

FORM 1

(I) Basic Information

Sr. No.	Item	Details
1.	Name of the Project/s	M/s. Reliance Industries Limited, Jamnagar Manufacturing Division. (RIL-JMD) Proposed Expansion Projects: <ul style="list-style-type: none"> - Refinery Units (5th Crude Train) - Coal Based Power Plant - Ethylene Propylene Diene Monomer Rubber - Poly Isoprene Rubber
2.	S.No. in the schedule	<ol style="list-style-type: none"> 1. Refinery Units (5th Crude Train): Sr. No. 4(a) 2. Coal Based Power Plant: Sr. No. 1(d) 3. Ethylene Propylene Diene Monomer Rubber: Sr. No. 5(f) 4. Poly Isoprene Rubber: Sr. No. 5 (f) of the Schedule of the EIA Notification of 2006.
3.	Proposed capacity / area / length / tonnage to be handled / command area / lease area / number of wells to be drilled	<ol style="list-style-type: none"> 1. Refinery Units (5th Crude Train) - 20.3 MMTPA 2. Coal Based Power Plant - 450 MW 3. Ethylene Propylene Diene Monomer Rubber - 250 KTA 4. Poly Isoprene Rubber - 500 KTA
4.	New/Expansion/Modernisation	<p>Expansion:</p> <ol style="list-style-type: none"> 1. Refinery Units- 5th Crude Train (20.3 MMTPA) <p>New:</p> <ol style="list-style-type: none"> 2. Coal Based Power Plant (450 MW) 3. Ethylene Propylene Diene Monomer Rubber (250 KTA) 4. Poly Isoprene Rubber (500 KTA)
5.	Existing Capacity/Area etc.	Existing Refinery has EC for 68.2 MMTPA
6.	Category of Project i.e.'A' or 'B'	As per the EIA Notification 2006, the proposed projects fall in Category 'A'
7.	Does it attract the general condition? If yes, please specify	No. As the proposed project site is not located within 10 km from boundary of: <ol style="list-style-type: none"> i) Protected Areas notified under the Wild Life (Protection) Act, 1972 ii) Critically Polluted areas as identified by the CPCB

		iii) Eco-sensitive areas iv) Inter-state boundaries and international boundaries
8.	Does it attract the specific condition? If yes, please specify	NA
9.	Location: Plot / survey / Khasra No Village Tehsil District State	Jamnagar Manufacturing Division, Main Administrative Building (MAB), HSEF –Dept, Reliance Industries Ltd., At&Post: Reliance Greens, Dist. Jamnagar, Gujarat - 361 142
10.	Nearest railway station/airport along with distance in kms	Nearest Railway Station: Kanalus Distance from Railway station: 3 km Nearest Airport: Jamnagar Airport Distance from Airport : 25 km
11.	Nearest Town, City, District Headquarters along with distance in kms	Jamnagar City is at a distance of approx. 25 kms.
12.	Village Panchayats,Zilla Parishad, Municipal Corporation,Local body (complete postal address with telephone nos.to be given)	Jamnagar Manufacturing Division, Main Administrative Building (MAB), HSEF –Dept, Reliance Industries Ltd., At&Post: Reliance Greens, Dist. Jamnagar, Gujarat - 361 142 Landline: (0288) 4012152
13.	Name of the applicant	Reliance Industries Limited Jamnagar Manufacturing Division
14.	Registered Address	Maker Chamber IV, Nariman Point, Mumbai-400021
15.	Address for Correspondence Name Designation Address Pin Code Email Telephone No Fax No	Dr. Adawal Shankar, President Reliance Industries Limited, UG Floor, Gopal Das Bhawan 28, Barakhamba Road New Delhi 110001 Mob. +91 9811330963 Off. 01123704086 Email : Adawal.Shanker@ril.com

16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet.	The proposed projects will be established in the RIL JMD as sufficient land, raw materials and utilities to facilitate the development of the project are available, and hence no alternate sites were examined.
17.	Interlinked Projects	No.
18.	Whether separate application of interlinked projects has been submitted	No.
19.	If yes, date of submission	Not Applicable.
20.	If no,reason	Not Applicable.
21.	Whether the proposal involves approval/clearance under: if yes details of the same and their statue to be given (a) The Forest (Conservation)Act,1980? (b) The Wildlife (Protection)Act,1972? © The C.R.Z. Notification,2011?	No. The proposed project will be located within the JMD complex, outside the areas mentioned.
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No.
23.	Forest land involved (hectares)	Not Applicable.
24.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	No litigation is pending against the project/ land.

