Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Industry-I Sector)

SUMMARY RECORD OF THE NINETEENTH (19th) MEETING OF EXPERT APPRAISAL COMMITTEE HELD ON 8TH – 9TH JUNE 2017 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The nineteenth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held on 8th – 9th June 2017 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

19.1 After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

19.2 Confirmation of the minutes of the 18th Meeting

The minutes of the 18th meeting, as circulated were confirmed subject to following modifications:

Item 18.14: Expansion Proposal for Upgradation & Modernization in Agro Pulping capacity 165 Ton Bleached Pulp paper per day and Expansion in Hard wood pulping Capacity (from 60 Ton to 200 Ton Bleached pulp per day) conventional Chemical Recovery Plant (from 230 Ton to 580 Ton Black Liqior solids per day) & Co-Generation Plant (from 17.5 MW to 28 MW) at village saila khurd, tehisil Garhshanker, District Hoshiarpur, Punjab by M/s Kuantum Papers Limited. [Proposal No. IA/PB/IND/24304/2014, File No. J-11011/344/2008-IA.II(I)] - (Environmental Clearance for Expansion)

For	Read
23.0 After detailed presentation by PP along with their EIA consultant J. M. Enviro Net Pvt. Ltd the committee noted that the production capacity of the plant remains same but the hardwood pulp is proposed to increase in place of **Agro pulp**; the proponent has laid 13 km pipeline for supply of treated effluent for irrigation of about 2080 Ha; the specific water consumption is proposed to reduce from 60 m^3/t to 50 m^3/T; proposed to use pet coke in the CPP; possibility of accumulation of halo organs in the irrigation area by the treated effluent; New CRP for recovery of caustic to handle black liquor from wood pulping street etc.	23.0 After detailed presentation by PP along with their EIA consultant J. M. Enviro Net Pvt. Ltd the committee noted that the production capacity of the plant remains same but the hardwood pulp is proposed to increase in place of **imported pulp**; the proponent has laid 13 km pipeline for supply of treated effluent for irrigation of about 2080 Ha; the specific water consumption is proposed to reduce from 60 m^3/t to 50 m^3/T; proposed to use pet coke in the CPP; possibility of accumulation chloro organics in the irrigation area by the treated effluent should be constantly monitored and measures to minimize the same should be adopted; New CRP for recovery of caustic to handle black liquor from wood pulping etc.

after due consideration of ground water situation. Since the permission letter by the State authorities was in local language (Kannada), the PP was asked to submit authenticated English or Hindi translated version of the approval letter of withdrawal of groundwater from the State Authority. After deliberation, the committee asked the PP to submit i) Authenticated translated copy (in English or Hindi) of the approval of withdrawal of groundwater from State Authority; and ii) Certificate from RO, MoEF&CC on compliance of conditions stipulated in the above-mentioned ground water permission issued by the State Authorities for further consideration.

13.0 The PP submitted the authenticated translated copy (in English or Hindi) of the approval of withdrawal of groundwater from State Authority; and certificate from RO, MoEF&CC on compliance of conditions stipulated in the above-mentioned ground water permission issued by the State Authorities based on the site visit made by RO, Bengaluru on 2nd May 2017.

14.0 After detailed deliberations, the committee was satisfied with the site inspection report and opined that the expansion of sponge iron can be made from 1.20 LTPA to 1.50 LTPA instead of 1.65 LTPA by optimizing the operations and changing the raw material mix (i.e. use of iron ore pellets instead of conventional iron ore). The committee recommended for expansion of the proposal with following specific conditions along with the any other conditions prescribed by the ministry:

i. The increase in production of sponge iron shall be allowed from 1.20 to 1.5 LTPA

ii. An additional plantation shall be carried with 7500 plants including 5000 plants inside the premises and 2500 plant outside the premises (public places) in the first year of the expansion of the project.

