

Government of Maharashtra

SEAC-2110/CR-587/TC2
Environment department
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai- 400 032.
Dated: **23** December, 2013

To,
M/s. Gail (India) Ltd.
Village Usar, Tal Alibag,
Dist Raigad.

Subject: Environmental clearance for the proposed 220 MW Gas based combined Cycle Power Plant Project in Usar Village of Raigad Dist by M/s. Gail (India) Ltd.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification, 2006, by the State Level Expert Appraisal Committee, Maharashtra in its 65th meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 63rd Meeting.

2. It is noted that the proposal is for grant of Environmental Clearance for proposed 220 MW Gas based combined Cycle Power Plant Project at Village Usar Dist. Raigad. SEAC considered the project under screening category 1 (d) B1 of EIA Notification 2006.

Brief Information of the project submitted by Project Proponent is as:

Name of the Project	250 MW Nominal (216/222 MW at Site Condition) Gas based Combined Cycle Power Project, Village- Usar, Tehsil- Alibag, District- Raigad, Maharashtra
Project Proponent	M/s. GAIL (India) Limited.
Consultant	Greencindia Consulting Pvt. Ltd
Categeory	1 (d), B1
Area Details	<ul style="list-style-type: none">• Total plot area (sq. m.): Approx. 84984 m²• Built up area (Sq. m.): Approx. 38445.1 m²
Name of the Notified Industrial area / MIDC area	Maharashtra Industrial Development Corporation (MIDC) Plot No A – 1 in Ussar Industrial Area.
Estimated capital cost of the Project (including cost for land, building, plant	Total Cost- INR 1028 Crores Land Cost- INR 2.15 Crores Building Cost- INR 15 Crores



and machinery separately)	Plant and Machinery- INR 585 crores				
Location details of the project :	<ul style="list-style-type: none"> • Latitude- 18°36'15" N • Longitude- 72°58'19" E • Location- Village- Usar, Tehsil- Alibag, District- Raigad, Maharashtra • Elevation above Mean Sea Level (metres)- Average 120m above MSL 				
Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas / inter-State boundaries	No Protected Areas, Critically Polluted Area, Inter-State boundaries, National Park and Wildlife Sanctuary in 10 km Radius				
Raw materials (including process chemicals, catalysts, & additives).	List of Raw materials to be used	'Physical and chemical nature of raw material	'Quantity (tonnes/ year) full production capacity	Source of materials	Means of transportation (Source to storage site) with justification
	Natural Gas	Liquid	1.0 MMSCMD	GAIL	Pipeline
Production details	Name of Products, By products and Intermediate Products	Existing (T/Year)	Proposed Activity (new / modernization / expansion) (T/Year)	Total (T / Year)	
	Main Products (Electricity)	-	New- 250 MW Nominal (216/222 MW at Site Condition)	250 MW Nominal (216/222 MW at Site Condition)	
	By-Products	-	-	-	
	Intermediate Products				
Process details / Manufacturing details	Power generation by Combined Cycle Process of Power Generation				
Total Water Requirement	<ul style="list-style-type: none"> • Total water requirement: 224 CMD • Fresh water (CMD) & Source: 5376 CMD from Amba 				

	River <ul style="list-style-type: none"> • Use of the water: • Process (CMD): 180 CMD • Cooling water (CMD): 5028 CMD • DM Water (CMD): 180 CMD • Dust Suppression (CMD): 16.8 CMD (Combined with greenbelt) • Drinking (CMD): 24 CMD • Green belt (CMD): 16.8 CMD • Fire service (CMD): Occasional Requirement 					
Solid waste Management	Sr. No.	Source	Qty (TPM)	Form (Sludge / Dry / Slurry etc.)	Composition	
	1	Raw water treatment plant	Approx 1.7	Sludge / Dry	Suspended Solids	
	2	ETP				
	3	Process	Approx 1.0	Sludge / Dry	Dissolved Solids	
	4	Spent Catalyst	-			
	5	Oily Sludge	-			
	6	Others like Battery waste, e waste etc (Pl. Specify)	-			
Atmospheric Emissions (Flue gas characteristics SPM, SO ₂ , NO _x , CO, etc.)	Sr. No.	Pollutant	Source of Emission	Emission Rate (kg/hr)	Concentration in flue gas (g/m ³)	
	1	SPM	-	-	-	
	2	SO ₂	-	-	-	
	3	NO _x	NG Combustion	9.2	0.08	
	4	CO	-	-	-	
	5	Others	-	-	-	
Stack emission	Plant	Stack	Height	Internal	Emission	Temp. of

