



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

NO.GPCB/ANK/CCA-1835(2)/ID-28312/

BY R.P.A.D.
DT: /03/2017

CCA NO: AWH-83798

In exercise of the power conferred under section - 25 of the Water (Prevention and Control of Pollution) Act-1974, under section 21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Waste (Management and Trans-boundary Movement) Rule-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated **13/12/2016** with inward no. **115365** for the Consolidated Consent and Authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consent & Authorization is hereby granted as under.

CONSENT AND AUTHORISATION:

(Under the provisions / rules of the aforesaid Environmental Acts)

To,

M/s. **NARMADA CLEAN TECH (NCT),**
(OLD NAME: **BHARUCH ECO AQUA INFRASTRUCTURE LTD.**),
JAGHADIA PIPELINE PROJECT.,
SURTI BHAGOL, NR. GUJARAT GAS OFFICE,
UMARWADA ROAD, ANKLESHWAR,
DIST: BHARUCH.

1. Consent Order No: **AWH-83798**, Date of Issue **27/01/2017**, Valid up to **16/05/2021**.
2. The consent to operate under Water Act -1974, Air Act - 1981 and Authorization under the Hazardous Waste (Management and Handling) Rules - 1989 framed under the Environment (Protection) Act, 1986 for operation of 61 km onshore effluent conveying underground pipeline for collection of treated effluent from member industrial units of Jhagadia industrial estates and conveyance of the collected effluent upto the Kantiyajal booster (Jhagadiya-to- Kantiyajal) Pumping Station, Village Kantiyajal, Dist. Bharuch having capacity of 35 MLD.
3. This pipeline will convey treated industrial effluent from Jhagadia to Booster pumping station at Kantiyajal. Ultimately this treated effluent after mixing with treated industrial effluent from FETP will be in Booster Pumping Station (BPS) Sump at Kantiyajal pumped in to deep sea discharge pipeline from there it will be at the point designated by NIO i.e. Latitude 21° 28' 10 2" N Longitude 72° 33' 45" E
4. NCT shall provide finishing final effluent Treatment Plant at GIDC Jhagadia & treated waste water having Norms specified in Condition No. 7.3 shall be discharges in to effluent conveying pipeline.
5. **SPECIFIC CONDITIONS:**
 - 5.1 NCT shall provide impervious tanks/ impervious guard ponds to hold effluent for at least 72 hours in case of maintenance or any other unforeseen circumstances
 - 5.2 NCT shall implement communication plan involving each member unit at Jhagadia / Stack holder so that respected work can be done in minimum response time in case of emergencies
 - 5.3 Hydraulic Load given to each member unit of Jhagadia & given permission to discharge treated effluent in this pipe line is non-transferable i.e. member unit can not sell or buy hydraulic load to/from any other units.



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- 5.4 NCT shall freeze hydraulic load as per list of member units with their booking quantity as on dated 01/01/2017. No addition / alteration of the booked volume shall be done without permission of the board.
- 5.5 NCT shall seal old underground pipeline leading to FETP and there shall not be any discharge of wastewater into old pipeline network.
- 5.6 NCT shall stop collection of wastewater through underground pipeline network of Jhagadia GIDC and shall collect wastewater by above ground pipeline.
- 5.7 List of member units frozen by NCT vide letter dated 10/01/2017 is enclosed herewith as Annexure - 1. No addition / Alteration of the booked volume shall be done without permission of the board.

