



सत्यमेव जयते
Ministry of Defence
Government of India

**REQUEST FOR PROPOSAL BY
MINISTRY OF DEFENCE GOVERNMENT OF INDIA FOR PROCUREMENT OF FIRE
WARNING SYSTEM FOR SINDHUGHOSH CLASS SUBMARINE**

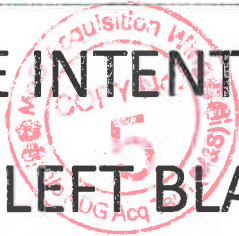
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The contents of this RFP must not be disclosed to unauthorised persons and must be used only for the purpose of submission of Bids.

This document contains 83 pages including cover page and Appendices.



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File No: TM(M) /0025/DSMAQ/FWS

Additional Director General
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Room No 5, Ground Floor, D-II Wing
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New Delhi-110011

17 Oct 23

**REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL
FOR PROCUREMENT OF FIRE WARNING SYSTEM (FWS)
FOR SINDHUGHOSH CLASS SUBMARINE**

CATEGORY: BUY (INDIAN – IDDM)

Dear Sir,

1. The Ministry of Defence, Government of India, intends to procure seven Fire Warning System (FWS) for Sindhughosh Class submarines and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

Synopsis

2. **Broad Description of Equipment/System.** Fire Warning System (FWS) is required for an automatic early warning of the outbreak and location of developing fire by way of an audio alarm and on a display unit, thereby alerting the watchkeeper and firefighting organization to take necessary action.

3. The salient aspects and timelines of the acquisition are tabulated below. In case of any variation in the details furnished below or in any Annexures(s) with that mentioned in the RFP, information furnished in the main body of the RFP at referred Paragraph is to be followed.

Ser	Description	Details	Reference Para of RFP
(a)	Equipment/System required	Fire Warning System (FWS) for Sindhughosh Class submarines	Para 1 above
(b)	Quantity Required	07	Para 1 above
(c)	Categorisation of Procurement	Buy (Indian – IDDM)	Para 7 of Part I of RFP
(d)	Minimum IC Content required	50%	Para 7 of Part I of RFP
(e)	Place(s) of Delivery (DAP)	Mumbai and Visakhapatnam	Para 9 of Part I of RFP
(f)	Warranty Period	12 months post completion of HATs onboard submarine or 36 Months from the date of JRI whichever is earlier.	Para 12 of Part I of RFP
(g)	CAMC Period, if any	NA	NA
(h)	Offsets required, if any	NA	NA

Ser	Description	Details	Reference Para of RFP
(j)	Earnest Money Deposit (EMD) IPBG Amount	NIL, in accordance with Para 8.1 (a) of Annexure I to Appendix 'O' of DAP 2020.	NA
(k)	Last date for submission of Pre-bid queries	07 Nov 2023	Para 23 of Part I of RFP
(l)	Date and time for Pre-bid meeting	28 Nov 2023 / 1100 hrs	Para 24 of Part I of RFP
(m)	Last date and time for Bid Submission	09 Jan 2024 / 1200 hrs.	Para 25 of Part I of RFP

4. The procurement case will be earmarked for MSMEs, provided there are at least two or more MSMEs, who qualify Technical Evaluation & Field Evaluation Trials and accordingly the Commercial bids will be opened. Vendors are required to submit their valid MSME certificate along with Technical Bid (**Appendix D** refers).

5. This Request for Proposal (RFP) consists of following four parts:-

Ser	Description	Page No.
(a)	Part I – General Requirements	07 – 11
(b)	Part II - Technical Requirements	12 – 16
(c)	Part III – Commercial Requirements	17 – 18
(d)	Part IV – Bid Evaluation and Acceptance Criteria	19

6. The Government of India invites response to this request only from Original Equipment Manufacturer (OEM) or Authorised Bidders or Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEM) subject to the condition that in cases where the same equipment is offered by more than one of the aforementioned parties, preference would be given to the OEM.

