Consortium Partners
SMEC International Pty. Ltd. (ACN-065440619/FCRN-F01483)
NJS Engineers India Pvt Ltd, India (CIN - U74210PN2007PTC129798)
Tata Consulting Engineers Limited, India (CIN- U74210MH1999PLC123010)
SMEC (India) Pvt. Ltd. (CIN: U93000DL1997PTC088574)

Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/462 Date: 20 December 2021

SUPERINTENDING ENGINEER (DESAL) 2256 20 DEC 2021 CMWSS BOARD, CHENNAI

To,
The Superintending Engineer (Desalination)
Chennai Metropolitan Water Supply and Sewerage Board,
Urban Administrative Building,
2nd Floor, No.75, Santhome High Road,
Raja Annamalaipuram,
Chennai 600 028, Tamil Nadu, India

Sub: JICA Assisted Project for Construction of 400 MLD Seawater Reverse Osmosis Desalination Plant at Perur **(JICA Loan ID-P267) – Submission of addendum on bid document for CP1 component with reasons/justifications – Reg.**

Ref:
1. Email received from CMWSSB, dated 17.12.2021
2. Your Letter No: CMWSSB/SE(Desal)/400 MLD Plant / PMC-058/2021, Dt: 16.12.2021
3. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/457, dated 11.12.2021
4. Meeting held at 1st floor conference hall of CMWSSB and Online MS Teams meeting with CMWSSB officials and PMC team members to 23.11.2021 to 09.12.2021
5. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/451, dated 08.12.2021
6. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/446, dated 26.11.2021
7. Email on prebid queries for CP1 component received from CMWSSB on 03.11.2021 to 18.11.2021
8. Prebid meeting held at 6th floor conference hall of CMWSSB, dated 09.11.2021
9. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/428, dated 13.10.2021
10. Our Letter no. Ref: SMEC/ CMWSSB / 7061563/005, dated 20.01.2020
11. Your Letter no. Lr.no.CMWSSB/SE(Desal)/400 MLD Plant / PMC/2020, dated 13.01.2020
12. Our Contract Agreement with CMWSSB, dated 09.01.2020

Dear Sir,

With reference to the subject matter and email received from your office vide letter cited in reference no. 1 dated 17.12.2021, please find enclosed the **"Addendum on bid document for CP1 component with reasons / justifications"** for your review and perusal.

Thanking you and always assuring our best services.

Yours truly,
For **Consortium of SMEC International Pty Ltd-TCE Ltd.-NJS Engineers India Pvt. Ltd.-SMEC (India) Pvt. Ltd.**

S. Srinivasarao
Project Coordinator

SMEC International Pty. Ltd.-TCE Ltd.-NJSEI Pvt. Ltd.-SMEC (India) Pvt. Ltd. PMC for 400 MLD CHENNAI.

Encl: As above

PMC Chennai Office Address:
'A' 13th Floor, Purva Primus, No 236, Okhiyampettai,
Old Mahabalipuram Road, Thuraipakkam, Chennai, Tamil Nadu 600097
☎ +91 044 66973300 ✉ indiabd@smec.com 🌐 www.smec.com

CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD

PROJECT FOR CONSTRUCTION OF CHENNAI SEAWATER DESALINATION PLANT (I)

ADDENDUM

TO
BIDDING DOCUMENT
For
TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22
LOAN AGREEMENT NO. ID-P267
JICA FUNDED PROJECT

PROCUREMENT OF DESIGN/ENGINEERING, CONSTRUCTION, COMMISSIONING OF 400 MLD SEAWATER REVERSE OSMOSIS (SWRO) DESALINATION PLANT AT PERUR, CHENNAI WITH 20 YEARS OF OPERATION AND MAINTENANCE (DBO BASIS)

EMPLOYER: CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD
COUNTRY: INDIA

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22
LOAN AGREEMENT NO. ID-P267
JICA FUNDED PROJECT

