



**SUPERINTENDING ENGINEER
DESALINATION**



**CHENNAI METROPOLITAN WATER SUPPLY
AND SEWERAGE BOARD**



Letter No: CMWSSB/SE(Desal)/400 MLD Plant/PMC-60 /2021

Dt: 22.12.2021

To

M/s. SMEC International Pty Limited, Australia in consortium
with M/s. NJS Engineers India Pvt Ltd., Pune,
M/s. Tata Consulting Engineers Ltd., Mumbai,
M/s. SMEC India Pvt. Ltd, Haryana
1st Floor, Novus Tower, West Wing
Plot Number – 18, Sector – 18
Gurgaon – 122015, Haryana.

Sir,

Sub: CMWSSB- SE (Desal) – Project for Construction of Chennai Sea Water Desalination Plant (I) - Setting up of 400 MLD SWRO Desalination Plant at Perur & its allied works - Consultancy for Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the proposed Desalination Plant and its Product water Conveyance Pipeline from the Plant and upto Porur and all allied works - Project Management Consultant (PMC) services – Consent to Establish from TNPCB furnished - Reg.

Ref: 1. W.O No.CMWSSB/CNT/CON/DESAL/ICB/GoI/016/2018-19, dated 06.11.2019.
2. Contract agreement with CMWSSB, dated 09.01.2020.

Kind attention is invited to the above subject.

The Consent to Establish certificate from Tamil Nadu Pollution Control Board for the Construction of 400 MLD SWRO Desalination Plant has been obtained on 20.11.2021. The hardcopy of the same was received on 21.12.2021 and copy of the same is enclosed herewith for your kind information.

22/12/21

**SUPERINTENDING ENGINEER
DESALINATION**



TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry :

ORANGE

CONSENT ORDER NO. 2101140158105 DATED: 20/11/2021.

PROCEEDINGS NO.F.3483MMN/OL/DEE/TNPCB/MMN/W/2021 DATED: 20/11/2021

SUB: TNPC Board-Consent for Establishment-M/S CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION PLANT S.F No. 208/2B3, PERUR Village, NEMMELI Village, Tirupporur Taluk, Chengalpattu District - for the establishment or take steps to establish the industry under Section 25 of the Water (Prevention and control of Pollution) Act, 1974, as amended in 1988 (Central Act 6 of 1974)- Issued- Reg.

REF: 1. CMWSSB's online application No. 40158105 dated 04/10/2021
2. IR.No : F.3483MMN/OL/AE/MMN/2021 dated 11/11/2021
3. Minutes of the 161st ZLCCC meeting dated 12/11/2021 vide item No.161 - 25

Consent to establish or take steps to establish is hereby granted under Section 25 of the Water (Prevention and control of Pollution) Act, 1974, as amended in 1988 (Central Act 6 of 1974) (hereinafter referred to as 'The Act') and the Rules and Orders made there under to

Superintending Engineer,

CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION

PLANT

Authorizing occupier to establish or take steps to establish the industry in the site mentioned below:

S.F. No.208/2B3, PERUR Village,

NEMMELI Village, .

Tirupporur Taluk,

Chengalpattu District.

This Consent to establish is valid upto **March 31, 2026**, or till the industry obtains consent to operate under Section 25 of the Water (Prevention and control of Pollution) Act, 1974, as amended in 1988 whichever is earlier subject to special and general conditions enclosed.

**VASUDEVAN
DHARMAR**

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR

To

Superintending Engineer,

M/s.CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION PLANT,

CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD,

No.01,

Pumping Station Road,

Chintaderipet, Chennai,

Pin: 600002

Copy to:



TAMILNADU POLLUTION CONTROL BOARD

1. The Commissioner, TIRUPORUR-Panchayat Union, Tirupporur Taluk, Chengalpattu District .
 2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
 3. Copy submitted to the JCEE-Monitoring, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
 4. File
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TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This consent to establish is valid for establishing the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

| Sl. No. | Description | Quantity | Unit |
|-------------------------------------|----------------|----------|------|
| Product Details | | | |
| 1. | Drinking water | 400 | MLD |
| By-Product Details | | | |
| 1. | Nil | 0 | NA |
| Intermediate Product Details | | | |
| 1. | Nil | 0 | NA |

