

INTEGRATED HEADQUARTERS OF MINISTRY OF DEFENCE (NAVY)
DIRECTORATE OF NAVAL ARCHITECTURE

INVITATION FOR EXPRESSION OF INTEREST (EOI)

DEVELOPMENT OF 'MARINE SEWAGE TREATMENT PLANT'

Reference : Defence Acquisition Procedure 2020 (DAP 2020)

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Introduction

1. Indian Navy has been focusing on developing indigenous platforms, equipment and systems/sub-systems/components towards achieving enhanced self-reliance. This Expression of Interest (EOI) invites responses from eligible Indian Companies for indigenous development of Marine Sewage Treatment Plants, here and after referred as STPs for Indian Navy. The present proposal for development of STPs under Make-II category is termed as 'Project Marine Sewage Treatment Plants'. **Project Marine Sewage Treatment Plants is designed to provide certain operational capabilities to the Navy.** The Ministry of Defence (MoD), Govt of India, shall own Marine STPs and the information regarding the project will be shared strictly on 'Need to Know' basis. This prototype (Qty-1) development of Marine STPs has been approved as 'Make-II' category project. Subsequent procurement will be under the '**Buy (Indian-IDDMM)**' category. The project is reserved for MSMEs as stipulated in Para 12 of Chapter III of DAP 2020. If at least two MSMEs do not express interest, the programme shall be opened up for all, under the condition that interested MSME(s), if

any at that stage and meeting the eligibility criteria will get preference over non-MSMEs in selection of DA/(s) in accordance with Para 12, Chapter - III of DAP 2020.

Objective

2. The objective of this EoI is to seek responses from eligible Indian industries and to shortlist potential companies. Responses to EoI will be evaluated as per the assessment criteria given in the EoI. Project shall be progressed ahead even if only one EoI respondent is found meeting eligibility criteria.

Layout

3. The EoI has been covered under the following parts:-

- (a) Part I : General Information
- (b) Part II : Technical Requirements
- (c) Part III : Critical Technology Areas
- (d) Part IV : Eligibility Criteria
- (e) Part V : Assessment Parameters
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- (j) Part IX : Miscellaneous

PART I: GENERAL INFORMATION

4. The project, i.e. indigenous development of '**Marine Sewage Treatment Plants**' has been approved under the 'Make-II' category for the prototype development (Qty 01) and for subsequent procurement of 10 in Nos STPs **along with accessories** under the 'Buy (Indian-IDDM)' category as per DAP 2020. Details of the stages involved in the development process are enumerated in Chapter III of DAP 2020. The progress of the project will be monitored by the Project Facilitation Team (PFT) of Indian Navy/MoD constituted for this purpose. PFT will act as interface between India Navy and Industry during the design and development stage of the project. **No reimbursement of development cost is permissible under Make-II scheme.**

5. The quantities are appended as under:-

<u>Ser</u>	<u>STP Capacity (Ltrs/ per day)</u>	<u>Quantity (Development Phase)</u>	<u>Quantity (Production Phase)</u>
(aa)	4500	00	04
(ab)	8000	01	06

6. **Eligibility to Respond to an EoI.** The eligibility criteria shall be in accordance with Para 20 of Chapter 1 of DAP 2020, which stipulates that unless specifically provided for in a clause/section/chapter or elsewhere of the DAP, an Indian Vendor by whatever nomenclature when referred to means - for defence products requiring industrial license, an Indian entity, which could include incorporation/ownership models as per Companies Act, Partnership Firm, Proprietorship and other types of ownership models including Societies as per relevant laws, complying with, besides other regulations in force, and the guidelines/licensing requirements stipulated by the Department for Promotion of Industry and Internal Trade (DPIIT) as applicable. For defence products not requiring industrial license, an Indian entity registered under the relevant Indian laws and complying with all regulations in force applicable to that industry will be classified as an Indian Vendor. The following two additional conditions will apply to the definition for Buy(Indian-IDDM), Make I, Make II, Development cum Production Partner (DcPP) in D & D acquisitions through DRDO/DPSUs/OFB and SP Model categories:-

(a) Ownership by Resident Indian Citizen(s). Further, a company is considered as 'Owned' by resident Indian citizens if more than fifty percent (50%) of the capital in it is directly or beneficially owned by resident Indian citizens and / or Indian companies, which are ultimately owned and controlled by resident Indian citizens. This implies that the maximum permitted Foreign Direct Investment (FDI) shall be forty nine percent (49%). No pyramiding of FDI in Indian holding companies or in Indian entities subscribing to shares or securities of the Applicant Company or the Strategic Partner shall be permitted. Indirect foreign investment shall be accounted for in counting the forty-nine percent (49%) FDI.

(b) Control by Resident Indian Citizens(s) (As defined in Companies Act 2013). 'Control' shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.

7. **Indigenous Content.** Vendors offering indigenously designed, developed and manufactured product having minimum of 50% Indigenous Content(IC) on cost basis of the base contract price are eligible. Apart from overall IC as detailed above, the same percentage of IC will also be required in (a) Basic Cost of Equipment; (b) Cost of Manufacturers' Recommended List of Spares(MRLS); and (c) Cost of Special Maintenance Tools (SMT) and Special Test Equipment(STE), taken together at all stages, including FET stage. For IC on cost basis, vendor should ensure compliance as detailed in **Appendix 'A'** and furnish a certificate as per **Annexure 1 to Appendix 'A'**. For Indigenous Design, the vendor is required to furnish 'Undertaking to Comply with Indigenous Design', placed at **Annexure 2 to Appendix 'A'**. Compliance to the same will be ensured by the PFT during Single Stage Composite Trials (SSCT).

8. **Embedded Software.** Wherever software is used, details of the software including Source Code and Firmware Support Manual for embedded software shall be provided. All supplied software should be verified & validated by OEM for use of the designated Production Agency. Further, the software must meet the requirements as specified in Para 29 below.

9. **Intellectual Property Rights (IPRs).** Intellectual Property Rights of Government in "Make" projects are placed at **Appendix 'B'**. Development Agency/Agencies (DA/DAs) shall retain title or ownership and all other rights in intellectual property generated during the development of project. However, the Government shall have March-in rights under which the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) Where health and safety requirements so require the Government to act in public interest;
- (b) For National Security Reasons;
- (c) To meet requirements for public use not reasonably satisfied by the contractor;
- (d) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (e) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

10. **Foreign Collaboration.** If the DA(s) collaborate(s) with a foreign firm as a technology provider in a certain technology area for the project, the nature of such collaboration and the technology areas being transferred must be clearly stated in the response. The contribution of the Indian industry in acquiring, developing and indigenising including design critical technologies shall be one of the key criteria in assessment of various proposals.

11. No component or any sub system of STP shall be subjected to any type of inspection or audit by any Foreign Govt or Agency without prior approval of MoD, Govt of India.

12. A trusted supply chain that will include the engineering support requirements would be established for all components of STP. All documents related to the STPs project are liable to be audited by Indian Govt or its nominated agency.

13. Detailed information about blacklisting of the company/consortium partners and foreign technology partner by any Govt Agency in India/ any other country would be provided as part of the response. Companies currently blacklisted by any Indian Govt Agency are ineligible for participation. Any such information not disclosed but revealed at a later stage would render the Company/Consortium ineligible for further participation.

14. **Time frames and critical activities.** The important time frames and critical activities for the Project Marine STP are as follows:-

<u>SNo</u>	<u>Activity</u>	<u>Time in weeks from submission of EoI (T₀)</u>
(a)	EoI Response Submission	T ₀
(b)	EoI Response Evaluation	T ₀ + 6
(c)	Issue of Project Sanction Order	T ₀ + 8
(d)	Design & Development of prototype	T ₀ + 112
(e)	Single Stage Composite Trials (SSCT)	T ₀ + 119
(f)	Conversion of PSQRs to SQRs	T ₀ + 121
(g)	Issue of Commercial RFP	T ₀ + 123
(h)	Solicitation of Commercial offer	T ₀ + 127
(j)	Finalisation of CNC	T ₀ + 131
(k)	Signing of Contract	T ₀ + 133

15. **Milestones of the Project.**

(a) **Evaluation of EoI Responses.** EoI responses will be evaluated in accordance with assessment parameters and evaluation criteria given in Part VI & VII of the EoI. All the shortlisted companies will be called Development Agencies (DAs). **The project is presently reserved for MSMEs, however if at least two MSMEs do not respond, the Project shall be opened up for all, under the condition that interested MSME(s), if any at that stage and**

meeting the eligibility criteria, will get preference over Non-MSMEs in selection of DAs. Project shall be progressed ahead even if only one EoI respondent is found meeting the eligibility criteria.

