

APPENDIX- 1

UPDATED FORM - 1

FOR

**AMENDMENT IN ENVIRONMENTAL CLEARANCE FOR
DULANGA COAL MINING PROJECT,
(CAPACITY: 7 MTPA), NTPC LTD.**

**(FOR CHANGE IN TRANSPORT OF COAL
TO DARLIPALI STPP BY ROAD FOR A LIMITED PERIOD)**



A Maharatna Company

NTPC LTD.

(A Government of India Enterprise)

JANUARY, 2018

APPENDIX – I
(See paragraph – 6)
UPDATED FORM 1

FOR AMENDMENT IN ENVIRONMENT CLEARANCE FOR
TRANSPORT OF COAL BY ROAD FROM DULANGA COAL MINING PROJECT TO
DARLIPALI STPP OF NTPC LTD.

(I) Basic Information:

S. No.	Item	Details
1	Name of the project/s:	DULANGA COAL MINING PROJECT
2	S. No. in the schedule	1 (a) (i)
3.	Proposed capacity/ area/ length/ tonnage to be handled/ command area/ lease area/ number of Wells to be drilled.	<p>Estimated Coal Production in Dulanga Coal Mining Project: 7 MTPA</p> <p>Total Mine Lease(ML) Area: 7.62 Sq. Km.</p> <p>Gross Geological Reserves: 196.189 Mt</p> <p>Mineable Reserves : 152.05 Mt</p> <p>Current Proposal:</p> <p>✓ Transportation of coal via road (i.e. from Dulanga coal block to Darlipali Super Thermal Power Project (DSTPP) which is about 32 Km as interim arrangement for a period of two (2) years i.e. till completion of construction of permanent coal evacuation system by MGR.</p>
4.	New/ Expansion/ Modernization	<p>Environment Clearance (EC) for Dulanga Coal Mining Project was accorded by MOEF&CC vide letter no. J-11015/1140/2007-IA.II (M) dated 03.03.2014. As per the Specific Condition No A. (xviii) of EC issued, the entire transportation of 21,210 TPD of coal from the mine to the linked Darlipali STPP shall be by MGR only with wagon loading by Silo. Transportation of coal by road is not permitted.</p> <p>Presently, mining operation is about to start shortly. The MGR for transportation of coal with wagon loading by Silo is under construction and requires about two years to complete the work and start of permanent coal evacuation system.</p> <p>The present proposal is for transportation of coal by road in exemption of Condition No 4A. (xviii) of EC issued as an interim</p>

		change in mode of coal transportation for a period of two (2) years i.e. till permanent coal evacuation system is in place.
5.	Existing Capacity Area etc.	EC for the rated capacity of 7.0 MTPA has been accorded by MoEF&CC vide letter dated 03.03.2014.
6.	Category of Project i.e.' A' or 'B'	"A"
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If 'yes, please specify.	No
9.	Location	IB Valley Coalfield Latitude: 21° 50' 40"N to 22° 01' 30"N Longitude: 83° 42' 06"E to 83° 53' 43"E
	Plot/ Survey/ Khasra No.	Dulanga Coal block is covered under Survey of India (Sol) Topo-sheet No. 64 O/9 & 64 O/13 (RF 1:50000).
	Village	Dulinga, Majhapada, Beldihi, Khuntijharia, Kathafali, Manoharpur, Khapurikachhar
	Tehsil	Hemgir
	District	Sundargarh
	State	Odisha
10.	Nearest railway station/ airport along with Distance in Kms.	Nearest railway station is Jharsuguda which is about 30 Km away from Dulanga coal block lying on the Mumbai-Howrah main line of SE railways. The nearest airport is at Rourkela (about 110 Km) and an airstrip is also available at Jharsuguda.
11.	Nearest Town, City, District Headquarters along with distance in Kms.	Dulanga Coal Block is about 45 Km away from Sundargarh District Headquarter, 30 Km away from Jharsuguda District and is about 12 Km away from Tehsil Headquarters at Hemgir.
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephone nos. to be given)	----
13.	Name of the applicant	NTPC Limited