6. SPECIFIC CONDITIONS:

- 6.1 GIDC / NAA shall be totally responsible for collection of treated effluent from the GIDC estates of Jhagadia upto NCT sump & subsequent conveyance of the collected effluent upto Kantiyajal Pumping Station.
- 6.2 Regular maintenance of the underground pipeline shall be carried out to avoid any Spillage or leakage during conveyance of the effluent.
- 6.3 NCT shall instruct & make sure that every member provides online pH meter with recorder & magnetic flow meters for flow measurement of treated waste water.
- 6.4 NCT shall constitute a monitoring committee for monitoring of the effluent discharged by its members in the GIDC drainage system.
- 6.5 The final effluent treatment collection point shall be provided with on-line monitoring instruments along with TOC, pH, TKN and flow meter actuated valve at final pumping station, furthermore a third party monitoring shall be conducted regularly.
- 6.6 NCT shall inform immediately to the GPCB regarding the termination/ suspension of the membership of Pipelines of their member unit, if any.
- 6.7 NCT shall have only one outlet for the discharge of its effluent and ensured that no effluent shall be discharged without requisite treatment at its member industries end and without meeting with the GPCB norms. Convenient easy approach shall be provided at the outlet for ease of sampling. The unit shall not keep any by-pass line or system or loose or flexible pipe for discharge of effluent outside.
- 6.8 The ground water quality around the impervious guard ponds shall be monitored regularly & data shall be submitted to the Board once in six months and shall also comply with the instruction of GPCB in case of deterioration.
- 6.9 Handling manufacturing, storage and transport of hazardous chemicals shall be in accordance with the manufacture, storage and import of Hazardous Chemicals Rules, 2008.
- 6.10 Transportation of effluent, solid waste or any other goods pertaining to treatment activities shall be carried out as per central Motor Vehicle Rule- 2008.
- 6.11 The hazardous wastes shall be handled as per the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016.
- 6.12 On site and off site emergency plan as required under the Rules 13 & 14 of handling, Manufacturing, storage and import of the Hazardous Chemicals Rules, 1989 shall be prepared and approval from the Board shall be obtained.
- 6.13 NCT shall provide state of the art composite sampler & set up testing laboratory facilities for collection, analysis of sample under the supervision of competent technical persons who shall report to the chief executive.
- 6.14 Storm water shall not be mixed with the industrial effluent. Disposal system for storm water shall be provided separately.



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- 6.15 Good housekeeping shall be maintained within the individual units premises and along the pipeline. All pipes, valves and drains shall be leak proof. Floor washing shall be admitted in to the effluent collection system for subsequent disposal.
- 6.16 NCT, shall intimate the occurrence of any accident, event resulting in discharge of poisonous, noxious or polluting matter or the likely hood of the same into a stream or well to the Regional Office under the intimation to the Member Secretary in accordance with the Section 31(1) of the Water Act.
- 6.17 NCT shall implement the Action Plan for Jhagadia region prepared by Gujarat Pollution Control Board.
- 6.18 The pipeline to be laid shall comply with all seismic design parameters based on the guidelines for the seismic design of pipelines systems. This must be complied in right perspective & true spirit.
- 6.19 The impact during the pipeline phase [Mainly trenching] as well as the impact during the operational on the marine ecology of the Gulf shall be minimal.
- 6.20 Internationally accepted codes and practices shall be followed through proper inspection, frequent evaluation and intensive testing of all critical components of the pipeline system, similarly, the vulnerable units such as flanges, couplings, joints etc shall be rigorously tested and certified for their reliability and safety over the design life of the pipeline.
- 6.21 Due care shall be taken to minimize damage to marine ecology due to improper design, lack of maintenance, faulty operation and release into shallow waters due to unforeseen accidents.
- 6.22 The entire pipeline shall be protected from external corrosion.
- 6.23 Training for work safety and efficiency shall be imparted to the operations personnel for day-to-day operations as well as handling emergency situations.
- 6.24 It shall be ensured that valves, pumps, sub-sea pipeline, MOF system etc are periodically inspected for their integrity and to guarantee their proper functioning. Accurate records of all Inspections, 'unusual findings, actions taken etc shall be strictly maintained as a part of the overall record system.
- 6.25 A comprehensive marine and estuarine quality monitoring programme shall be implemented.
- 6.26 Isolation valves shall be provided on the pipeline for better monitoring and control of flow operation.
- 6.27 The application shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act – 1977.
- 6.28 All pipeline members must have online monitoring system for pH, TOC and TKN.
- 6.29 They shall study and submit about futuristic load.
- 6.30 All members shall have only one authorized outlet over the ground with full access from outside the premises, as per design approved by NCT.
- 6.31 All the conditions specified in NOC, CRZ Clearance shall be complied with by the operating authority.
- 6.32 There shall not be any industrial wastewater discharge into Amlakhadi from pipeline directly or indirectly.
- 6.33 NCT shall comply & follow time bound action plan (Short term & Long term).
- 6.34 NCT shall be responsible for the collection of the treated effluent from GIDC estate of Jhagadia and its disposal up to the Kantiyajal Pumping Station.
- 6.35 NCT shall maintain the record of the member industries regarding the quality of effluent discharged into pipeline.
- 6.36 NCT shall inform immediately to the GPCB regarding termination/ suspension of the membership of their member units, if any.
- 6.37 NCT shall have to carry-out post project monitoring for effluent quality at pipeline outlet at Kantiyajal Pumping Station & shall have to submit the reports to Head Office, GPCB & Regional office - Ankleshwar and CPCB every month.
- 6.38 NCT shall have to abide by the norms evolved by the concern authority for marine disposal time to time.