(b) **Project Sanction Order.** PFT will issue Project Sanction Order for the development of prototype with **Nil** financial implication for Indian Navy/MoD. In case of only single vendor having offered the developed prototype ready for user trials within timelines stipulated in the Project Sanction Order, not more than two time extensions will be accorded and thereafter the case is to be progressed as resultant Single Vendor Case (SVC).

(c) **Design and Development of Prototype.** PFT will act as the primary interface between the Indian Navy and the industry during the design and development stage under Make-II subcategory projects and facilitate the following:-

(i) Finalisation of trial methodology.

(ii) Provision of requisite professional inputs/documentation (if feasible/available with **IN**) to industry.

(iii) Providing clarifications related to functional or operational aspects of the store under development, as may be sought by the DAs from time to time, during the design and development of prototype.

(d) **Single Stage Composite Trials.** Single Stage Composite Trials (**SSCT**) would be carried out by Indian Navy/ PFT to validate the performance of the equipment against the parameters/ packing specifications approved after the development of prototype. Indian Navy/ PFT will formulate the trial directives and constitute the Trial Team. The trial directive will specify the fundamental points that need to be addressed for validating the 'essential' parameters. The validation of the support system and maintainability trials, integral to and complementing the trial program of the defence equipment/upgrades/product/system should be held simultaneously, wherever feasible. **One prototype** is envisaged for prototype development including user trials. Documents regarding no. of prototypes used for certain development may be produced to the trial team. The user trial location will be informed prior trials. Safe to use certificate should be forwarded by the development agencies. Trial Methodology is placed at **Appendix 'K'**.

(e) **Staff Evaluation.** Based on SSCT, the Indian Navy would carry out a Staff Evaluation, which gives the compliance of the demonstrated performance of the store vis-à-vis the specification. On the acceptance of Staff Evaluation report, the specification shall form the basis for the 'Buy (Indian-IDDM)' category of acquisition. If the prototypes of only a single firm/individual clears the trials, the project will be progressed as resultant single vendor.

(f) **Finalisation of Staff Qualitative Requirements (SQRs)**. PFT will facilitate the finalisation of preliminary SQRs to final SQRs prior to commencement of user trials. The specification of the equipment would therefore be a part of the trial directives, and only the essential parameters as detailed in the specification will be tested.

(g) **Solicitation of Commercial offers**. A commercial Request for Proposal (RFP) for '**Buy (Indian-IDDM)**' phase will be issued to all DAs for submission of their commercial offer **post completion** of Single Stage Composite Trials (SSCT). Single Stage Composite Trials (**SSCT**) will be conducted at all the firms premises or/ and onboard nominated **IN** platforms, which are ready with the prototype, by the Project Facilitation Team in order to establish completion of development of prototypes along with test certificates in lines of mandated specifications. This would include all destructive/ non-destructive checks by the NABL/QA agencies on the prototype (as applicable).

(h) **Award of Contract**. Commercial offers of only those DAs/vendors will be opened whose equipment has been short-listed consequent to Staff Evaluation and the L1 bidder would be determined based on the provisions of the Commercial RFP and awarded the contract for manufacture.

16. Once the prototypes are successfully validated, 10 in nos STPs along with accessories shall be procured by MoD, Govt of India under **Buy (Indian-IDDM)** category **against a RFP**. Delivery of the STPs shall be in a phased manner as per schedule promulgated by IHQ-MoD(N).

17. **Other successful DAs that have developed the prototype successfully but have not qualified as L1, would be issued a certificate by DDP indicating that product/system has been successfully trial evaluated.**

18. **Multiple Technological Solutions**. Other successful vendor(s) will be issued a certificate by the DDP indicating that the product has been successfully trial evaluated, to facilitate vendors to explore other markets. This is in accordance with Para 21 of Ch III of DAP 2020.

PART II: TECHNICAL REQUIREMENTS

19. **Scope of the Project.** The scope of Project Marine STPs includes:-

- (a) Firms carrying out Indigenous design and development (with min. 50% IC on cost basis of the base contract price) of effective and reliable Marine STPs are eligible.
- (b) The STPs are to be developed for installation onboard **IN** ship.
- (c) The STPs should comply with latest MARPOL regulations MEPC (227/64).

20. **Design.** The STPs should be designed for their intended operational exploitation. The salient features are as follows:-

- (a) The Sewage Treatment Plant is required to treat sewage (Black Water only) as per IMO resolution **MEPC.227 (64)**. The effluent standards defined as per this IMO resolution are as follows:-

<u>Ser</u>	<u>Parameter</u>	<u>Limiting Value</u>
(i)	Thermo tolerant Coliform Standards	Not exceeding 100 thermo-tolerant coliforms / 100ml
(ii)	Total Suspended Solids(TSS)	Not exceeding $(35 \times Q_i/Q_e)$ mg/l
(iii)	Biochemical Oxygen Demand	Not exceeding $(25 \times Q_i/Q_e)$ mg/l
(iv)	Chemical Oxygen Demand	Not exceeding $(125 \times Q_i/Q_e)$ mg/l
(v)	pH	Between 6 and 8.5

Where - **Q_i** = Vol. of liquid containing sewage, grey water or other liquid streams to be processed by the sewage treatment plant.

Q_e = Vol. of treated waste water.

(b) The STPs should be Type Approved by internationally acclaimed 'Classification Society'. Type approval should be undertaken by the Development Agency (DA) and all activities related to Type approval and costs are to be borne by the DA. Type approval from the following classification societies is acceptable for Indian Navy:-

- (i) Lloyds Register of Shipping (LRS)
- (ii) American Bureau of Shipping (ABS)
- (iii) Germanischer Lloyds (GL)
- (iv) Bureau Veritas (BV)
- (v) Det Norske Veritas (DNV)
- (vi) Registro Italiano Navale (RINA)
- (vii) Indian Register of Shipping (IRS)

(c) The 'Type Approved' plants are required to be compact with small footprint. The varying sizes of STPs and their minimum dimensions are listed at **Appendix 'J'**.

(d) The above limiting dimensions pertain to the treatment units including macerators, electrolysis units, floatation units, dosing, chemical cleaning units, ventilation, aeration units etc. Only the following essential units shall be external to the above dimension:

- (i) Holding Tanks
- (ii) Sludge Tanks
- (iii) Control Panel
- (iv) Sewage Transfer Pumps

(e) The modes for treatment of Sewage by the Sewage Treatment plants for fitment on **IN** ships are as follows: -

- (i) Electro-chemical: Breakdown of sewage through electrolytic action.
- (ii) Chemical: Treatment by addition of suitable chemicals in the treatment process.
- (iii) Biological: Use of aerobic bacteria colonies for treatment/ breakdown of sewage.

(f) Sewage Treatment Plant shall be capable of continuous operation onboard the ship.

(g) The necessary treatment units shall be self-contained in the STP. Additional supplies from ship shall be limited to electricity, water and HP air requirements. The total time period for treatment to be such that daily hydraulic load of STP can be treated within 08-12 hours of operation of the plant per day.

(h) Recommended volumes for Sewage Collection tanks (Holding tank) and Sludge tanks should be indicated by the vendor.

(j) The sludge collected post treatment, which cannot be discharged overboard along with treated waste water, shall be collected in a sludge tank. The sludge volume shall not exceed 3% of the input hydraulic volume.

(k) The sludge tank should have a capacity for storage of 14 days of sludge (without discharge).

21. The shape and size of the STPs should be in accordance with limiting dimensions specified at **Appendix 'J'**.

22. **Essential Parameters.** The essential requirements of STPs are as defined at Para 19 and 20 above.

