

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-1 SECTOR)

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MINUTES OF THE 52ND EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON 23RD – 25TH JANUARY, 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003 through Video Conferencing

Time: 10:30 AM onwards

DAY-1: JANUARY 23, 2024 [TUESDAY]

(i) Opening Remarks by the Chairman, EAC

Shri Rajive Kumar, Chairman EAC welcomed the Committee members and opened the EAC meeting for further deliberations.

Shri Rajive Kumar also appreciated the efforts of the Ministry's Team (Industry 1 Sector) for preparation and uploading the agenda of the EAC meetings and draft record of discussion very scientifically, systematically and timely on Parivesh Portal. The EAC has also appreciated various decision tools available in Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'F' & Member Secretary, EAC (Industry-1 Sector) appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 51st meeting of the EAC for Industry-I sector held on 2nd – 4th January, 2024 at MoEF&CC through Video Conferencing.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **51st meeting of the EAC for**

Industry-I sector held on 2nd – 4th January, 2024 conducted through Video Conferencing Mode, and noted that there is a modifications/factual correction reported by the PP, in the minutes of the 51st EAC meeting for the project/activities.

Agenda No. 51.5: Proposed 72,000 TPA Asbestos & Non-Asbestos Flat Cement Sheets (Asbestos Cement Sheets-57,600 TPA & Non-Asbestos Cement Sheets- 14,400 TPA) manufacturing unit by M/s Kamya Industries Private Limited, located at survey No. 25/1B, 25/2, 26/2, Vedadri Village, Jaggaipet Mandal, NTR District, Andhra Pradesh- Consideration of Environmental Clearance.

**[Proposal No. IA/AP/IND1/451750/2023; File No. IA-J-11011/14/2023-IA-II(IND-I)]
[Consultant: Ecomen Laboratories Pvt. Ltd; Valid upto: 22.03.2025]**

The aforementioned proposal was considered and recommended by EAC in its 51st meeting of the EAC for Industry-I sector held on 2nd – 4th January, 2024 wherein after detailed deliberations, the committee recommended the proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions.

2. At Para 51.1.12 (Table for Action plan as per MoEF&CC O.M. dated 30/09/2020) – Heading of column 4, in the MoM of 50th EAC Meeting, it has inadvertently mentioned that “Total Expenditure (Rs. In Crores)”. However, it shall be **Total Expenditure (Rs. In Lakhs)**.

Further, it may be mentioned that the EC for the proposed proposal has already been processed after rectification of the same as mentioned below. The matter has been examined in the Ministry and it is observed that there is typographical error in the minutes of the meeting w.r.t. the above-mentioned proposal, as detailed below:

Agenda Number/Para No. in the MoM of 51th meeting held 2nd – 4th January, 2024	Information mentioned	Correct information
Agenda No. 51.1 Para: 51.1.12 Table (Action plan as per MoEF&CC O.M. dated 30/09/2020) Heading of column 4	Total Expenditure (Rs. in Crores)	Total Expenditure (Rs. in Lakhs)

Deliberations by the EAC:

It was informed to the Committee members that corrections were noted by the Ministry while processing the proposal w.r.t. minutes of the 51st meeting of the EAC for Industry-I sector held on 2nd – 4th January, 2024 pertaining to proposal agenda no. 51.1 as referred above.

The EAC deliberated and noted that the request may be accepted and recommended for the incorporation of the above-mentioned corrections/modifications in the minutes of the meeting. Accordingly, aforementioned Para 51.1.12 (Table for Action plan as per MoEF&CC O.M. dated 30/09/2020) – Heading of column 4 stands modified in the minutes of 51st EAC (Industry-1) meeting as detailed in table above.

2. The matter was examined by the processing Division of the Ministry and due to inconsistency in submission of plagiarism certificate submitted by consultant, the proposal was further placed before the EAC in its 52nd meeting held during 12-14th January 2024, wherein the consultant has submitted a revised copy of plagiarism certificate showing percentage of similarity upto 18%.
3. As per observation made by the Ministry and EAC, it has been noted that due to casual approach of the consultant M/s. Enkay Enviro Services Pvt. Ltd., the proposal was not processed in time in its present form leading to unnecessary delay in granting the Environmental clearance to the PP.
4. The EAC advised the consultant M/s. Enkay Enviro Services Pvt. Ltd to be more cautious in future so that the same mistake shall not be repeated.

Recommendation of EAC

52.20.7 In view of the foregoing and after detailed deliberations, the committee considered the plagiarism certificate with 18% similarity index and **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 subject to the stipulation of all specific and general conditions as mentioned earlier in the MoM of 49th EAC meeting.