7. The end user of the equipment is the Indian Navy.

8. This RFP is being issued with no financial commitment; and the Ministry of Defence reserves the right to withdraw the RFP and change or vary any part thereof or foreclose the procurement case at any stage. The Government of India also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

9. This RFP is non-transferable.

10. In addition to various Appendices and their Annexures, attached with this RFP, reference to various paragraphs of DAP-2020 has been made in the RFP. The DAP -2020 is an open domain document that is available at Gol, MoD website www.mod.nic.in.

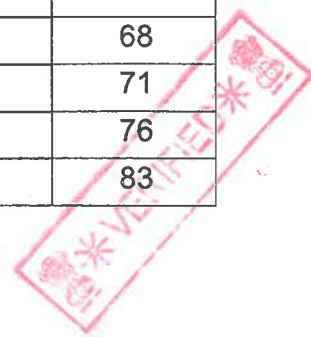
11. The receipt of the RFP may please be acknowledged.

Yours faithfully

(Sushil Das)
Commodore
DDG Acq Tech (Maritime)

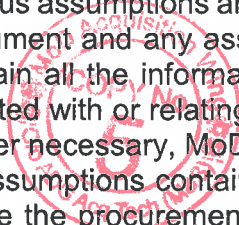
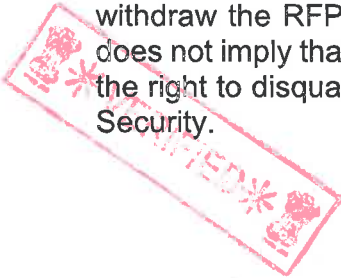
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Disclaimer

This RFP is neither an agreement and nor an offer by the MoD to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the MoD in relation to the Project. This RFP document and any assumptions, assessments and statements made herein do not purport to contain all the information that each Bidder may require. The Bidder shall bear all its costs associated with or relating to the preparation and submission of proposal pursuant to this RFP. Wherever necessary, MoD reserves the right to amend or supplement the information, assessment or assumptions contained in this RFP. The MoD reserves the right to withdraw the RFP or foreclose the procurement case at any stage. The issuance of this RFP does not imply that the MoD is bound to shortlist a Bidder for the Project. The MoD also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.



PART I – GENERAL REQUIREMENTS

1. This part consists of the general requirement of the Goods (also referred as equipment/systems/deliverables) and Services, hereafter collectively referred as 'Deliverables', the numbers required, the time frame for deliveries, conditions of usage and maintenance, requirement for training, Engineering Support Package (ESP), Offset obligations and warranty/guarantee conditions, etc. It includes the procedure and the date & time for submission of bids.

Non-Disclosure

2. The Bidding documents, including this RFP and all attached documents provided by the MoD, are and shall remain or become the property of the MoD. These are transmitted to the Bidders solely for the purpose of preparation and the submission of a proposal in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their proposal. The provisions of this Para shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and the MoD will not return to the Bidders any proposal, document or any information provided along therewith (except unopened Commercial Bid and EMD, as relevant).

3. Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process, or concerning the Bidding Process. The MoD will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. MoD may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or MoD or as may be required by law or in connection with any legal process.

4. **Confidentiality of Information.** No party shall disclose any information to any 'Third Party' concerning the matters under this RFP generally. In particular, any information identified as 'Proprietary' in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisors or the employees engaged by a party with equal force.

Business Eligibility

5. **Undertaking by Bidders.** The Bidder will submit an undertaking that they are currently not banned / debarred / suspended from doing business dealings with Government of India / any other government organisation and that there is no investigation going on by MoD against them. In case of ever having been banned / debarred / suspended from doing business dealings with MoD/any other government organization, in the past, the Bidder will furnish details of such ban / debarment along with copy of government letter under which this ban / debarment / suspension was lifted/revoked. The Bidder shall also declare that their sub-contractor(s) /supplier(s)/ technology partner(s) are not Suspended or Debarred by Ministry of Defence. In case the sub-contractor(s)/ supplier(s)/ technology partner(s) of the Bidder are Suspended or Debarred by Ministry of Defence, the Bidder shall indicate the same with justification for participation of such sub-contractor(s)/supplier(s)/ technology partner(s) in the procurement case.

