

**F. No. J-11011/161/2019-IA.II(I)**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

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Tel: 011-24695368  
Dated: 11.09.2020

To,  
**M/s JRT Industries LLP**  
Village Sila, Tehsil Mouza Silasundarighopa,  
**District Kamrup, Assam**

**Subject:** Manufacturing of Asbestos Cement Sheets (Corrugated & Plain) of Capacity 50,000 TPA & Non -Asbestos Flat sheets of Capacity 30,000 TPA by **M/s JRT Industries LLP** located at Village Sila, Tehsil Mouza Silasundarighopa, **District Kamrup, Assam –Environment Clearance - regarding.**

Sir,

This is reference to your online application vide proposal no. IA/AS/IND/99846/2019 dated 12/02/2020 and 08/07/2020 in prescribed Form-2, EIA report and other documents for seeking Environmental Clearance (EC) for the proposed asbestos project mentioned above. The proposed project activity is listed in the schedule at Sl. No. 4 (c) Asbestos Milling & Asbestos based Products under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

2. The proposal for 50,000 TPA manufacturing of Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non-Asbestos flat sheets of M/s JRT INDUSTRIES LLP is located in Village–Sila, Tehsil–Mouza Silasundarighopa, Distt. – Kamrup, State-Assam was initially received in the Ministry on 19/3/2019 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 6<sup>th</sup> meeting held on 29/4/2019 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining EC. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 20/5/2019 vide Lr. No. F.No. IA-J-11011/161/2019-IA.II (I).
3. Based on the ToRs prescribed to the project, the project proponent submitted an application for EC to the Ministry online on 08/07/2020 vide proposal No. IA/AS/IND/99846/2019.

**Details submitted by the project proponent**

4. The project of M/s JRT Industries LLP, located in village–Sila, Tehsil–Mouza Silasundarighopa, Distt. – Kamrup, State-Assam is for setting up of a new plant for production of 50,000 TPA Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non asbestos flat sheets.
5. The total land for the project is 4.3241 ha which has been taken on lease from the sister concern for 99 years. The land is non-agricultural, non-forest, private land with Khasra No. 43,24,25,122,149,580,195,147,522,353,439, 392. No River passes through the project area. No water body exists around the project and modification/diversion in the existing natural drainage pattern at any stage is not proposed.
6. The topography of the area is flat lie between 26014'23.94" to 26014'31.26" N Latitude and 91042'2.87" to 91042'12.60" E Longitude in Survey of India topo sheet No.78N/12 at an elevation of 64 m AMSL. The ground water table reported ranges between 1.5 to 4.55 m below the land surface during the post-monsoon season and 3 to 6.55 m below the land surface during the pre-monsoon season. As per hydro-geological study of the area, it has been reported that there is no

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significant change in rise/fall in water level in the last 10 years.

