- No channelization for surface water at Hospital premises
- No separation of ETP/STP sludge
- No ETP/STP outlet separation
- Ultra filtration to be done for sewage water
- Inspected Bio Medical waste storage room and there was nil stock and the pp informed that has been removed by the authorized agency just on that day.
- RWH both for roof (partial) and surface was not provided in the old building.
- ECBC provisions were partly complied.
-

Committee advised to submit the following additional information before EAC (Violation) along with ADS

1. Water Tanker Supplier Agreement
2. Flow Chart of Environment management cell proposed in the Hospital
3. RWH Pit Diagram
4. Inlet & outlet Quality of both STP & ETP
5. Solid Waste Disposal Agreement

6. CTO from SPCB
7. BMW authorization from DPCC
8. Details of Biomedical waste agreement with service provider
9. ECBC measures adopted in Hospital and letter submitted to BSES for reduction in Power load due to adopting Energy conservation measures
10. Landscape plan with Green area bifurcation and Species planted
11. Standard Procedures adopted in Hospital for Indoor Air Quality (IAQ) and latest test reports of Indoor Air Quality
12. Quotation of organic waste converter with details
- 13.** Proposed Noise control measures to reduce noise level near ventilation duct as per the prescribed standards
- 14.** Proposed channelization for surface water at Hospital premises
- 15.** Provision for separation of ETP/STP sludge
- 16.** Provision for separation of ETP/STP outlet
17. Ultra filtration to be done for sewage water

The Photographs(Site-1)



The Existing Hospital (Main Entrance)



Hospital (Existing & Proposed at back)



Hospital Block – B



Back of the Hospital with Greenbelt

2.Commercial Complex 'Spaze Boulevard II' at village Tikri, Sector - 47, Gurgaon, Haryana by M/s Spaze Towers Pvt. Ltd

Project Site Visit:

Date of Project Site Visit: June 24th, 2019

Visit Details:

After completing the visit of the Hospitality the team left for the 2nd site visit at Gurugram On arrival at the Project Site, the Team was received by the Project Proponent, the MD Mr. H.C. Chawla along with his other officials and the consultant M/s Perfect Enviro Solutions Pvt. Ltd, New Delhi accompanied by the expert involved in the EIA study.

The EAC subcommittee had a brief interaction on the project following an introduction of the Team Members and others. Then the Chairman of EAC subcommittee narrated the purpose of the visit.

The Members took a visit around the constructed area including the basement to assess the construction/development of different facilities as narrated in the EIA Report and presented during the EAC Meetings towards the mitigation of environmental impacts and the damage caused due to violation of environmental acts and regulations.

Observations:

- The PP has provided space for construction/development of required STP and ETP to take care of the Wastes and Effluents;
- There is provision of required/proposed under-ground parking space in basement for the vehicles;
- The PP left space for temporary storing of Hazardous and Non-hazardous Wastes for separation and subsequent disposal through authorized agent/s, but the facilities to be developed;
- PP has arranged to lay down ducting system for required air ventilation/circulation in the basement;
- PP has attempted to develop greenery and to plant few ornamental trees (Weeping Deoder – Cedrus deodara), seems only a few days back, which are not grown,
- Details of Water Recharging System along with the details of the PITS required to take care of water volume of the roof-top as well as that of the paved concrete areas;

- Details of Plantation including Greenbelt and Green Area (area with species/plant number, wherever possible)
- There is no space/land available within the complex for tree plantation and even greenery development
- PP claimed that they had left sufficient land of the building area towards the main road to develop plantation; but subsequently that area has now been taken for widening of main road, as such there is no available land for plantation
- Compliance to ECBC is partial in the lighting area, etc.

Committee advised to submit the following additional information before EAC (Violation) along with ADS:

1. Details of STP water used during construction phase with a proof of bills
2. Proposed Schematic Diagram of Rain water harvesting pit with Dual Bore Hole
3. Drainage Plan of the entire site
4. Order/BOQ of Organic waste converter
5. Submission of an Undertaking for green belt development plantation and solar energy provision in the areas suggested by committee
6. Suggested to utilize the space between the two projects (the present one and operational one), which are now used for Palm tree plantation. Suggested to prepare and submit suitable/implementable Greenbelt and Green Area development plan with list of suitable species on the future available and made-available land.
7. Suggested to vacate/empty some area by removing/digging and “open Area” (0.8-1 m wide) around the building and to utilize for plantation/greenery development
8. Submission of STP Schematic Diagram with capacity with UV treatment details
9. Construction of two more Rain water harvesting pits
10. Storage tank capacity details
11. Status of ECBC compliance and commitment.

Photographs (Site -2)



The Project View



Open Area between the two properties



Back side of Building with just planted plants



Planted Palm Trees
(Between the two properties)



Land given for Road Widening

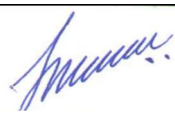

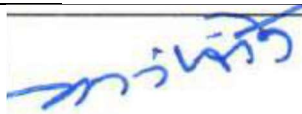


Land given for Road Widening

The following Members of sub-committee of EAC(Violation) of MoEF&CC visited the following projects on 24.06.2019 and also submitted site inspection report.

1. Expansion of Hospital Complex “Pushpawati Singhanian Hospital & Research Institute” at Press Enclave Marg, Sheikh Sarai, Phase-II, New Delhi by M/s Pushpawati Singhanian Hospital & Research Institute – Environmental Clearance

2. Commercial Complex 'Spaze Boulevard II' at village Tikri, Sector - 47, Gurgaon, Haryana by M/s Spaze Towers Pvt. Ltd. - Further consideration for Environmental Clearance

Sl. No.	Name of committee Member	Role/Designation	Signature
1.	Shri K Gowarappan, Member, EAC(Violation)	Chairman	
2.	Dr.Subrata Maity , Member, EAC(Violation)	Member	
3.	Dr. Bharat Jain Member, EAC(Violation)	Member	
4.	Shri Raghu Kumar Kodali, Director/Scientist-F, IA-III Division, MoEF&CC	Member Secretary EAC(Violation)	