23. **Acceptance.** Post conduct of Environmental Trials (ETs) and tests to be demonstrated at vendor premises (as per **Appendix 'K'**), one set of prototype STP (of hydraulic capacity 8000 L/ day) should be available for carrying out Sea Trials (if mandated by PFT).

24. **Safety Mechanism.** The STPs should have suitable mechanical and electronic safety mechanisms to ensure safety during operation. The safety requirements are:-

(a) The Sewage Treatment Plant and the associated collection tanks shall have all safety sensors, alarms and cut-offs for overflow (including low level & high level indicators), malfunction, hazardous gas discharge sensors and alarms (including Hydrogen Sulphide Gas Detection and Alarm System).

(b) The system shall incorporate adequate safety measures against generation of anaerobic conditions in sewage system since it leads to the production of toxic and flammable gases which are an unacceptable hazard within the confined boundaries of a ship.

(c) In general barriers between the sewage gases such as the water traps of the toilet bowls, ventilation of the pipework and tanks, etc., shall only be considered for providing secondary measures of protection: the prime safety

feature shall be to prevent the production of hazardous gasses within the system in the first place.

(d) The design of integral tanks in the STP shall include features for maintaining an adequate oxygen level in the liquid so as to eliminate anaerobic conditions. They can be based on direct air injection, or by air entrainment into the liquid.

(e) The system shall have built in alarm, whenever anaerobic conditions are encountered. Gas sensors/analysers with local (inside and outside the compartment) and remote indicator (at DCHQ/Bridge) are to be provided for monitoring the STP compartment with provision of digital display of readings.

(f) Ventilation pipes to collection, storage and treatment tanks shall be clear from internal obstruction, and of an adequate size to minimise pressure drop and to ensure satisfactory clearance of gases. The size of the vent pipes should also be sufficient to vent any air from blowers, or from vacuum collection system discharge system.

(g) Vent pipes shall be arranged to be self-draining at all angles of heel and trim, to eliminate any water traps that may otherwise form and cause back pressure

(h) The manufacturer shall specify those disinfectant/ toilet cleaners for their system, which will not have adverse effect on the bacteria essential for the operation of aerobic sewage treatment plants.

(j) Flood alarm system shall be installed to indicate flooding resulting from improper operation, malfunction or failure of sewage pumps, valves or fittings.

25. **Anti - Tampering Feature.** The STP should have in-built anti-tampering features such as admin passwords, locking mechanism for control panels, etc.

26. **Variants.** The following types of marine STPs are to be designed and would be subsequently included in the procurement plan: -

<u>Ser</u>	<u>STP Capacity (Ltrs/ per day)</u>	<u>Quantity (Production Phase)</u>
(a)	4500	04
(b)	8000	06

Maintenance and Qualification

27. **Maintenance.** The maintenance methodologies/ schedules should be provided in the form of manuals for the service life of 20 years.

28. **Built-in-Test Equipment.** The STPs should have an inbuilt test to verify/ test its correct functioning. The test should be capable of being undertaken at any time without any additional test equipment.

29. **Specifications.** The STPs should conform to the following specifications or their latest version/ equivalents as updated from time to time:-

<u>Ser</u>	<u>Standard/ Specification</u>	<u>Details</u>
(a)	Resolution MEPC 115(51)	Regulation for the prevention of pollution by sewage from ships (Appendix 'A').
(b)	Resolution MEPC 143(54), and 164(56)	Amendments to MEPC 115(51)
(c)	Resolution MEPC 227(64)	Revised guidelines on implementation of effluent standards and performance tests for Sewage Treatment Plants (Appendix 'B').
(d)	Part 3 of Resolution MEPC.107(49)	Specifications for Environmental Testing for Type Approval of Pollution Prevention Equipment
(e)	JSS-55555	Environmental tests methods for Electronic and Electrical equipment
(f)	MIL STD 167	Mechanical vibrations of Shipboard Equipment.
(g)	MIL STD 740	Airborne Sound Measurements and Acceptance Criteria Of Shipboard Equipment.
(h)	IEEE 12207	Software Standard, Configuration Management

30. **Life Extension.** The STP (life limited by assemblies) should be fully amenable to life extension after 20 years, to resume an extended life of at least 05 years.

PART III: CRITICAL TECHNOLOGY AREAS

31. The capability assessment of the DAs will largely depend on their ability to either acquire the design and technology in collaboration or with ToT from foreign OEMs (an Indian Vendor may also enter into a JV with OEM) or to design and develop critical sub-components like H₂S sensors, electronic circuits, Electronic and Mechanical sensors, Anti-tampering device and other safeties, etc. It is imperative that the project attains complete independence in providing Indian Navy with Marine STPs with high reliability, safety and assured shelf life of 20 years. **The contribution of the Indian industry in acquiring and developing technologies in critical areas, if any, shall be a key criterion in assessment of the proposal.**

32. The assessment of critical technologies for the Project Marine STP offered by the DA(s)/Consortium must be supported with all Rights and Licenses (IPR) as mentioned at **Appendix 'B'**.

PART IV: ELIGIBILITY CRITERIA

33. **Reservation for MSMEs.** The Project Sewage Treatment Plant is earmarked for MSMEs. However, if at least two MSMEs do not express interest for a Make programme earmarked for them, the same shall be opened up for all, under the condition that interested MSMEs, if any at that stage and meeting the eligibility criteria, will get preference over Non-MSMEs in selection of DAs in accordance with Para 12 of Chapter III of DAP-2020.

34. Indian entity satisfying all of the following criteria shall be considered as eligible 'Indian Vendor' for issue of EoI by PFT:-

(a) Public limited company, private limited company, partnership firms, limited liability partnership, one Person Company, sole proprietorship registered as per applicable Indian laws. In addition, such entity shall also possess or be in the process of acquiring a license as per DIPP's licensing policy.

(b) The entity has to be owned and controlled by resident Indian citizens; entity with excess of 49% foreign investment will not be eligible to take part in 'Make' category of acquisition.

(c) The entity needs to be registered for minimum five years; three years in the case of MSMEs.

(d) The entity shall have long-term issuer credit rating equivalent to Credit Rating Information Services of India Limited (CRISIL) or ICRA Limited "BBB" accorded by Reserve Bank of India (RBI) / Securities Exchange Board of India (SEBI) approved agencies. In case of MSMEs, the minimum rating should be 'SME-4'. Rating report should not be older than 12 (twelve) months and be the latest available rating.

(e) The entity needs to be profitable for at least three out of the last five years; in case of MSME, it needs to be profitable (Profit after tax (PAT)) for at least one out of the last three years.

(f) **Net Worth.** Net worth of entities, ending 31st March of the previous financial year, should not be less than 1 crore.

35. Start-ups recognised by the DIPP are eligible for the project. Start-ups registered under the following categories and industry domains are eligible:-

(a) Categories.

- (i) Engineering
- (ii) Marine Engineering
- (iii) Manufacturing
- (iv) Research
- (v) Government

(b) Industry Domains.

- (i) Naval Architecture & Defence
- (ii) Technology Hardware

36. This EoI is being published on MoD/DDP website inviting Companies to participate in the 'Make-II' project and also issued to the potential vendors who have indicated willingness during the Feasibility Study to participate in the development of Marine STPs.

37. **Vendors are required to be compliant to Chapter III of DAP 2020 published on www.mod.gov.in**

PART V: ASSESSMENT PARAMETERS

38. The assessment of the EoI responses would be based on the Evaluation Criteria, which are elaborated in the succeeding paragraph.

39. **Technical Capability Criteria.** Marine STP is an equipment which will require sound knowledge of hardware technology, marine engineering, sewage treatment technologies and global standards. The DA(s) should have a good understanding of Project Management, required for the development of Marine STPs. The contribution of the DA in acquiring and developing technologies in critical areas shall be an important criterion in assessment of the proposal. The respondents to this EoI (including start-ups) are required to furnish information about their technical capabilities as per **Appendix 'F'**.