Agenda No. 51.21

52.21 Enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and Installation of 1.2 MTPA Pellet Plant at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist-Burdwan, West Bengal by M/s Maan Steel and Power Ltd - Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/435546/2023; File No. J-11011/695/2009-IA-II(IND-I)]
[Consultant: M/s. Vardan Environet; Valid up to 04.05.2026]

52.21.1 The proposal cited above was considered in 41st meeting of Expert Appraisal Committee (Industry-1 Sector) held during 2nd & 4th & 8th August, 2023. The committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions.

52.21.2 Ministry has examined the proposal and raised ADS to PP reading Consent to Operate obtained dated 04/09/2018 & 07/01/2020 respectively in excess of permissible limit as per the approved Environmental Clearance (EC) dated 31/12/2010. PP has provided reply on 07.10.2023. As per reply PP has obtained new Consent to Operate dated 23/08/2023 and subsequent amendment dated 13/09/2023 as per the amendment production is within permissible limit. SPCB was also asked reading the CTO for higher quantity than the EC.

52.21.3 The project was appraised in the 47th EAC (Industry-1) Meeting held on 27.10.2023 in which the EAC deferred the proposal and raised the following queries:

- The EAC has noted PP has obtained CTO capacity more than that permitted in EC for Sponge Iron and by CTO amendment dated 13/09/2023 obtained for Sponge iron to be read as : 9750 MT/Month instead of 10750 MT/Month.
- EAC is of the opinion that PP should establish that they have not exceeded the production capacity more than that of EC with documented evidence.

52.21.4 Maan Steel and Power Ltd provided ADS reply on the Parivesh Portal on dated 05.01.2024 through following documents.

- Reply of West Bengal Pollution Control Board (WBPCB) to MoEF&CC vide letter dated 29.12.2023. Amendment in Consent to Operate vide letter dated 13.09.2023 for change in Sponge Iron capacity from 10750 MT/month to 9750 MT/month i.e. 117000 TPA
- Certificate from Chartered Accountant, verifying the year wise production figures.

Summarized data from the Certified production value

S. No.	Sponge Iron	Production Capacity as per EC (TPA)	Actual Production (TPA)
1	FY 19-20	1,17,000	108,951
2	FY 21-22		1,16,505
3	(FY 22-23)		115,156

- Affidavit from Director of the Company solemnly stating that no overproduction occurred and that the Company remains committed to upholding all the environmental regulations.
- Excise Return filed by the company for the year 2011-12, 2012-13, 2013-14 and 2014-15, showing Sponge Iron production are within the production under CTO
- Copy of Circular No. 1050/38/2016-CX dated 8th November, 2016 issued by Central Board of Excise & Custom stating the discontinuation of the above annual return due to the implementation of GST
- The complaint/Representation was formally withdrawn vide letter dated 7th October, 2023.

52.21.5 Based on the above submission, the proposal was re-considered during the 52nd meeting of the EAC for Industry-I sector held on 23rd – 25th January, 2024. The deliberations and recommendations of the Committee are as follows:

Deliberations by the Committee

52.21.6 The Committee noted the following:

1. The EAC noted that the Project Proponent has submitted reply of West Bengal Pollution Control Board as per the reply WBPCB has amendment in Consent to Operate vide letter dated 13.09.2023 for change in Sponge Iron capacity from 10750 MT/month to 9750 MT/month i.e. 117000 TPA, Which with permitted capacity in EC.
2. The EAC noted that the Project Proponent has submitted the certificate from CA regarding production as per the report it is clear that PP has not exceeded the production capacity more than that of EC
3. The EAC has noted that PP has also submitted Excise Return filed by the company for the year 2011-12, 2012-13, 2013-14 and 2014-15, showing Sponge Iron production are within the production under CTO.
4. The EAC deliberated on the submission of the Project proponent and noted that the PP has corrected the CTO production capacity by amendment in CTO and not exceeded the production than that of EC and found in order.

Recommendations of the Committee:

- 52.21.7 In view of the foregoing and after detailed deliberations, the committee **reiterate its decision and recommended** the instant proposal for grant of Environment Clearance under EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as recommended in the 41st meeting of the EAC for Industry-I sector held 2nd & 4th & 8th August, 2023.

The meeting ended with thanks to the Chair.

