

F. No. J-11011/196/2014-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 12.02.2020

To,

M/s. Satia Industries Ltd
Village Rupana, District Muktsar Sahib,
Punjab-152032
Email: satiapaper@gmail.com

Subject: Expansion of paper production (300 to 600 TPD) along with expansion of Captive Power Plant (CPP)(30 to 44 MW) by **M/s. Satia Industries Limited** located at Village Rupana, District Sri Muktsar Sahib, **Punjab–Environment Clearance - regarding.**

Sir,

This is reference to your online application vide proposal no. IA/PB/IND/61921/2015 dated 9th September, 2019 in prescribed Form-2 along with copies of EIA/EMP report and other documents seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed in the schedule at Sl. No. 5(i) Pulp and Paper Industry under Category “A” of EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2. The expansion proposal of M/s Satia Industries Ltd was initially received in the Ministry on 28th December 2018 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 4th meeting held on 20th February 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 vide Lr. No. IA-J-11011/196/2014-IA.II(I) dated 16th April 2019.
3. The existing project was accorded environmental clearance vide Lr. No. J-11011/196/2014-IA-II (I) dated 29th May 2018. The expansion of M/s Satia Industries Ltd is proposed within the existing plant premises. The proposed expansion is as below:

Sl. No	Product	Capacity			Remarks
		Existing	Proposed	Total	
1.	Writing and Printing Paper (TPD)	300	300	600	Expansion
2.	Co-generation Captive Power Plant (MW)	30	14	44	

4. The status of compliance of earlier EC was obtained from Regional Office, Chandigarh vide Lr. No. 5-309/2011-RO(NZ)/123-125 dated 05/08/2019. Closure of non-compliances reported was certified by Regional Officer vide Lr. No. 5-309/2011-RO(NZ)/278-279 dated 10/10/2019.

5. The total land required for the project is 18.4341 ha, out of which 3.8568 ha. is an agricultural land. No Forestland is involved. The entire land has been acquired for the project. It has been reported that Arniwala canal passes adjoining the boundary of project and modification/diversion in the existing natural drainage pattern of the canal at any stage has not been proposed.
6. The topography of the area is flat terrain and reported to lies between 30°25'20.77"N to 30°25'07.20"N Latitude and 74°31'02.53"E to 74°31'19.67"E Longitude in Survey of India toposheet No.H43I6/H43I7 and H43I10/H43I11, at an elevation of 31.4 m AMSL. The ground water table reported to ranges between 0.06-7.78 m below the land surface during the post-monsoon season and 0.67-7.43 m below the land surface during the pre-monsoon season. No ground water abstraction is proposed.
7. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the study area of the project. The area also does not report to form corridor for Schedule-I fauna.
8. The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process.

S. No.	Type	Source	Quantity, TPD			Disposal
			Existing	Proposed	Total	
1.	ETP Sludge	ETP	10.00	7.00	17.00	Disposed to local cardboard manufacturers.
2.	Lime Sludge	Causticizing	173.00	54.35	227.35	Calcination in Cement Plants
3.	Fly Ash	Boiler House	63.75	51.25	115.00	For brick manufacturing & filling of the low lying areas

9. The targeted production capacity of the writing & printing paper is 600 TPD and Power generation through CPP is 44 MW.
10. The required raw material for the plant would be procured from local area by transportation through road. The details of raw material as given below:

S.No	Name of Raw Materials	Existing (TPD)	Proposed (TPD)	Total (TPD)
1.	Imp. Waste Paper	0.000	35.300	35.300
2	Imp. Wood Pulp	0.000	32.600	32.600
3	Paper Additives	7.579	4.421	12.000
4	Soap Stone	65.650	52.350	118.000
5	Wheat Straw, Sarkanda, Bagasse	533.000	105.000	638.000
6	Wood Chips	150.000	205.600	355.600
7	Caustic	130.450	52.350	182.800
8	Liquid Oxygen	6.120	3.56	9.680
9	Chlorine Dioxide	3.400	4.600	8.000
10	Oxy Bleach Booster	000	4.400	4.40
11	Lime	95.200	32.200	127.400
	Total	991.4	528.8	1520.3

11. The fuel is biomass and black liquor. The details are as below:

S. No.	Fuel	Quantity, TPD			Source
		Existing	Proposed	Total	
1.	Rice Husk	500	400	900	Local Suppliers
2.	Black Liquor	400	300	700	In-House