19.7 Greenfield Beneficiation plant-II(10MTPA), slime disposal pipeline-1 & 2, Tailing dam-1 & 2 for Donimalai and Kumaraswamy Iron Ore Mines by M/s. NMDC Ltd, located at Donimalai Iron Ore Complex, Village Narsingpura, Taluk Sandur, District Bellary, Karnataka [Proposal No. IA/KA/IND/61156/2014, F. No. J-11015/125/2014-IA.II(M)]- Further Consideration for Environmental Clearance.

1.0 The proponent has made online application vide proposal no. IA/KA/IND/61156/2014, dated 21st December 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 2(b) Mineral Beneficiation under Category "A" EIA Notification 2006.

2.0 The Proposed 10 MTPA Capacity Screening & Beneficiation Plant-II, Slime Disposal Pipelines and Tailing Dams for Donimalai & Kumaraswamy Iron Ore Mines of M/s NMDC Limited is located near Village Narsingapur, Tehsil Sandur, District Bellary, Karnataka. The proposal was initially received in the Ministry on 06.09.2014 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Non-Coal Mining Projects) during its meeting held on 26.09.2014 and prescribed ToRs to the project for undertaking detailed EIA/EMP study for obtaining Environmental Clearance. Accordingly, ToRs to the project *vide* letter No: J-11015/125/2014-IA.II(M) dated 30.10.2014 were prescribed for the project area of 39.320 Ha.

3.0 Subsequently, M/s. NMDC Limited requested MoEF&CC for amendment of ToRs *vide* letter No. NMDC/ENV/SBP-II/EC/2015/2544 dated 18.8.2015 due to increase of area from 39.320 ha to 75.920 ha. The amendment proposal was considered by the Reconstituted EAC (Non-Coal Mining Projects) during its 37th meeting held on 27.08.2015 and recommended the amendment for the increase in project area to 75.920 ha. MoEFCC *vide* letter dated 28.09.2015 issued amendment for preparation of EIA and EMP report as per the amended ToRs.

4.0 The project of M/s. NMDC Limited is located near Village Narsingapur, Tehsil Sandur, District Bellary, Karnataka for setting up of a new greenfield Iron Ore Screening cum Beneficiation Plant-II for production of 10 MTPA. The plant is for processing of iron ore received from nearby operating Donimalai and Kumaraswamy Iron Ore Mines of M/s NMDC.

5.0 The total land required for the project is 75.92 Ha and the entire land is forestland and falls within Donimalai Reserve Forest. Out of 75.92 Ha of land, the land required for screening cum beneficiation plant-II is 12.96 Ha, tailing dam-1 is 40.25 Ha, tailing dam-2 is 22.25 Ha and pipeline is 0.46 Ha. No river passes through the project area. It has been reported that the project site is located on slope of hill, seasonal drainage channels passes through the site. Therefore, it is proposed to construct diversion channels along rims of tailing ponds to divert water away from tailings maintaining the overall drainage pattern. The seasonal drainage channels will be integrated into plants' storm water drainage system.

6.0 It was informed that M/s NMDC Limited has submitted online application vide proposal no. FP/KA/OTHERS/14576/2015 for obtaining Forest Clearance on 11.08.2015 for the forestland involved in the proposal. The application was accepted by Nodal Officer, Forest Department, Bangalore on 06.06.2016.

7.0 The topography of the area being on slope of a hill/escarpment that lies between $15^0$03'55" N to $15^0$03'35" N Latitude and $76^0$30'10" E to $76^0$36'29" E Longitude in Survey of India Topo Sheet No. D/43 and E/12, at an elevation of 684 m to 726 m above MSL. It has been reported that there is no human settlement present in the core zone of the project. Hence no Resettlement & Rehabilitation is involved in the project.

8.0 No National park/ Wildlife sanctuary/ Biosphere reserve/ Tiger reserve/ Elephant reserve etc. are reported in the core and buffer zone of the project. The authenticated list of flora and fauna provided through the Forest Department reporting presence Schedule-I fauna in the study area.