14.	Registered Address	NTPC Bhawan Scope Complex, Core-7, Lodhi Road, New Delhi-110003
15.	Address for correspondence:	
	Name	Mr. R. K. Baderia
	Designation (Owner/ Partner/ CEO)	GM & HOD (Environmental Engineering)
	Address	Environmental Engineering Department, Engineering Office Complex (EOC), NTPC Ltd., Plot No. A-8A, Sector 24, Noida (U.P.) – 201 301
	Pin Code	201 301
	E-mail	rkbaderia@ntpc.co.in
	Telephone No.	0120-2410325, 4946830
	Fax No.	0120-2410506
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not applicable as the proposal is for amendment in EC.
17.	Interlinked Projects	Darlipali Super Thermal Power Project (DSTPP) of NTPC.
18.	Whether separate application of interlinked project has been submitted?	Environmental Clearance (EC) and Forest Clearance (FC) for DSTPP has already been accorded by MOEF&CC vide letter no. J-13012/65/2008-IA.II (T) dated 17.02.2014 and letter no. 5-ORC158/2013-BHU dated 14.08.2013 respectively.
19.	If yes, date of submission	
20.	If no, reason	
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 (b) The Wildlife (Protection) Act, 1972 (c) The C.R.Z. Notification, 1991	Not applicable. The present proposal is for amendment in EC for transportation of coal by road.
22.	Whether there is any Government Order/ Policy relevant/ relating to the site?	Not applicable.
23.	Forest land involved (hectares)	The Forest Clearance (FC) for the diversion of 304.75 ha of forest land including 4.94 ha of forest land coming within the safety zone area in Dulanga

		Coal Mining Project has been accorded by MOEF&CC vide letters dated 14.08.2013 and 23.12.2015 (Stage-I and II clearances respectively)
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.	There is no pending litigation against the project and/ or land in which the project is proposed to be set up.

- *Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)*

(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	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 including increase in intensity of land use (with respect to local land use plan)	No	The proposal is for amendment in EC (coal transportation by road) and shall not result in change in land use, as no major infrastructure is required to carry out loading, unloading activities for trucks/ dumpers and roads/ National Highway/ State Highway already exist for transportation. The coal will be transported by road from Dulanga CMP to DSTPP of NTPC which has a distance of about 32 Km.
1.2	Clearance of existing land, vegetation and buildings?	No	Not applicable w.r.t. the current proposal as the infrastructure required for the afore-mentioned activities is already in place. However, vegetation may have to be cleared for road widening, if required.

1.3	Creation of new land uses?	Yes	For setting up of associated infrastructure.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Not applicable.
1.5	Construction works?	Yes	For setting up of associated infrastructure facilities for transport vehicle maintenance.
1.6	Demolition works?	No	No demolition work is envisaged.
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 and fill or excavations	No	----
1.9	Underground works including mining or tunneling?	No	----
1.10	Reclamation works?	No	----
1.11	Dredging?	No	Not applicable.
1.12	Offshore structures?	No	Not applicable.
1.13	Production and manufacturing processes?	No	The present proposal is for amendment in EC for transportation of coal from Dulanga CMP to DSTPP via road and does not involve any production or manufacturing process.
1.14	Facilities for storage of goods or materials?	Yes	Coal stock yard will be maintained with good compaction facilities and water spraying.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	No solid or liquid waste is envisaged due to transportation of coal by road from Dulanga CMP to DSTPP. However, a comprehensive environmental management plan covering all components of solid waste management and liquid effluent treatment measures have been formulated and incorporated in EIA/EMP report of Dulanga Coal Mining Project for which EC has already been accorded by MOEF&CC vide letter dated 03.03.2014. The same shall be implemented.
1.16	Facilities for long term housing of operational workers?	Yes	Temporary housing facilities may be developed for housing of operational workers.