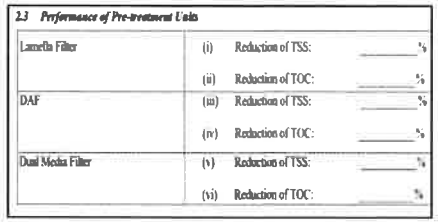
ADDENDUM

Sl. No.	Clause No.	As existing	As amended	Reason / justification
	PART-I: BIDDING PROCEDURES			
1	Bid Data Sheet 22. Format and Signing of Bid ITB 22.1 Page 39	In addition to the original of the Bid, the number of copies is: Two Copies, clearly marking the Original and Copies; and one soft copy in the form of CD/DVD/Pen Drive.	Amended as below: "In addition to the original of the Bid, the number of copies is: Two Copies, clearly marking the Original and Copies; and one soft copy in the form of CD/DVD/Pen Drive. **The original hard copy of tender document (with all amendments such as addendum and reply to prebid queries) should be duly signed and submitted along with the hard copy of Bid. The same should be scanned and submitted along with soft copy of bid."**	Added for better clarification of bidder
2	Section II. Bid Data Sheet 43. Signing of Contract ITB 43 Page 40	The following clause is added as ITB 43.3: The successful Bidder in case of JV, shall register the JV agreement in Chennai ..... Milestones defined in Clause No.1.13 of Part-II. The JV members shall have to establish an office in Chennai, if the JV is awarded with the Contract to facilitate the completion of above-mentioned registration formalities in Chennai. Delay in the registration of JV agreement will not be a ground for the Contractor to claim any extension of time or additional cost.	Amended as below: The following clause is added as ITB 43.3: The successful Bidder in case of JV, shall register the JV agreement in Chennai ..... Milestones defined in Clause No.1.13 of Part-II. **"If any lawful exemption is obtained towards JV registration charges during the contract period, the benefit needs to be passed on to the Employer."** The JV members shall have to establish an office in Chennai, if the JV is awarded with the Contract to facilitate the completion of above-mentioned registration formalities in Chennai. Delay in the registration of JV agreement will not be a ground for the Contractor to claim any extension of time or additional cost.	Any policy level decisions happens during the contract period, which leads to exemption of registration charges for this contract, such benefit needs be passed to CMWSSB. Hence added for better clarification of bidder.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

Sl. No.	Clause No.	As existing	As amended	Reason / justification
3	Section II. Bid Data Sheet 18. Bid Prices and Discounts ITB 18.7	Evaluated Bid Price (Award Criteria for Contract) will be inclusive of all taxes. Add the following text to ITB Clause No. 18.7: "The Accepted Contract Amount shall be deemed to include all duties, levies, cess, royalty to Government, GST and other charges imposed on the production, manufacture, sale and transport of the Contractor's Equipment, Plant, Materials and supplies to the construction site to be used on or furnished under the Contract and on the services performed under the Contract. Employer doesn't guarantee any tax benefits (reduced tax rate/ tax waivers) under Customs Duty, GST, any Cess, etc. during the performance of the Contract. Bidders are advised to consider the actual tax rates (without considering any waiver) while estimating the Contract Price. Any lawful exemption obtained during the contract period the benefit need to be passed on to the Employer.	Amended as below: Evaluated Bid Price (Award Criteria for Contract) will be inclusive of all taxes. Add the following text to ITB Clause No. 18.7: "The Accepted Contract Amount shall be deemed to include all duties, levies, cess, royalty to Government, GST and other charges imposed on the production, manufacture, sale and transport of the Contractor's Equipment, Plant, Materials and supplies to the construction site to be used on or furnished under the Contract and on the services performed under the Contract. Employer doesn't guarantee any tax benefits (reduced tax rate/ tax waivers) under ~~Customs Duty~~, GST, any Cess, etc. during the performance of the Contract. Bidders are advised to consider the actual tax rates (without considering any waiver) while estimating the Contract Price. Any lawful exemption obtained during the contract period the benefit need to be passed on to the Employer.	Since the project is exempted from Import Duty/Customs duty as per Notification No.50/2017 customs dated 30th June, 2017 vide Sl. No.603 i.e. Drinking Water Supply Project for supply of water for human or animal Consumption, the employer wishes to pass on such tax benefit to the project. While bidding, the base price can exclude the Customs Duty on the imported items. Hence the word "Customs Duty" removed in this paragraph.
4	Section IV: Technical Schedule-2-Proposed Plant Details - Gravity Dual Media Filters; Page 70	(x) Surface loading rate *(max <8 m/h @ N-2 filters)*	Amended as below: "(x) Surface loading rate *(max ≤7.8 m/h @ N-2 filters)"*	It is amended for uniformity as specified in Part-II Vol-1 of 5, Table 3-6, Page 3-17 is adopted.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