9.0 The iron ore of size less than 100 mm will be screened in primary and secondary screens and ore of size (-) 30 mm and (+) 6 mm size will be obtained as CLO ore and (-) 6 mm size as Fine ore during dry process. Both products will be sent to loading yard through respective conveying system. During wet circuit, water will be added at primary screen level. The wash water contains micro fines which will be recovered in beneficiation circuit consisting of classifier, hydro-cyclones, dewatering screens, hi-rated thickeners, horizontal belt filters, etc. The tailings generated in the process will be sent to proposed tailing ponds.

10.0 The targeted production capacity of the plant would be10 MTPA (7 MTPA in 1st phase and 10 MTPA in 2nd phase). The proposed plant will process 10 MTPA of ore to yield 4.55 MTPA of calibrated lump ore and 5.213 MTPA of fine ore. About 0.237 MTPA of iron ore tailings will be

generated as waste. The ore for the proposed plant would be received from existing iron ore mines of M/s NMDC Limited at Kumaraswamy & Donimalai through covered conveyors only. The products CLO and Fine ore will be sent to loading yard through covered conveyors only.

11.0 The water requirement of the project is estimated as 60,984 m^3/day, out of which 8,787 m^3/day of fresh water requirement will be obtained from the Taranagar Dam from the existing allotment of Donimalai Mines. The remaining requirement of 52,197 m^3/day will be met from recycling effluents.

12.0 The power requirement of the project is estimated as 1.5 MW, which will be obtained from the grid.

13.0 Baseline environmental studies were conducted during winter season of 2014-15 i.e. from 5-12-2014 to 27-02-15. Ambient Air Quality (AAQ) monitoring has been carried out at 10 locations and the data submitted indicated that PM_{10} ranges from 97 to 43µg/m^3, SO_2 ranges from 5.8 to 3.6 µg/m^3 and NOx ranges from 24.5 µg/ m^3 to 10 µg/ m^3. The source monitoring studies for respirable dust carried out at 6 locations and personal sampling studies for respirable dust carried at 11 locations at existing Donimalai Iron Ore Mine during November 2015. The time weighted average of dust concentration is found to be varying from 0.37 to 1.69 mg/m^3 which is below the threshold limit of 3 mg/m^3. The fugitive dust monitoring carried out at Donimalai Iron Ore Mine during summer season 2016 found that the level of particulate matter is varying from 288 to 352 µg/m^3 which is well below the permissible limit of 1200 µg/m^3. Similarly, the regular AAQ monitoring studies at Donimalai mine indicated that the levels of PM_{10} & $PM_{2.5}$ are well within the NAAQ standards. No case of occupational diseases like Silicosis has been reported at existing Donimalai and Kumaraswamy mines of NMDC.

14.0 The air quality modelling has indicated that there will be very marginal increase in dust levels due to additional vehicular traffic as raw and finished ore will be despatched by covered conveyors. The crushed ore from Donimalaiand Kumaraswamy iron ore mines will be stored in covered silos at proposed screening Plant-II. Dry fog dust suppression system will be provided in the proposed plant at Transfer house-3, 4, 5 & 6, Silo building, primary, secondary & tertiary screen building and tertiary crusher building. The water requirement for DFDS will be 24 LPM and compressed air will be 480 CFM.

15.0 Ground water quality has been monitored in 4 locations in the study area and analysed. pH: 7.6 to 8.0, Total hardness: 660 to 980 mg/L, Chlorides: 146 to 327 mg/L, Fluoride: 0.8 to 0.9 mg/L, Heavy metal are within limits except total hardness. Surface water samples were analysed from 3 locations in the study area during winter season 2016. pH 7.52 to 8.42, D.O: 5.82 to 6.8 mg/l, BOD: <1 mg/l are within limits.

16.0 M/s NMDC has been carrying out regular monitoring of phreatic surface and water quality at Donimalai and Kumaraswamy iron ore mines at 22 locations once in a season. Adequate number of check dams, check bunds has been constructed on various nalla at Donimalai to control flow of suspended solids during rainy season. The garland drains will be constructed along the rims of the proposed tailing ponds to divert storm water away from the tailings. No ground water withdrawal is envisaged in the proposal.