PART VI: EVALUATION CRITERIA OF ASSESSMENT PARAMETERS

40. **Evaluation Criteria for All Entities Other Than 'Start-Ups'**. The responses to this EoI will be evaluated based on the assessment parameters given at **Appendices 'D' to 'G'** to identify Companies/Consortia with proven Commercial, R&D, Indigenisation and Technical strengths and capabilities. The weightage for each of the criteria and sub-criteria at **Appendices 'C' to 'F'** would be finalised by the Project Facilitation Team.

41. **MoD, Govt of India reserves the right to modify these criteria at any time before the responses are opened for evaluation.** MoD, Govt of India also reserves the right to disqualify a respondent/consortium if he/they fail to comply with specific criteria at any stage of the evaluation process by the PFT. **No amendment/ change in response to EoI will be accepted under any circumstances once the EoI response is submitted.**

Note 1. Details regarding proposed expenditure/establishment of facilities/lab etc. are liable to be included in the contract in case the Company/ Consortium gets shortlisted for development of Marine STPs.

Note 2. Company/Consortium giving False/Misleading information will be barred from participation in the Project Marine STPs.

PART VII: DOCUMENTS TO BE SUBMITTED BY EoI RESPONDENTS

42. Following documents are required to be submitted by EoI respondents:-
- (a) Annexure 1,2 & 3 of Appendix 'A'.
 - (b) Appendix 'C' (Financial and Commercial Criteria)
 - (c) Appendix 'D' and 'E' (if applicable)
 - (d) Appendix 'F' (Technical Capability Criteria).
 - (e) Appendix 'G' (for respondents other than start-ups)
 - (f) Certificate as per Appendix 'H'.
 - (g) Documents in proof of Evaluation Criteria (i.e. Technical capability)
 - (j) MSME certificate, if claiming to be MSME. Start-ups are to submit their certificate in specified domain registered with DPITT.
43. The EoI respondents shall submit three (03) copies of response to EoI, clearly marking one copy as 'Original Copy' and the remaining two as 'Copy No 2 & 3'. The respondents are also required to submit a soft copy of the response to EoI in a CD/ DVD. In the event of any discrepancy between the content in copies of documents submitted, the contents in the 'Original Copy' shall govern/prevail. Each page of the response will bear the signatures of the authorised signatory of the Company/Lead Member in a Consortium.
44. **Guidelines for Submitting EoI Responses.**
- (a) The responses should be submitted strictly as per the formats given in respective appendices along with Certificate at **Appendix 'H'**. Should a Vendor/Consortium need to mention any other information, a separate column may be added as the last column only.
 - (b) All response appendices should be submitted in a single file/folder. Supporting documents/additional reference should be submitted in a separate folder with proper reference mentioned against each parameters/sub parameters/sub sub parameters in respective appendices.

(c) Any supporting document/evidence without any reference to specific parameter of criteria will not form part of the assessment.

45. The envelopes shall be addresses as under:-

Chairman, PFT
Project Marine Sewage Treatment Plant
Directorate of Naval Architecture
IHQ MoD (Navy)
Room 200, Talkatora Navy Annex
New Delhi 110 001
Email: dna.ihqmod@navy.gov.in Ph: 011-21410483

46. The response to this EoI must be submitted by ____ hrs on _____ 2022 at the address mentioned above.

47. MoD, Govt of India at its discretion can extend this deadline for the submission of responses to EoI and the same shall be notified in writing.

PART VIII: QUERIES AND CLARIFICATIONS

48. Following aspects will govern the procedure for queries and clarifications:-
- (a) **Companies/Consortium may submit written queries/clarification/ amplifications on specific issues by ____2022.** Consolidation and examination of the queries received will be carried out by the PFT and clarification will be given to all the industries during the pre-response meeting.
 - (b) **Pre-Response Meeting.** A pre-response meeting is scheduled on _____2022 at ____ hrs at Directorate Naval Architecture, Room 200, Talkatora Navy Annex, New Delhi 110 001 to clarify the issues/ queries raised to facilitate submission of response.
 - (c) If deemed necessary, a written reply may be given to all respondents after the meeting.

PART IX: MISCELLANEOUS

49. This EoI is being invited with ***no financial commitment*** on part of the Govt. of India/ MoD. Govt of India reserves the right to withdraw or change or vary any part thereof at any stage. MoD, Govt of India also reserves the right to disqualify any company should it be so necessary at any stage on grounds of national security.

50. Respondent/consortium would be disqualified if they make false, incorrect, or misleading claims in their response to this EoI. A certificate as per the format at **Appendix 'H'** would be furnished as part of the response, including respective consortium partners, where applicable.

Note. The above guidelines are to be read in conjunction with the guidelines under Chapter III of DAP 2020.

(Rohit Shekhar)
Commander
Secretary, PFT
Project Marine Sewage Treatment Plant
for Chairman

Enclosure:- Appendices 'A' to 'K'

Distribution: - Shortlisted vendors & hosted on MoD/DDP website

Appendix 'A'

(Refers to Para 7 & 42(a))

INDIGENOUS CONTENT ASPECTS

Definitions

1. 'Indigenous Content'(IC) for an equipment or an item shall be arrived at by excluding from the total cost of that equipment/item, the following elements at all stages (tiers) of manufacturing/production/assembly: -

(a) Direct costs (including freight/transportation and insurance) of all materials, components, sub-assemblies, assemblies and products imported into India.

(b) Direct and Indirect costs of all services obtained from non-Indian entities/citizens.

(c) All license fees, royalties, technical fees and other fees/payments of this nature paid out of India, by whatever term/phrase referred to in contracts/agreements made by vendors/sub-vendors.

(d) Taxes, duties, cess, octroi and any other statutory levies in India of this nature.

2. The "on cost" basis for 'Buy (Indian IDDM)' shall imply that IC is required as specified under Para 8 & 21 of Chapter I of DAP 2020, read with additional specific requirements in this regard, if any, mentioned in the EoI/RFP. Further, the IC is required at base contract price i.e. total contract price less taxes and duties. In cases involving BNE, the cost of the BNE will be excluded from the base contract price for the purpose of calculating IC.

Computation of IC

3. IC as defined in Para 1 and 2 above shall be mandatorily reported by all stages (tiers) of manufacturing/ production/ assembly to their higher stages (tiers). All stages (tiers) are required to aggregate IC based on certifications and inputs from lower tiers, as well as on the basis of their own procurement actions and manufacturing activities undertaken. The final aggregation of IC shall be undertaken by the prime (main) contractor with whom an acquisition contract is signed by the Ministry/SHQ.

4. All contracts, sub-contracts, agreements and MoUs made by prime (main) contractors (and their lower tier suppliers/vendors) with their business partners/suppliers, insofar as these contracts, agreements or MoUs relate to the main acquisition contract, shall mandatorily incorporate the definition and reporting requirements for IC in terms of Para 3. Similarly, these business partners/suppliers shall sequentially incorporate these definitions and reporting requirements with their next levels of business partners/suppliers and so on, till the lowest tier in the manufacturing/production/assembly chain.

Verification

5. The Ministry of Defence can exercise its right to conduct an audit of all certifications and costs relevant to IC at all or any stages (tiers) of manufacturing/production/assembly, starting from the prime (main) contractor downwards. The audit(s) could be conducted by the Ministry itself and/or by an agency/institution/officer(s) nominated by the Ministry, as may be decided by the Ministry.

6. All contracts, sub-contracts, agreements and MoUs made by prime(main) contractors (and their lower tier suppliers/vendors) with their business partners/suppliers, insofar as these contracts, agreements or MoUs relate to the main acquisition contract, shall mandatorily incorporate the right of Ministry of Defence to conduct an audit in terms of Para 5. Similarly, these business partners/suppliers shall sequentially incorporate these definitions and reporting requirements with their next levels of business partners/suppliers and so on, till the lowest tier in the manufacturing/production/assembly chain.

Certification

7. All relevant deliveries made under contract shall be accompanied by a certificate of IC issued by the Chief Financial Officer (CFO). All final deliveries under contract shall be accompanied, in addition to the certificate issued by the CFO of the prime (main) contractor as aforesaid, by its Company Auditor's certificate. An Indigenisation Plan for Buy (Indian-IDDM) will be required to be submitted by the vendor to meet the requirement of IC as specified in Para 8 & 21 of Chapter I of DAP 2020. Further, the equipment offered for trial shall be accompanied with a certificate of IC issued by the CFO of the prime (main) bidder. The IC proforma as per **Annexure 2 to this Appendix** is to be enclosed. The format for certification of IC by the Statutory Auditor/ Company Auditor shall be as per **Annexure 2 to this Appendix**.