2. The unit shall provide Sewage Treatment Plant and /or Effluent Treatment Plant as indicated below.

| a Sewage Treatment Plant: | | | |
|------------------------------------|---------------------------------|--------------|----------------------|
| Treatment status: Individual STP | | | |
| SL. No. | Name of the Treatment Unit | No. of Units | Dimensions in metres |
| 1. | Bar screen Chamber | 1 | 1.0 x 0.7 x 0.6 m |
| 2. | Equalization tank-1 | 1 | 0.8 x 3.0 x 3.0 m |
| 3. | Equalization tank-2 | 1 | 2.05 x 3.0 x 3.0 m |
| 4. | Extended Aeration tank | 1 | 2.0 x 3.0 x 3.0 m |
| 5. | Clarified Water tank | 1 | 0.8 x 3.0 x 3.0 m |
| 6. | Treated Water Tank | 1 | 0.8 x 3.0 x 3.0 m |
| 7. | Pressure Sand Filter | 1 | 0.2 m dia x 1.12m ht |
| 8. | Activated Carbon Filter | 1 | 0.2 m dia x 1.12m ht |
| 9. | Sodium Hypochlorite Dosing Tank | 1 | 100 Litres |
| 10. | Sludge Holding Tank | 1 | 0.8 x 1.0 x 1.3 m |
| b Effluent Treatment Plant: | | | |
| Treatment status: Individual ETP | | | |
| SL. No. | Name of the Treatment Unit | No. of Units | Dimensions in metres |
| 1. | Sludge Balancing Tank | 1 | 31.00 * 3.50 SWD |
| 2. | Sludge Thickeners | 2 | 35.00 * 4.00 SWD |
| 3. | Sludge holding tank | 1 | 28.0* 14.0* 3.0 SWD |
| 4. | Belt Filter Press Building | 1 | 50.00*28.00*12.00 |
| 5. | Outfall Tank | 1 | 30.00 dia * 4.00 |

3. This consent to establish is valid for establishing the facility with the below mentioned outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.



TAMILNADU POLLUTION CONTROL BOARD

| Outlet No. | Description of Outlet | Maximum daily discharge in KLD | Point of disposal |
|--------------------------------|----------------------------------|--------------------------------|--|
| Effluent Type : Sewage | | | |
| 1. | Sewage | 13.5 | On land for gardening |
| Effluent Type : Trade Effluent | | | |
| 1. | Trade effluent from Outfall tank | 747000.0 | Discharged into sea at a distance of 750m from the shore |

4. Additional Conditions:



TAMILNADU POLLUTION CONTROL BOARD

1. The CMWSSB shall not commence the operation without obtaining consent to operate from Tamil Nadu Pollution Control Board.
2. The CMWSSB shall comply with the conditions imposed by MoEF,GOI in the CRZ Clearance issued vide letter F.No. 11-37/2016-IA-III dated 25/10/2018.
3. The recommendations made in the Environmental Management Plan as contained in the EIA report of the project shall be effectively implemented
4. The CMWSSB shall provide Sewage treatment plant of adequate capacity for the treatment of sewage generated from the premises.
5. The CMWSSB shall provide WTP primary treatment system like Lamella Clarifier, Dissolved Air Floatation, Gravity Dual Media Filter, Catride Filter, RO units, Lime softening & Disinfection and including sludge treatment system as proposed.
6. The Concentration of toxic metals may increase due to desalination process and therefore the effluent shall be properly treated by suitable methods to remove the toxic trace metals and other contaminants if it exceeds the standards prescribed by the Board, before discharging in to the sea. Periodical monitoring shall be carried out to assess the concentration of toxic trace metals in the reject water.
7. The temperature of the effluent (reject water) shall also be within the permissible limit. A moored data buoy shall be maintained in the vicinity of the effluent discharge to continuously monitor the changes in the selected physiochemical parameters.
8. The CMWSSB shall discharge the RO reject back into the sea through uniform distribution system without any sudden increase in TDS concentration in the area. In order to reduce the effluent of high saline discharge, an efficient dispersion model shall be carried out by reputed scientific institute and the recommendations shall be implemented.
9. The CMWSSB shall discharge the RO rejects into sea at a distance as proposed after satisfying the standards prescribed by the Board.
10. The CMWSSB shall provide proper stability to the marine outfall system with appropriate anchor so that it can withstand in cyclonic conditions.
11. The proposed intake and outfall activities in the sea shall not cause hindrance to the fishing activity, movement of boats etc.
12. The pipeline both intake and outlet shall not cause any hindrance to the movement of the local communities including the fisherman. The pipeline shall not disturb the movement of fishing vessels or fisherman.
13. Markers shall be installed at every 30 meters along the pipeline route to indicate the position of the line.
14. A continuous and comprehensive post-project marine quality monitoring program shall be taken up. This shall include monitoring of water quality, sediment quality and biological characteristics. Baseline data shall be collected prior to commencement of the project.
15. It shall be ensured that due to the project, there is no adverse impact on the drainage of the area and recharge of groundwater. No ground water shall be tapped in the project area falling in Coastal Regulation Zone.
16. The marine biodiversity shall be monitored and the report shall be submitted twice in a year to the Tamil Nadu Pollution Control Board.
17. The project activity shall not affect the coastal eco system including the marine flora and fauna.
18. The CMWSSB shall ensure that the process area shall be paved completely so that the process sea water shall not gain access on ground leading to ground water pollution.
19. The high saline reject water shall be periodically monitored for the physiochemical and toxic traces metal contents through appropriate standard procedures.
20. The camp of labourers shall be kept outside the coastal Regulation Zone area. Proper arrangements for cooking fuel shall be made for the labourers during construction phase.
21. The CMWSSB shall not carry out any other kind of works not envisaged in their proposals.
22. The CMWSSB shall transport the construction material in covered trucks to minimize air borne particulates and spills.
23. The CMWSSB has to ensure that the equipment's deployed for construction will have appropriate monitoring and control facilities.
24. The CMWSSB has to obtain clearances from other departments as per the prevalent Acts/Rules before commencing any construction activity in the said premises.
25. This Consent to Establish is issued considering the environmental angle based on facts and figures submitted by the proponent in the application and the unit shall separately apply and obtain for all other licenses from the Government Departments.
26. The CMWSSB shall not use "Use and throwaway plastics" such as plastic sheets used for food wrapping , spreading on dining table etc, plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets, plastic straw, plastic carry bag and plastic flags irrespective of thickness, within the industry premises. Instead unit shall encourage use of eco friendly alternative such as banana leaf, areca nut palm plate, stainless steel, glass, porcelain plates / cups, cloth bag etc