Standard ToR in line with Appendix III of the EIA, 2006.
applicable to Proposals Under Industry-1 Sector

Preliminary requirements:

- i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
- ii. Besides, following points shall be compiled as per QCI/NABET norms:
 - a. Disclaimer by the EIA consultant.
 - b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
 - c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
 - d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
 - e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report**Executive Summary**

- i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
- ii. Point wise compliance to the ToR issued by MoEF&CC.
- iii. Executive Summary
 - I. Introduction
 - i. Name of the project along with applicable schedule and category as per EIA, 2006.
 - ii. Location and accessibility
 - II. Project description
 - i. Resource requirements (Land; water; fuel; manpower)
 - ii. Operational activity
 - iii. Key pollution concerns
 - III. Baseline Environment Studies
 - i. Ambient air quality
 - ii. Ambient Noise quality
 - iii. Traffic study
 - iv. Surface water quality
 - v. Ground water quality
 - vi. Soil quality
 - vii. Biological Environment
 - viii. Land use
 - ix. Socio-economic environment

- IV. Anticipated impacts
 - i. Impact on ambient air quality
 - ii. Impact on ambient noise quality
 - iii. Impact on road and traffic
 - iv. Impact on surface water resource and quality
 - v. Impact on ground water resource and quality
 - vi. Impact on terrestrial and aquatic habitat
 - vii. Impact on socio-economic environment
- V. Alternative analysis
- VI. Environmental Monitoring program
 - i. Ambient air, noise, water and soil quality
 - ii. Emission and discharge from the plant
 - iii. Green belt
 - iv. Social parameters
- VII. Additional studies
 - i. Risk assessment
 - ii. Public consultation
 - iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020
- VIII. Project benefits
- IX. Environment management plan
 - i. Air quality management plan
 - ii. Noise quality management plan
 - iii. Solid and hazardous waste management plan
 - iv. Effluent management plan
 - v. Storm water management plan
 - vi. Occupational health and safety management plan
 - vii. Green belt development plan
 - viii. Socio-economic management plan
 - ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

2. Project description

A. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility

- iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
- iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
- v. Environment settings of the site and its surrounding along with map.
- vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
- vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
- viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
- ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
- x. Type of land, land use of the project site needs to be submitted.
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
- xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

- xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

B. Forest and wildlife related issues (if applicable):

- i. Status of Forest Clearance for the use of forest land shall be submitted.
- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

- i. Products with capacities in **Tons per Annum** for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
- xiv. Brief on present status of compliance (Expansion/modernization proposals)
 - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
 - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.

- c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.
- d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

- i. Study period
- ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological <ul style="list-style-type: none"> • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate 	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> • IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants <ul style="list-style-type: none"> • PM_{2.5} • PM₁₀ 	At least 8-12 locations	As per	<ul style="list-style-type: none"> • Sampling as per CPCB guidelines

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> • SO₂ • NO_x • CO • HC • Other parameters relevant to the project and topography of the area 		National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none"> • Collection of AAQ data (except in monsoon season) • Locations of various stations for different parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an

Attributes	Sampling		Remarks
	Network	Frequency	
			annexure to the EIA Report.
B. Noise			
<ul style="list-style-type: none"> Hourly equivalent noise levels 	At least 8-12 locations	As per CPCB norms	-
C. Water			
Parameters for water quality <ul style="list-style-type: none"> pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity Total nitrogen, total phosphorus, DO, BOD, COD, Phenol Heavy metals Total coliforms, faecal coliforms Phyto-plankton Zoo-plankton Microalgae/microalgal bloom 	Samples for water quality should be collected and analyzed as per: <ul style="list-style-type: none"> IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association. 		
For River Bodies <ul style="list-style-type: none"> Total Carbon pH Dissolved Oxygen Biological Oxygen Demand Free NH4 Boron Sodium Absorption Ratio Electrical Conductivity TDS 	<ul style="list-style-type: none"> Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies 	<ul style="list-style-type: none"> Yield of water sources to be measured during critical season Standard methodology for collection of surface water (BIS standards) 	