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- 6.39 NCT shall have to install the required system, keeping the provisions, with built-in measures for retrofitting, in case of the eventualities of unacceptable pollution load.
- 6.40 NCT shall have to take up a study to ascertain COD contributed by chlorides & Sulphates in the untreated and treated effluent at pipeline outlet at Kantiyajal Pumping Station & to submit a report.
- 6.41 The recommendation made by NEERI in their study report shall be complied with.
- 6.42 NCT shall obtain CRZ clearance if required at any stage
- 6.43 NCT shall keep provision for CI:TP if required in future.
- 6.44 Individual member units should have guard pond with a capacity to store 72 hrs of effluent.

7. CONDITION UNDER THE WATER ACT:

- 7.1 Effluent conveying capacity of pipeline shall be 35 MLD.
- 7.2 NCT shall affix of water meters as per Section 4 (1) of the water (Prevention and Control of Pollution) Cess Act - 1977 for the purpose of measuring and recording the quantity of water consumed at such places as may be required, within 15 days and it shall be presumed that the quantity indicated by the meter has been consumed by the NCT until the contrary is proved
- 7.3 NCT shall operate the effluent conveying pipeline system in order to achieve the quality of the treated effluent conforming to the following standards

Parameters	Max. permissible values (in milligram/liter except for pH and Temperature) for discharge of treated effluent into sea
pH	6-9
Biological Oxygen Demand, BOD ₃ , 27° C	100
Chemical Oxygen Demand (COD)	500
Total Suspended Solids (TSS)	100
Temperature, ° C	Shall not exceed more than 5° C above ambient water temperature
Oil & Grease	10
Ammonical - Nitrogen	50
Total Kjeldahl Nitrogen (TKN)	50
Nitrate- Nitrogen	50
Flouride	15
Sulphides, as S	5
Phenolic compounds (as C ₆ H ₅ OH)	5
Total Residual Chlorine	1
Zinc	15
Iron	3
Copper	3
Trivalent Chromium	2
Manganese	2
Nickel	3
Arsenic	0.2
Cyanide, as CN	0.2
Vanadium	0.2
Lead	0.1



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Parameters	Max. permissible values (in milligram/liter except for pH and Temperature) for discharge of treated effluent into sea
Hexavalent Chromium	0.1
Selenium	0.05
Cadmium	0.05
Mercury	0.01
Bio-assay test	90 % Survival of fish after 96 hours in 100 % effluent.
Colour & Odor	All efforts shall be made to remove Colour & unpleasant odour as far as possible
Insecticides / Pesticides	Absent

7.4 The above parameters are prescribed with following conditions:

- Discharge of treated effluent into sea shall be through proper marine outfall.
- There shall be minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 m away from discharge point. In this regards, NCT shall carry out periodical (atleast once in three years) study for ensuring the above parameters & submit a report to the Board.

7.5 The effluent conforming to the above standards shall be discharged in to Kantiyajal Pumping Station through an underground on shore pipeline of 61 kms length

7.6 NCT shall receive the treated effluent from member units located in GIDC estate of Jhagadia conforming to the designed norms only so as to achieve the norms of the finally treated effluent as specified in the condition above

7.7 NCT shall have to monitor performance of ETP of every member unit by collecting effluent samples on a daily bases & shall have to maintain records & to submit the same as and when asked.

7.8 All pipes, valves & drains shall be leak proof.

7.9 NCT shall constitute a monitoring committee for monitoring of the effluent discharged by member units.

7.10 NCT shall ensure that valves, pumps, sub-sea pipeline, MOF system etc are periodically inspected for their integrity and to guarantee their proper functioning. Accurate records of all inspections, unusual findings, actions taken etc shall be strictly maintained as a part of the overall record system

7.11 NCT shall inspect pump station, seafloor stability, navigational aids, pipelines, valves etc regularly as per standard code and practices. Records of all inspections, unusual findings, actions taken etc shall be maintained properly