Sl. No.	Clause No.	As existing	As amended	Reason / justification
5	Section IV: Technical Schedule-4- Electrical Works; Diesel Generator Supply; Page 125	DG Details (3 DG – one for each stream and one for the buildings and streets lighting).	The sentence amended as below: DG Details (3 DG – one for each stream and one for the buildings).	Solar panel streetlights have been proposed and hence DG set power back up is removed for street lighting system.
6	Section IV: Technical Schedule-9 - Functional Guarantees of the Plant and Equipment; clause 2.3; Page 137	 2.3 Performance of Pre-treatment Units Lamella Filter: (i) Reduction of TSS: ____ %; (ii) Reduction of TOC: ____ % DAF: (iii) Reduction of TSS: ____ %; (iv) Reduction of TOC: ____ % Dual Media Filter: (v) Reduction of TSS: ____ %; (vi) Reduction of TOC: ____ % **The silt density index (SDI) of the Pre-treated or RO feed seawater quality before Cartridge Filter must be < 3.0 @ 95%ile and < 4.0 @ 100%ile all the time.**	*Amended as below:* *2.3 Performance of Pre-treatment Units* Unit / Reduced value Lamella Filter: (i) TSS: ____ mg/l; (ii) TOC: ____ mg/l DAF: (iii) TSS: ____ mg/l; (iv) TOC: ____ mg/l Dual Media Filter: (v) TSS: ____ mg/l; (vi) TOC: ____ mg/l **The silt density index (SDI) of the Pre-treated or RO feed seawater quality before Cartridge Filter must be < 3.0 @ 95%ile and < 4.0 @ 100%ile all the time.**	Instead of values in %, the unit is changed to mg/l to know the exact values of reduction.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

Sl. No.	Clause No.	As existing	As amended	Reason / justification
7	FORM CON: HISTORICAL CONTRACT NON-PERFORMANCE- **1. History of Non-Performing Contracts**	□ Contract non-performance did not occur since 1st January [insert year], in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.1, as appropriate. □ Contract(s) not performed since 1st January [insert year], in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor2.2.1, as appropriate, is (are) indicated below:	□ Contract non-performance did not occur since 1st January 2015 in accordance with the Prequalification criteria, Sub-Factor 2.1 as appropriate. □ Contract(s) not performed since 1st January 2015 in accordance with the Prequalification criteria, Sub-Factor 2.1 as appropriate, is (are) indicated below:	Typographical error. Conditions given in PQ document do not reflect in RFP. The same are amended.
8	FORM CON: HISTORICAL CONTRACT NON-PERFORMANCE- **2. Pending Litigation**	□ No pending litigation in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.2, as appropriate. □ Pending litigation in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor2.2.2, as appropriate, is indicated below:	□ No pending litigation in accordance with the Prequalification criteria, Sub-Factor 2.2, as appropriate. □ Pending litigation in accordance with the Prequalification criteria, Sub-Factor 2.2, as appropriate, is indicated below:	Typographical error. Conditions given in PQ document do not reflect in RFP. The same are amended.
9	FORM CON: HISTORICAL CONTRACT NON-PERFORMANCE **3. Litigation History**	□ No court/arbitral award decisions against the Bidder since 1st January [insert year], in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.3, as appropriate. □ Court/arbitral award decisions against the Bidder since 1st January [insert year], in accordance with the Prequalification criteria, or Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.3, as appropriate, are indicated below:	□ No court/arbitral award decisions against the Bidder since 1st January 2015, in accordance with the Prequalification criteria, Sub-Factor 2.3, as appropriate. □ Court/arbitral award decisions against the Bidder since 1st January 2015, in accordance with the Prequalification criteria, Sub-Factor 2.3, as appropriate, are indicated below:	Typographical error. Conditions given in PQ document do not reflect in RFP: The same are amended.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

Sl. No.	Clause No.	As existing	As amended	Reason / justification
10	FORM FIN - 1: FINANCIAL SITUATION **2. Financial documents**	The Bidder and its Parties shall provide copies of the financial statements for [number of years] years pursuant to the Prequalification Criteria or Section III, Evaluation and Qualifications Criteria, Sub-factor 2.3.1. The financial statements shall: (a) Reflect the financial situation of the Bidder or in case of JV member, of each member, and not an affiliated entity (such as parent company or group member).	The Bidder and its Parties shall provide copies of the financial statements for [number of years] years pursuant to the Prequalification Criteria, Sub-factor 3.1. The financial statements shall: (a) Reflect the financial situation of the Bidder or in case of JV member, of each member, and not an affiliated entity (such as parent **company (ies), group companies or subsidiaries**).	Typographical error. Conditions given in PQ document do not reflect in RFP. The same are amended.
11	FORM FIN - 2: AVERAGE ANNUAL TURNOVER	Notes for the Bidders: 1. Total USD equivalent for all years divided by the total number of years, in accordance with Section III, Qualification Criteria, Sub-Factor 3.2.	Notes for the Bidders 1. Total USD equivalent for all years divided by the total number of years, in accordance with the Prequalification Criteria, Sub-Factor 3.2, as appropriate.	Typographical error. Conditions given in PQ document do not reflect in RFP. The same are amended.
12	FORM FIN - 3: FINANCIAL RESOURCES	[Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject Contract or Contracts as indicated in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2, as appropriate.]	[Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject Contract or Contracts as specified in Prequalification Criteria, Sub-Factor 3.3, as appropriate.]	Typographical error. Conditions given in PQ document do not reflect in RFP. The same are amended.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>As existing</th><th>As amended</th><th>Reason / justification</th></tr>
<tr><td></td><td>PART II EMPLOYERS'S REQURIEMENTS</td><td></td><td></td><td></td></tr>
<tr><td>13</td><td>Volume 1 of 5