8. In case mandatory IC and design is not achieved by a vendor and/or if a false certificate is furnished by a vendor/sub-vendor, the Ministry can initiate proceedings for banning or suspension of business dealings with the erring Indian vendor/sub-vendor and its allied firms for all future contracts for a period up to 5 years. This right can be exercised by the Ministry at any point of time; and initiation of banning or suspension proceedings, if ordered, shall be in addition to any other action that may be taken/ordered by the Ministry against the erring vendor/sub-vendor under any law(s) in force.

Miscellaneous

9. In the event of non-incorporation of the definitions and/or audit requirements laid down under Para 1 to 6 in contracts or agreements vendors with next tier at any stage (tier) of manufacturing/production/assembly, it shall be presumed that items/services provided by that stage/tier to the next (tier) have no IC for the purposes of the DPP. Similarly, in the event of non-certification of IC at any stage (tier) as required herein, it shall be presumed that items/services provided by that stage/tier to the next stage (tier) have no IC for the purposes of the DPP. In such cases, the Ministry of Defence can take any of the steps under Para 8 above against erring vendors/sub-vendors. In addition, an undertaking as per **Annexure 3 to this Appendix** is to be submitted by the firm.

Annexure 1 to Appendix 'A'
(Refers to Para 7)

INDIGENOUS CONTENT (IC) PROFORMA

Name of the Project / Contract Details						
Ser	Description	(In USD)	(In EURO)	(In GBP)	(.....)	Total (Rs)
1.	Foreign Content (FC) including Custom Duties					
	-Basic Equipment and Material (by Prime Vendor and Tiers Vendors, as applicable)					
	-Manufacturer's Recommended List of Spares (MRLS) (by Prime Vendor and Tiers Vendors, as applicable)					
	-Special Maintenance Tools (SMT) (by Prime Vendor and Tiers Vendors, as applicable)					
	-Special Test Equipment (STE)(by Prime Vendor and Tiers Vendors, as applicable)					
	-Freight / Transportation & Insurance (if paid by supplier)					
	By 'Others' (@ 90% FC)					
	Sub Total (A)					
2.	Import of Services					
	-Royalty Fee					
	-Licence Fee if any					
	-Technical know-how fee					
	-Consultation fees					
	-Other fees/payment					
	Sub Total (B)					
	FC = (A+B)					
Computation of Indigenous Content						
3.	Base Exchange Rate (D)					
4.	FC in INR E=(FC x D)					
5.	Base Contract Price (F)					
6.	Indigenous Content G = (F – E)					
	Indigenous Content (%) G x100 / F					

Notes.

(a) Base Exchange Rate will be Selling Rate of Parliament Street Branch of State Bank of India, New Delhi as on the last date of submission of bid.

(b) Consolidated IC Proforma/ Certificate of Prime Vendor and applicable Tiers vendors will be maintained by Prime Vendor and made available on demand for verification by MoD.

(c) IC Proforma / Certificate are to be submitted along with or before the final invoice of the contract. At all prior stages the Prime Vendor shall submit an undertaking of compliance.

Annexure 2 to Appendix 'A'

(Refers to Para 7)

FORMAT FOR CERTIFICATION OF INDIGENOUS CONTENT
VENDOR'S CERTIFICATE

This is to certify that we, _____ (Name of Prime Vendor/Tier Vendor) have achieved/are offering the following IC in the accompanying delivery under contract/equipment being offered for trials/prototype/delivery, as defined under the Defence Acquisition Procedure and as required under the RFP/Contract (tick whichever is applicable) No. _____ dated _____.

Signed by:

'Responsible Designated Official'
----- (Name of Vendor)

Seal of Vendor
Date:

AUDITOR'S CERTIFICATE

We (legal name of Verification Firm) _____, established in _____ (Full address) represented for signature of this Verification Certificate by (Name and designation of Authorised Representative), hereby certify that: -

The above mentioned Indigenous Content (IC) proforma has been examined and all checks of the supporting documentation and accounting records deemed necessary were carried out in order to obtain reasonable assurance that, in our opinion, based on our Verification, the Indigenous Content percentage _____ % (in numbers and words) reflected in the above mentioned proforma has been achieved by _____ (Name of Vendor) during the manufacture of _____ (Name of Equipment).

Certified by:

Statutory Auditor/ Cost Auditor/Certified or
Licensed Cost Accountant / Chartered Accountant
(as applicable)
(Name /Name of Firm)
Membership Number / Registration Number

Seal of Verification Firm

Date:

Annexure 3 to Appendix 'A'
(Refers to Para 7)

UNDERTAKING TO COMPLY WITH INDIGENOUS DESIGN

We, _____ ("Name of Vendor"), do hereby certify and confirm that: -

1. The Design of _____ ("Named Product"), as claimed by us in response to the RFP No _____ dated _____ is owned partly or wholly by us/by an Indian entity.

2. Further, we confirm that the Design of the Named Product, as claimed by us, has not been licensed from a foreign third party except for standard software licences such as, but not limited to OS / Database / _____ (Strikeout / Specify as applicable).

3. The ownership of the Design, as claimed by us, enables us to manufacture, realise, sell, provide Through Life Support, modify and upgrade the Named Product without any encumbrances, except as specified below: (If any form of encumbrances exist on the product or any of its subsystems these should be elaborated here) _____

4. We further claim that we own the following Intellectual Property (IP) Rights in relation to the design of the Named Product: (Specify any Patents, Registration of Designs, if any, held by the Vendor) _____

5. We also undertake to permit MoD/MoD appointed Specialists Committee, to inspect/ carry out technical verification at our premises of the applicable documents, such as Design Reports, Drawings, Specifications, Software Documents & Codes, Gerber files, etc, as may be reasonably necessary and required to prove the above claim of ownership of the Design of the Named Product. (Examination on site at company's premises only. Documents, in any form, are not be sought nor required to be submitted for examination outside the Company's premises)

6. Failure on our part to prove the ownership of the Design of the Named Product by us/by an Indian entity or submission of any false undertaking or claim as indicated in the response at any post contract stage of the intended procurement may make us liable to forfeiture of the PWBG to the extent of any direct losses or damages suffered by the MoD as a consequence of such false undertaking or failure to prove the ownership of the Design.

Appendix 'B'

(Refers to Para 9 and 32)

**INTELLECTUAL PROPERTY RIGHTS OF GOVERNMENT
IN 'MAKE' PROJECTS**

Guiding Principles

1. The Government shall retain only a license in the Intellectual Property being generated under contract; and the contractor retains title or ownership and all other rights in intellectual property that are not granted to the Government, subject to conditions prescribed herein.
2. During the development of prototype, if any technology/product is developed, which the Government considers to be sensitive or classified and needs to be restricted for use in other purposes or for export, the Government through PFT or any other expert or body may identify such technology/product and shall retain the full ownership of IPRs in respect of such technology/product.
3. All technology licensing is divided up between two mutually exclusive categories of deliverables: (a) Technical Data (TD)¹ and (b) Computer Software (CS)². The Government shall also have certain rights to subject inventions and patents generated under the 'Make' contract.
4. The EoI shall contain details of (a) the delivery requirements, storage formats and storage medium; and (b) the associated data rights, in all technologies required to be developed or delivered under the 'Make' contract. Officials connected with award of 'Make' projects shall ensure that all such delivery requirements are clearly stated in the

¹'Technical data' means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

²(a) 'Computer software' means computer programs, source code, source code listings, object code listings, design details algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated or recompiled. Computer software does not include computer data bases or computer software documentation. (b) 'Computer program' means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations. (c) 'Computer software documentation' means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software. (d) 'Computer data base' means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

Eol and the 'Make' contract signed, if any, including delivery and form in which source code is required as a contract deliverable.

