

F.No. 10-35/2012-IA-III
Government of India
Ministry of Environment & Forests
(IA-III Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003

Dated: 21st March, 2013


To
Chief General Manager (LA),
National Highways Authority of India,
G- 5&6, Sector-10, Dwarka,
New Delhi - 110 075

Subject: Environmental Clearance for rehabilitation and upgradation of
existing 2-lane to 2-lane with paved shoulder of Jowai to
Meghalaya/Assam Border from Km 69.200 to Km 173.200 of NH-
44 in the State of Meghalaya by M/s NHAI - Reg.

*G. K. Sahu
22/3/13
mgv(NE-I)*

This has reference to your letter No. 11013/1/2k/Env/183 dated 20.11.2012 seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the Environment Impact Assessment Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form-I, EIA, EMP, Public Hearing proceedings and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meeting held on 20th - 21st December, 2012.

2. It is interalia, noted that the project road starts from Jowai (Km 69.2) and ends at Ratachera (Km 173.2) at Meghalaya/Assam Border in the State of Meghalaya. The existing length is 104 km and proposed length is 102 km. The project road is passing through two districts of Meghalaya viz. West Jaintia Hill from km 69.20 to 82.30 km for a length of 13.10 km and from km 82.30 km to km 173.20 km in East Jaintia Hill for a length of 90.1 km. The topography of the area through which project road is passing is plain from km 69.20 km (Jowai) to km 98.200 (Khlerihat), rolling from km 98.2000 (Khlerihat) to km 139.000 (Sonapur) and from km 139.000 (Sonapur) to km 173.200 (Rachatera) Assam/Meghalaya Border is hilly. No areas protected under Wild life Act 1972 is within 10 km of the project area boundary. The existing road is two lane road and deficient in road geometrics and is proposed to be upgraded to two lane with paved shoulder and improved road geometrics like curve improvements and gradient improvement. The existing carriageway is 2 lane carriageway and width varies from 6.45 to 8.30 m. Proposed configuration of road from km 69.200 (Jowai) to km 139.000 (Sonapur) is 2 lane carriageway width of 7.0 m, 1.5 meter paved shoulder, 1.0 m earthen shoulder on both sides, Sonapur onwards it is 2 lane carriageway width of 7.0 m width 1m paved shoulder on hill side and 1.50 m width paved shoulder and 0.50 m granular shoulder on valley side in Hilly terrain. The existing right of way from km 69.20 (Jowai) to km



139.00 (Sonapur) varies between 10 m to 12 m in areas passing through settlements and 16 m to 25 m in open areas. Between Sonapur to Ratacherra (Assam/Meghalaya Border) it varies from 10m to 13 m (hilly terrain). Proposed RoW is 15 m in settlements, 20 m in open areas till Sonapur. In hilly terrain beyond Sonapur till end of section, proposed RoW is 13m (average). 3450 number of trees require felling which includes 91 trees in Reserve Forest Areas, 2780 are in the existing right of way and balance are in the land proposed to be acquired. The predominant species are hatipolia, gamari, kumah, krait, kya, lipit, slongdah, pine, neem, sylpit etc. The major streams crossing the project area are Lubah at km 154.000 and Baleshwar at km 173.000. The total water requirement would be 1100 KLD (400 KLD from ground water and 700 KLD from surface water). Existing bridges are 39 out of which 37 are proposed to be repaired; and 1 is proposed to be constructed. Existing culverts are 441 out of which 348 are proposed to be repaired and 95 reconstructed. 1 truck parking, 2 toll plaza and 2 way side amenities are also proposed. Bus shelters are proposed at 10 location with 17 numbers. There are 27 land slips and one land slide zone at km 139.5 in Sonapur where protection work is being done currently. 5.5 lakh cum of soil would be required and is proposed to be taken from 12 borrow. Number of structures to be affected are 118, out of which 99 are private (9 to be affected partially and 90 totally). 629 PAPs are going to be affected out of 121 households. Total cost of the project is Rs. 368.88 crores including civil cost. Environmental cost is Rs. 2.28 Crores, shifting of utilities, land acquisition and R&R cost is Rs. 9.174 crores.

3. The existing road is passing through settlements, open areas, coal mines and coal dumps on both sides till Khlerihat and from Khlerihat till end of project road land use is predominantly forest and at few places settlements are present. The major settlements enroute are Pasyih, lalong of West Jantia Hills, Wapung, Khlerihat, Ladrymbai, Mynkere, Sonapur, Umkiang and Ratacherra of East Jaintia Hills, Meghalaya. The total land acquisition proposed for the project is 12.74 Ha, out of which 6 Ha. is required for toll plaza at km 85 and km 153, 2 Ha and 0.6 Ha for Way side Amnety at km 89.000 and km 131.000, truck parking 0.9 Ha at km 88.7000, totalling 9.50 Ha. The existing road is passing through Narpuh Reserve Forest in two stretches from km 141.500 to km 145.00 and from km 160.00 to km 167.100 for length of 3.5 km and 7.1 km respectively. The proposed project involves acquisition of 2.175 ha of Reserve Forest land.

4. The EAC finalized the ToRs in its 112th meeting held on 10th - 11th May, 2012 including conduct of Public Hearing. Public Hearing conducted on 05.10.2012 at Lalong Village, West Jaintia and on 18.10.2012 at Khliehriat Village, East Jaintia Hills District.