1.2.3 Scope of the Works

Page 1-7</td><td>r) Waste Management Plan:
".....The used RO membrane shall be disposed off in compliance with Indian Law and regulations. The ways of disposal will be reported regularly to CMWSSB. Confirmation of official disposal site shall be provided as and when identified by Contractor after getting approval from CMWSSB in concurrence with TNPCB".</td><td>The following statement amended as below:
r) Waste Management Plan:
".....<u>The used RO membrane shall be disposed off in compliance with Indian Law and regulations. The ways of disposal will be reported regularly to CMWSSB</u>".</td><td>As per the existing practice in the other existing plant, the paragraph is amended.</td></tr>
<tr><td>14</td><td>Volume 1 of 5
Clause no.
1.3.2 Product Water Quality

Page 1-11</td><td>Table 1-2 : Product Water Quality Requirement
<table><tr><th>Parameter</th><th>Required Quality</th></tr><tr><td>Turbidity (NTU)</td><td>< 0.5</td></tr><tr><td>True Colour</td><td>< 3</td></tr><tr><td>Chlorides (mg/L)</td><td>< 250</td></tr><tr><td>TDS (mg/L)</td><td>< 450 all the time</td></tr><tr><td>Boron (mg/L)</td><td>< 1.0 mg/l all the time</td></tr><tr><td>LSI</td><td>> positive</td></tr><tr><td>Hardness</td><td>≥ 60 mg/L as CaCO3</td></tr><tr><td>All other parameters</td><td>As per BIS 10500 - 2012</td></tr></table></td><td>The following table amended as below:

Table 1-2: Product Water Quality Requirement
<table><tr><th>Parameter</th><th>Required Quality</th></tr><tr><td>Turbidity (NTU)</td><td>≤ 1</td></tr><tr><td>Colour (Hazen Units)</td><td>< 3</td></tr><tr><td>Chlorides (mg/L)</td><td>≤ 250</td></tr><tr><td>TDS (mg/L)</td><td>≤ 450 all the time</td></tr><tr><td>Boron (mg/L)</td><td>< 1.0 mg/l all the time</td></tr><tr><td>LSI</td><td>positive</td></tr><tr><td>Hardness</td><td>≥ 60 mg/L as $CaCO_3$</td></tr><tr><td>All other parameters</td><td>As per BIS 10500 - 2012</td></tr></table></td><td>The turbidity of the final product water has been relaxed to ≤1 NTU which is acceptable as per BIS:10500-2012.
Rest of the parameters are kept consistent to Part-II in Vol-1 of 5, Table 1-5.</td></tr>
</table>