(a) Subsequent to submission of bids if any sub-contractor(s)/supplier(s)/technology partner(s) of the Bidder is Suspended or Debarred by Ministry of Defence, the Bidder shall



intimate the Ministry of Defence regarding Suspension or Debarment of its sub-contractor(s)/ supplier(s)/ technology partner(s) within two weeks of such order being made public.

6. **Pre-Qualification Criteria {for multi-Bidder cases in Buy (Indian-IDD), Buy (Indian) and Buy & Make (Indian) cases}**. Detailed Pre-Qualification criteria for the Bidders for participation in the instant procurement case are placed at **Appendix D** to this RFP. All Bidders are to submit details as per the criteria along with the Technical Bids. These would be evaluated by the TEC.

7. **Indigenous Content**. For the purposes of this RFP and the acquisition contract (if any) signed by the Ministry of Defence with a successful Bidder, indigenous content shall be as defined under Para 8 to 12 of Chapter I and Para 1 of Appendix B to Chapter I of DAP 2020. In addition, reporting requirements for prime (main) Bidders (and for sub-contractors/suppliers/technology partners reporting to higher stages/tiers) shall be as prescribed under Para 4 to 7 of Appendix B to Chapter I of DAP 2020. The right to audit Bidder/ sub-contractors/suppliers/technology partners shall vest in the Ministry of Defence as prescribed under Para 10; and aspects of delivery, certification, payments, withholding of payments and imposition of penalties shall be as prescribed under Para 10 to 14 thereof. Furthermore, Bidders in 'Buy (Indian-IDD)' will be required to submit their indigenisation plan in respect of indigenous content as stipulated in Para 4 to 7 of Appendix B to Chapter I and Para 39 of Chapter II of DAP 2020. The DAP 2020 is available at MoD, GoI website (www.mod.nic.in) for reference and free download.

8. **Year of Production**. Deliverables supplied under the contract should be of latest manufacture i.e. manufactured after the date of Contract with unused components /assemblies/sub-assemblies, conforming to the current production standard and should have 100% of the defined life at the time of delivery. Deviations, if any, should be clearly brought out by the Bidder in the Technical Proposal.

9. **Delivery Schedule**. The delivery schedule for FWS is spanned out over a period of 30 months. The timeline for system delivery will be effective from the Effective Date of Contract (T_0), (i.e) from the date of release of Advance payment. Detailed survey and formulation of preliminary design of the FWS are to be carried out by the BIDDER within 30 days of signing of contract. The FATs of system are to be successfully completed within Eight months from T_0 . Joint Receipt Inspection (JRI) to be undertaken for each system at the respective Material Organisation, viz., MO(Mbi) and MO(Vzg). The timeline for deliverables is as tabulated below:-

Ser	System to be Delivered	Tentative timeline
(a)	1 st System	10 Months from the date of Advance payment (T_0)
(b)	2 nd , 3 rd and 4 th system	Within 16 Months from the date of Advance payment (T_0).
(c)	5 th , 6 th and 7 th system	
(d)	Upgradation of 1 st System	Four months post delivery of the last FWS system. (this is applicable if there is any modification undertaken in the balance (2 nd to 7 th system))
(e)	Fitment of system onboard	04 months – inclusive of fitment, Setting to Work (STW), Trials, commissioning and training from the date of intimation by IN to the firm regarding availability of submarine.

10. The observations and lesson learnt from first system commissioning will be implemented in the balance six systems. The first system will be upgraded accordingly within four months of delivery of the

last contracted system. Once the contract is concluded and the delivery schedule is established, the bidder shall adhere to it and ensure continuity of supply of items and their components under the contract.

11. **Preservation.** The deliverables supplied are to be preserved for 48 (months) post-delivery. In case, JRI necessitates unpacking to the extent that the preserved life of the deliverables is affected, Bidder is to undertake re-packing to restore the preserved life to the specified period at his own cost. In cases of any delay in STW/installation/integration trials/commissioning, attributable to the Buyer, and if preservation period expires during the storage prior installation/post installation and prior trials (*as applicable*), the deliverables are to be re-preserved by the Bidder against payment of de-preservation/re-preservation charges as per price quoted in the Price Bid. To facilitate this, the cost of in-storage/in-situ de-preservation/re-preservation, as applicable, is to be indicated in the Price Bid. This cost quoted by the Bidders at SI (H) of Price bid format at **Appendix J** would be counted towards determination of L1 and will be paid as per the price quoted if the service is utilized for extending the preserved life. In the cases where installation and trials is part of the Contract, the warranty will commence from the date of commissioning of FWS onboard respective submarines.

