

**Updated Form-I for Extension of Validity of EC Accorded vide Letter NO. J-13012/95/2008-
IA.II (T) dated 27.12.2010 to Solapur STPP (2X660 MW), Maharashtra**

FORM 1

(I)	Basic Information	
Sl. No.	Item	Details
1	Name of the Project:	Solapur Super Thermal Power Project, (2x660 MW)
2	S. No. in the Schedule	1(d)
3	Proposed capacity/ area length /tonnage to be handled/ command area/ lease area / number of wells to be drilled	2x660 MW based on Super Critical Technology
4	New/ Expansion/ Modernization	New project
5	Existing Capacity/ Area	Nil
6	Category of the project	'A' category
7	Does it attract the General condition? If yes, please specify	No
8	Does it attract the special condition? If yes , please specify	No
9	Location	The latitudes and longitudes of the corners of Main Plant, Township and Ash Ponds areas are as follows: Main Plant and Township Area- 17° 32' 10.9" to 17° 33' 38.18" N 75° 58' 42" to 75° 59' 36" E Ash Disposal Area- 17° 30' 21.6" to 17° 32' 16.2" N 75° 58' 42" to 75° 59' 24" E The Location map of the project is shown in Exhibit-I (Copy of Location map enclosed)
	Plot / Survey/ Khasra No.	---
	Village	Fatatewadi Ahirwadi & Hotgi
	Tehsil	South Solapur
	District	Solapur
	State	Maharashtra
10.	Nearest railway station / airport along with distance in kms.	Nearest Railway Station: Hotgi Railway Station (<i>about 3 km. from project</i>) Nearest Commercial Airport: Pune (<i>about 270 Km. from project site</i>)
11.	Nearest Town, city, District Head-quarters along with distance in km.	Nearest Town: Solapur (<i>about 14 Km.</i>) Nearest City: Solapur Nearest District Headquarter: Solapur
12.	Village Panchayats, Zila Parishad,	Village- Ahirwadi, Fatatewadi and Hotgi,

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	Municipal Corporation, Local body (complete postal addressed with telephone nos. to be given)	Taluka-South Solapur, Dist- Solapur, Maharashtra
13.	Name of the applicant	NTPC Limited
14.	Registered Address	NTPC Bhawan, Core-7 Scope Complex, Lodhi Road, New Delhi – 110 003
15.	Address for correspondence	Sh. R.K.Baderia, GM&HOD (Environmental Engineering) Engineering Office Complex, NTPC Limited, Plot No. A-8A, Sector – 24, Noida (U.P.) – 201 301
	Name	Sh. R.K.Baderia
	Designation (Owner/Partner/CEO)	GM&HOD (Environmental Engineering)
	Address	Environmental Engineering Department Engg. Office Complex, NTPC Limited, Plot No. A-8A, Sector – 24, Noida (U.P.) – 201 301
	Pin Code	201301
	E-mail	rajeshbaderia@yahoo.com , rkbaderia@ntpc.co.in
	Telephone No.	0120-2410325
	Fax No.	0120-2410206
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not applicable. Env. Clearance (EC) for 2x660 MW Solapur STPP was accorded by MOEF vide letter no. J-13012/95/2008-IA.II (T) dated 27.12.2010, subsequent to which, construction activities were initiated and are in advanced Stage of Completion. The first Unit #I has been commissioned on 25/09/2017 and anticipated commissioning schedule for Unit # II is June'18
17.	Interlinked Projects	None
18.	Whether separate application of interlinked project has been submitted?	Not Applicable
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 status to be given. (a) The Forest (Conservation) Act, 1980	No forest land has been acquired for project.

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	(b) The Wildlife (Protection) Act, 1972 (c) The C.R.Z. Notification, 2011	
22.	Whether there is any Government Order / Policy relevant / relating to the site?	To the best of our knowledge, no such order exists.
23.	Forest land involved (hectares)	Nil
24.	Whether there is any litigation pending against the project and / or land in which the project is proposed 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

(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.)

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approx. quantities/rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan).	Yes	About 1900.32 acres (1892.511 acres Private & 7.81 acres Govt. land) of mostly moderately undulating land has been acquired for construction of main plant, township and ash disposal areas. The land use of the acquired land has been changed in to industrial use.
1.2	Clearance of existing land, vegetation and buildings?	Yes	No buildings are envisaged to be removed. However, clearance of vegetation was required.
1.3	Creation of new land uses?	No	Not Applicable
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Soil, geological, geotechnical, topographical, environmental investigations have been carried out for the project.
1.5	Construction works?	Yes	Construction of main plant, associated facilities and township almost completed.
1.6	Demolition works?	No	Nil
1.7	Temporary sites used for construction works or housing of construction workers?	No	---
1.8	Above ground buildings, structures or earthworks including linear structures, cut	Yes	Main plant and township buildings area above ground. Earth work involving excavations, cut and fill activities were