6-1

<p>Details: (All the stacks attached to process units, Boilers, captive power plant, D.G. Sets, Incinerator both for existing and proposed activity). Please indicate the specific section to which the stack is attached.</p> <p>e.g.: Process section, D.G. Set, Boiler, Power Plant, incinerator etc. Emission rate (kg/hr.) for each pollutant (SPM, SO₂, NO_x etc. should be specified</p>	Section & units	No.	From ground level (m)	Diameter (Top) (m)	Rate	Exhaust Gases	
	140.86 MW	1 st	60	1.75	40 ppm	373 K	
		2 nd	60	1.75	40 ppm	373 K	
Emission Standard	Pollutants (SPM, SO₂, etc)	Emission Standard Limit (mg/Nm³)	Proposed Limit (mg/Nm³)	MPCB Consent (mg/Nm³)			
	NO _x	75 ppm	40 ppm	Will be applied after EC			
Ambient Air Quality Data	Pollutant	Permissible Standard	Proposed Concentration (in µg/m³)	Remarks			
	SPM	200	No Change	-			
	RPM	100	No Change	-			
	SO ₂	80	No Change	-			
	NO _x	80	28.4	The conc. Will remain well within prescribed standards			
	CO	-					
Details of Fuel to be used:	Sr. No	Fuel	Daily Consumption (TPD/KLD)		Calorific value (kcal / kg)	% As h	% Sulphur
			Existing	Proposed			
	1	Gas	-	1.0 MMSCM D	8500 kcal/scm		

	<ul style="list-style-type: none"> • Source of fuel: GAIL (India) Limited • Mode of transportation of fuel to site: Pipeline 			
Energy	Power supply: Proposed power requirement: About 220 MW			
Green Belt Development	<ul style="list-style-type: none"> • Green belt area (Sq.m.): Approx. 28329 m² • Number and species of trees to be planted- Approx. 30 species has selected on the basis of primary assessment. (AI) 			
Details of Pollution Control Systems:	Sr. No.		Existing pollution control system	Proposed to be installed
	1	Air		<ul style="list-style-type: none"> • Low NO_x burner • Use of Clean Fuel • Tall stack for wide dispersion
	2	Water		<ul style="list-style-type: none"> • RO system for maximum reuse • COC of 7.0 • Zero Discharge
	3	Noise		<ul style="list-style-type: none"> • Acoustic Enclosure • Greenbelt, etc.
	4	Solid Waste		<ul style="list-style-type: none"> • Use of clean fuel • Proper management of sludge
Environmental Management plan Budgetary Allocation	<ul style="list-style-type: none"> • Capital cost (With break up): • O&M cost (With break up): 			
	Sr. No		Recurring Cost per annum (INR)	Capital Cost (INR)
	1	Air Pollution Control	15 Lakhs	2.0 Crores
	2	Water Pollution Control	20 Lakhs	3.0 Crores
	3	Noise Pollution Control	25 Lakhs	5.0 Crores
	4	Environment Monitoring and Management	20 Lakhs	2.0 Crores
	5	Reclamation borrow / mined area (If	Not Applicable	Not

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		applicable)		Applicable
	6	Occupational Health	25 Lakhs	2.0 Crores
	7	Green Belt	20 Lakhs	1.0 Crores
	8	Solid waste management		1.0 Crores
	9	Others (Pl. Specify)		-
		Total	125 Lakhs	15 Crores

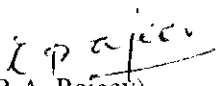
3. The proposal has been considered by SEIAA in its 63rd meeting decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

- (i) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
- (ii) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.
- (iii) Regular monitoring of the air quality, including SPM & SO₂ levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
- (iv) Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.
- (v) Proper Housekeeping programmes shall be implemented.
- (vi) In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieve.
- (vii) A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set.(If applicable)
- (viii) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
- (ix) Arrangement shall be made that effluent and storm water does not get mixed.
- (x) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (xi) Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
- (xii) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.

- (xiii) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xiv) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
- (xv) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
- (xvi) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- (xvii) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
- (xviii) The company shall undertake following Waste Minimization Measures :
- Metering of quantities of active ingredients to minimize waste.
 - Reuse of by- products from the process as raw materials or as raw material substitutes in other process.
 - Maximizing Recoveries.
 - Use of automated material transfer system to minimize spillage.
- (xix) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
- (xx) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards
- (xxi) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.
- (xxii) Separate silos will be provided for collecting and storing bottom ash and fly ash.
- (xxiii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
- (xxiv) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://ec.maharashtra.gov.in>

- (xxv) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- (xxvi) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xxvii) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (xxviii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
- (xxix) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
- (xxx) The environmental clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.
4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.
5. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
6. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years to start of production operations.
7. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.
9. Any appeal against this environmental clearance shall lie with the National Green Tribunal, Van Vigyan Bhawan, Sec- 5, R.K. Puram, New Dehli – 110 022, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010


(R.A. Rajeev)
Principal Secretary,
Environment department &
MS, SEIAA

Copy to:

1. Shri. R. C. Joshi. IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.
2. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
3. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
4. Regional Office, MPCB, Raigad.
5. Commissioner, Raigad Municipal Corporation, Raigad.
6. Collector, Raigad.
7. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
8. Director (TC-1), Dy. Secretary (TC-2), Scientist-1, Environment department.
9. Select file (TC-3).

(EC Uploaded on - 26th Dec- 2013