Sl. No.	Clause No.	As existing	As amended	Reason / justification
15	Volume 1 of 5 Table 1-5 Product water, Product Water Tank Clear Water Tank Page 1-13 to Page 1-16	**Table 1-5: Base Process Design Criteria for 400 MLD Desalination Plant at Perur** **Product water** o Net 400 MLD product water – with provision of min. 50% turndown capacity as advised by the Engineer. o TDS ≤ 450 ppm o Chlorides ≤ 250 ppm o Turbidity ≤ 0.50 o Boron < 1.0 ppm o Hardness ≥ 60 mg/l as $CaCO_3$ o LSI - Positive o pH – 6.5 to 8.5 o Other parameters as per BIS 10500-2012 **Product water tanks** • 2 metallic or RCC tanks for each stream • Total capacity 30,000 m^3 (2 hours) – Each stream tanks capacity - 15000 m^3 with partition for isolation & cleaning **Clear water tank** • 1 RCC CWR with partition – with partition and provision to clean one part • Total capacity 9,000 m3 • Two 1600mm DI flanged puddle for feed to CWR and six (6) 900mm DI flanged puddle for discharge from CWR	Process stage of component detail is amended as below: **Table 1-5: Base Process Design Criteria for 400 MLD Desalination Plant at Perur** **Product water** o Net 400 MLD product water – with provision of min. 50% turndown capacity as advised by the Engineer. o TDS ≤ 450 ppm o Chlorides ≤ 250 ppm o Turbidity ≤ 1.0 NTU o Boron < 1.0 ppm o Hardness ≥ 60 mg/l as $CaCO_3$ o LSI - Positive o pH – 6.5 to 8.5 o Other parameters as per BIS 10500-2012 **Product water tanks** • 2 metallic tanks for each stream • Total capacity 30,000 m^3 (2 hours) – Each stream tanks capacity - 15000 m^3 with partition for isolation & cleaning **Clear water tank** • 1 RCC CWR with partition – with partition and provision to clean one part • Total capacity 9,000 m^3 • Two (2) 1600mm DI flanged puddle for feed to pumps and four (4) 900mm DI flanged puddle for discharge from CWR	Product water, Matching the parameters same as Addendum Sl. No. 14. Product water tanks Metallic tank is preferred. Clear water tank: four – 900 mm DI flanged puddles are required for discharge of water from CWR. Accordingly, the table has been amended.
16	Volume 1 of 5 2.19 Facilities for Employer during the Contract Period Page 2-7	The Contractor shall purchase 3 new SUVs (top model) and provide them to the Employer for their use during DB Contract period. Additional, two new similar SUVs shall be provided by the Contractor to the Employer for their use through O&M period after 5 years of the Commencement Date of the Contract. All expenses related to driver, insurances, fuel and maintenance of the vehicles shall be the responsibility of the Contractor.	The sentence amended as below: "The Contractor shall provide 3 new SUV vehicles to the Employer during Design-Build period and 2 new SUV vehicles during O&M Contract period. The vehicles shall be replaced with new ones before they become 5 years old. All expenses related to driver, insurances, fuel and maintenance of the vehicles shall be the responsibility of the Contractor".	The sentences have been rewritten for clarity having the same message.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
17	Volume 1 of 5 Clause 3.4.3.5 Intake pumping station Page 3-10	The screened water from the inlet screens shall flow into the intake pumping chamber. A minimum of (6W + 3S) pumps shall be provided for the total plant capacity (4 pumps for each process stream with one pump in store).	The sentence amended as below: "The screened water from the inlet screens shall flow into the intake pumping chamber. A minimum of (6W + 2S) pumps shall be provided for the total plant capacity (4 pumps for each process stream)."	The provision of an additional standby pump in store has been taken off to reduce the capital cost and provided additional standby pumps. Accordingly, it is amended.
18	Volume 1 of 5 Clause 3.4.3.5 Intake Pumping Station Page 3-11	All electromagnetic flowmeters in the plant shall be provided with a bypass line with sufficient isolation valves and dismantling joints to facilitate easy maintenance of the flowmeters	The sentence amended as below: "The electromagnetic flowmeters in the plant shall be provided with a bypass line wherever process requires with sufficient isolation valves and dismantling joints to facilitate easy maintenance of the flowmeters".	The modification has been done to avoid many bypass lines to all flow meters where flow is not linked to the process control, chemical dose rate and/or performance of the plant.
19	Volume 1 of 5 Clause 3.4.4.3 Coagulant Page 3-12	The coagulant preparation and dosing tanks shall consist of two RCC Tanks	Amended as below: "The coagulant preparation and dosing tanks shall consist of two FRP Tanks"	The changes have been done to reduce the capital cost and to keep suitable chemical tanks.
20	Volume 1 of 5 Clause 3.4.5.1 Cartridge Filter Page 3-23	Bidder needs to provide two spare cartridge filter vessels for each train so as filter replacement is done without any impact on water production, such that the maximum loading rate is not exceeded when one vessel is out of service.	Amended as below: Bidder needs to provide two spare cartridge filter vessels for each 200 MLD stream so as filter replacement is done without any impact on water production, such that the maximum loading rate is not exceeded when one vessel is out of service.	It was a typo-mistake. The sentence has been corrected.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
21	Volume 1 of 5 Clause 3.4.4.8 RO Feed Tank Page 3-20	In case of emergency, the first compartment will have a provision to be fed from the outlet of the DAF	The following sentence is deleted in the mentioned clause: "In case of emergency, the first compartment will have a provision to be fed from the outlet of the DAF"	The sentence has been deleted, because the DAF effluent is not considered suitable to feed directly to the RO system.