TAMILNADU POLLUTION CONTROL BOARD

VASUDEVAN
DHARMAR

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR

Digitally signed by VASUDEVAN DHARMAR
DN: cn=VASUDEVAN DHARMAR, o=TAMILNADU POLLUTION CONTROL BOARD,
c=IN, email=vasudevan.dharmar@tnpcb.gov.in, serial=123456789, version=3
Reason: I am a signatory of this document.



TAMILNADU POLLUTION CONTROL BOARD

GENERAL CONDITIONS

1. This consent to establish cannot be construed as consent to operate and the unit shall not commence the operation without obtaining the Consent to operate.
2. The applicant shall make a request for grant of consent to operate at least thirty days, before the commissioning of trial production.
3. Any Change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
4. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances (wherever applicable).
5. Consent to operate will not be issued unless the unit complies with the conditions of consent to establish.
6. The unit shall provide adequate water sprinklers for the control of dust emission during the loading and unloading of construction material so as to minimize the dust emission.
7. The unit shall provide water sprinklers along the temporary roads inside the premises to avoid fugitive dust emission during the vehicle movements.
8. The unit shall develop green belt of adequate width around the premises.
9. In case there is any change in the management, the unit shall inform the change with relevant documents immediately.

VASUDEVAN
DHARMAR

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR

Digitally signed by VASUDEVAN DHARMAR
DN: cn=VASUDEVAN DHARMAR, o=TAMILNADU POLLUTION CONTROL BOARD,
ou=Pollution Control, email=vasudevan.dharmar@tnpcb.gov.in, c=IN,
serial=123456789, version=3
Date: 2023.10.27 10:30:00 +05'30'



TAMILNADU POLLUTION CONTROL BOARD

POLLUTION PREVENTION PAYS



TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry :

ORANGE

CONSENT ORDER NO. 2101240158105

DATED: 20/11/2021.

PROCEEDINGS NO.F.3483MMN/OL/DEE/TNPCB/MMN/A/2021 DATED: 20/11/2021

SUB: TNPC Board-Consent for Establishment-M/s. CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION PLANT , S.F. No. 208/2B3, PERUR Village, NEMMELI village, Tirupporur Taluk and Chengalpattu District - for the establishment or take steps to establish the industry under Section 21 of the Air(Prevention and control of Pollution)Act,1981, as amended in 1987(Central Act. 14 of 1981)-Issued -Reg.

REF: 1. CMWSSB's online application No. 40158105 dated 04/10/2021
2. IR.No : F.3483MMN/OL/AE/MMN/2021 dated 11/11/2021
3. Minutes of the 161st ZLCCC meeting dated 12/11/2021 vide item No.161 - 25

Consent to establish or take steps to establish is hereby granted under Section 21 of the Air (Prevention and control of Pollution) Act,1981, as amended in 1987 and the Rules and Orders made there under to

Superintending Engineer,

M/s . CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION

PLANT

S.F No.208/2B3, PERUR Village,

NEMMELI Village,

Tirupporur Taluk,

Chengalpattu District.

Authorizing occupier to establish or take steps to establish the industry in the site mentioned below:

S.F No. 208/2B3, PERUR Village,

NEMMELI Village,

Tirupporur Taluk,

Chengalpattu District.

