

PMC for 400 MLD SWRO Desalination Plant at Perur, Chennai

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 / 5061185/463

Date: 24 December 2021

To,

**The Superintending Engineer (Desalination)**

Chennai Metropolitan Water Supply and Sewerage Board,

Urban Administrative Building,

2<sup>nd</sup> 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 revised responses (29 points as per JICA's comment) of reply to prebid queries and addendum (Sl. No. 45 to 50) on the bid document for CP1 component – Reg.**

- Ref:**
1. Email received from JICA, dated 22.12.2021 and 23.12.2021
  2. Online MS Teams meeting with JICA, CMWSSB officials and PMC team members, dated 22.12.2021
  3. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/462, dated 20.12.2021
  4. Your Letter No: CMWSSB/SE(Desal)/400 MLD Plant / PMC-058/2021, Dt: 16.12.2021
  5. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/457, dated 11.12.2021
  6. Meeting held at 1<sup>st</sup> floor conference hall of CMWSSB and Online MS Teams meeting with CMWSSB officials and PMC team members to 23.11.2021 to 23.12.2021
  7. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/451, dated 08.12.2021
  8. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/446, dated 26.11.2021
  9. Email received from CMWSSB for prebid queries for CP1 on 03.11.2021 to 18.11.2021
  10. Prebid meeting held at 6<sup>th</sup> floor conference hall of CMWSSB, dated 09.11.2021
  11. Our Letter no. Ref: SSNT PMC 400 MLD / CMWSSB / 5061185/428, dated 13.10.2021
  12. Our Letter no. Ref: SMEC/ CMWSSB / 7061563/005, dated 20.01.2020
  13. Your Letter no. Lr.no.CMWSSB/SE(Desal)/400 MLD Plant / PMC/2020, dated 13.01.2020
  14. Our Contract Agreement with CMWSSB, dated 09.01.2020

Dear Sir,

With reference to the subject matter and email received from JICA vide letter cited in reference no. 1 dated 22.12.2021 and 23.12.2021 and as per Online Microsoft Teams meeting held with JICA, CMWSSB officials and PMC team members on 22.12.2021, please find enclosed the **"Revised responses (29 points as per JICA's comment) of reply to prebid queries and addendum (Sl. No. 45 to 50) on the bid document for CP1 component"** 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



Encl: As above

**PMC Chennai Office Address:**

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**NAME OF THE PROJECT: PROJECT FOR CONSTRUCTION OF CHENNAI SEAWATER DESALINATION PLANT (I)**