12. The water requirement of the project is estimated as 32,235 m³/day, Out of which 21,115 m³/day of fresh water requirement will be obtained from the Arniwala Canal and the remaining requirement of 11,120 m³/day will be met from the Recycling Process. The permission for drawl of surface water has been obtained vide Lr. No. 2018/Canals(7)10712 and 5637/57-R date 07/09/2018.
13. The power requirement of the project is estimated as 32 MW, which will be met from the CPP.
14. Baseline Environmental Studies were conducted during winter season i.e., from 1st December 2018 to 28th February 2019. Ambient air quality monitoring has been carried out at eight locations during 1st December 2018 to 28th February 2019 and the reported data indicated: PM₁₀ (62.5 µg/m³ to 88.6 µg/m³); PM_{2.5} (32.8 to 48.3 µg/m³); SO₂ (9.6 to 16.7 µg/m³) and NO_x (14.2 to 21.5 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.46 µg/m³ with respect to the PM₁₀; 0.010 µg/m³ with respect to SO₂; 0.27 µg/m³ with respect to the NO_x.
15. Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.04 to 7.94; Total Hardness: 112 to 1200 mg/l; Chlorides: 40 to 875 mg/l; Fluoride: 0.4 to 0.7 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 3 locations. pH: 7.23 to 7.75 ; DO: 4.9 to 5.1 mg/l ; BOD: <4 to 6 mg/l; COD from 10 to 16 mg/l.
16. Noise levels are in the range of 49.8 to 77.4 dB (A) for daytime and 42.8 to 72.1 dB (A) for night time.
17. No R&R is involved as the expansion shall be in the existing premises.
18. It has been reported that a total of 359.35 TPD of waste will be generated due to the project, out of which 115.0 TPD fly ash will be used in brick manufacturing, 227.35 TPD lime sludge will be supplied to cement plants. 17 TPD of ETP sludge will be disposed to local cardboard manufacturers.
19. Greenbelt will be developed in 6.0826 Ha which is about 33% of the total acquired area. A 100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed with native species as per CPCB/MoEF&CC, New Delhi guidelines.
20. The capital cost of the project is ₹ 500 Cr and the capital cost for environmental protection measures is proposed as ₹ 20.50 Cr. The annual recurring cost towards the environmental protection measures is proposed as ₹ 1.25 Cr/annum.
21. The employment will be generated for 500 nos. of people from the expansion project.
22. It has been reported that the Consent from the Punjab State Pollution Control Board was obtained vide No. CTOA/Fresh/MKS/2018/7687794 and CTOW/Fresh/MKS/2018/7687650 dated 09/07/2018 which is valid up to 31/03/2023.
23. The public hearing of the project was held on 04/07/2019 at the main gate of the industry located in the revenue estate of village Rupana under the chairmanship of Additional Deputy Commissioner for 'Enhancement of production capacity of writing & printing paper (300 to 600 TPD) and Co-Gen Power Plant (30 MW to 44 MW)'. The issues raised during public hearing are such as water usage, employment generation etc. Based on public hearing issues,

an amount of ₹4.0 Cr has been earmarked for Corporate Environment Responsibility (CER) activities.

24. The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.
25. The proposal was considered in the EAC meetings held during 24-25th September, 2019; 21-23rd October 2019 and 27-29th November 2019.

Observations of the committee:

26. The committee found the closure of non-compliance to the conditions of earlier Environmental Clearance is satisfactory.

Recommendations of the Committee:

27. In view of the forgoing and after detailed deliberations, the committee recommended the project for grant of Environmental Clearance under the provisions of EIA Notification, 2006 subject to the following specific conditions in addition to the applicable general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 for pulp and paper industries.

A. SPECIFIC CONDITIONS:

- i. The process water requirement per tonne of paper production shall not exceed 50 m³.
- ii. Project Proponent shall recycle with appropriate treatment at least 25 m³ of wastewater per ton of paper production back in the process.
- iii. All CER targets shall be fully achieved in 3 years.

Decision of MoEF&CC:

28. The Ministry considered the above recommendation of EAC and decided to grant Environmental Clearance (EC) for the proposed expansion of paper production (300 to 600 TPD) along with expansion of Captive Power Plant (CPP) (30 to 44 MW) within the existing plant premises by M/s Satia Industries Ltd located at Village Rupana, District Sri Muktsar Sahib, Punjab along with the specific conditions at para 27 above and following sector specific general conditions as applicable.

B. GENERAL CONDITIONS:

I. Statutory compliance:

- i. The project proponent shall obtain Consent under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- ii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- iii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and the systems be calibrated according to equipment supplier's specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall install high volume, low concentration NCG collection & destruction system to mitigate all malodorous gases emitted.
- vii. Emissions shall be controlled from chemical recovery section through primary and secondary venturi scrubbers.
- viii. Pollution control system in the pulp and paper plant shall be provided as per the CREP Guidelines of CPCB.
- ix. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- x. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xi. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- xii. The company shall install Oxygen Delignification (ODL) Plant and shall maintain AOX below 1 kg/tonne of paper production
- xiii. Elemental Chlorine Free (ECF) technology shall be used and lime kiln shall be installed to manage lime sludge

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)
- ii. 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.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water

quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

- iv. The project proponent shall provide the ETP to meet the standards prescribed in vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- vii. Tyre washing facilities shall be provided at the entrance of the plant gate(s).
- viii. Ensure that there is no black liquor spillage in the area of pulp mill, no use of elemental chlorine for bleaching in mill, installation of hypo preparation plant.
- ix. Ensure that no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE in the Chemical recovery process directly to ETP
- x. The project proponent shall practice rainwater harvesting to maximum possible extent.
- xi. Water meters shall be provided at the inlet to all unit processes in the plant.
- xii. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. 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.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

VI. Waste management

- i. Deinking sludge and fine sludge from ETP shall be disposed through TSDF.
- ii. Black Liquor shall be separately processed for recovery of energy and chemical in a Chemical Recovery Process.
- iii. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
- iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office. (in case of CPP)
- v. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- vi. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. 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
- ii. 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.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- v. The proponent shall follow International Standards of safety for ClO₂ generation and storage system, and ozone plant, and certification on regular basis may be submitted. Provision for adequate safety for personnel in case of any accidental leakage should be in place

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. 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.
- iii. 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 to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.


- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Pulp and Paper plants shall be implemented.

X. 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 environment 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; PM₁₀, SO₂, NO_x (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 submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. 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.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. 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.
- x. 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).
- xi. 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.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. 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.


- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. 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.

This issues with the approval of Competent Authority.


(A.K. Agrawal)
Director

Copy to:-

1. **Secretary**, Department of Environment, Government of Punjab, Secretariat Chandigarh.
2. **Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment & Forests, Regional Office (NZ), Bays No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160 030.
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**, Punjab Pollution Control Board, VataVaran Bhawan, Nabha Road, Patiala, Punjab-147 001.
6. **District Collector, Muktsar Sahib**, District, State Punjab.
7. Guard File/Record File/Monitoring File.
8. MoEF&CC Website.


(A.K. Agrawal)
Director