17.0 Ambient Noise levels are in the range of 46.7 to 56.3 dB(A) for daytime and 40.5 to 52.7 dB(A) for night time.

18.0 It has been reported that there are no villages in the core zone of the project. No R&R is involved.

19.0 The iron ore tailings will be generated from beneficiation process. The equipments such as classifiers, de-sliming cyclones, densifying cyclones, horizontal belt filters and thickeners have been considered in the beneficiation circuit. As per process, for feed rate of 1800 TPH, only, 2.38% of slimes will be generated which contains 43.01% Fe. The quantity of tailings expected to be generated is 0.1666 MTPA (69,417 m^3) during Phase I and 0.238 MTPA (99,167 m^3) in Phase-II. The tailings will be discharged into proposed 2 no. s of tailing ponds located nearby Screening plant-II. The tailings will be pumped to tailing ponds through two pipelines, one of 200 m length and, the other 1110m long. The life of tailing dams 1 & 2 is 24 years and 13 years respectively and the tailing dam-2 will be commissioned initially and after filing of this dam, tailing dam-1 will be commissioned. It has been mentioned that the pumping arrangements will be made at Tailing pond in such a way that the slime will be discharged at one end and clear water available at other end will be pumped back to the re-circulation water tank for re-use. The tailing dams completely filled with tailings will be taken up for reclamation in a scientific manner and suitable biological measures will be adopted to convert it into forest. The tailings in tailing dam will be always in moist to avoid generation of dust.

20.0 The Public hearing for the proposed project was held on 10.03.2016 under the chairmanship of Additional Deputy Commissioner, Bellary District. The issues raised during public hearing *inter alia* include pollution & consequences of pollution; depletion of water resources; employment; extension of NMDC's medical facilities to local villagers; etc. The project proponent along with time bound action plan including financial allocation to implement the same with an amount of Rs1,000 lakhs (2.5% of project cost) has been earmarked under Enterprise Social Commitment based on public hearing issues.

21.0 The capital cost of the project is Rs.399.75 Crores and Rs.51.96 crores as capital cost for environmental protection measures is proposed. The annual recurring cost towards environmental protection measures is Rs.83.0 Lakhs. The detailed CSR plan has been provided in the EMP in its page number 112 to 119. The employment generation from the proposed project is 81.

22.0 Green belt will be developed in 11.457 Ha of proposed screening cum beneficiation plant area of 12.991 Ha, which is about 88 % of the total beneficiation plant area. A 100-m wide green belt, consisting of at least 3 tiers around the plant boundary will be developed as green belt and green cover as per CPCB guidelines. 23,200 saplings will be planted in 46.457 Ha in 1st year. Once tailing ponds are filled up, 1600 trees/Ha will be planted in Tailing pond area. 11,200 saplings will be planted in 7.00 Ha in 15thyear at Tailing Pond-II. 22,800 saplings will be planted in 14.290 Ha in 39th year at Tailing Pond-I.

23.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

24.0 The proposal was considered by EAC (Non-Coal Mining) during its 11th meeting held on 24.10.2016 and decided to transfer the proposal to Industry Sector, as it is a standalone beneficiation plant outside the lease area and the project proposal falls in schedule 2(b), as per provisions of EIA notification, 2006.

25.0 The proposal was therefore, considered by the EAC (Industry-1) in its 13th meeting held on 24/11/2016 and the project proponent and their accredited EIA consultant M/s Mecon Limited made a detailed presentation on the salient features of the project.

26.0 Based on the presentation made and discussions held, the Committee noted that the proponent has not complied with the ToR No. 21, 26 and 30. In addition, information on the following would also be required for further consideration of the project proposal:

(i) Management and disposal of tailings and closure plan of the tailing pond, if any, after the project is over.

(ii) Biological as well as health impact of fines and other dust generated in the plant should be studied with reference to National and International Standards (WHO and ILO standards including CPCB norms). The proposed mitigation measures with EMP should also be provided.