7. No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve etc. are located in the core and buffer zone of the project. The area also does not form corridor for Schedule-I fauna. The list of flora and fauna in the study area is given in EIA.
8. Raw Materials required for proposed 50,000 TPA manufacturing of Asbestos cement sheets (corrugated & plain) & 30,000 TPA non asbestos flat sheets are O.P.C. cement (36000 TPA), asbestos fibre (4600 TPA), fly ash (20000 TPA), paper pulp (1000 TPA) & virgin pulp (2600 TPA). The Manufacturing of asbestos cement corrugated and plain sheets will be done by wet process known as Hatschek process. Waste generated in the process are empty fibre bags, fibre dust, process sludge, hard broken pieces, cement dust & fly ash dust which will be recycled.
9. The targeted production capacity of the plant is 50,000 TPA asbestos cement sheets (corrugated & plain) & 30,000 TPA Non-Asbestos flat sheets. O.P.C. Cement will be procured from local industries (Assam & Meghalaya-Joyshree Cement Industries, Kamrup) & transportation through road, by trucks/bulkers from Meghalaya and Guwahati to factory. Asbestos fibre will be imported from Russia & Virgin pulp from Tasmania, Chile and transported through sea/rail/road, by Rail from Kolkata Port to Changsari railway station, from Changsari to factory by covered trucks via NH-31(4 km). Fly ash will be sourced from NTPC –Assam & West Bengal and transported through road/rail, by bulkers form NTPC, Bongaigaon, Assam to factory (80-90%), by rail from Farakka to Changsari (10-20%). Paper pulp will be sourced from local suppliers (notebook and printing press in Assam) transported through road, by trucks to factory.
10. Total water requirement is approx. 142 KLD. Out of which 75 KLD, 35 KLD, 10 KLD and 12 KLD will be used for process, office/domestic, Canteen & plantation respectively. 10 KLD rainwater will be used for wet mopping, sprinkling, and firefighting etc. Source of water will be bore well and rainwater. 32 KLD water will be recycled & 110 KLD will be make up water (100 KLD from ground water & 10 KLD from rainwater). NOC for groundwater abstraction for 100 KLD has been issued vide NOC No. - CGWA/NOC/IND/ORIG/2020/8167 dated 03/07/2020 by CGWA.
11. Power requirement for the plant will be 1513.3 KW per hour and the source of power will be ASEB and SOLAR (800Kw grid connected Solar power plant). Solar power generation will be on roof tops of buildings, for solar light system for all common areas, streetlight, parking around project area. DG set of 900 KVA & 320 KVA will be available as standby arrangement. Load to of 1500 KW has been sanctioned by APDCL (LAR).
12. Baseline environmental studies were conducted during pre-monsoon season i.e., from March 2019 to May 2019. Ambient air quality monitoring has been carried out at eight locations during March 2019 to May 2019 and the data submitted indicated: PM<sub>10</sub> (27.67 to 70.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (19.0 to 56.13 µg/m<sup>3</sup>), SO<sub>2</sub> (6.03 to 15.5 µg/m<sup>3</sup>) and NO<sub>2</sub> (7.1 to 29.8 µg/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.57974 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, 0.18991 µg/m<sup>3</sup> with respect to PM<sub>2.5</sub>, 0.05734 µg/m<sup>3</sup> with respect to SO<sub>2</sub> & 0.05329 µg/m<sup>3</sup> with respect to NO<sub>2</sub>.
13. Ground water quality has been monitored in eight locations in the study area and analyzed. pH: 7.02 to 7.44, Total Hardness: 224 to 256 mg/l, Chlorides: 28 to 46 mg/l, Fluoride: 0.45 to 0.65 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 3 locations. pH: 7.77 to 7.86; DO: 5.1 to 5.5 mg/l and BOD < 2mg/l.
14. Noise levels are in the range of 50.1 to 65.9 dB (A) for daytime and 41.7 to 52.4 dB (A) fortnight time.
15. There are no people in the core zone of the project. No/ R&R is involved.
16. It has been reported that expected solid waste generation/ month is 4.1686 MT, which will be recycled and reused.



17. It has been envisaged that an area of 1.43 ha (33 % of total area) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.
18. It has been reported that the Consent to Establish from the Assam State Pollution Control Board is under process.
19. The Public hearing of the project was held on 7<sup>th</sup> December, 2019 at Sri Sri Ganesh Mandir Pratohmik Bidalay Campus, Vill.: Huluguri Chowk, Sila, P.O.: Changsari, Dist.: Kamrup (R) under the chairmanship of Sri Satya Jyoti Baruah, ASC, Additional Deputy Commissioner, Kamrup (Rural) for production of 50,000 TPA Asbestos cement sheets (corrugated & plain) & 30,000 TPA Non Asbestos flat sheets.
20. The issues raised during public hearing are environmental problems, effect on health, wastewater discharge, employment to locals, to carry out some work of interest of the locality, construction and renovation of temple etc. An amount of Rs 144.5 Lakhs has been earmarked for Corporate Environmental Responsibility (CER) based on public hearing issues.
21. The capital cost of the project is Rs 71.75 Crores and the capital cost for environmental protection measures is proposed as Rs 105 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 12.5 Lakhs. The employment generations from the proposed project is 100 direct employment & 150 indirect employment.
22. Greenbelt will be developed in 1.43 ha which is about 33% of the total acquired area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines.
23. There is no court case or violation under EIA Notification to the project or related activity.
24. Consultant: Ecomen Laboratories Pvt. Ltd. QCI/NABET Certificate No. NABET/EIA/1720/SA 95, valid up to September 20, 2020 (Sl. No.47, Rev 89, July 11,2020).