**NAME OF THE CONTRACT: 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)**

**TENDER NO: CMWSSB/CNT/WSS/ICB/JICA/DESAL/CP01/019/2021-2022**

**JICA LOAN AGREEMENT NO.: ID-P267**

**REPLY TO THE PRE-BID QUERIES ON BIDDING DOCUMENT FOR CP1 COMPONENT**

Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
5	Tender & Contracts Conditions	Part-III	VIII	4.2	5	Performance security		The referred clause asks for performance security of 10% of Accepted Contract Amount. However as per latest government guidelines after pandemic tenders should have a performance security of 3% only. Hence request you to keep performance security a 3%.	Please kindly reconsider.	As per Bidder's request, it is considered to reduce the performance security as 5% of Accepted Contract Amount for the Design-Build component.  Refer Sl. No. 48 of Addendum.
13	Tender & Contracts Conditions	Part-III Particular Conditions	VIII	18	42	Exceptional Risks or Force Majeure	Epidemic or Pandemic related to only COVID-19 are excluded from this agreement and already considered in the Contractor's offer.	Epidemic or Pandemic other than COVID-19 shall be considered under Force Majeure. Kindly confirm.	Please kindly reconsider.	Epidemic or Pandemic, if any happens after signing of Contract may be considered.
29	Tender & Contracts Conditions	PART 3- CONDITIONS OF CONTRACT AND CONTRACT FORMS	Section VIII. Particular Conditions & Particular Conditions (PC) Part B- Specific Provisions	4.2 & Sub-Clause 4.2 Performance Security	5 & 16	Performance Security (as percentages of the Accepted Contract Amount 111 Currencies):		Since the O&M activities under service oriented work in nature, it doesn't contribute any design related activities / supply & commissioning activities. Kindly consider the Performance security 1% of Annual contract Value. Kindly confirm	Same as SL. No. 5	The contract of this magnitude requires 5% performance guarantee, in case if any remedy required during the O&M Contract of the project and Contractor fails to do the same, this performance guarantee will be utilised to cover the same. Hence, the tender conditions prevail.
149	Technical Conditions	2. RFP_CP-1_Part-II_Vol-5 of 5_Annexures & Drawings Final	2.7 Brief Description of Project	Shock Chlorination System	132	Type of Chlorination		As per mentioned clause Chlorine gas is mentioned for shock chlorination whereas as per 2. RFP_CP-1_Part-II_Vol-1 of 5_Chapter 1 to 7_28072021_Final document hypo is mentioned. Kindly confirm which form of chlorine to be considered.	Please kindly reconsider.	Existing Desalination plants are using Sodium Hypochlorite and for the safety reason, we intend to use Sodium Hypochlorite in 400 MLD Desalination Plant.
179	Tender & Contracts Conditions	Part-II	Section VI	2.10 Employer's Requirements	2-5		2.10 Employer's Requirements. The Contractor shall use the proposed process design given in the Employer's Requirements (Part-2) as a guide to understanding the requirements. However, the final process, mechanical, electrical and civil designs for the required performance of the complete design-build and O&M Works at the Plant with sludge treatment and waste disposal out of the site premises are the responsibilities of the Contractor.	Please confirm that according to the clause 2.10 the process design given in Employer's requirement Part II can be considered as a guideline and the bidder is allowed to present their base solution based on own design of the treatment process described in the Tender.	Please kindly reconsider.	The processes and design criteria shall not be changed. Tender conditions prevail.
183	Tender & Contracts Conditions	Part III	Section VIII	4.2	5		For DB, performance security required is 10% of DB contract price that is inclusive of all taxes and duties.	As per the Government of India notification, we request the DB Performance Security Value may kindly be amended to 3% of Design-Build Contract Price.	Same as SL. No. 5	As per Bidder's request, it is considered to reduce the performance security as 5% of Accepted Contract Amount for the Design-Build component.  Refer Sl. No. 48 of Addendum.

Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
184	Tender & Contracts Conditions	Part III	Section VIII	4.2	5		For O&M, performance security required is 5% of accepted contract amount	a. As per the Government of India notification, we request the O&M Performance Security Value may be reduced to 3%. b. We understand that the Accepted Contract Amount for the purpose of O&M Performance Security is the Yearly O&M Contract Value. Kindly confirm.	Same as SL. No. 5	The contract of this magnitude requires 5% performance guarantee, in case if any remedy required during the O&M Contract of the project and Contractor fails to remedy the same, this performance guarantee will be utilised to cover the same. Hence, the tender conditions prevail.
185	Tender & Contracts Conditions	Part III	Section VIII	14.2 (b)	10		Percentage deduction for the repayment of advance amount is defined at 25% in each interim payment	25% deduction for Advance repayment is extremely high and shall adversely affect the Project Cash Flow. We kindly request this value to be amended to 10% of each interim bill. Please confirm.	Please kindly reconsider.	Refer Sl. No. 49 and 50 of Addendum.
189	Technical Conditions	Part II	Section VI	Table 3-4: Indicative Design Parameters for the Lamella Clarifier	3-14		According to the Table 3-4: Indicative Design Parameters for the Lamella Clarifier, the number of tanks are 36 (18 tanks in each stream)	As bidder is responsible to design, following the clause 2.10 Employer's Requirement, and operate the plant for 20 years, we request to allow bidder to implement the most optimized equipment design, based in Bidder's own equipment design	Please kindly reconsider.	As long as the loading rate is maintained as per provisions in the bid document, the bidder can design the Lamella clarifier subject to the approval by the Engineer during Detailed Engineering stage.
190	Technical Conditions	Part II	Section VI	3.4.4.6 Dissolved Air Floatation	3-15		As per clause 3.4.4.6 of Part II – Section VI Employers requirement it is stated that <i>In case opting for higher loading rate, the Contractor must demonstrate at least two operating reference plants (each ≥100 MLD) handling the similar seawater quality successfully</i>	We ask for an amendment on this clause as follows : <i>In case opting for higher loading rate, the Bidder must demonstrate at least two operating reference plants (each ≥100 MLD) or one operating reference plant (≥200 MLD) handling the similar seawater quality successfully and with a minimum operation reference of 3 years.</i>	Please kindly reconsider.	Refer Sl. No. 47 in Addendum.
191	Technical Conditions	Part-II	Section VI	3.4.4.7 Gravity Dual Media Filters	3-16		The filter should be designed to ensure that filtration run time is not less than 24h in worst water condition and at maximum plant output capacity. In each plant stream, when two filters are under backwash operation and one under maintenance, the remaining filters shall be able to handle the filtered water flow required for all the RO trains in operation. Granular media filtration system will consist of about 80 individual filters (40 filters for each plant stream) that will operate in parallel and with a design velocity with two filters out of service (N-2) per stream $\leq 7.8 \text{ m}^3/\text{m}^2 \cdot \text{h}$	Following the same clause as per the DAF defined in the tender (3.4.4.6) we request to allow the Bidder that in <i>case opting for higher loading rate in DMGF, the Bidder must demonstrate at least two operating reference plants (each ≥100 MLD) or one operating reference plant (≥200 MLD) handling the similar seawater quality successfully and with a minimum operation reference of 3 years</i> Additionally, and following the clause 2.10 Employers requirements, please let the bidder to design the filtration system based in one unit under maintenance and assuring the backwashing operating cycle of 24h in worst water condition and at maximum plant output capacity	Please kindly reconsider.	Tender conditions prevail.
192	Technical Conditions	Part II	Section VI	3.4.13.7 Sludge Dewatering Process	3-45		Continuous-feed belt filter presses (BFPs)	Kindly allow bidder to choose the dewatering equipment best suitable for the application.	Please kindly reconsider.	As long as the specifications of solids consistency given in the bid document are achieved, the bidder can propose a similar dewatering equipment subject to the approval by the Engineer during Detailed Engineering stage.

Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
201	Technical Conditions	Part II	Section VI	3.4.4 Pre-treatment System	3-12		The pre-treatment process shall be reliable to achieve the guaranteed characteristics of seawater suitable to feed the RO Plant. The Silt Density Index (SDI) after DMF shall be <3.0 (95th %ile) and < 4.0 (100th %ile) and in any case, will not exceed the value recommended by any of the proposed membrane manufacturers.	As per RO Membrane Manufacturer accepted values for this kind of pre- treatment is SDI < 4 (95 <sup>th</sup> %ile) and SDI<5 (100 <sup>th</sup> %ile) and the same should be allowed. Making it more stringent shall make the design extremely conservative, and expensive, without any operational or product water quality advantage. Please confirm.	Please kindly reconsider.	Tender conditions prevail.
224	Technical Conditions	Part II	Section VI	1.5 Mass Balance for the Proposed Plant	1-12		The plant design shall be based on the production of additional permeate in order to compensate the loss of production during non-availability of the plant. The required plant availability is 97% but the net 400 MLD production shall be maintained every month during the O&M period.	The requirement of the tender is unusually very stringent. An availability of 97% measured on Monthly basis means less than one day of stoppage for maintenance per month. In a desal plants, several less frequent but necessary Maintenance actions could take longer period than one day. Hence, it is normal practice World-wide to measure the Plant Availability Factor on "Annual Basis" and not on Monthly Basis. We suggest the availability of 97% measured on a yearly basis. Please confirm.	Please kindly reconsider.	Refer Sl. No. 45 and 46 of Addendum.
225	Technical Conditions	Part II	Section VI	Table 1-5: Base Process Design Criteria for 400 MLD Desalination Plant at Perur	1-15		High-pressure pumps • Suitable for seawater maximum TDS with minimum Temperature; and min TDS with max temperature. • With VFD • Provision of production turndown	Please let the bidders decide about the Pump and VFD configuration in order to optimize the design for the best CAPEX and OPEX.	Please kindly reconsider.	Tender conditions prevail.
226	Technical Conditions	Part II	Section VI	Table 1-5: Base Process Design Criteria for 400 MLD Desalination Plant at Perur	1-15		SWRO skids • Each RO train size – 25 MLD • Each stream of 200 MLD water production will have 8+1 RO skids (trains)	It is not a normal practice in municipal desalination plants to have one rack in standby. As a global practice during the CIP or maintenance the rest of the rack are able to keep the full production per stream ensuring the required availability of the plant. In view of this, please confirm that the minimum number of rack are 8 units per stream.	Please kindly reconsider.	Tender conditions prevail.
227	Technical Conditions	Part II	Section VI	Table 1-5: Base Process Design Criteria for 400 MLD Desalination Plant at Perur	1-15		Limestone bed for remineralisation: Number of cells: 28 units (14 per stream). • Surface loading rate: 10 m <sup>3</sup> /m <sup>2</sup> .h • Contact time: 25 minutes (min) • Integrated storage system for limestone with capacity for minimum 30 days • Air + water backwash system	Following the same clause as per the DAF defined in the tender (3.4.4.6) we request to allow the Bidder that in <i>case opting for higher loading rate in Limestone Bed filters, the Bidder must demonstrate at least two operating reference plants (each ≥100 MLD) or one operating reference plant (≥200 MLD) handling the similar seawater quality successfully and with a minimum operation reference of 3 years</i> .	Please kindly reconsider.	As long as the loading rate is maintained as per the provisions in the bid document, the bidder can design the Limestone bed filters for remineralisation subject to the approval by the Engineer during Detailed Engineering stage.

Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
324	Tender & Contracts Conditions	I	II Bid Data sheet / ITB 43		40		The successful Bidder in case of JV, shall register the JV agreement in Chennai as per the prevailing Registration Act, Rules and Conditions, Registration Department after the issue of the Letter of Acceptance and before execution of the Contract Agreement, so as to be legally valid and binding on JV members; and the registration fee required for the registration of the JV agreement should be borne by the Bidders, which will not be reimbursed by the Employer to the Bidder, as early as possible from the date of issue of Letter of Acceptance, not later than 28 days, without any effect on the project duration and the respective Milestones defined in Clause No.1.13 of Part-II.	In all International bids and projects funded by JICA, there is no requirement specified to pay stamp duty on registration of a Joint Venture. Adding such costs for such a large project will further add costs to overall project and will severely affect the cash flow of the Contractors going for JV.  Also this will give undue advantage to bidders quoting as sole bidder since they do not have to consider this cost.  We hence request, 1. Just to bring in parity between the bidders the JV registration charges shall be excluded from the evaluation and shall be quoted separately in the Price schedule. We request the Employer to kindly consider the above to have fair evaluation. or 2. The Employer to waive off / reimburse the stamp duties and similar charges paid by the Contractor for the registration of the JV post award	Please kindly reconsider.	Tender conditions prevail.
326	Tender & Contracts Conditions	III	VIII: Particular Conditions		5		4.2 Performance Security (as percentages of the Accepted Contract Amount in Currencies): Section A - Design Build Contract, the same shall be furnished within 28 days of the issue of Letter of Acceptance, in the amount (s) of Ten (10) percent of the Accepted Contract Amount for the Design-Build component excluding the Provisional Sums.	Notification No. F.9/4/2020-PPD, dated the 12th November 2020, published by Government of India, Ministry of Finance, Department of Expenditure, states that - It is decided to reduce <b>Performance Security</b> from existing 5 - 10 % to <b>3% &amp;</b> of the value of the contract for all existing contracts.  Hence, inline with the G.O, we request for a reduction in the design build performance security to <b>3% of the Accepted Contract Amount</b> for the Design-Build component excluding the Provisional Sums.	Same as SL. No. 5	As per Bidder's request, it is considered to reduce the performance security as 5% of Accepted Contract Amount for the Design-Build component.  Refer Sl. No. 48 of Addendum.
327	Tender & Contracts Conditions	III	VIII		5		4.2 Performance Security : Section A - Design Build Contract, the same shall be furnished within 28 days of the issue of Letter of Acceptance, in the amount (s) of Ten (10) percent of the Accepted Contract Amount for the Design-Build component excluding the Provisional Sums.	Request you to consider 4.2 Performance Security : Please reduce it to 5% as there is already a retention amounting to 5% as per 14.3	Same as SL. No. 5	As per Bidder's request, it is considered to reduce the performance security as 5% of Accepted Contract Amount for the Design-Build component.  Refer Sl. No. 48 of Addendum.

Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
346	Tender & Contracts Conditions	III	Section VIII : Particular conditions		10		14.2 (b) Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate: 25% (Twenty five percent)	The huge Amortization rate of 25% on each IPC will negatively impact the Contractors Cashflow and this in turn will effect the project progress and affecting the duration taken to achieve project milestones. Also, with the current amortization rate, complete advance will be recovered while the project cash flow reach around 40% of the billing, leaving the Contractor with lesser cashflow during the initial stages of the Contract. Considering the above facts, we request the Employer to reduce the amortization rate to 10%, similar to the earlier tenders of CMWSSB (150 MD Chennai Desalination tender) and earlier JICA tenders.	Please kindly reconsider.	Refer Sl. No. 49 and 50 of Addendum.
360	Tender & Contracts Conditions	III	Section VIII: Particular Conditions	Clause 18.1	43		18.1 Epidemic or Pandemic related to only COVID-19 are excluded from this agreement and already considered in the Contractor's offer.	We request to consider any lock down restriction from State/ Central government/Foreign government imposed on the movement of goods/ shutdown of industries etc due to COVID - 19 shall be considered under Force Majeure since the same is not under the control of Contractor.	Same as SL.No.13	Epidemic or Pandemic, if any happens after signing of Contract may be considered.
400	Tender & Contracts Conditions	III	VIII		43		18.1 Definition of Force Majeure  NB: Epidemic or Pandemic related to only COVID-19 are excluded from this agreement and already considered in the Contractor's offer	Request you to add as point (vi) " any Epidemic or Pandemic".  Covid-19 Pandemic cannot be completely excluded. Should there be any outbreak of new variant of Covid-19 or imposition of restrictions/precautionary measures, not existing at the time of submission of the Contractor's offer" affecting the performance of the Contractors obligations under the Contract, then such events shall be considered as the events of Force majeure subject to satisfying the conditions stipulated under point (a) to (d) and the Contractor shall accordingly be entitled for equivalent relief in respect thereof.	Same as SL.No.13	Epidemic or Pandemic, if any happens after signing of Contract may be considered.
439	Technical Conditions	Part-III Conditions of Contract	Particular Conditions (PC) Part A - Contract Data	Clause 4.2 Performance Security (as percentages of the Accepted Contract Amount in Currencies):	5		Section B - O&M Contract for 20 years, the same shall be furnished before 28 days from the commencement of Operation Service Period in the amount (s) of Five (5) percent of the Accepted Contract Amount for the Operation Service period.	We request the employer to consider Performance security as 5% of Annual O&M contract price valid for 1 year and the same shall be renewed annually for the respective year's O&M contract price.  We request the Employer to accept 5% of Performance Security on Annual O&M contract price similar to other International/JICA tenders which is also the case in 150 MLD Nemmeli contract. Please confirm.	Same as SL. No. 5	Tender conditions prevail.