(iii) The project proponent shall address the discrepancies pointed out by the committee in the public hearing statement, and submit a revised statement after correcting the discrepancies.

(iv) Public hearing points raised and commitment of the project proponent on the same along with time bound action plan including financial allocation to implement the same should be submitted.

27.0 In view of the location of the project in forestland, the Committee desired that a sub-committee shall visit the site at the earliest and submit their recommendation for further consideration of the project. Accordingly vide Ministry's reference O.M No: F. No-IA-L-11015/125/2014-I.A-II(M) dated 3/4/2017, the sub-committee visited the proposed project site between 15th to 17th May, 2017. The sub-committee visited existing mining operations carried out by NMDC at Donimalai and crushing plant, 1.2 MTPA Pellet plant and Loading plant and proposed site of Screening cum beneficiation plant-II and Tailing pond locations.

28.0 The project proponent vide letter dated 23/5/2017 also submitted details for the Additional Information Sought ADS. The sub-committee submitted its report to MoEF&CC. The sub-committee of EAC has expressed their satisfaction on the compliance of environmental measures in the existing project and proposed project location.

29.0 The PP has made detailed presentation along with EIA consultant. The committee noted that NMDC operating beneficiation plant nearby using tailing already accumulated in the area and the accumulated tailing will exhaust in 10 years.

30.0 After detailed deliberations, the committee recommended for grant of environmental clearance after receipt of stage-I clearance of Forestland involved in the project subject to

following specific conditions along with other conditions by the ministry while granting the clearance.

i. The PP shall prepare map showing the plantation area along with density. The PP shall carryout the gap plantation to increase the density and shall submit the report to Regional office of the Ministry.

ii. The tailings generated by the present plant shall be used by existing beneficiation plant established nearby not later than 10 years of commencement of proposed plant.

19.8 Expansion of pig iron production from 0.144 MTPA to 0.216 MTPA by installing a new sinter plant of 33 m^2 capacity at Parmenahally village, Hiriyur Taluk, Chitradurga District, Karnataka by M/s VSL Steel Ltd., [Proposal No. IA/KA/IND/64843/2010, F.No. J-11011/901/2008- IA.II (I)] - Extension of validity of Environmental Clearance.

1.0 The proponent has made online application vide proposal no. IA/KA/IND/64843/2010 dated 22nd May 2017 seeking extension in validity of Environment Clearance under the provisions of EIA Notification, 2006 for the project mentioned above.

2.0 VSL Steels Limited is operating with 0.144 million tonnes per annum (MTPA) Pig Iron Plant (Mini Blast Furnace) at Paramenahally Village, Hiriyur Taluk Chitradurga District, Karnataka. VSLS was proposed to increase pig iron production capacity from 0.144 to 0.216 MTPA by installing a new sinter plant of 33 m^2 capacity and Environmental Clearance for the proposed expansion was obtained vide letter no. J-11011/901/2008-IA.II (I) dated 5th October 2010.

3.0 The proposed Sinter Plant construction is completed by 70%. The raw material for the project is sourced from own Captive Iron ore mine i.e. VS Lad Mines near Sandur, Bellary District, Karnataka. As the mines in Bellary sector including the VS Lad mine were closed in 2011, therefore blast furnace operation was stopped in April 2012 which has resulted in paucity of funds for continuing the sintered plant and the project completion could not be done. The mines are expected to be opened shortly and VSL would like to complete the project erection and commission the same.

4.0 Plant is presently located in an area of 27.05 acres and additional land area of 50 acres of government land under survey no. 36 and 37 of Doddaghatta village was acquired for expansion. Presently 282 persons working in the plant and an additional manpower of 150 required in the expansion.

5.0 After detailed presentation by PP, the committee asked to submit component wise progress of the plant and schedule of the completion. The PP submitted the component wise progress of the plant and schedule of the completion vide his letter dated 8.6.2017. ***After detailed deliberation, the committee recommended for extension of validity of EC for further period of 3 years i.e. up to 4th October 2020.***