F.No.11-22/2015-IA-III
Government of India
Ministry of Environment, Forest & Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi - 3

Dated: 9th October, 2015

To

M/s Welspun India Ltd,
Welspun City, Anjar – Bhachau Road,
Village Varsamedi, Taluka Anjar,
District Kutch – 370 110 (Gujarat)

Sub: 'Laying of Onshore Treated Waste Water Disposal Pipeline for 25 MLD capacity' upto Landfall Point near Nakti Creek, Gulf of Kutch (Gujarat) by M/s Welspun India Ltd – CRZ Clearance - reg.

Sir,

This has reference to your proposal forwarded by the Director (Environment) & Member Secretary, Gujarat Coastal Zone Management Authority (GCZMA), Gujarat vide letter No. ENV-10-2015-172-E dated 10.06.2015, to this Ministry for grant of CRZ Clearance in term of the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 under the Environment (Protection), Act, 1986.

2. The proposal for **'Laying of Onshore Treated Waste Water Disposal Pipeline for 25 MLD capacity' upto Landfall Point near Nakti Creek, Gulf of Kutch (Gujarat) by M/s Welspun India Ltd (WIL),** was considered by the Expert Appraisal Committee (EAC) in the Ministry for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its 150th meeting held on 29th – 31st July, 2015.

3. The details of the project, as per the documents submitted by the Project Proponents (PP), and also as informed during the above said EAC meeting, are reported to be as under:-

(i) The proposal involves laying of Onshore Treated Waste Water Disposal Pipeline for 25 MLD capacity upto Landfall Point near Nakti Creek, Gulf of Kutch (Gujarat) by M/s Welspun India Ltd.

(ii) Welspun City is a diversified manufacturing base located at Anjar, Kutch for manufacturing textiles, pipes and steel. Welspun India proposes to expand this industrial complex. Currently, the untreated sewage water from the city of Anjar and Gandhidham-Adipur is being discharged into Nakti Creek via Sakar drainage. Welspun has entered into a Concession agreement for a period of 35 years with both the Nagarpalikas viz., Anjar Nagar Palika (ANP) and Gandhidam- Adipur Nagar Palika (GNP), for setting up of facilities and allied works in order to recycle the sewage by suitable treatment that can be optimally used by the industry.

(iii) The current water requirement is 16.4 MLD and the proposed water requirement will be 42.4 MLD for catering this expansion plan. Out of 42.4 MLD, 8.4 MLD is met from fresh water and rest 34 MLD will be recycled treated waste water (sewage) from Anjar and Gandhidham.

(iv) WIL proposed to set up a 45 MLD (30+15) STP in two phases to treat city sewage and utilize it for the increased water requirement. WIL intends to lay a pipeline conveyance system (onshore + offshore) in order to convey and dispose their surplus treated waste water plus RO rejects from STP (10+15 MLD) into deep sea off Nakti creek in Gulf of Kutch as identified by NIO based on hydrodynamic study.

(v) The capacity of the existing ETP will be augmented from 10 MLD to 15 MLD.

(vi) Treated waste water from industrial complex (15 MLD) including R.O reject (10 MLD) discharged to sea through 30 km long pipeline into Gulf of Kutch through diffuser after initial dilution.

(vii) Marine EIA Study has been done by NIO, Mumbai. On the basis of Marine EIA report prepared by National Institute of Oceanography (NIO) effluent disposal point is recommended in Gulf of Kutch as a predetermined location coordinates of N22^0 54'52.0" & E 70^0 09'18.0". On the basis of detail study of physical processes on tide, current, circulation, stratification etc., the site for disposal of effluent to the tune of 25000cu.m/day is proposed at 22^0 54'52"N; & E 70^0 09'18"E where depth of 7 m below CD is available. Near–field dilution was studied using buoyant jet model and far-field dilutions were estimated by 2D numerical model. The model study suggests that near-field dilutions of 60-130 times can be achieved at the release location with 5 prt diffuser. The port diameter should be 0.19 m and each port should be separately 5 m distance. The jet velocity and port angle should be 2 m/s and 15^0 respectively. The Far-field dilution studies indicate that the plume would move along the Gulf coastal axis and possibility of plume reaching the bank is not expected. Far-field model results show that the maximum concentration 3.4mg/I would be found at release location at nearly 10 m from the discharge location. Near ambient condition would prevail at the distance of 100 m downstream or upstream depending on the total condition. Hence the effluent generated by the WIL to the tune of 25 MLD can be released at 70^0 09'18.00" E and 22^0 54'52.00 N using 5 port diffuser.