22	Volume 1 of 5 Clause 3.4.7 RO Permeate Tank Page 3-26	RO permeate tank shall be provided to store sufficient permeate water for CIP, flushing and service water. The tank can be either in concrete with corrosion-resistant tiling or glass fused stainless steel with proper internal and external protection.	Amended as below: "RO permeate tank shall be provided to store sufficient permeate water for CIP, flushing and service water. The tank shall be Metallic with corrosion-resistant internal lining with proper external protection including necessary cathodic protection".	On request of the bidders to specify single material, the MOC of the RO permeate tank has been decided as "Metallic" considering the cost and ease of maintenance of plant hydraulics.
23	Volume 1 of 5 Clause 3.4.8.1 Limestone Filter Page 3-39	The piping material for the entire remineralization Plant shall be in GRP. The GRP pipes shall be designed for the maximum pressure that is likely to occur in the piping system (pressure surge phenomena shall also be considered for this purpose). However, the minimum stiffness class of the piping shall be 5000 PSI	The piping material for the entire remineralization Plant shall be in GRP. The GRP pipes shall be designed for the maximum pressure that is likely to occur in the piping system (pressure surge phenomena shall also be considered for this purpose). However, the minimum stiffness class of the piping shall be **5000 N /m^2**	5000 PSI was an error in original document which has been corrected to 5000 N/m^2.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
24	Volume 1 of 5 3.4.13.1 Design Basis Page 3-41	The design will be based on the normal condition with average seawater quality having TSS 75 mg/l.	Amended as below: "The design will be based on the normal condition with average seawater quality having TSS 150 mg/l".	For the design of sludge treatment plant, the seawater TSS has been increased to 150 mg/L. This has been done considering the max TSS level of 300 mg/L and above occurring at least 3 months in a year.
25	Volume 1 of 5 Clause 3.7.2 Piping, Pipe Fittings and Valves Page 3-59	Piping larger than two inches in diameter shall be flanged.	The **following sentence is deleted** in the mentioned clause: "Piping larger than two inches in diameter shall be flanged"	All piping larger than 2 inches need not to be flanged. The request from bidders has been acknowledged.
26	Volume 1 of 5 Clause 4.30 Diesel Generator Page 4-27	"Two DG sets (1 duty + 1 standby) shall be provided for each stream and also one DG set for minimum lighting and illumination of the buildings and streets within the site boundary to the satisfaction of the Engineer"	The **following sentence is deleted** in the mentioned clause: "Two DG sets (1 duty + 1 standby) shall be provided for each stream and also one DG set for minimum lighting and illumination of the buildings and streets within the site boundary to the satisfaction of the Engineer"	DG set requirement already provided in Sl. No. 5 in this Addendum, therefore this item is deleted from this section.
27	Volume 1 of 5 Clause 6.5 Super Duplex Piping and Fittings Page 6-15	For high pressure piping in SWRO system, Super Duplex Stainless Steel (SDSS) shall be used which will have PREN > 43 and CF > 35. For low pressure piping in SWRO system, SDSS can have PREN>41.	Amended as below: "For high pressure piping in SWRO system, Super Duplex Stainless Steel (SDSS UNS S31254 (1.4547)) shall be used which will have PREN $\geq$ 41 and CF > 35. For low pressure piping in SWRO system, GRP can be used."	Due to high cost and availability issue, the use of the super duplex steel with PREN $\geq$ 41 and CF > 35 for high pressure SWRO system has been agreed. This is acceptable standard for the SWRO Plants.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
28	Volume 1 of 5 Clause 7.9.4 Plug Valves Page 7-36	All valves shall be manufactured and supplied in accordance with the American Petroleum Institute (API) Specification 6D, Twenty Second Edition, 2002 including supplement 1 & 2 thereof with additions and modifications as indicated in the following sections of this specification.	Amended as below: "All valves shall be manufactured and supplied in accordance with API / BS EN / ASME standards for seawater desalination works with additions and modifications as indicated in the following sections of this specification".	On the request of the bidders, other international standards are added for the valves for sea water application, which is acceptable for desalination process.
29	Volume 2 of 5 Clause 8.6.33 Electric motors Page 8-214	Induction Motors Starting Method shall be either of the following types: "2. 10 to 100 kW: 415V Star-Delta / Variable Frequency Drive"	Amended as below: Induction Motors Starting Method shall be either of the following types: "2. 10 to 100 kW: 415V Star-Delta / Variable Frequency Drive/**Soft Starter**"	The soft starter has been added to use where Star Delta/ VFD are not needed.
30	Volume 2 of 5 Clause 8.6.33 Electric motors 11kV Medium Voltage Motors Page 8-214	All medium voltage motors shall be provided with a primary resistance starter, soft starter or a variable frequency drive with by-pass option for RVAT (Reduced Voltage Auto Transformer) control in case of soft starter or VFD failure.	The sentence amended as below: "All medium voltage motors shall be provided with a primary resistance starter, soft starter or a variable frequency drive."	On request of bidders, RVAT control has been taken out. It is considered not essential.
31	Volume 2 of 5 Clause 8.6.38 Cable Support System Page 8-226	Cable ladder racking, trays and ducting shall have a minimum of 20 percent spare capacity at the end of the contract.	Amended as below: "Cable ladder racking, trays and ducting shall have a minimum of **25 percent spare capacity**".	A minimum of 25 percent spare capacity is preferred. It is consistent with the requirement elsewhere in the Bid document.