1.17	New road, rail or sea traffic during construction or operation?	Yes	Strengthening and widening of existing roads proposed for transportation of man & machinery. However, it is proposed to transport coal via road to DSTPP for an initial period of two years (from March, 2018 to March, 2020) i.e. till completion of construction of MGR.
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 road network shall be used.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not envisaged
1.20	New or diverted transmission lines or pipelines?	No	Not envisaged
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not envisaged.
1.22	Stream crossings?	No	Not applicable. Existing road network shall be used.
1.23	Abstraction or transfers of water from ground or surface waters?	No	Not applicable.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	Not applicable. The proposal is for change in mode of coal transportation.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Transport of coal from Dulanga CMP to Darlipali STPP by existing road network is envisaged as an interim arrangement till March, 2020 (completion of construction of MGR system) in 20 tonne capacity trucks.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Transport of coal via road from Dulanga CMP to DSTPP is an interim arrangement and hence no dismantling or decommissioning activity is envisaged.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not applicable as the present proposal is for interim arrangement for transport of coal via road through an existing network.
1.28	Influx of people to an area in either temporarily or	Yes	There may be influx of a small number of personnel as Drivers,

	permanently?		Cleaners, Helpers engaged in coal transportation by road. One Driver and a helper shall be associated with each truck/ dumper and it can be considered as floating population.
1.29	Introduction of alien species?	No	----
1.30	Loss of native species or genetic diversity?	No	----
1.31	Any other actions?	No	----

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 approximate quantities/ rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	The activity is for transportation of coal by existing road network as an interim arrangement. Therefore, no additional use of land either agricultural or barren is envisaged.
2.2	Water (expected source & competing users) unit: KLD	Yes	Not applicable as the proposal is for change in mode of coal transportation, however, part of mine water may be used for mitigating the fugitive dust emissions.
2.3	Minerals (MT)	Yes	The coal extracted from Dulanga coal block will be used in linked DSTPP.
2.4	Construction material – stone, aggregates, sand/ soil (expected source – MT)	No	Not applicable as the proposal is for change in mode of coal transportation.
2.5	Forests and timber (source – MT)	No	
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	No	
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 approximate 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)	No	Not applicable as the proposal is for change in mode of coal transportation from rail to road as an interim arrangement.
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	Not applicable as the proposal is for change in mode of coal transportation. However, operation of Dulanga CMP shall provide employment potential under unskilled, semi-skilled and skilled categories. Further, it will also improve the power supply position in Odisha due to linked DSTPP, which is vital for economic growth as well as improving the quality of life. The revenue from Dulanga CMP shall add to the exchequer of the State Government.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not applicable in the present proposal.
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 approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Not applicable in the present proposal for amendment in EC for transportation of coal from Dulanga CMP to DSTPP via road. However, the spoil, overburden or mine waste thus generated shall be handled as per the

			approved mine plan.
4.2	Municipal waste (domestic and or commercial wastes)	No	Not applicable as the proposal is for change in mode of coal transportation. However, the municipal wastes that will be generated at Dulanga CMP shall be disposed off in environmentally safe manner.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	Not applicable as the proposal is for change in mode of coal transportation. However, the hazardous waste that will be generated at Dulanga CMP shall be disposed off in environmentally safe manner.
4.4	Other industrial process wastes	No	----
4.5	Surplus product	No	----
4.6	Sewage sludge or other sludge from effluent treatment	No	----
4.7	Construction or demolition wastes	No	----
4.8	Redundant machinery or equipment	No	----
4.9	Contaminated soils or other materials	No	----
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	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	Emissions due to combustion of diesel in trucks/ dumpers are anticipated. Also, the change in mode of coal transportation by road is only for a limited period.
5.2	Emissions from production processes	Yes	Fugitive dust from coal handling and transportation.
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive dust emission from Coal handling, transportation by trucks/ dumpers and storage areas are