(viii) The landfall point has been selected based on:

a. No National Parks or Wildlife Sanctuaries.
b. No Navigational Channel.
c. No Coral Zone.

(ix) Pipeline will be buried along with concrete blocks in an excavated trench to around 1.8 m below sea bed. The description of the proposed pipeline is as under:

Sl.No.	**Description**	**Total length of pipeline (in km)**			**Remarks**
		Non CRZ	CRZ	Total Length	
1.	Gravity line from Welspun premises to Pumping station & Pumping station	15.3	-	Non CRZ	-
2.	Pipeline from Pumping station to Land Fall point	5.286	0.574	5.86	CRZ IB (0.473 Km) & CRZ III (0.101 Km)
3.	Pipeline from Land Fall point to Final Disposal Point	-	8.92		CRZ IA (0.458 Km) CRZ IB (0.2800 Km) CRZ IVA (1.45 Km) CRZ IVB (6.73 Km)
Total		**20.48**	**9.494**	**30.08**	

(x) **Activities in CRZ are**: (a) excavation of trench; (b) laying and jointing of HDPE Pipeline - Onshore + offshore portion- DWC Pipes with socket joints and

HDPE Pipes having Butt Fusion Welding monolithic jointing; (c) provision of Landfall Chamber; (d) laying of Precast Concrete encasing supports for countering buoyancy; (e) WIL asked NIO to study the northern coast of the Gulf at Nakti and suggest suitable location for release of effluents and the study was conducted in October, 2014 for physical, water quality and biological characteristics of sea water. The outfall location has been selected based on model study (f) disposal site was identified based on hydrodynamic study conducted at Nakti and (g) NIO recommended diffuser with multiple ports having diameter of 0.19 m for discharge of 25 MD treated effluent at disposal point. Each port will be separated by 5 m with initial jet velocity of 2 m/s. Once the pipeline is laid the land will be reversed to its original condition.

(xi) The project components are (a) sewage conveyance Network – D.I. pipeline – Design capacity 60 MLD; (b) Sewage Treatment Plant – 30 MLD + 15 MLD (two phases); (c) treated waste water + RO rejects conveyance pipeline upto deep sea – 25 MLD capacity; (d) augmentation of existing ETP at WIL (Textile Unit)- 10 to 15 MLD and (e) augmentation of UF and RO for recycling – 10 MLD + 5 MLD + 30 MLD capacity (Three phases).

(xii) The salient features of the proposed project are:

S.No.	**Description**	**Starting /End point Location**	**Length of Conveyance System (km)**	**Treated Waste Water Disposal Quantity (MLD)**	**Mode of Disposal Remarks**
1	Segment 1: Onshore Pipeline -800 OD DWC Pipe	From Treated water premises upto pumping station Location lat long of N 23⁰ 07' 07.73" E 70⁰ 07' 42.15"	15.3	25	Gravity conveyance Pipeline upto pumping station Location.
2	Pumping station	Pumping Station located at lat. Long of N 23⁰ 01' 23.7" E 70⁰ 07' 9.89"		25	Gravity line discharge treated waste waters into storage lagoons followed by pumping station.
3	Segment 2: Onshore Pipeline -500 mm	From pumping station to landfall point – lat long of	5.86	25	Pumping main line from pump house upto landfall point

(xiii) Proposed pipeline alignment is limited to 400 m of mangrove stretch (approximately 0.2 ha). Two pipeline corridors have been proposed. The lengths of the pipelines of these routes are 7.5 km and 7 km in the Nakti creek up to low tide line. From the low tide line to the diffuser, the length is 1.7 km. Mangroves are present in the pipeline route. The lengths affected by the pipeline laying would be 450 m and 400 m for option 1 and option 2 respectively. The expected loss of mangroves due to laying of pipeline for route 1 is 0.23 ha and it is 0.20 ha for route 2. Around 2800-3000 mangrove plants are expected to be affected during laying operations. From the above results, it is concluded that the pipeline route 2 is selected for laying pipeline.