Attributes	Sampling		Remarks
	Network	Frequency	
For Ground Water	<ul style="list-style-type: none"> Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included. 		
D. Traffic Study			
<ul style="list-style-type: none"> Type of vehicles Frequency of vehicles for transportation of materials Additional traffic due to proposed project Parking arrangement 	-		
E. Land Environment			
Soil <ul style="list-style-type: none"> Particle size distribution Texture pH Electrical conductivity Cation exchange capacity Alkali metals Sodium Absorption Ratio (SAR) Permeability Water holding capacity Porosity 	Soil samples be collected as per BIS specifications		
Land use/Landscape <ul style="list-style-type: none"> Location code Total project area Topography Drainage (natural) Cultivated, forest, plantations, water bodies, roads and settlements 	-		
E. Biological Environment			
Aquatic <ul style="list-style-type: none"> Primary productivity Aquatic weeds 	<ul style="list-style-type: none"> Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered 		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> Enumeration of phyto plankton, zoo plankton and benthos Fisheries Diversity indices Trophic levels Rare and endangered species Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) <p>Terrestrial</p> <ul style="list-style-type: none"> Vegetation-species list, economic importance, forest produce, medicinal value Importance value index (IVI) of trees Fauna Avi fauna Rare and endangered species Sanctuaries / National park / Biosphere reserve Migratory routes 			<p>species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species.</p> <ul style="list-style-type: none"> Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. For forest studies, direction of wind should be considered while selecting forests. Secondary data to collect from Government offices, NGOs, published literature.
F. Socio-economic			
<ul style="list-style-type: none"> Demographic structure Infrastructure resource base Economic resource base Health status: Morbidity pattern Cultural and aesthetic attributes Education 			<ul style="list-style-type: none"> Socio-economic survey is based on proportionate, stratified and random sampling method. Primary data collection through questionnaire Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase
 - Details of stack emissions from the existing as well as proposed activity.
 - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
 - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.

iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase

iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase

v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase

- b. Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase

5. Analysis of Alternatives (Technology & Site)

- i. No project scenario
- ii. Site alternative
- iii. Technical and social concerns
- iv. Conclusion

6. Environmental Monitoring Program

- i. Details of the Environment Management Cell
- ii. Performance monitoring schedule for all pollution control devices shall be furnished.
- iii. Corporate Environment Policy
 - a. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
 - c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.

d. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

iv. Action plan for **post-project environment monitoring matrix**:

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

7. Additional Studies

- i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.
- iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
- iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
- v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S No	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

viii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits

- i. Environment benefits
- ii. Social infrastructure
- iii. Employment and business opportunity
- iv. Other tangible benefits

9. Environment Cost Benefit Analysis

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

- i. Air quality management plan
- ii. Noise quality management plan
- iii. Action plan for hazardous waste management
- iv. Action plan for solid waste management
- v. Action plan for e-waste management.
- vi. Action plan for plastic waste management.
- vii. Action plan for construction and demolition waste management.
- viii. Effluent management plan
- ix. Storm water management plan
- x. Rain water harvesting plan
- xi. Plan for maximum usage of waste water/treated water in the Unit
- xii. Occupational health and safety management plan
- xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per

- ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
- xiv. Socio-economic management plan
 - xv. Wildlife conservation plan (In case of presence of schedule I species)
 - xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. PM (PM₁₀ and PM_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material specially in slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.

4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.
4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.

5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, etc within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.

6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM₁₀ to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.
2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.

4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Executive Summary

Executive summary of the report in about 8/10 pages incorporating the following:

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2/3 km.) water body, population, within 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora/fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

List of the Expert Appraisal Committee (Industry-1) members participated during VC meeting

S. No.	Name	Position	23.01.2024	24.01.2024	25.01.2024
1.	Shri Rajive Kumar	Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
2.	Dr. Dipankar Shome	Vice Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
3.	Dr. S. Ranganathan	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
4.	Dr. Ranjit Prasad	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
5.	Dr. S. K. Singh	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
6.	Dr. Tejaswini Ananthkumar	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
7.	Dr. Hemant Sahasrabudhe	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
8.	Dr. Jai Krishna Pandey	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
9.	Dr. E V R Raju	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
10.	Dr. S K Chaturvedi, (Representatives of NCCBM)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
11.	Shri Nazimuddin, Scientist 'F'(Representative of CPCB)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH))	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	<i>Present</i>	<i>Present</i>	<i>Present</i>
MoEFCC					
15.	Dr R P Rastogi	Scientist C	<i>Present</i>	<i>Present</i>	<i>Present</i>
16.	Dr Sandeepan BS	Scientist B	<i>Present</i>	<i>Present</i>	<i>Present</i>

Approval of EAC Chairman

Re: Approval for Draft minutes of the 52nd EAC Meeting held on 23-25 January 2024 by the Chairman, EAC-Regarding

From : chairman eac ind 1
<chairman.eac.ind.1@gmail.com>

Mon, Feb 05, 2024 07:25 PM

Subject : Re: Approval for Draft minutes of the
52nd EAC Meeting held on 23-25
January 2024 by the Chairman, EAC-
Regarding

To : Dr R. B. Lal <rb.lal@nic.in>

Cc : rajivekumar1983@gmail.com,
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Dear Dr Lal,

The draft minutes are approved.
Kindly do the needful.

With best wishes
Rajive Kumar
Chairman-EAC-Industry-1