5. The Government's standard license rights in (a) subject inventions and associated data; and (b) all other data generated under the 'Make' contract, including technical data and computer software whether associated with such subject inventions or otherwise, shall be 'Government-Purpose Rights' (GPR). In respect of subject inventions, the Government shall hold a non-exclusive, non-transferable, irrevocable, paid up (royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world.

6. These guiding principles shall apply at both the prime and subcontract levels; i.e., the prime DA(s) shall incorporate the rights of the Government as prescribed in this Annexure in all their subsequent sub-contracts and agreements insofar as technology development under 'Make' projects is concerned.

Government Rights

7. The Government shall have 'Government-Purpose Rights' and 'Unlimited Rights' as explained below:-

8. For all subject inventions³ under the 'Make' contract, including technical data and computer software associated with such subject inventions, the Government shall hold GPRs, in that it shall hold a non-exclusive, non-transferable, irrevocable, paid up(royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world. These GPRs shall automatically convert to 'Unlimited Rights' as defined under this section upon the expiry of ten years.

9. For the purpose of all technical data and computer software, whether related to subject inventions or otherwise, GPRs shall imply the right to use such technical data and computer software within the Government without restriction and the right to authorise any other entity for any government purpose including re-procurement. More specifically, GPRs include the rights to:-

- (a) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

³'Subject Invention' implies any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government Contract. 'Invention' implies any invention or discovery that is or may be patentable or otherwise protectable under the Patent Laws in force in India.

(b) Release or disclose technical data outside the Government and authorise persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for Government purposes.

(c) Form, Fit and Function data: and Manuals or instructional and training materials for installation, operation, or routine maintenance and repair;

(d) Computer software documentation required to be delivered under the 'Make' contract;

(e) Corrections or changes to computer software or computer software documentation furnished to the contractor by the Government;

(f) Computer software or computer software documentation that is otherwise publicly available or has been released or disclosed by the contractor or subcontractor without restrictions on further use, release or disclosure other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the software to another party or the sale or transfer of some or all of a business entity or its assets to another party;

10. For the purposes of these guidelines, 'Government Purpose' means an activity in which the Government of India is a party, including cooperative agreements with international or multinational Defence organisations, or sales or transfers by the Government of India to foreign Government or international organisations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorise others to do so.

11. In addition to standard GPRs, Government rights in computer software to be delivered under contract shall also include the right to:-

(a) Use of a computer program with Government computer(s);

(b) Transfer to another Government computer;

(c) Make copies of computer software for safekeeping; backup or modification purposes;

(d) Modify computer software;

- (e) Disclose to service contractors;
- (f) Permit service contractors to use computer software to diagnose/correct deficiencies, or to modify to respond to urgent or tactical situations; and
- (g) Disclose to contractors or any other third-parties for proposes of emergency repair and overhaul.

March-In Rights

12. The Government shall have 'March-In' rights for all items covered under its 'Government-Purpose Rights'. 'March-In' Rights shall include the right to work the patent, either by itself, or by another entity on behalf of the Government, in case the contractor fails to work the patent on its own within a specified and reasonable period of time.

13. Under its march-in rights, the Government can require the contractor to grant, or may itself grant license for, inter alia, the following reasons:-

- (a) The contractor fails to work the patent towards practical application within a reasonable time; or
- (b) Where health and safety requirements so require the Government to act in public interest;
- (c) For National Security Reasons;
- (d) To meet requirements for public use not reasonably satisfied by the contractor;
- (e) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; or
- (f) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

Miscellaneous

14. The contractor is required to have a timely and efficient disclosure system in place for reporting of intellectual property generation under the 'Make' contract to the Ministry of Defence. Failure to disclose in timely manner, or failure on part of the contractor to invoke his/her default right of ownership, shall imply that all IPRs shall ab-initio vest in the Government of India. The contractor may elect to retain title of any invention made in the performance of work under a contract. If the contractor does not elect to retain title, the title shall ab-initio vest in the Government as stated above and the contractor shall only be entitled to a license on such terms and conditions that the Government may deem it fit. Such license to the contractor shall usually be (a) revocable, non-exclusive and royalty-free; (b) extend to its domestic subsidiaries and affiliates; and (c) include the right to sublicense; but (d) shall not be transferable without prior approval of the Government.

15. The contractor shall also be required to submit periodic reports about commercialization and manufacturing activities undertaken for products embodying the subject invention under 'Make' contracts.

16. The Government's IPRs shall flow down from the prime contractor to all sub-contractors at all tiers; that is, every sub-contractor will have the same obligations vis-à-vis the Government as applicable to the prime contractor under the main procurement contract. To this end, the subcontractors shall have limited contractual privity with the Government solely for the purposes of their IPR obligations to the Government.

17. The ownership of any rights by the contractor does not include an absolute right to transfer of any software, product or documentation; and such transfer, including export thereof, shall continue to be governed by and be subject to the Export Policy, Export Guidelines and all applicable laws, rules, regulations, orders and instructions of the Government of India. All such transfers and exports shall require prior and explicit approval of the Ministry of Defence.

18. Where the DA is not a consortium, ownership rights in intellectual property (IP) being generated under the 'Make' contract shall vest with the Government upon dissolution of such DA. Where the DA is a consortium, the ownership rights in the IP generated under the 'Make' contract, upon dissolution of the consortium, shall vest amongst the partners as per their agreement on the subject contained in the joint partnership agreement of the consortium, without government rights as licensee being adversely affected in any manner.

Appendix 'C'
(Refers to Para 42(b))

FINANCIAL AND COMMERCIAL ASSESSMENT CRITERIA

Name of the vendor:

<u>Sl. No</u>	<u>Criteria and Sub- Criteria</u>	<u>Vendor Submissions</u>			<u>Remarks, if any</u>
		<u>Lead Bidder</u>	<u>Partner 1</u>	<u>Partner 2</u>	
(i)	Turnover of at least Rs. 1 crore				
(ii)	Profitable for at least three out of last five years. In case of MSMEs, profitable for at least one out of the last three years				Submit documents in support of these claims.
(iii)	Positive Net Worth				

Station:

Signature

Company Seal

Date:

Appendix 'D'
(Refers to Para 42(c))

FINANCIAL ASSESSMENT CRITERIA FOR START-UPS

Name of the vendor:

<u>Sl. No</u>	<u>Criteria and Sub- Criteria</u>	<u>Vendor Submissions</u>			<u>Remarks, if any</u>
		<u>Lead Bidder</u>	<u>Partner 1</u>	<u>Partner 2</u>	
(i)	Capital assets				Submit documents in support of these claims.
(ii)	Credit rating				
(iii)	Turnover				
(iv)	Net profit				

Station:

Signature

Company Seal

Date:

Appendix 'E'
(Refers to Para 42(c))

COMMERCIAL ASSESSMENT CRITERIA FOR START-UPS

Name of the vendor:

<u>Sl. No</u>	<u>Criteria and Sub- Criteria</u>	<u>Vendor Submissions</u>			<u>Remarks, if any</u>
		<u>Lead Bidder</u>	<u>Partner 1</u>	<u>Partner 2</u>	
(i)	Nature of Company				
(ii)	Category of Industry				
(iii)	Company location				
(iv)	History of successful execution of supply orders(with examples)				Submit documents in support of these claims
(v)	History of past non performing contracts				
(vi)	Pending Litigation/ Litigation history				

Station:

Signature

Company Seal

Date:

TECHNICAL CAPABILITY ASSESSMENT CRITERIA

Name of the vendor:

<u>Sl. No</u>	<u>Criteria and Sub- Criteria</u>	<u>Vendor Submissions</u>			<u>Remarks, if any</u>
		<u>Lead Bidder</u>	<u>Partner 1</u>	<u>Partner 2</u>	
(i)	Execution of similar projects for military users in India and abroad				
(ii)	Execution of similar projects for other users in India and abroad				
(iii)	Execution of projects pertaining to critical technology area				
(iv)	Adherence to timelines, minimization of slippages, cost overruns				
(v)	Approach to meet user functionalities. Specific areas where assistance of Academia/ other industries where the resident expertise is not available with the respondent is to be indicated. Nature of partnership/ assistance to be sought is to be indicated.				
(vi)	Proposed system configuration. Approach to meet the specifications stipulated giving details of methodology to be adopted				
(vii)	Approach to address assembly and inter-operability issues.				
(viii)	Availability of Class Certification from IACS member society				