#### **Observations of the committee**

25. The proposal was reconsidered in the Reconstituted Expert Appraisal Committee (REAC) 21<sup>st</sup> EAC meetings held during 30<sup>th</sup> July – 1<sup>st</sup> August, 2020. 
26. The proposal is for setting up of Greenfield project for Manufacturing of Asbestos Cement Sheets (Corrugated & Plain).

#### **Recommendations of the committee**

27. In view of foregoing, after detailed deliberations, the committee recommended the project for Environment Clearance subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to Asbestos based industries based on project specific requirements:

##### **A. Specific Conditions**

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.
- ii. CER shall be implemented within three years
- iii. Rainwater harvesting shall be implemented.
- iv. Asbestos monitoring in the ambient air shall be carried out periodically and the data shall be submitted along with the six monthly compliance report to the Regional Office.



## **B. General Conditions**

### **I. Statutory compliance**

- i. The project proponent shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment, Forest and Climate Change.
- ii. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in impermeable bags and under compressed condition.
- iii. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.

### **II. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall provide appropriate dust collectors to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle the same into the process.
- iii. High Efficiency Particulate Air filters (HEPA) preceded by primary filters shall be installed on all asbestos contaminated areas.
- iv. Total dust emission limit of  $2 \text{ mg/Nm}^3$  as notified under the Environment (Protection) Act, 1986 shall be complied. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
- v. Provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vi. Channelize through hood with proper suction arrangement, bag filter and stack the fugitive emissions generated from hopper of Jaw crusher and pulverizer.
- vii. Bring the cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer.
- viii. The bags containing asbestos fibre including damaged bags, if any shall be stored in enclosed area.
- ix. Place the asbestos contaminated materials (non-encapsulated) for off-site removal in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.
- x. Empty and damaged fibre bags shall be shredded into fine particles in a bag-shredder and recycled into the process.
- xi. AC sheets shall be piled in wet condition only.



- xii. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
- All monitoring transfer points shall be connected to dust extraction system.
  - Leakages or dust from machines and ducts shall be plugged.
  - Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.
  - Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises

### **III. Water quality monitoring and preservation**

- The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- Adhere to 'Zero Liquid Discharge'

### **IV. Noise monitoring and prevention**

- Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

### **V. Waste management**

- The PP shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.

### **VI. Green Belt**

- Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

### **VII. Public hearing and Human health issues**

- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.



- ii. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. The proponent shall create in-house facilities for spirometry test. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, Spirometry test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for sugar and albumen, blood tests for TLC, DLC, ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court including the recent Kalyaneswari case

### **VIII. Corporate Environment Responsibility**

- i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- ii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

### **IX. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.



- vii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- viii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- ix. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- x. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xi. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

#### **Decision of MoEF&CC**

28. The Ministry has considered the recommendation of EAC and hereby decided to accord EC to M/s JRT Industries LLP for the project mentioned in the subject with specific and general conditions mentioned at para 27 above.

This issues with the approval of Competent Authority.



**(A.K. Agrawal)**  
**Director**

#### **Copy to:-**

- 1) **Secretary**, Department of Environment, Government of Assam, Secretariat, H-Block, 2nd Floor Janata Bhawan, Dispr, Guwahati 781006,
- 2) **Deputy Director General of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (NEZ), Upland Law-U-Sib, Lumbatngen, Near MTC Workshop, Shillong, Meghalaya.
- 3) **Chairman**, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- 4) **Member Secretary**, Central Ground Water Authority, 18/11, Jamnagar House, Man Singh Road, New Delhi-110011.
- 5) **Chairman**, Assam Pollution Control Board, Bamunimaidan, Guwahati-781 021
- 6) **District Collector, Kamrup District**, State Assam.
- 7) Guard File/Record File/Monitoring File.
- 8) MoEF&CC Website.



**(A.K. Agrawal)**  
**Director**