			<p>anticipated. However, adequate mitigation measures shall be adopted to minimize the impacts.</p> <p>Further, during transportation of coal by road through truck/ dumpers, the specified norms/ guidelines prescribed by State Pollution Control Board shall also be followed keeping in view transportation in environmentally sound manner.</p>
5.4	Emissions from construction activities including plant and equipment	No	Not applicable as the proposal is for change in mode of coal transportation.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Fugitive dust is anticipated during handling of coal in trucks/ dumpers. Adequate mitigation measures such as sprinkling of water on haul roads, tarpaulin cover for trucks/ dumpers, limiting to optimum speeds etc. shall also be adopted to minimize the impacts.
5.6	Emissions from incineration of waste	No	No incineration process is proposed.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No burning of waste is proposed.
5.8	Emissions from any other sources	No	----

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

S. No.	Information/ Checklist	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	Apart from noise generation from main plant, there will be a minimal increment in the decibel level due transportation of coal by road. However, the arrangement is for a limited period of time.
6.2	From industrial or similar processes	Yes	
6.3	From construction or demolition	Yes	
6.4	From blasting or piling	No	----
6.5	From construction or operational traffic	Yes	Plying of trucks etc. may increase ambient noise marginally.

6.6	From lighting or cooling systems	No	----
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	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	No	Not applicable as the proposal is for change in mode of coal transportation.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	It will not be very significant.
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	----

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

S. No.	Information/ Checklist	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	Coal fire in the coal stock yard is possible. However, Coal will be disposed on first in and first out basis. Besides, the stock pile will be equipped with good compaction system and also with water spraying system.
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.)?	No	----

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	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
9.1	<p>Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:</p> <ul style="list-style-type: none"> • <i>Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.),</i> • <i>housing development</i> • <i>extractive industries</i> • <i>supply industries</i> • <i>other</i> 	<p>Yes</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>Since, the present proposal is for interim arrangement for 2 years, no such infrastructure development is required.</p>
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not applicable. The proposed coal transport route shall be discontinued as soon as MGR starts operation for coal transport.
9.3	Set a precedent for later developments	No	----
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	There may be a slight increment in the baseline ambient air quality due to vehicular movement for transportation of coal, and will be for a limited period of time. The impacts shall be minimized by adopting adequate mitigation measures.

(III) Environmental Sensitivity

S. 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,	No	----

	cultural or other related value		
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	There are no sensitive areas of ecological importance within 15 Km boundary of the project area. However, Rajpur RF, Bikramkhol RF, Thungopahar RF, Bandbahal RF, Katangburi RF, Makarachata RF, Giripahar RF, Satparlia RF, RF near Kathpali, Kalamegha RF, RF near Parmanandpur, RF near Durubaga, Balijori RF, Jhatikhol RF, Panjipahar RF, Panikhula RF, RF near Balinga, Lalma RF, RF near Garjanbahal, Garjanpahar RF, Hundrakhol RF, Anjunda PF, Kanthidungri PF, PF near Burta, Chhengapahar RF, Barghumra RF, Tilia PF, Kaudarha PF are located within the 10 Km radius.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	The project area is not inhabitant to sensitive species of flora and fauna.
4	Inland, coastal, marine or underground waters	Nil	----
5	State, National boundaries	Nil	----
6	Routes or facilities used by the public for Access to recreation or other tourist, pilgrim areas	Nil	----
7	Defence installations	Nil	----
8	Densely populated or built-up area	Nil	----
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Manmade land uses health center, schools, places of worship, community facilities exists within 15 Km of the proposed route. Part of the proposed road transport are already being used for coal transport.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	----
11	Areas already subjected to pollution or environmental	No	----

	damage. (those where existing legal environmental standards are exceeded)		
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)	No	---

I hereby give an undertaking that the data and information given in the application and enclosure 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.

Date: 29.01.2018
Place: Noida



R. K. Baderia
GM & HOD (Env. Engg.)
NTPC Limited