Station:

Signature

Company Seal

Date:

INFORMATION PERFORMA: FOR RESPONDENTS OTHER THAN START-UPS

1. Name of the Company
2. Name of CEO with Designation
3. Address of the Registered Office
4. Address of the Factory/Factories
5. Company Website(s)
6. Date of Incorporation
7. Brief History of the Company
8. Category of Industry (Large Scale/Medium Scale/Small Scale)
9. Nature of Company (Public Limited/Private Limited)
10. Nature of Business (Please give broad product range against each)
 - (a) Manufacturer
 - (b) Trader
 - (c) Sole Selling or Authorised Agent
 - (d) Dealer
 - (e) Assembler
 - (f) Processor
 - (g) Re-packer
 - (h) Service Provider
11. Details of Current Products
 - (a) Type/Description
 - (b) Licensed/Installed Capacity

(c) Annual Production for preceding 3 Years

12. Details of Bought Out Items

(a) Main Equipment

(b) Component/Assembly/Sub Assembly/Processes

(c) Name and Address of the Sub-Contractor

13. Sources of Raw Materials

(a) Imported/Indigenous

(b) Brief Description

(c) Estimated CIF Value

(d) Percentage FE Content in Final Product

14. Details of Foreign Collaborations

(a) Product

(b) Name and Address of Collaborator

(c) Year of Collaboration

(d) Current Status of the Collaboration (whether expired or current)

15. Technology Received from Abroad and Assimilated

16. Technology Transfer MoUs Signed/Under Negotiation

17. Products Already Supplied

(a) To Indian Army/Air Force/Navy/ Coast Guard

(b) PSUs

(c) DRDO and its Laboratories

(d) Shipyards

(e) Any other Defence Organisation

(f) To other Principal Customers

18. Details of Registration Certification held (along with product details)

- (a) DGQA
- (b) DGAQA/DGNAI
- (c) CEMILAC
- (d) DGS&D
- (e) Other Defence Departments
- (f) Other Government Department

19. Details of ISO Certification (Attach certificate, if any)
20. Details of Pollution Control Certificate (Attach certificate, if any)
21. Latest Certificate of Incorporation by the Registrar of Companies (RoC), if any
22. Details of Credit Rating Certificate (Attach certificate, if any)
23. Details of Patent/IPR certificates (Attach certificate, if any)
24. Details of Permanent Man Power (with the details of qualifications)
 - (a) Technical
 - (b) Administrative
25. Total Area of Factory
 - (a) Covered (sq. mtrs)
 - (b) Uncovered (sq. mtrs)
 - (c) Bonded Space Available (sq. mtrs)
26. Electric Power
 - (a) Sanctioned
 - (b) Installed
 - (c) Standby
27. Details of Important Facilities

- (a) Production (including Heat Treatment, Dies, Jigs and Fixtures)
- (b) CAD, CAM, ROBOTS and Other Advanced Technology Tools
- (c) Environmental Test Facilities.
- (d) Tool Room, Metrology and Test Equipment and Facilities
- (e) Type of Instrument
- (f) Make and Model
- (g) Date of Purchase
- (h) Frequency of Calibration

28. Details of Developmental Facilities

- (a) R&D Facilities Available
- (b) Number of Technical Manpower
- (c) Inspection and Quality Control of Raw Material, Components and Finished Products.
- (d) Assistance from Central Agency/Agencies for Testing/Calibration
- (e) Laboratory and Drawing Office Facility
- (f) Percentage of Total Turn-Over Spent on R&D during the Last Three Years

29. Area of Interest for Future Expansion/Diversification (please provide adequate details)

30. Future Plan (if any) in respect of Expansion Program, Installation of Additional Machines/Test Facilities

31. Turn-Over during the last three Financial Years (Attach relevant documents, if any).

32. Present Net Worth of the Company (Attach relevant documents, if any)

33. Any other Relevant Information

34. Contact Details of the Executive Nominated to co-ordinate with the Assessment Team (please provide telephone, mobile and e-mail address).

ADDITIONAL INFORMATION

35. Outline features of the proposal.
36. Recommended stages/phases of development with priorities and time schedules.
37. Milestones that can be clearly demonstrated to facilitate project monitoring.
38. Estimated capital expenditure for prototype development.
39. Roles Responsibilities and expertise details of consortium members, if any.
40. Role of foreign technology provider, if any, including the agreement intended to be entered into on being shortlisted.
41. Requirement of specialised testing assistance where facilities are available only with DRDO/DGQA/NMRL.
42. Indicate the minimum order quantity for execution after the successful completion of the project (prototype development).
43. Undertaking to furnish the cost of the final product during evaluation stage itself, once the final configuration of the end product under development is frozen.
44. Details of the proposed facilities being created for Marine STPs.
45. Any existing facility proposed to be used for production/ manufacture of Marine STPs components.

INFORMATION PROFORMA: FOR START-UPS

1. Name of the Vendor/Company/Firm
2. Brief about the Company (Nature & category of company)
3. Contact Details
4. Local Branch/Liaison Office/Contact in Delhi
5. Details of Registration Certification held (along with product details). Attach certificate, if any
 - (a) DGQA
 - (b) NMRL/ NSTL
 - (c) CEMILAC
 - (d) DGS&D
 - (e) Other Defence Departments
 - (f) Other Government Department
6. Membership of FICCI/ASSOCHAM/CII or other Industrial Associations. Give Name of Organisation and Membership number.
7. Credit rating of the company.
8. Details of Prototype/product to be developed
 - (a) Name of product
 - (b) Description (attach technical literature)
 - (c) Specification of Material
 - (d) Technical Specifications
 - (e) Dimensions/Weight of the product
 - (f) Type of tests planned to be carried out post manufacturing
 - (g) Proposed methodology for evaluation
 - (h) Conformance to MIL grade/international manufacturing standards
 - (j) Details of inspection agency/Accredited Lab planned to be involved
 - (k) Details of safeties to be incorporated

- (l) Interface requirement
- (m) Indigenous Content
- (n) Product life
- (p) Guarantee/Warranty
- (q) Whether proposed product being offered is an invention/ improvement/ innovation? Please elaborate
- (r) Tentative cost of the product
- (s) Proposed timeline for development of prototype, and if successful, production and delivery timelines, along with the cost breakup
- (t) If the price varies with the number of procurement, please indicate cost breakup vis-à-vis number

9. Details of products developed earlier

10. Products Already Supplied

- (a) To Indian Army/Air Force/Navy/ Coast Guard
- (b) PSUs
- (c) DRDO and its Laboratories
- (d) Shipyards
- (e) Any other Defence Organisation
- (f) To other Principal Customers

11. Execution of similar projects for military users in India and abroad

12. Execution of similar projects for other users in India and abroad

13. Execution of projects pertaining to critical technology area

14. History of successful supply orders (Attach relevant documents, if any)

15. History of past non-performing contracts (Attach relevant documents, if any)

16. Pending litigation/Litigation history (Attach relevant documents, if any)

17. Capital Asset of the Company

18. Turn-over during last three Financial Years (Attach relevant documents, if any)

19. Present Net Worth of the Company (Attach relevant documents, if any)
20. Net profit in the last five years
21. Any other relevant information

Declaration. It is certified that the above information is true and any changes will be intimated at the earliest

Appendix 'H'
(Refers to Para 42(f) & 44(a))

CERTIFICATE

It is certified that information submitted in the documents as part of the response to Expression of Interest for Project Marine Sewage Treatment Plant is correct and complete in all respects. It is acknowledged that the company and/or all consortium members will be disqualified from further participation if any information provided is found to be incorrect.