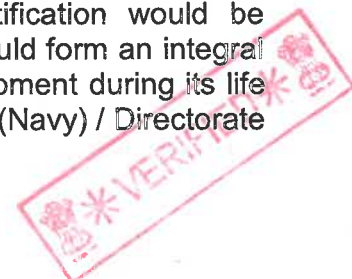
12. **Warranty.** The deliverables supplied shall carry a warranty for 12 months post completion of HATs onboard submarine or 36 Months from the date of completion of JRI whichever is earlier. Commencement of warranty will be either from the date of commissioning at respective submarine or 36 Months from the date of completion of JRI. Warranty Clause is given at **Appendix C** to this RFP.

13. **In Service Life/Shelf Life.** The In Service Life/ Shelf Life of the deliverables shall be stipulated in the offer. In case of shelf life the relevant storage conditions should be clearly specified. The Bidder is required to give details of reliability model, reliability prediction and its validation by designer/manufacturer to ensure reliability of stores throughout Service/shelf life.

14. **Product Support.** The Bidder would be bound by a condition in the contract that he is in a position to provide product support in terms of maintenance, materials and spares for a minimum period of 15 years. Even after the said mandatory period, the Bidder would be bound to give at least two years notice to the Government of India prior to closing the production line so as to enable a Life Time Buy of all spares before closure of the said production line. This, however, shall not restrict the Buyer from directly sourcing sub equipment/ sub-assembly and spares from their respective OEMs/sub-Bidders on completion of warranty. In case the sub-equipment/ sub-assembly/ parts require tuning/ calibration/integration by the Bidder prior replacement, the same is to be undertaken by the Bidder at fair and reasonable cost, as mutually agreed between Buyer and Bidder.

15. **Pre-Induction Codification Clause.** The Bidder shall provide NATO Stock Number (NSN) for each of the items/part/ equipment in the Bill of Material, MRLS and Jigs/ Fixtures duly linked to the OEM Part No. using NATO Codification system (NCS) adopted by DDP/ Dte of Standardisation (DOS) with DoS functioning as National Codification Bureau (NCB), India. In case the NSN number is not available, Bidder shall obtain the relevant Technical data and cataloging information and initiate the process for codification in consultation with DoS.

16. **Obsolescence Management Plan.** An actionable obsolescence management plan is to be proposed by the Bidder along with the mechanism for intimation of notification of obsolescence. The modalities of the mechanism for intimation of notification would be deliberated during CNC. The mutually agreed mechanism for intimation would form an integral part of the contract. All upgrades and modifications carried out on the equipment during its life cycle must be intimated to the Integrated Headquarters Ministry of Defence (Navy) / Directorate of Submarine Acquisition (DSMAQ) as per the agreed mechanism.



17. **Training of Crew and Maintenance Personnel.** A training package for training of operators, operator trainers and maintenance personnel to undertake operation and maintenance of equipment, along with tools and test jigs and training of QA personnel of Naval Dockyards for QC of equipment repairs would be required to be carried out in English language and Hindi language. This training shall be designed to give the operators and maintainers necessary knowledge and skills to operate & maintain equipment ('O'-Operator, 'I'- Intermediate, 'D'-Dockyard), as applicable. The syllabus will be defined by the Bidder in consultation with the Buyer at the time of MET. The maintenance training will be imparted to the satisfaction of the Buyer and Bidder will ensure that the training content and period will be to impart working proficiency up to the required level. All training requirements such as training aids, projection system, complete equipment with accessories / optional, technical literature, spares, test equipment / test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc will be catered by the Bidder. The details of training with respect to number of personnel are elucidated at **Annexure IV to Appendix F** and **Annexure V to Appendix F.**

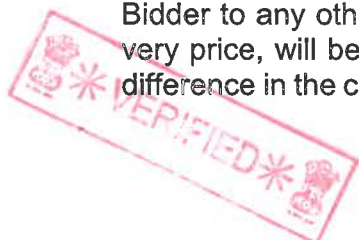
18. **Government Regulations.** It may be confirmed that there are no Government restrictions or limitations in the country of the Bidder or countries from which subcomponents are being procured and/or for the export of any part of the deliverables being supplied.