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography	No	The proposed projects will be located within the existing land acquired by

	including increase in intensity of land use (with respect to local land use plan)		RIL-JMD for its complex, hence there will be no significant change in land cover and topography of the region.
1.2	Clearance of existing land, vegetation and buildings?	No	The plant will be located in the empty area within the JMD Complex. This area does not have significant vegetation and is arid in nature. There are no existing building in the land allocated for the proposed projects.
1.3	Creation of new land uses?	No	There will not be any change in the land use pattern, as the area designated is within the area required for the JMD complex.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Soil testing/bore hole investigation is already available for the project site.
1.5	Construction works?	No	Project construction will commence only after the grant of Environmental Clearance for the project.
1.6	Demolition works?	No	Not Applicable.
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Arrangements for temporary facility for labour housing, drinking water, etc will be provided for the construction labour force with the provision of requisite amenities such as drinking water, sanitation, medical etc.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Site grading will be done in line with the local topography. Top soil will be utilised for the greenbelt development. Above ground structures like buildings, columns, machineries, stacks, etc will be constructed. Excavation work will be required for foundation, underground cables, etc.
1.9	Underground works including mining or tunneling?	Yes	No mining is envisaged. Underground culverts / tunnelling would be required for traversing across internal roads etc. for the interconnecting pipelines as required.
1.10	Reclamation works?	No	Not Applicable.
1.11	Dredging?	No	Not Applicable.
1.12	Offshore structures?	No	
1.13	Production and manufacturing processes?	Yes	Please refer Chapter 2 of the Pre-Feasibility Report.
1.14	Facilities for storage of goods or materials?	Yes	Storage yard will be provided for the project within the JMD complex for storage of coal / coke. Adequate

			<p>storage facilities for raw materials (viz. coal and auxiliary fuel), ash / slag generated will be provided, which will be finalized during detailed engineering.</p> <p>Existing tanks are proposed to be used for storage of crude oil and finished products, however, in case new storages are required, new tanks will be established, within the existing tank farms.</p> <p>Risk Assessment study for storage of hazardous materials will be carried out.</p>
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>i) Bottom bed ash and fly ash from the dust collection hoppers are proposed to be taken to the temporary ash storage areas. The ash will be utilised in cement manufacture and construction activities.</p> <p>ii) The slag from the coke gasification plant will be stored in temporary storage areas and then will either be sold or reused.</p> <p>ii) Effluent Treatment Plant (ETP) / Sewage Treatment Plant will be set up for treatment of effluents / sewage generated in the complex. The effluents from the proposed project will be handled as follows:</p> <ol style="list-style-type: none"> a. LTDS, HDTS and OWS will be segregated. b. The oil will be recovered from oily waste in the ETP. c. The LTDS stream will be treated in ETP and used in Cooling Towers. d. The HTDS stream will be treated in ETP and used in cooling towers. e. The cooling tower will have different sections based on cascading effects (from LTDS and HTDS). The final blow down along with the return seawater will be discharged through the existing / new diffuser.

1.16	Facilities for long term housing of operational workers?	No	Accommodation will be provided in the existing township.
1.17	New road, rail or sea traffic during construction or operation?	No	Site is well connected by rail / road and existing infrastructure is sufficient to handle the additional traffic generated due to the proposed project. If required, the existing facilities will be augmented / expanded to cater to the additional load. Coal/coke required for the project will be brought in through the coal/coke jetties existing at Jamnagar, and will be transported to site by closed conveyor / rail / road
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	For the requirement of new infrastructure facilities, alterations of the existing infrastructure facilities would be done on a need basis.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	
1.20	New or diverted transmission lines or pipelines?	Yes	New pipelines would be required for the proposed projects for supply of desalination water, for the supply of steam, and effluent disposal systems. New transmissions lines will be set up for supply of power to various units within the complex, through switch yards.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	The development of the complex will be planned to be consistent with the local hydrology and topography.
1.22	Stream crossings?	No	Not Applicable.
1.23	Abstraction or transfers of water from ground or surface waters?	No	No abstraction of ground or surface water. Sea water is drawn for desalination purpose.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Personnel: Since labor colonies/residential complex will be located within the JMD complex, hence transportation will not be a major issue. Material: As far as possible

