

5. The proponent has to earmark and furnish the greenbelt area with dimension and GPS coordinates.
6. The proponent has to furnish the boundary of the site with dimension and GPS coordinates.
7. Detailed Solid Waste management plan shall be prepared as per Solid waste management Rules, 2016 and same shall be furnished.
8. For CER: The project proponent has agreed to allocate and utilize the CER fund of Rs. 1.2 crores for the water body restoration and adapting a village in and around the project site as per MOEF & CC OM dated: 01.05.2018 before applying for CTO from TNPCB.

Agenda No. 125-13:

(File No. 6704/2019)

Proposed New Steel Melting Plant (10,000 TPM) And Steel Rolling Mill (9500 TPM) by M/S. Sri Gowri Steel Rolling Mills At S.F No.7, Vadugapalayam Village, Dharapuram Taluk, Tirupur District – For Terms of Reference

(SIA/TN/IND/30664/2019)

The proposal was placed in the 125th SEAC Meeting held on 01.02.2019. The project proponent gave a detailed presentation. The salient features of the project and the environmental impact assessment and they are listed as follows:

1. The land area acquired for the proposed project is 5.00 ha (12.36 acres) and the entire area is under unclassified land. No forest land involved. The entire land has already been acquired for the project. The total area 1.750 ha (35%) land will be used for green belt development.
2. Total project cost is Rs. 20 Crores. Proposed employment generation from proposed project will be 200 direct employment and 200 indirect employment.
3. The targeted production capacity of the steel rods is 1,14,000 TPA. The Coal will be procured from Coal suppliers. The Coal transportation will be done through roadways. The proposed capacity for different products for the project as below:

Name of the unit	No. of units	Capacity of each unit	Products	Production Capacity (TPA)
Induction Furnaces	2	15 Tons	MS Billets/ Ingots	1,20,000
Reheating Furnace – Dual Burner (Coal & Biomass)	1	20 Tons	Steel Rolled Products	1,14,000

4. The electricity load of 9.9 MW will be procured from TANGEDCO and has also proposed to install 2 DG Sets of 500 KVA each.
5. Proposed raw material and fuel requirement for project are MS Scrap, Sponge Iron, Silico Manganese, Ferro Silicon, Aluminium, Ramming Mass, Coal and Furnace Oil. The scrap requirement would be fulfilled by indigenous sources as well as imported. Fuel consumption will be mainly for Reheating furnace.

Based on the presentation made by the proponent and the documents furnished the SEAC decided to recommend the proposal for the grant of Terms of References (ToR) (Annexure-I) to SEIAA with Public Hearing. The proponent should furnish the details/particulars in respect of the following additional ToR in the EIA report, in addition to the standard ToR:

1. The details of Environmental pollution control measures proposed to deal with increased Air pollution, effluent generation and slag generation.
2. Details of adequate solid waste storage area like space requirement. Under what conditions it will be stored and how it will be managed. Detailed methodology for handling and storing of solid waste shall be furnished.
3. Environmental Cell details shall be provided with Designation and Qualification.

4. The purpose of Green belt around industries is to capture the fugitive emissions, attenuate the noise generated and improve the aesthetics. A wild range of indigenous plants species should be planted in and around premises in consultation with the DFO, Tirupur / state Agriculture university. The plants species should have thick canopy cover, perennial green nature, native origin and large leaf areas. Medium size trees and small trees alternating with shrubs shall be planted. If possible Miyawaki method of planting i.e planting different types of trees at very close escapement may be tried which will give a good green cover. A total of 33% of the plot area should be designated for green belt which should be raised along the boundaries of the industries. Accordingly, a detail proposal on the green belt plan with the GPS Co Ordinates shall be furnished.
5. Detail proposal for CER shall be furnished.
6. Proper plans for disposal of slag including the reuse of the slag for purpose which may not create any environmental problem in future.
7. Detail of the Air pollution control measures and the effluent treatment system for proposed project. The adequacy report vetted by the reputed Government institutions like Anna university, IIT, NEERI etc for the Air pollution control measures proposed for the project.