(xiv) NOC from Gujarat Pollution Control Board (GPCB) vide letter No. PC/CCA-KUTCH-243(4)/ID:18108 dated 30.05.2015 and NOC from Kandla Port obtained vide letter No. MR/GN dated 07.05.2015 for discharge of the treated water.

(xv) **SCZMA Recommendation**: The Gujarat Coastal Zone Management Authority (GCZMA) has recommended the project vide letter No. ENV-10-2015-172-E dated 10.06.2015.

(xvi) **Benefits of the project**:

- Elimination of pollution of estuary waters due to disposal of untreated sewage. This improving the environment at large in the estuary portion of Nakti creek.
- Treated waste water along with the rejects from RO will be disposed of into sea meeting the sea disposal norms.
- Treated waters will be diffused through a scientifically designed diffuser system into deep marine waters as per NIO recommendations and not disposed in the estuary / creek portion.
- Fresh Water Conservation – Additional requirement will be fulfilled by recycling treated sewage waters.
- Conservation of fresh water sources will provide sustainable water infrastructure to surrounding villages and locals, other industries of the region.
- Development of new Industries in the area, creating indirect employment and overall economic growth in the surrounding areas of Anjar and Gandhidham.
- The Proposed project will also generate indirect employment in the surrounding area due to requirement of workers in the site preparation activities, supply of materials, auxiliary and ancillary works, which would improve the economic status of the people.
- The activities would result in an increase local skill levels though exposure to site activities and technology.

4. The EAC in its 150th meeting held on 29th – 31st July, 2015 recommended the project for grant of CRZ Clearance. As per recommendations of the EAC, the Ministry of Environment, Forest & Climate Change hereby accords CRZ Clearance for the above-mentioned project **'Laying of Onshore Treated Waste Water Disposal Pipeline for 25 MLD capacity' upto Landfall Point near Nakti Creek, Gulf of Kutch (Gujarat) by M/s Welspun India Ltd (WIL)**, under the provisions of the Coastal Regulation Zone (CRZ), Notification, 2011 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific conditions, in addition to the general conditions mentioned below:-

A. <u>SPECIFIC CONDITIONS</u>:

(i) 'Consent for Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

(ii) All the conditions/recommendations stipulated by Gujarat Coastal Zone Management Authority (GCZMA) vide letter no. ENV-10-2015-172-E dated 10.06.2015, shall be complied with.

(iii) Pipeline work shall be limited to the demarcated area only.

(iv) Once the pipeline is laid, the Right of Work (RoW) shall be cleared of all waste and restored to its original condition.

(v) In all the major water bodies, the horizontal directional drilling method will be used.

(vi) The PP shall take all measures to provide protection to the pipeline against corrosion, leak and any other possible mechanical damage as committed under the EIA Report.

(vii) Signboard and markers shall be placed at each Nala/stream or river crossing and turning point as per standard engineering practice.

(viii) The project proponent shall prepare the mangrove management plan to conserve the mangrove resource for maximum benefit to humans and to minimize those non-sustainable or conversion activities that lead to destruction of the mangrove resource. Full protection of the mangrove flora and fauna by banning the extraction of mangrove wood. There shall be no permanent damage to mud flats and mangroves in any way.

(ix) The project proponent shall not undertake any destruction of mangroves during construction of the project. In unavoidable situations, identification of endangered mangrove species along the pipeline Route shall be done. Further, there shall be restoration and rehabilitation of degraded mangroves on suitable location by planting of suitable species before commissioning of the pipeline and in consultation with forest department. Regular monitoring for any changes in mangrove area, floristic and faunal composition and physiographic shall also be ensured.