			<p>construction materials may be sourced from local & neighbouring area to avoid long distance transportation.</p> <p>Stone chips, aggregates and concrete for construction will be sourced from the land acquired. Batching plants will be set up within the land already in possession.</p> <p>Operational personnel: As they will be residing in the integrated township, there will be independent transportation system.</p>
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not Applicable.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not Applicable.
1.28	Influx of people to an area in either temporarily or permanently?	Yes	<p>Construction activities may lead to temporary influx of people. However, during the construction phase first preference being given to the locals, while some of the existing construction labourers will be used for the project. There may be possibilities of new secondary businesses also being established, during the construction phase</p> <p>Employment details: Construction Phase: 50,000 Operation Phase: 1,000</p>
1.29	Introduction of alien species?	No	Not Applicable.
1.30	Loss of native species or genetic diversity?	No	Not Applicable.
1.31	Any other actions?	No	Not Applicable.

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	The site is a part of the JMD complex, which is barren land and does not have significant vegetation. The land is arid in nature and with only thorny bushes and shrubs.
2.2	Water (expected source & competing users) unit: KLD	Yes	Source: Seawater after desalination. Desalinated water requirement: 8,000m ³ /hr.
2.3	Minerals (MT)	No	Construction materials like metals, sand, granite, marble, gypsum will be required during the construction phase.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Construction material viz Stones, aggregates will be sourced from quarries set up within the land acquired; sand will be sourced from govt. approved vendors / quarries Exact quantification will be carried out during the detailed engineering stage.
2.5	Forests and timber (source – MT)	No	Not Applicable.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Fuels are expected to be Synthetic Gas, Refinery Off Gases, Natural Gas and internal light liquid fuels. Fuel switch in the existing power generation capacity for 450 MW will be through 4.2 MMTPA of coal. Natural gas will be used as fuel for start-up of boiler. Construction Power will be sourced from existing captive power plant.
2.7	Any other natural resources (use appropriate standard units)	No	Not Applicable.

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per	Yes	Chemicals, Petroleum Products, Natural Gas, Coal, Lubricating Oil, etc would be

	MSIHC rules) to human health or the environment (flora, fauna, and water supplies)		utilised.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable.
3.3	Affect the welfare of people e.g. by changing living conditions?	No	The impact would be positive impact, as the project will create / increase employment both during the construction and operation phase of the project. Various ongoing welfare activities will be extended by the industry in consultation with the local administration.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not Applicable.
3.5	Any other causes	No	Not Applicable.

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Not Applicable.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Domestic waste (garbage) will be generated during construction and operation phase and this will be handled within the existing solid waste treatment facility at JMD. Commercial waste will mainly be disposed as scrap.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Hazardous waste as per Table 3.2, Chapter 3 of the Pre-Feasibility Report will be generated as will be disposed as indicated therein.
4.4	Other industrial process wastes	Yes	Both the Bed ash from bottom and fly ash from the dust collecting hoppers are proposed to be taken to the temporary ash storage area and utilised in cement manufacture and construction. Slag will be used as replacement of sand for construction activities.
4.5	Surplus product	No	Not Applicable.

4.6	Sewage sludge or other sludge from effluent treatment	Yes	Sludge from STP will be utilised for greenbelt development.
4.7	Construction or demolition wastes	Yes	Construction waste will be minimised to the extent possible by back filling, levelling or will be sold as scrap etc.
4.8	Redundant machinery or equipment	No	Not Applicable.
4.9	Contaminated soils or other materials	No	Care will be taken to avoid any contamination of the soil during the construction and operation phase.
4.10	Agricultural wastes	No	Not Applicable.
4.11	Other solid wastes	No	Not Applicable.

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	<p>In the refinery heaters and furnaces, syngas from gassifiers will be used as fuel. This being a clean fuel will reduce emissions of PM & SO₂. Syngas will also be used for power generation and supplying hydrogen for the hydrocrackers.</p> <p>Coal (main fuel) / NG or liquid fuel (for start ups) will be used as fuel for combustion in boilers for generation of steam. It will be ensured that the emission from the plant remains well within the permissible limit.</p> <p>Particulate matter emissions due to fuel combustion will be controlled using ESP's.</p> <p>There will generation of emissions from mobile sources such as movement of vehicles etc.</p> <p>Please refer Table 3.1, Chapter 3 of the Pre-Feasibility Report for the emissions from the combustion sources.</p>
5.2	Emissions from production processes	Yes	Please refer Table 3.1, Chapter 3 of the Pre-Feasibility Report.
5.3	Emissions from materials handling including storage or transport	Yes	The coal handling system in power plant is a source of particulate pollution. Adequate cover and dust extraction with removal equipment will be installed.