Sl. No. (1)	Query Type (2)	Part Number (3)	Section (4)	Clause (5)	Page No. (6)	Subject (7)	Original Bid Condition (8)	Bidder's Query (9)	Comments from JICA (10)	CMWSSB Response (11)
440	Technical Conditions	Part-III Conditions of Contract	Particular Conditions (PC), Part A - Contract Data	Clause 4.2 Performance Security (as percentages of the Accepted Contract Amount in Currencies):	5		Section B - O&M Contract for 20 years, the same shall be furnished before 28 days from the commencement of Operation Service Period in the amount (s) of Five (5) percent of the Accepted Contract Amount for the Operation Service period.	As per Order No. F.9/4/2020-PPD, on 12th Nov 2020 by Ministry of Finance, it is decided to reduce Performance Security from existing 5% to 3% of the contract value for all tenders/ contracts issued/ concluded till 31.12.2021. Hence we request the Employer to reduce the performance security to 3% as per the norms.	Same as SL. No. 5	The contract of this magnitude requires 5% performance guarantee, in case if any remedy required during the O&M Contract of the project and Contractor fails to remedy the same, this performance guarantee will be utilised to cover the same. Hence, the tender conditions prevail.
448	Technical Conditions	Part III - Conditions of Contract	Section VIII: Particular Conditions, Part - B Special provisions	Clause 18 Exceptional Risks or Force Majeure	42		18.1 Definition of Force Majeure  NB: Epidemic or Pandemic related to only COVID-19 are excluded from this agreement and already considered in the Contractor's offer	Request you to add the below points after (v) vi. Covid-19 Pandemic cannot be completely excluded. Should there be any outbreak of new variant of Covid-19 or imposition of restrictions/precautionary measures, not existing at the time of submission of the Contractor's offer" affecting the performance of the Contractors obligations under the Contract, then such events shall be considered as the events of Force majeure subject to satisfying the conditions stipulated under point (a) to (d) and the Contractor shall accordingly be entitled for equivalent relief in respect thereof. vii The East coast is notorious and rough, so washing away pipelines shall be considered as Force majeure. viii Since it's a Tsunami prone site, any such incident shall be considered as Force majeure ix The local agitations affecting the plant operation during execution/ O&M shall be also considered as Force majeure.	Same as SL. No. 13	Epidemic or Pandemic, if any happens after signing of Contract may be considered.
449	Tender & Contracts Conditions	Part-IV Price Schedule	Schedule 9: Operation and Maintenance Price		48		Note: - Fixed Price should not be more than 30% of the O&M Price for each year.	You would appreciate the fact that Fixed Price is including manpower cost, asset replacement cost, membrane cost and administrative cost. The total fixed value will be around 70% of the total O&M price. Only chemical shall be variable, hence we request the Employer to increase the limit for fixed price from 30% to 70%. Please confirm.	Please kindly reconsider.	Tender conditions prevail.
456	Technical Conditions	Part-I	IV		63		<u>2.0 Pre-treatment section</u> a) Hypo storage and dosing system ii) No. of dosing tanks vii) Material of Dosing pump Casing Shaft Impeller xii) Days of chemical storage (min 30 days)	Hypochlorite dosing pump is of diaphragm type metering pump as per Part-2 section 3-31. Hence the details regarding shaft and impeller is not applicable in datasheet. Similarly the same is applicable for Sulphuric acid dosing pump and Ferric Chloride dosing pump also as they are also diaphragm metering pump. Please confirm.	Please kindly reconsider.	The details provided are indicative only, the Contractor has to propose the details of dosing pumps during Detailed Engineering stage.
457	Technical Conditions	Part-I	IV		63		<u>2.0 Pre-treatment section</u> a)Hypo storage and dosing system xii)Days of chemical storage (min 30 days)	As mentioned in Part-2 section 3-29, due to low shelf life, the storage days for sodium hypochlorite is 14 days. Please confirm.	Please kindly reconsider.	It is indicative, the bidder can ensure the availability of chemicals required for smooth operation of the plant.



**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**



**CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD**  
**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
	<b>PART II EMPLOYER'S REQUIREMENTS</b>			
45	Part II, Volume 1 of 5  Section VI  Sub Clause 1.5 Mass Balance for the Proposed Plant  Page 1-12	The required plant availability is 97% but the net 400 MLD production shall be maintained every month during the O&M period.	The following sentence is amended as below:  "The required plant availability is 97%, <u>and the net 400 MLD production shall be maintained every Quarter</u> during the O&M period."	The request has been considered.
46	Part II, Volume 1 of 5  Section VI Sub Clause 3.4.5 Seawater Reverse Osmosis System (SWRO) Page 3-21	The Bidders shall provide a complete SWRO system suitable to produce net 400 MLD product water with plant availability minimum 97% of monthly average.	The following sentence is amended as below:  "The Bidders shall provide a complete SWRO system suitable to produce net 400 MLD product water with plant availability minimum 97% of <u>Quarterly</u> average."	The request has been considered.