This Consent to establish is valid upto **March 31, 2026**, or till the industry obtains consent to operate under Section 21 of the Air (Prevention and control of Pollution) Act, 1981, as amended in 1987 whichever is earlier subject to special and general conditions enclosed.

**VASUDEVAN
DHARMAR**

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR

To

Superintending Engineer,

M/s.CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD - 400MLD DESALINATION PLANT,

CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD,

No.01,

Pumping Station Road,

Chintaderipet, Chennai,

POLLUTION PREVENTION PAYS



TAMILNADU POLLUTION CONTROL BOARD

Pin: 600002

Copy to:

1. The Commissioner, TIRUPORUR-Panchayat Union, Tirupporur Taluk, Chengalpattu District .
2. Copy submitted to the Member Secretary, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
3. Copy submitted to the JCEE-Monitoring, Tamil Nadu Pollution Control Board, Chennai for favour of kind information.
4. File



TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This consent to establish is valid for establishing the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

| Sl. No. | Description | Quantity | Unit |
|-------------------------------------|----------------|----------|------|
| Product Details | | | |
| 1. | Drinking water | 400 | MLD |
| By-Product Details | | | |
| 1. | Nil | 0 | NA |
| Intermediate Product Details | | | |
| 1. | Nil | 0 | NA |

2. This consent to establish is valid for establishing the facility with the below mentioned emission/noise sources along with the control measures and/or stack .Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent has to be obtained if necessary.

| I | Point source emission with stack : | | | |
|-----------|---|--|-------------------------------------|-----------------------------|
| Stack No. | Point Emission Source | Air pollution Control measures | Stack height from Ground Level in m | Gaseous Discharge in Nm3/hr |
| 1 | DG Set | High speed diesel as per Bharat stage VI | 30 | 10512 |
| II | Fugitive/Noise emission : | | | |
| Sl. No. | Fugitive or Noise Emission sources | Type of emission | Control measures | |
| 1. | DG Set | Noise | Acoustic enclosure | |

3. **Special Additional Conditions:**

The unit shall install the approved retrofit emission control device/equipment with at least 70% Particulate matter reduction efficiency on all DG sets with capacity of 125 KVA and above or otherwise the unit shall be shift to gas based generators within the time frame prescribed in the notification No. TNPCB/Labs/DD(L)02151/2019 dated 10.06.2020 issued by TNPCB.

4. **Additional Conditions:**

1. The CMWSSB shall not commence the operation without obtaining consent to operate from Tamil Nadu Pollution Control Board.
2. The CMWSSB shall comply with the conditions imposed by MoEF,GOI in the CRZ Clearance issued vide letter F.No. 11-37/2016-IA-III dated 25/10/2018.
3. The CMWSSB shall ensure that construction equipments deployed shall be provided with suitable mufflers, enclosures so as to satisfy the ambient noise level standards prescribed by the Board.
4. The recommendations made in the Environmental Management Plan as contained in the EIA report of the project shall be effectively implemented.
5. The CMWSSB has to obtain clearances from other departments as per the prevalent Acts/Rules before commencing any construction activity in the said premises.
6. This Consent to Establish is issued considering the environmental angle based on facts and figures submitted by the proponent in the application and the unit shall separately apply and obtain for all other licenses from the Government Departments
7. The CMWSSB shall develop green belt by planting tall saplings (miyawaki method) all along the compound wall [Minimum 1m width] within the unit premises so as to cover 25% of the total area.



**District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR**

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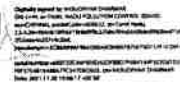
TAMILNADU POLLUTION CONTROL BOARD

GENERAL CONDITIONS

1. This consent to establish cannot be construed as consent to operate and the unit shall not commence the operation without obtaining the Consent to operate.
2. The applicant shall make a request for grant of consent to operate at least thirty days, before the commissioning of trial production.
3. Any Change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
4. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances (wherever applicable).
5. Consent to operate will not be issued unless the unit complies with the conditions of consent to establish.
6. The unit shall provide adequate water sprinklers for the control of dust emission during the loading and unloading of construction material so as to minimize the dust emission.
7. The unit shall provide water sprinklers along the temporary roads inside the premises to avoid fugitive dust emission during the vehicle movements.
8. The unit shall develop green belt of adequate width around the premises.
9. In case there is any change in the management, the unit shall inform the change with relevant documents immediately.

VASUDEVAN
DHARMAR

District Environmental Engineer,
Tamil Nadu Pollution Control Board,
MARAIMALAI NAGAR





TAMILNADU POLLUTION CONTROL BOARD

POLLUTION PREVENTION PAYS