			It is proposed to provide covered coal storage. Fugitive emissions will be from sources such as storage tanks, pressurised vessels, valves, glands etc.
5.4	Emissions from construction activities including plant and equipment	Yes	Dust / fugitive emissions, which are pre-dominant, will be mitigated by use of water sprays to keep it under control. All construction equipments will be well maintained for ensuring lowest possible emissions.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	For construction materials, de-dusting measures like spraying of water, encasement of dumpers, barriers around the construction area etc. will be taken.
5.6	Emissions from incineration of waste	No	Not Applicable.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable.
5.8	Emissions from any other sources	No	Not Applicable.

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	The construction phase is a temporary phase. The activities shall be planned in a manner such that the ambient noise levels shall not be exceeded. Noise control measures shall be adopted by using mufflers in the equipments etc. Equipments will be procured conforming to the specified noise limits. During the operation phase, noise management will be adopted for noise reduction measures complying with the CPCB guidelines.
6.2	From industrial or similar processes	Yes	Noise abatement measures shall be employed at source such as sound proof enclosures/shields, low noise making equipments etc. PPE's will be used wherever required.

6.3	From construction or demolition	Yes	The construction activity shall be carried out in a manner such that there shall be minimal noise impact on the surrounding environment.
6.4	From blasting or piling	No	Not Applicable.
6.5	From construction or operational traffic	Yes	Equipments used during the construction phase will have requisite noise control measures like silencers etc. During the operation phase, the number of vehicles will be reduced significantly and will be mainly light vehicles. Traffic Management Plans during the construction and the operation phase of the project will be extended to reduce the impact of noise during transportation of man and materials
6.6	From lighting or cooling systems	No	Not Applicable.
6.7	From any other sources	No	Not Applicable.

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	The facility will be designed in such a way that any spilled material does not leave the plant boundary without treatment. Apart from paved areas, dykes will be provided to storage area and channels will be provided in plant area for collecting the spilled material for recycle and reuse. Transfer of fuel will be done using closed systems, pipelines etc.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Desal plant return sea water along with the HTDS based cooling tower blow down will be routed through a new diffuser in the sea for disposal. Treated effluent will be utilized for the reuse / recycle and for horticulture.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not Applicable.
7.4	From any other sources	No	Not Applicable.

7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not Applicable.
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8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Yes	Risk Assessment Studies shall be conducted and a Risk Management Plan and Emergency Preparedness Plan already in place at JMD will be updated accordingly. All appropriate measures will be taken for safe handling of materials. Also human handling of the materials will be avoided.
8.2	From any other causes	No	Not Applicable.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g, floods, earthquakes, landslides, cloudburst etc)?	No	Sufficient provisions are provided in the design to take care of natural disasters that are commonly known/ recorded in the area. Details of Site Emergency Management Plan shall be updated.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries 	Yes	The project will increase direct and indirect employment opportunities in the area. Ancillary units for maintenance and supply of materials have a potential for development due to the project.

	<ul style="list-style-type: none"> • supply industries • other 		
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The proposed projects are permanent establishments.
9.3	Set a precedent for later developments	Yes	
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	Projects that are existing and planned can have cumulative effects in the region. However for the projects planned, utmost care will be taken during the design engineering with the use of the state-of-the-art technologies to minimize emissions to the max. There will be no competing users, as RIL will be setting up its own utilities such as Power Plant, Desalination Plant etc.

(III) Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not Applicable.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Marine National Park	More than 10 kms. from the site in the Gulf of Kutch.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Applicable.
4	Inland, coastal, marine or underground waters	Gulf of Kutch	More than 10 kms. from the site in the Gulf of Kutch.
5	State, National boundaries	No	Not Applicable
6	Routes or facilities used by the public for access for recreation or other tourist, pilgrim areas	SH 25	State Highway from Jamnagar to Okha leads to Dwarka.
7	Defence installations	No	Not Applicable
8	Densely populated or built-up area	Reliance Township and local	Approx. 2-3 kms

		villages	
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Hospital, school and temple are located within RIL township.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Saurashtra region	The region is a water scarce region
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	Saurashtra Region	The region is rated IV in seismic rating and has experienced earthquake with epicentre at Bhuj in 2001. Cyclone was experienced in 1998. The plants will be designed to resist the natural calamities.