Signature with Company Seal

Company No1

Company No 2

Company No3

Appendix 'J'
(Refers to Para 20(c))

DIMENSIONAL DETAILS FOR PROJECT MARINE STPs

<u>Ser</u>	<u>STP Capacity (Ltrs/ per day)</u>	<u>Limiting Dimensions (mm)</u>
(a)	4500	2200 x 1000 x 2000
(b)	8000	2250 x 1050 x 2250

TRIAL METHODOLOGY

1. **Inspection, Tests and Trials.** The DAs shall submit a draft QAP to Indian Navy/ PFT for approval. The inspection/trials agencies shall be as follows:-

- (a) For design : Professional Directorate/ DNA
- (b) Stage inspections : Indian Navy/ PFT nominated agency
- (c) For FATs SSCT : Indian Navy (DNA)/ PFT and PFT nominated agency (Classification Society) at manufacturers' premises or/ and other location as specified.
- (d) For Installation : Indian Navy (DNA)/ PFT and PFT nominated agency (Classification Society)
- (e) For ship trials : Indian Navy (DNA)/ PFT and PFT nominated agency (Classification Society)

2. **Sample QAP** for acceptance of STP system is placed at Enclosure.

TYPICAL QAP FOR SEWAGE TREATMENT PLANTS

1. QUALITY ASSURANCE

1.1 Material receiving inspection:

Sign/date

Raw materials according to material certificates Yes No _____
 Material certificates delivered to Evac with this document Yes No _____
 Components are unbroken and quantity & type are correct Yes No _____

Remarks _____

1.2 Production equipment:

Sign/date

Service and maintenance inspection documents for welding equipment are valid Yes No _____
 Certificates of qualification for welding employees are valid Yes No _____

Name of the welders _____

1.3 Inspection during production

Sign/date

Drawings with revision number are according to order Yes No _____
 General arrangement drawing and revision number:
 Checked possible working instruction or WPS (Welding Process Specification), which are based for work performance Yes No _____
 Welding according to requirements Yes No _____
 Pickling according to requirements Yes No _____
 Coating report with this document Yes No _____
 Grease and salt washed away Yes No _____
 Grit blasting for inside of the unit is Sa 2½ Yes No _____
 Surface roughness inside of the unit is G 50 – 100 µm. Yes No _____
 Welded seams inspected after grit blasting Yes No _____

1.4 Inspection during assembly:

Sign/date

Components according to the drawing and quantity correct Yes No _____
 Connections according to drawings Yes No _____
 Manholes according to drawings Yes No _____
 Voltage and frequency for pumps and blowers are correct Yes No _____
 Overall dimensions of unit according to drawings;
 L: W: H: Yes No _____
 Pumps have been installed with damping rubbers Yes No _____
 Pressure test done with 0.25 bar at least four (4) hours without leaking and pressure test report with this document Yes No _____

2. Factory Acceptance Test (FAT)

2.1 BASE INFORMATION

DATE	
QUALITY CONTROLLER:	
DRAWING NO.:	
EVAC PROJECT NO.:	
EVAC ORDER NO.:	

2.2. MAIN COMPONENTS:

CONTROL PANEL:	
POWER SUPPLY:	3 x V / Hz
MANUFACTURER:	
DRAWING NO.:	
PROGRAM NAME AND REV.	
DRW'S, CERTIFICATE AND PROGRAM LIST	<input type="checkbox"/> OK <input type="checkbox"/> NO
LIGHTS, SWITCHES & SIGNS ACCORDING TO DRW'S	<input type="checkbox"/> OK <input type="checkbox"/> NO
COLOR:	<input type="checkbox"/> STD (7035) <input type="checkbox"/> RAL

SEWAGE TREATMENT PLANT:	
SERIAL-NO.:	
TYPE:	
COLOR:	

MACERATOR/TRANSFER PUMP:	
MANUFACTURER/ TYPE:	
PUMP SERIAL-NO.:	
MOTOR MANUFACTURER/ SERIAL NO:	

RECIRCULATION/DISCHARGE PUMP:	
MANUFACTURER/ TYPE:	
PUMP SERIAL-NO.:	
MOTOR MANUFACTURER/ SERIAL NO:	

SLUDGE PUMP:	
MANUFACTURER/ TYPE:	
PUMP SERIAL-NO.:	

DOSING PUMPS:	
MANUFACTURER/ TYPE:	
PUMP SERIAL-NO.	FLOCCULANT:
	OXIDIZING AGENT:

SOLENOID VALVES :	
MANUFACTURER/ TYPE:	

DISC FILTER:	
MANUFACTURER/ TYPE:	

OTHER COMPONEENTS:	
MANUFACTURER/ TYPE:	
SERIAL-NO.:	

2.3 Visual Inspection of Assembly

LABELS AND ELECTRICAL ASSEMBLY:

LABELS INSTALLED FOR CABLES:

OK NO

CABLE TRAYS:

OK NO

CABLE TIES:

OK NO

VALVE AND COMPONENT LABELS

OK NO

SEWAGE TREATMENT PLANT TYPE PLATE

OK NO

MECHANICAL ASSEMBLY:

OK NO

OK NO

WELDINGS:

WELDING SEAMS, OUTSIDE

OK NO

WELDING OF PIPES

OK NO

JOINTS:

RUBBER/HOSE JOINTS

OK NO

THREAD JOINTS

OK NO

EXTERNAL CONNECTIONS (FLANGES):

ACCORDING TO DRAWINGS (POSITION):

OK NO

INLET: SIZE DN _____

OUTLET: SIZE DN _____

VENTILATION: SIZE DN _____

SEA WATER INLET: SIZE DN _____

SURFACE TREATMENT:

QUALITY OF INNER COATING OK NO
TYPE OF COATING _____
QUALITY OF PICKLING OK NO
QUALITY OF OUTER COATING OK NO
TYPE OF COATING _____

SETTINGS:

PROGRAM INSTALLED OK NO
PROGRAM VERSION _____
MOTOR CIRCUIT PROTECTORS ARE ADJUSTED OK NO
----- OK NO

PLASTIC PIPES

GLUED JOINTS OK NO

STRUCTURE

PRESSURE TEST 0.25 bars OK NO

2.4 Functional Test

CONTROL PANEL OPERATION:

MAIN SWITCH OK NO
POWER ON LAMP OK NO
ALL PUMPS START WITH MANUAL MODE OK NO
ALL PUMPS START WITH AUTO MODE OK NO
LEVEL SENSORS OK NO
EMERGENCY STOP OK NO
COMMON ALARM OK NO

COMPONENT OPERATION:

MACERATOR/TRANSFER PUMP OK NO
DIRECTION OF ROTATION
RECIRCULATION/DISCHARGE PUMP OK NO
DIRECTION OF ROTATION OK NO
SLUDGE PUMP DIRECTION OF ROTATION OK NO
DOSING PUMPS OK NO
DOSING PUMP SETTINGS OK NO
LEVEL SENSORS OK NO
PRESSURE GAUGES OK NO

MARKINGS

DIRECTION OF ROTATION STICKER

OK NO

DIRECTION OF FLOW STICKER ON PIPES

OK NO

OPERATION

NORMAL OPERATION SEQUENCES

TESTED WITH WATER

OK NO

OK NO

FOLLOWING DOCUMENTS HAS DELIVERED TO PURCHASER

CONTROL PANEL CERTIFICATE

OK NO

MATERIAL CERTIFICATE

OK NO

PAINTING INSPECTION CERTIFICATE

OK NO

PRESSURE TEST CERTIFICATE

OK NO

OK NO

3 Accordance of FAT Certificate for Sewage Treatment Plant

We hereby confirm that the unit will meet the following defined requirements

- Requirements in manufacturing drawings
- Inspections and other work done according to items 1 and 2
- Product is made according to good workshop protocols
- Components are installed according to component manufacturer's instructions
- Product is packed according to instructions

Following documents has delivered to purchaser:

Material certificate Welding additive certificate
Pressure test certificate Coating report

Unit type: _____

Date: _____

Serial number of unit: _____

Drawing no. / rev: _____

Evac purchasing order no: _____

Attached for reference—
EC Type Examination (Module 'B') Certificate No.
Issued by: Classification Society
Validity date:

THE OBSERVED DEFECTIVES AT INSPECTION:

DEFECTIVES TO BE REPAIRED:

REPAIRED

DEFECTIVES TO BE REPAIRED:	REPAIRED

Representative of STP OEM

Representative of Indian Navy