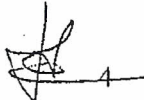
5. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental Clearance for the project. Accordingly, the Ministry hereby accords necessary Environmental Clearance for the above project as per the provisions of Environment Impact Assessment Notification, 2006 and its

subsequent amendments, subject to strict compliance of the terms and conditions as follows:

6. **SPECIFIC CONDITIONS:**

- (i) The project involves diversion of 2.175 ha of forest land for which the proponent shall obtain the requisite FC. The proponent can execute the above project on the entire stretch located in non-forest land, provided that the proponent submits an undertaking while making application to get FC that the execution of work on non-forest land shall not be cited as a reason for grant of FC and in case FC is declined, width of the portion of road falling in the forest land will be maintained at its existing level.
- (ii) It is indicated that 3450 nos. trees falls within proposed RoW, however, bare minimum, however bare minimum trees to be cut. Necessary permission from competent authority shall be obtained for tree cutting. Necessary green belt shall be provided on both side of the highway with proper central verge and cost provision should be made for regular maintenance.
- (iii) Fly ash shall be used.
- (iv) Explore the possibilities of using cold mix technology wherever possible.
- (v) Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.
- (vi) R&R shall be as per the guidelines of State/Central Government.
- (vii) IRC guidelines shall be followed for widening & up-gradation of road.
- (viii) The responses/commitments made during public hearing shall be complied with letter and spirit.
- (ix) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half-yearly compliance report to MoEF-RO.
- (x) Green belt development shall be undertaken as suggested in EMP.
- (xi) The seismic nature of the area shall be taken into account while designing the project.
- (xii) The project proponent shall obtain necessary permission from the State Irrigation Department before drawing water from the river sources for the purpose of the proposed construction activity.

- (xiii) Sidewalk shall be provided along the bridges.
- (xiv) The drain shall be at least 1 m. away from the toe of the embankment of the road adopting IRC guidelines.
- (xv) Longitudinal drains shall be provided all along the project road to ensure proper drainage of the area. In addition, adequate number of under passes and culverts to act as cross drainage structures shall also be provided.
- (xvi) The solid waste generated shall be used for rehabilitating the borrow areas.
- (xvii) For providing safety to the crossing animals and avoid road accidents speed breakers/rumpled strips shall be constructed at the identified locations of the animal movements. Enough hoardings and signages shall also be put up for the public and vehicles convenience.
- (xviii) Minimum of three times the number of trees to be cut shall be planted. It shall be ensured that the trees planted as a part of the afforestation shall be looked after by NHAI. Tree plantation shall be of the same species/local species and survival shall be monitored. Transplantation of trees shall be carried out wherever possible. The tree plantation shall be taken up on the extreme end of the road.
- (xix) Necessary clearance from the State Government shall be obtained for extraction of sand from the rivers.
- (xx) Proper signage shall be installed at appropriate locations for the convenience of the traffic movement.
- (xxi) The embankments/slopes and the slopes left after cutting shall be provided with vegetative turning to avoid soil erosion.
- (xxii) The hot mix plant shall be located at least 500 mts. Away from habitation and on the barren land to avoid its adverse impact on the human population.
- (xxiii) Rehabilitation and payment of compensation to the project affected people (PAPs) shall be made as per the policy of the State Government.
- (xxiv) Noise barriers shall be provided at appropriate locations particularly in the areas where the alignment passes through inhabited areas so as to ensure that the noise levels do not exceed the prescribed standards.
- (xxv) For road safety, IRC guidelines in respect of road signages, service roads, bus bays, inter-sections, pedestrians crossings, etc. shall be strictly adhered to.



7. GENERAL CONDITIONS:

- (i) Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.
- (ii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (iii) Borrow sites for each quarry sites for road construction material and dump sites must be identified keeping in view the following:
 - (a) No excavation or dumping on private property is carried out without written consent of the owner.
 - (b) No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.
 - (c) Excavation work shall be done in close consultation with the Soil Conservation and Watershed Development Agencies working in the area, and
 - (d) Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they shall not leach into the groundwater.
- (iv) The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.
- (v) Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.
- (vi) Borrow pits and other scars created during the road construction shall be properly levelled and treated.
- (vii) Adequate financial provision must be made in the project to implement the aforesaid safeguards.
- (viii) The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (ix) Full support shall be extended to the officers of this Ministry/ Regional Office by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.

- (x) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (xi) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (xii) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (xiii) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
- (xiv) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (xv) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.
- (xvi) Safety provision such as bus bays, service roads intersection improvement etc., will be carried out by the project proponent. The project proponent shall provide adequate facilities as per IRC norms/guidelines.
- (xvii) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.

8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.

9. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

10. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board

and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry.

11. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

12. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

13. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

14. 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.

15. 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.


(Lalit Kapur)
Director (IA-III)

Copy to:

- (1) The Secretary, Forests & Environment Department, Government of Meghalaya, Shillong - 793 001
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Meghalaya State Pollution Control Board, "ARDEN", Lumpynggad, Shillong - 793 014, Meghalaya
- (4) The CCF, Regional Office, Ministry of Environment & Forests, Upland Road, Laitumkhrah, Shillong-793 003 (Meghalaya)
- (5) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (6) Guard file.

(Lalit Kapur)
Director (IA-III)