(IV) Proposed Terms of Reference for EIA studies

1. Categorisation of the proposed project activities by NABET approved consultant as per the schedule of the EIA Notification, 2006.
2. Demarcation of proposed project activities and their layout.
3. Need and justification for the proposed projects and their associated utilities.
4. Details of all the proposed products & by-products to be manufactured.
5. Detailed water balance of the proposed projects before and after expansion will be provided.
6. The possibility of reuse / recycle and other cleaner production options for reduction of wastes.
7. Schematic layout of the proposed method of treatment of effluents generated from the proposed projects. i.e. details of the ETP at unit level and/or Central ETP units.
8. Specific details of (i) details of the proposed projects and other utilities required (ii) flue gas emission rate from the utilities along with stack details. (iii) air pollution control measures proposed for the proposed projects along with their adequacy (iv) sources of fugitive emission from the unit along with its quantification and proposed measures to control it.
9. Details of measures proposed for the online monitoring of the pollutants from the process stacks and its monitoring plan will be included.
10. Site-specific micro-meteorological data w.r.t temperature, relative humidity, hourly wind speed and direction and rainfall will be incorporated.
11. One complete season AAQ data (except monsoon) will be given as per the National Ambient Air Quality Standards, 2009.
12. Impact of the proposed project on the AAQ of the study area. Details of the model used and the input parameters used for modeling will be provided. The air quality contours will be plotted on a location map showing the location of project site, habitation, and sensitive receptors, if any. The wind roses will also be shown on this map.
13. Likely impact of the fugitive emissions due to vehicle movement for transportation of raw materials and products.

14. Details on management of hazardous wastes, bottom ash and fly ash to be generated from the project stating details of storage area for each type of waste, its handling and its disposal.
15. Comparative statement of ecosystem and biodiversity of the region before and after setting up of the proposed projects.
16. Details of greenbelt development program, types & number of trees to be planted, area under green belt development.
17. Land use pattern of the study area based on satellite imagery.
18. Details of population in the study area and its breakup showing population of farmers, villagers etc. Impacts of the project activities on their livelihood.
19. Impact of project construction/operation on the noise and vibration due to construction equipment, cargo handling equipment and road traffic. Mitigation measures for the same.
20. Anticipated environmental impacts and mitigation measures due to the coal handling operations.
21. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed environmental monitoring plan with respect to various parameters, environmental management cell proposed for implementation & monitoring of EMP as well as person responsible for the same. The EMP will include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
22. Compliance status of the existing plant with respect to various conditions given in the Consent to Operate order of the Gujarat Pollution Control Board (GPCB).
23. Records of any legal breach of Environmental laws i.e. details of show cause notices, closure notices, closure orders etc. served by the GPCB to the existing plant in last three years and actions taken then after for prevention of pollution.
24. Details of quantity of each hazardous chemical to be stored, material of construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals.
25. Details of possibility of occupational health hazard from the proposed manufacturing activities and proposed measures to prevent it. Plan for periodic medical examinations of the workers.

26. Details of personal protective equipments to be provided to the workers, firstaid / occupational health centre, antidotes and arrangement of ambulance van for injured workers.
27. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Detailed Risk Management Plan and On-Site emergency plan will be upgraded and submitted.
28. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors, location of: fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site.
29. Copies of previous environmental clearances, if any obtained. Point-wise compliance to the specific and general conditions stipulated in the environmental clearances.
30. Environment Policy approved by its Board of Directors will be included in the EIA report.
31. Hierarchical system or administrative order of the company to deal with the environment issues and for ensuring compliance with the EC conditions. Details of this system given.
32. 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 will be detailed in the EIA report.
33. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be included in the EIA report.

"I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date:

Place:

Signature of the applicant
With Name and Full Address
(Project Proponent/Authorised Signatory)

Note:

1. The projects involving clearance under Coastal Regulation Zone Notification, 2011 shall submit with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing the project activities,w.r.t. C.R.Z.(at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority(at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. 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.(at the stage of EC)
3. All correspondence made with the Ministry of Environment and Forests including submission of application of TOR/ Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project.