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	and fill or excavations		done for construction of Main Plant and Township.
1.9	Underground works including mining or tunneling?	No	Not applicable
1.10	Reclamation works?	No	Not applicable
1.11	Dredging?	No	Not applicable
1.12	Offshore structures?	No	Not applicable
1.13	Production and manufacturing processes?	Yes	Thermal power generation (1320 MW) process based on super critical technology.
1.14	Facilities for storage of goods or materials?	Yes	Storage of Construction Materials & Plant Equipment, Coal, Fuel Oil, Chemicals, etc. are envisaged.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	A comprehensive Environmental Management Plan for Solapur STPP including treatment and disposal of liquid effluent is being implemented.
1.16	Facilities for long term housing of operational workers?	Yes	Full fledge township has been established at site.
1.17	New road, rail or sea traffic during construction or operation?	Yes	Existing Road network shall be used.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Not applicable Existing Network shall be utilized.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	No Existing Road network shall be used for transportation of Coal.
1.20	New or diverted transmission lines or pipelines?	Yes/ No	All 4 400KV transmission lines for evacuation of power from Solapur STPP constructed by PGCIL have been completed and commissioned. Pipeline for conveying water from Ujani dam to Solapur STPP (118km) completed and commissioned. 132 KV SC & DC transmission lines from plant to Ujani pump house work is in progress.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No such activities are required/ undertaken
1.22	Stream crossings?	No	Not applicable

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1.23	Abstraction or transfers of water from ground or surface waters?	Yes	The project envisages the use of surface water from Ujani Dam for power generation. The ground water sources are being used during construction phase.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	Not applicable
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	- Construction material and power plant equipment are being transported during construction phase. Most of the transportation is being done through roads/ rail route. - Movement of workers and other personnel to the operation site takes place through the existing networks only.
1.26	Long-term dismantling or decommissioning or restoration works?	No	---
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	---
1.28	Influx of people to an area in either temporarily or permanently?	No	The project is being generating employment avenues during construction and operation .
1.29	Introduction of alien species?	No	Native plants species are being planted, and some ornamental species will also be planted in plant area and township.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity as land acquired is devoid of any natural vegetation.
1.31	Any other actions?	No	Nil

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):

S. No.	Information/checklist confirmation	Yes/No	Details thereof (with approx. quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	About 1900.32 acres of moderately undulating land has been acquired.
2.2	Water (expected source & competing users) unit: KLD	Yes	The water requirement shall be about 4000 M ³ /hr (96000 KLD) which shall be drawn

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			from Ujani Dam which is 117 km away from site. Govt. of Maharashtra agreed in principal to supply 52.6 MCM of water annually from Ujani Dam.
2.3	Minerals (MT)	Yes	Coal: 7.00 million tons per annum.
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	The project shall have several components like main plant building, coal handling system, fuel oil handling system, water treatment and reuse system, cooling towers, chimney, ash handling system, switch yard, residential buildings & infrastructural facilities. Most of these units are commissioned on a turn key contract system. Therefore, item-wise detailed quantities of construction material is difficult to estimate.
2.5	Forests and timber (source – MT)	No	Nil
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Construction power is being drawn from nearest sub-station of MSEB. Fuel Oil (LDO, HFO and HSD) will be used for boiler start-up and lightening only whenever required.
2.7	Any other natural resources (use appropriate standard units)	No	---

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.

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	LDO and High Speed Diesel is being used and stored at site during construction phase. LDO and High Speed Diesel, Hydrochloric acid, Caustic Soda, Liquid Ammonia and Liquid Chlorine shall be stored at site during operation phase.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	No water borne disease anticipated since due care for treatment and disposal of waste water will be taken.
3.3	Affect the welfare of people	Yes	The construction of Solapur STPP, has

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	e.g. by changing living conditions?		already provided employment potential under unskilled, semi-skilled and skilled categories. Further, it will also improve the power supply position in Maharashtra State and nearby states, which is vital for economic growth as well as improving the quality of life. The improved power supply will reduce the dependence of general public and commercial establishments on DG Sets and water pump for irrigation in rural area.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	---
3.5	Any other causes	No	---

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

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Nil
4.2	Municipal waste (domestic and/or commercial wastes)	Yes	Small quantities of domestic wastes are being generated from township and administrative areas, which is being disposed off in environment friendly manner.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used oil/ waste oil, lead battery etc. shall be generated during the construction and operation phase. These wastes shall be disposed off in accordance to the applicable rules and regulations.
4.4	Other industrial process wastes	No	Fly ash and bottom ash will be generated due to combustion of coal.
4.5	Surplus product	No	---
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Small quantities shall be generated, which shall be disposed off in ash disposal area or used as manure.
4.7	Construction or demolition wastes	Yes	Construction waste will be generated.
4.8	Redundant machinery or equipment	No	---
4.9	Contaminated soils or other	No	---