Agenda No. 125-14:

(File No. 6691/2019)

(SIA/TN/MIN/27502/2019)

Existing Kallankurichi limestone mining lease over an extent of 66.11.0ha S.F.Nos. 180, 176, 179/1, 4, 181, 182/1B, 185/2 of Ariyalur (Kurumbanchavadi) Village, S.F.Nos. 91, 92/4, 5, 1, 6, 113/3 of Ameenabad Village S.F.Nos. 218/1A, 226/1, 233/2, 236, 238/2, 4, 261, 277/7, 16, 513/1, 2, 4, 514/1, 2, 9, 162/5B, 163/14, 164/1, 6, 165/1B, 166/2B, 167/1, 169/1, 474/1, 2 of Kallankurichi Village S.F.Nos. 28/1, 7, 29/1, 30/1, 13, 15, 31/10, 281/1, 281/3, 282, 291 of Kairlambad Village Ariyalur Taluk, Ariyalur District by M/s. Tamil Nadu Cements Corporation Ltd, Chennai under Activity 1(a) – Mining of major mineral – ToR to be issued under violation notification dated: 14.03.2017 & 14.03.2018 of MoEF & CC.

Annexure-1

**STANDARD TERMS OF REFERENCE (TOR) FOR EIA/EMP REPORT FOR
PROJECTS/ACTIVITIES REQUIRING ENVIRONMENT CLEARANCE**

**3(a): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT
IMPACT ASSESSMENT STUDY FOR METALLURGICAL INDUSTRIES (FERROUS &
NON FERROUS) PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP
REPORT**

A. STANDARD TERMS OF REFERENCE (TOR)

- 1) Executive Summary
- 2) Introduction
 - i. Details of the EIA Consultant including NABET accreditation
 - ii. Information about the project proponent
 - iii. Importance and benefits of the project
- 3) Project Description
 - i. Cost of project and time of completion.
 - ii. Products with capacities for the proposed project.
 - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other chemicals and materials required with quantities and storage capacities
 - vi. Details of Emission, effluents, hazardous waste generation and their management.
 - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
 - viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
 - ix. Hazard identification and details of proposed safety systems.
 - x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto

obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius)

- shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
 - xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
 - xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
 - xiii. R&R details in respect of land in line with state Government policy
- 5) Forest and wildlife related issues (if applicable):
- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
 - ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
 - iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
 - iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
 - v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
 - vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
- 6) Environmental Status
- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
 - ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO

and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 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 annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. 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 species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7) Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and

Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

- i. 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.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non compliances / violations of environmental 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

10) Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be

provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11) Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12) 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.

13) A tabular chart with index for point wise compliance of above TOR.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)

- 1) Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
- 2) Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
- 3) Details on installation/activation of opacity meters with recording with proper calibration system
- 4) Details on toxic metals including mercury, arsenic and fluoride emissions
- 5) Details on stack height requirement for integrated steel
- 6) Details on ash disposal and management -Non-ferrous metal
- 7) Complete process flow diagram describing production of lead/zinc/copper/aluminium, etc.
- 8) Raw materials substitution or elimination
- 9) Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
- 10) Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium

- 11) Details on solvent recycling
- 12) Details on precious metals recovery
- 13) Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
- 14) Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
- 15) Trace metals Mercury, arsenic and fluoride emissions in the raw material.
- 16) Trace metals in waste material especially slag.
- 17) Plan for trace metal recovery
- 18) Trace metals in water

C. ADDITIONAL TOR FOR INTEGRATED STEEL PLANT

- 1) Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines.
- 2) Quantum of production of coal and iron ore from coal & iron ore mines and the project 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) Respirable Suspended particulate matter (RSPM) present in the ambient air must be analysed for source analysis - natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analysed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
- 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.