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>As existing</th><th>As amended</th><th>Reason / justification</th></tr>
<tr><td>32</td><td>Volume 2 of 5

Clause 8.6.48 Air Conditioning and Ventilation

“Heating”

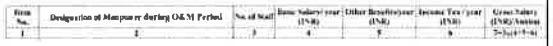
Page 8-285</td><td>Heating
Electrical heating shall be provided for each room of the building. Except for the battery room, the heating shall comprise of 1500mm long tubular heaters with a load of 60 watts/foot (300mm) which shall be mounted in double tier banks.

Electric heaters shall be fitted with bright plate safety guards affording full protection to the heating tubes. The Contractor shall assess the thermal performance of the building and ensure that the sizes of units are adequate to maintain internal temperatures of 5°C when the external temperature is -3°C, measured 1200mm above finished floor level out of an air stream.</td><td>“Heating” paragraph is deleted</td><td>The room heating is not required for the buildings in Chennai climate. Hence it is deleted.</td></tr>
<tr><td>33</td><td>Volume 3 of 5
13.4.2 Experience & Qualification of Staff
Table 13-6: Minimum Requirements for Staff and Qualifications</td><td>Table 13-6: Minimum Requirements for Staff and Qualifications
<table><tr><th>Sr. No</th><th>Designation</th><th>Qualification</th><th>Experience</th><th>Shift-1</th><th>Shift-2</th><th>Shift-3</th><th>Reliever</th><th>Total Nos.</th></tr></table></td><td>Table amended as below:

Table 13-6: Minimum Requirements for Staff and Qualifications
<table><tr><th>Sr. No</th><th>Designation</th><th>Qualification</th><th>Experience</th><th>Shift-1</th><th>Shift-2</th><th>Shift-3</th><th>Total Nos.</th></tr></table>
Any additional staff / equipments are to be provided by the Contractor to carry out the O&M of the plant.</td><td>Reliever has been taken off. Reliever shall be included in the Shift staffs. It is contractors’ internal arrangements to deploy sufficient staff to operate the plant.</td></tr>
</table>

Sl. No.	Clause No.	As existing	As amended	Reason / justification
	PART-III: CONDITIONS OF CONTRACT AND CONTRACT FORMS			
34	Section VIII. Particular Conditions (PC) Part A - Contract Data - **Sub-Clause 14.5 Asset Replacement Schedule**	Payments from the Asset Replacement ..... will be disbursed between the Parties as described in Sub-Clause 14.18 [Asset Replacement Fund].	Not applicable	Since there is no separate payment for asset replacement, the provision for the clause is not applicable. The same is amended. The payment is linked to water production.
35	Section VIII. Particular Conditions (PC) Part A - Contract Data - **Sub-Clause 14.18 Asset Replacement Fund**	The Asset Replacement Fund is to provide the necessary funding for the replacement of items of Plant identified.....any amount remaining in the Asset Replacement Fund, including any accrued interest, shall be deemed to be to the Account of the Employer and shall not be disbursed to the Contractor.	Not applicable	Since there is no separate payment for asset replacement, the provision for the clause is not applicable. The same is amended. The payment is linked to water production.
36	Section VIII. Particular Conditions (PC) Part A - Contract Data - **Sub-Clause 19.3 (e) Plant Insurance to be inserted**	100% of the O&M Contract Price.	Deleted	Plant insurance is irrelevant to O&M price. The same is deleted (Refer below point for better clarification).