7.12 A comprehensive marine and estuarine quality-monitoring programme shall be implemented as recommended by NIO.

7.13 NCT shall ensure that there shall be no unauthorized discharge of their member units and in no circumstances.

7.14 The printed logbooks shall be maintained and got it certified for

- Energy/Fuel consumption/ Consumption of chemicals for treatment of effluent if any
- Waste water flow at inlet & outlet of Pipeline
- Quality of treated effluent being discharged into the Kantiyajal Pumping Station
- Quantity of sludge generated
- Laboratory analysis/ reports for each of the specified parameters of liquid effluents and solid sludge samples



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8. CONDITIONS UNDER AIR ACT:

8.1 The following shall be used as fuel

Sr. No.	Name of Fuel	Quantity
1	Diesel	200 Lit/Hr

8.2 The flue gas emission through stack shall conform to the following standards.

Stack No.	Stack Attached To	Stack Height in Meter	Air Pollution Control Measure	Parameter	Permissible Limit
1	DG set- 1 No Cap. 1010 KVA	9	---	PM SO ₂ NO _x	150 mg/NM ³ 100 ppm 50 ppm

8.3 There shall be no process emission from the manufacturing process as well as any other ancillary process

8.4 NCT shall install & operate comprehensive adequate air pollution in order to achieve prescribed norms control system so as to achieve standards

8.5 NCT shall operate air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition no. 5.2 & 5.4 above

8.6 The consent to operate shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified in the condition no. 5.2 & 5.4 above

8.7 NCT shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification

8.8 NCT shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(a) during day time and 70 dB(A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

8.9 NCT shall provide arrangement for acoustic enclosure to keep noise level within norms

8.10 NCT shall take precautionary measures to avoid fugitive emission

9 GENERAL CONDITIONS:

9.1 Any change in personnel, equipment or working conditions as mentioned in the consent forms/order should immediately be intimated to this Board.

9.2 In case of change of ownership/management, the name and address of the new owners/ partners/ directors/ proprietor should immediately be intimated to the Board

9.3 NCT shall provide all the staff with face shield gas mask, hand gloves, gumboots, helmet of green colour having logo of NCT and adequate training for operation of pipe/me

9.4 Periodic medical checkup of the workers shall be done and records shall be maintained as a measure to provide occupational health protection to the workers.

9.5 NCT shall carry out The Environmental Audit half yearly and the Environmental Statements pertaining to the previous year shall be submitted to the GPCB latest by 30th September every year

9.6 The Environmental Management Cell shall be set up to ensure implementation and monitoring of environmental safe guards and other conditions stipulated by the statutory authorities. The



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Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. This Cell/Unit also coordinates the exercise of the Environmental Audit and preparation of the Environmental Statements.

9.7 The funds earmarked for the environmental protection measures should not be directed for any other purpose and year wise expenditure should be reported to this Board & to the Government.

10. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTE Form-2 (See rule 6 (2)).

10.1 Number of authorization: AWH-83798, Date of Issue 27/01/2017, Valid up to 16/05/2021.

10.2 M/s. NARMADA CLEAN TECH (NCT) is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at JAGHADIA PIPELINE PROJECT., SURTI BHAGOL, NR. GUJARAT GAS OFFICE, UMARWADA ROAD, ANKLESHWAR, DIST: BHARUCH.

Sr. No.	Name of Hazardous Waste	Quantity/Year	Category	Facility
1	ETP Sludge / Waste	500 MT/Year	35.3	Collection, storage, Transportation, Disposal at TSDF-BEIL- Ankleshwar
2	Used Oil	1 KL/Year	5.1	Collections, storage, transportation, Disposal by selling to Registered Refiners or Reuse

10.3 The authorization is hereby granted to operate a facility as above.

10.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

11. TERMS AND CONDITIONS OF AUTHORISATION:

11.1 The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.

11.2 The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the Gujarat Pollution Control Board.

11.3 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.

11.4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.

11.5 The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc and their possible impacts and also carry out mock drill in this regard at regular interval of time;

11.6 The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".

11.7 It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

11.8 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.



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- 11 9 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 11 10 The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 11 11 The importer or exporter shall bear the cost of import or export and mitigation of damages if, any.
- 11.12 An application for the renewal of an authorisation shall be made as laid down under Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016
- 11.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time
- 11 14 Annual return shall be filed by June 30th for the period ensuring 31st March of the year
- 11 15 Unit shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No. 657 of 1995 dated 14th October 2003

**For and on behalf of
Gujarat Pollution Control Board**

D.M. Thaker
9/13

**(D. M. Thaker)
Environment Engineer**

Outward No: 406719, 09/03/2017