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	materials		
4.10	Agricultural wastes	No	---
4.11	Other solid wastes	No	---

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

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Stack emissions shall comprise of Particulate Matter, SO ₂ , NO _x and CO ₂ due to combustion of coal. In order to mitigate these emissions and to ensure compliance to revised environmental norms of air emission following measures are envisaged: PM: ESP has been designed to meet the limit of PM < 30mg/Nm ³ . SO _x : FGD shall be installed for limiting SO ₂ emission within 100mg/Nm ³ . NO _x : NO _x emission from the steam generator shall be controlled by employing low NO _x burners & denox system (LNB) limiting NO _x values within 100mg/Nm ³ .
5.2	Emissions from production processes	Yes	
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive dust shall be generated from coal handling and ash handling.
5.4	Emissions from construction activities including plant and equipment	Yes	Fugitive dust shall be generated from construction site due to loosening of soil and exhaust emissions from construction activities.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Dust may be generated as mentioned above.
5.6	Emissions from incineration of waste	No	---
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	---
5.8	Emissions from any other sources	No	---

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

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. 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	Noise will be generated during operation of the power plant.
6.2	From industrial or similar processes	Yes	From turbines, pumps, fans etc.
6.3	From construction or demolition	Yes	During construction phase, noise level of the order of 85 dB (A) is being generated.
6.4	From blasting or piling	Yes	During piling, noise level of the order of 90 dB (A) is generated. However, the piling work is already complete
6.5	From construction or operational traffic	Yes	Noise, vibration & heat get generated in course of operation of vehicles including machineries. These will be maintained within acceptable limits.
6.6	From lighting or cooling systems	Yes	The noise level due to operation of Cooling Towers will be of the order of 75 dB (A).
6.7	From any other sources	No	---

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:

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	All due care shall be taken to avoid spillage of hazardous materials
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Sewage and all plant effluents shall be treated appropriately to conform to regulatory standards and recycle & reuse within plant & Township.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not expected as suitable pollution control measures shall be provided.
7.4	From any other sources	No	---
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not expected as suitable environmental control measures shall be provided.

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8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. 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	Unlikely	Adequate measures shall be taken for the control of fire and explosion hazards. Further, On-site and Off-site Disaster Management Plans has been prepared and being implemented at site.
8.2	From any other causes	No	-
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	The project site is not susceptible to floods, landslides or cloud bursts. Adequate care has already been taken during design and construction to avoid any disaster like earthquake.

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:

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approx. 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 • supply industries • other 	No	Construction of project will promote establishment/ expansion of ancillary and small scale industries and service sector in the area to meet the requirement of the project. This will lead to improvement of livelihood of the people.
9.2	Lead to after-use of the site, which could have an impact on the environment.	No	---
9.3	Set a precedent for later developments	Yes	The project has initiated various types of commercial/ industrial activities in the area
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar	Yes	The EC was accorded on 27.12.2010 and project is already in advanced stage of construction. No new major industry is

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effects	planned nearby, hence no cumulative impact assessment is required.
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(III). Environmental Sensitivity

S. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) from proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Yes	The GIB Sanctuary is located at a distance of more than 10 km (11.83 km) from the Solapur STPP. NTPC has prepared Wildlife Conservation and Management Plan with the help of BNHS Bombay, and is being implemented by State forest department.
2	Areas which are important or sensitive for ecological reasons - Wetlands, water-courses or other water bodies, coastal zone, biospheres, mountains, forests	No	Nil
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No, to the best of our knowledge	No species of sensitive flora or fauna for breeding, nesting, foraging, resting, over wintering, migration are recorded as per the study report by BNHS, Bombay
4	Inland, coastal, marine or underground waters	Yes	Bhima river is about 27 km from the project site.
5	State, National boundaries	No	No state / National boundary within 15 km radius of the project
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Nil
7	Defense installations	No	Nil
8	Densely populated or built-up area	No	Solapur Town at a distance of 14 km
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Hospital, Schools, place of worships exist within 15 km.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No, to the best of our knowledge	Nil
11	Areas already subjected to pollution or env. damage. (those where existing legal	No	Nil

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	environmental standards are exceeded)		
12	Areas susceptible to natural hazard which could cause the project to present env. problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	Nil

I hereby give an 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 given, if any, to the project will be revoked at our risk and cost.



(R. K. Baderia)
GM & HOD (Env. Engg.)
Engineering Office Complex,
NTPC Limited,
A-8A, Sec-24, Noida

Date: 01-12-2017
Place: NOIDA

Location Map

Exhibit-I