Sl. No.	Clause No.	As existing	As amended	Reason / justification
37	Section VIII. Particular Conditions (PC) Part A - Contract Data –Sub-Clause 19.3(e) **Other optional operational insurances required from the Contractor (give details)**	None	10% of plant asset value	Since 100% of the O&M Contract Price is deleted in 19.3 (e) Plant Insurance and added new Sub-Clause 19.3(e) Other optional operational insurances to link the Plant asset value.
38	Section VIII. Particular Conditions (PC) Part B- Specific Provisions CLAUSE 12 DEFECTS **Sub-Clause 12.7 Completion of Operation Service**	All such work shall be executed by the Contractor at his own cost before handing over the entire Plant and Works to the Employer. In the event that the Contractor fails to carry out the necessary remedial works, the Employer's Representative shall notify the Contractor, and proceed in accordance with the provisions of Sub-Clause 11.4 (a) and (b).	All such work shall be executed by the Contractor at his own cost before handing over the entire Plant and Works to the Employer. In the event that the Contractor fails to carry out the necessary remedial works, the Employer's Representative shall notify the Contractor and **proceed to complete the works. Any costs incurred by the Employer in so doing shall be recoverable from the Contractor and will become a debt due and payable by the Contractor to the Employer and the Employer may, at his sole discretion, recover such amount by invoking the Contractor's Performance Security.**	Wrong reference given in RFP Document. The point is amended for better clarification of bidder.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
39	Sub-clause 4.8 in Page 17 of Section VIII in Part III Conditions of Contract and Contract Forms	"The noise level produced by any equipment like pump sets, compressor sets, and blower sets etc. shall not exceed 65 dBA measured at a distance of 1.0 m from the outer surface of the equipment."	"The noise level produced by any equipment like pump sets, compressor sets and blower sets etc. should be in the range of 65 dBA to 85dBA measured one meter from the outer surface of the equipment. If the installed equipment proposed does not meet the 85dBA maximum sound level, the Contractor has to provide sound-absorbing materials in the pump room walls and ceilings to achieve the maximum sound level requirement."	As many bidders are requesting to consider 85 dBA as maximum noise level, it is considered to adopt the same which is normally adopted in the industry.
	PART IV PRICE SCHEDULE			
40	Schedule 9: Operation and Maintenance Price Page 48	Note: - Fixed Price should not be more than 30% of the O&M Price for each year. For Sludge disposal, the Bidder shall provide the per unit rate for disposal beyond 20 km.	Amended as below: "Note: - Fixed Price should not be more than 30% of the O&M Price for each year. For Sludge disposal, the Bidder shall provide the **per Kilometer rate** for disposal beyond 20 km. **Sludge Disposal rate beyond 20Km = ……..INR/Kilometer"**	The new point added for better clarification of bidder.
41	Schedule 15: Manpower during Operation and Maintenance period Page 60	Schedule 15: Manpower during Operation and Maintenance period 	Schedule 15: Manpower during Operation and Maintenance period Table amended as below: **Item No. / Designation of Manpower during O&M Period / No. of Staff / Gross Salary (INR)/Annum / Total (INR)/Annum** **1 / 2 / 3 / 4 / 5 = 3 x 4**	The disclosing the Income tax and other details of contractor's staff is not required and accordingly the table is updated.

TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-22 **ADDENDUM**

Sl. No.	Clause No.	As existing	As amended	Reason / justification
42	Sl. No.6 in Preamble	The Base Price mentioned in each Schedule shall exclude GST only but shall include all costs on materials, duties, landing charges, shipping costs for transport by air, sea or land (or any combination thereof), insurance, import taxes, customs duties, loading, unloading, storage, getting into position, hoisting, lowering, distributing to positions, fixing, labour, setting-out, scaffolding and staging, plant, supervision, profit, overhead charges, all tests including commissioning test etc., making good prior to handing over to the Employer and anything reasonably to be inferred from the description of the item and indispensably necessary thereto.	Amended as below: The Base Price mentioned in each Schedule shall exclude GST **and Customs / Import Duty** only but shall include all other taxes and costs on materials, duties, landing charges, shipping costs for transport by air, sea or land (or any combination thereof), insurance, loading, unloading, storage, getting into position, hoisting, lowering, distributing to positions, fixing, labour, setting-out, scaffolding and staging, plant, supervision, profit, overhead charges, all tests including commissioning test etc., making good prior to handing over to the Employer and anything reasonably to be inferred from the description of the item and indispensably necessary thereto.	The project is exempted from the customs duty and hence the clause is amended to reflect the same.
43	Preamble	-	The new points no. 12 and 13 are added as below: 12. Provisional sum include the cost towards the expenditures of Dispute Board in addition to the other works. 13. This project is exempted from Customs / Import Duty and Employer will facilitate necessary document and procedural support for getting exemption under customs duty as applicable. However, getting customs duty exemption from the required statutory body is the responsibility of the contractor.	Provisional sum and customs duty exemption points are newly added for better clarification of bidder.