(x) The project proponent shall ensure real time monitoring of effluent quality by installing online effluent quality monitoring system at the outlet of pipeline carrying effluent for marine disposal for the measurement of the parameters prescribed by the Gujarat State Pollution Control Board (GSPCB) and data gathered so submitted to. The GPCB should ensure that there is no illegal outfall point discharges any effluent into the river/creek. The GPCB should conduct surprise visits and conduct environmental audit of the member units.

(xi) The PP shall ensure that there is no misuse of intertidal area by the work force employed during the construction phase. This should be avoided by establishing the temporary colonies of workers away from CRZ area and proper sanitation shall be provided in such colonies.

(xii) There shall be no construction in the mud flat/mangrove area except laying of pipelines by the way of Horizontal Directional Drilling (HDD).

(xiii) Once in a year the leakage test shall be conducted using a colour dye and the report should be submitted along with the compliance report to GPCB/ Regional Office of MoEF&CC.

(xiv) Health Status of the mangroves should be checked by Satellite Imagery (NRSA). Primary Data should be compared with the present satellite image which determine the pristine or deteriorate conditions/ status of mangroves.

(xv) Treated Outlet of each of the member units should be provided with Online TOC, pH and Flow Meter for continuous monitoring of outlet at Guard Pond. Further these effluents should be pumped to the Common Collection Sump Location.

(xvi) In case of not meeting norms, the effluent should be recycled back (alarm of TOC) with Auto Valve system and outlet pump stoppage. This will be ensured on automation basis in each of the member industry and monitored by GPCB as well as WEMO.

(xvii) A second check should be provided at the pumping station location by establishing a waste water monitoring system at the central Pumping Station location. A second check should be kept at the pumping station location where in the quality of inlets will be checked and can be returned in case of rare case accidental discharges from member unit not meeting the norms. This should be ensured by WEMO at the pumping station location.

(xviii) All the online measurements should be recorded as well as connected with PLC and SCADA connectivity.

(xix) Online monitoring system (of pH, TOC and Flow Meter) should be installed at each of the individual member unit's outlets along with auto return valve arrangements for return of effluents not meeting norms. This should be monitored by GPCB as well as WEMO to ensure treated effluents matching the norms are disposed off into the pipeline from point of generation.

(xx) All the recommendation of the EIA/EMP, Disaster Management Plan shall be strictly complied within 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&CC along with half yearly compliance report to MoEF&CC-RO.

(xxi) Project Proponent shall obtain all required statutory clearances as applicable.

(xxii) Soil and water samples shall be regularly monitored along the pipeline route to check the leakage/contamination, if any and shall examine if any strengthening is required.

(xxiii) There shall be no disposal of solid and liquid wastes in to the Coastal areas.

(xxiv) There shall be no ground water drawal within CRZ area.

(xxv) No construction work other than those permitted in Coastal Regulation Zone Notification, 2011 shall be carried out in Coastal Regulation Zone area.

(xxvi) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.

(xxvii) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.

B. <u>GENERAL CONDITIONS</u>:

(i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.

(ii) Full support shall be extended to the officers of this Ministry/Regional Office at Bhopal 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.

(iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.

(iv) Ministry of Environment, Forests & Climate Change 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.

(v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.

(vi) 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, Forest & Climate Change.

(vii) 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.

(viii) 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.

(ix) 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.

5. 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 1994, including the amendments and rules made thereafter.

6. 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.

7. 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 CRZ 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, Forests & Climate Change 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 at Bhopal.

8. 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.

9. 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.

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

11. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

12. The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.

13. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of Ministry, the respective Zonal Office of CPCB and the SPCB.

14. 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 Clearance conditions and shall also be sent to the respective Regional Office of MoEF&CC by e-mail.

SK
9/10/2015

(S.K. Srivastava)
Scientist E

Copy to:

1) The Principal Secretary, Department of Forests & Environment and Chairman, GCZMA, Govt. of Gujarat, Sachivalaya, Gandhinagar
2) The Director, Forests & Environment Department, Govt. of Gujarat, Block No.14, 8th Floor, Sachivalaya, Gandhinagar – 10
3) The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32
4) The Chairman, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhinagar-10
5) Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Link Road No.3, Ravishankar Nagar, Bhopal – 16
6) Guard File
7) Monitoring Cell, MoEFCC

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9/10/2015

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