Sl. No.	Clause No.	As existing	As amended	Reason / justification
47	Part II, Volume I of 5  Section VI  Sub Clause 3.4.4.6 Dissolved Air Flotation  Page 3-15	In case opting for higher loading rate, the Contractor must demonstrate at least two operating reference plants (each $\geq 100$ MLD) handling the similar seawater quality successfully.	The following sentence is deleted in the mentioned sub clause:  “ <u>In case opting for higher loading rate, the Contractor must demonstrate at least two operating reference plants (each <math>\geq 100</math> MLD) handling the similar seawater quality successfully.</u> ”	The mentioned details are not as a part of Qualification Criteria, so the sentence has been deleted.
<b>PART-III: CONDITIONS OF CONTRACT AND CONTRACT FORMS</b>				
48	Section VIII. Particular Conditions (PC) Part A - Contract Data,  Sub-Clause 4.2  Section A - Performance Security (as percentages of the Accepted Contract Amount in Currencies):  Page 5	Section A - Design Build Contract, the same shall be furnished within 28 days of the issue of Letter of Acceptance, in the amount (s) of Ten (10) percent of the Accepted Contract Amount for the Design-Build component excluding the Provisional Sums.	The percentage of performance security for Design-Build Contract is reduced and details are <b>amended</b> as below:  “Section A - Design Build Contract, the same shall be furnished within 28 days of the issue of Letter of Acceptance, in the amount (s) of <b>Five (5) percent</b> of the Accepted Contract Amount for the Design-Build component excluding the Provisional Sums.”	As per Bidder's request, it is considered to reduce the percentage of performance security for the Design-Build Contract, so the same sub-clause is amended.

Sl. No.	Clause No.	As existing	As amended	Reason / justification												
49	Section VIII. Particular Conditions (PC) Part A - Contract Data,  Sub-Clause 14.2 (b)  Page 10	<table><tr><th>Sub-Clause</th><th>Data to be given</th><th>Data</th></tr><tr><td>14.2 (b)</td><td>Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:</td><td>25% (Twenty five percent)</td></tr></table>	Sub-Clause	Data to be given	Data	14.2 (b)	Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:	25% (Twenty five percent)	<p>In the table, following <b><u>percentage deduction for the repayment of the Advance payment</u></b> details are amended as below:</p> <table><tr><th>Sub-Clause</th><th>Data to be given</th><th>Data</th></tr><tr><td>14.2 (b)</td><td>Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:</td><td>15% (Fifteen percent)</td></tr></table>	Sub-Clause	Data to be given	Data	14.2 (b)	Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:	15% (Fifteen percent)	As many bidders are requesting to consider reducing the percentage deduction for repayment of the advance payment from each Interim Payment Certificate, so the same sub-clause is amended.
Sub-Clause	Data to be given	Data														
14.2 (b)	Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:	25% (Twenty five percent)														
Sub-Clause	Data to be given	Data														
14.2 (b)	Percentage deductions for the repayment of the Advance Payment from each Interim Payment Certificate:	15% (Fifteen percent)														
50	Section VIII. Particular Conditions (PC) Part B- Specific Provisions, Sub Clause 14.2 Advance Payment;  Page 37		<p>The following <b><u>sentence is added and amended as below:</u></b></p> <p>(b) deductions shall be made at the amortization rate of <b><u>fifteen percent (15%) of the amount of each Interim Payment Certificate</u></b> (excluding the advance payment and deductions and repayments of retention) issued during the Design-Build Period.</p>	As many bidders are requesting to consider reducing the percentage deduction for repayment of the advance payment from each Interim Payment Certificate, so the same sub-clause is amended.												