19. It may be further confirmed that all national and international obligations relevant to transfer of conventional arms of the country of the supplier or countries from which parts and components are being procured, have been taken into account for the duration of the contract. Accordingly, thereafter there would be no review, revocation or suppression of Defence export licence and other related clearance issues to the supplier for the contract that could impinge on the continuity of supply of items and their parts or components under the contract.

20. **Patent Rights.** The Bidder has to confirm that there are no infringements of any Patent Rights in accordance with the laws prevailing in their respective countries.

21. **Integrity Pact.** In the subject RFP, the Bidder is required to sign and submit Pre Contract Integrity Pact (IP) given at **Annexure I to Appendix K.**

22. **Fall Clause.** If the equipment being offered by the Bidder has been supplied/contracted with any organisation, public/private in India, the details of the same may be furnished in the technical as well as commercial offers. The Bidders are required to give a written undertaking that they have not supplied/is not supplying the similar systems or subsystems at a price lower than that offered in the present bid to any other Ministry/Department of the Government of India and if the similar system has been supplied at a lower price, then the details regarding the cost, time of supply and quantities be included as part of the commercial offer. In case of non-disclosure, if it is found at any stage that the similar system or subsystem was supplied by the Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, will be applicable to the present case and with due allowance for elapsed time, the difference in the cost would be refunded to the Buyer, if the contract has already been concluded.



Bid Timelines

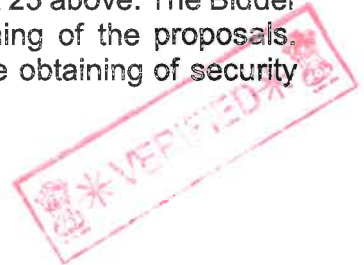
23. Any queries /clarifications to this RFP may be sent to this office by 07 Nov 23 (date). A copy of the same may also be sent to: -

The Commodore (Submarine Acquisition)
 IHQ MOD (N)/ DSMAQ
 Room no. 119, 'C' Wing, I floor, Sena Bhawan, New Delhi -110011
 Tel: +91-11-23010162; Fax:+91-11-23010830; Email : dsmaq@navy.gov.in

24. **Pre-Bid Meeting** A pre-bid meeting will be organized by IHQ at 1100 Hours on 28 Nov 23 (date) at venue as mentioned at Para 23 above to answer any queries or clarify doubts regarding submission of proposals. The Bidder or his authorised representative is requested to attend. Necessary details, may be sent a week in advance to, address mentioned at Para 23 above to facilitate obtaining of security clearance.

25. **Submission of Bids.** The Technical and Commercial Proposals along with IP should be sealed separately in three separate envelopes clearly indicating Commercial, Technical and IP, and any other Bank Guarantee as applicable, and then put in one envelope and sealed (all the envelopes should clearly state the letter No of RFP and the name of equipment and Bidder name) and submitted to the undersigned at address mentioned at Para 23 above by 09 Jan 24 / 1200 hours on 09 Jan 24 (Date).

26. Offer opening by a Offer opening committee will be held at 1500 hours on 09 Jan 24 at the same venue as indicated at Para 23 above. The Bidder or his authorised representative is welcome to be present at the opening of the proposals. Necessary details may be sent at least one week in advance to facilitate obtaining of security clearance.



PART II: TECHNICAL PARAMETERS

27. The second part of the RFP incorporates the aspects of NSQRs describing the technical parameters of the proposed equipment, and the environmental parameters for functioning. The operational characteristics and features that should be met by the equipment are elucidated at **Appendix A** to this RFP and the Compliance Table at **Appendix B** to this RFP. The Bidder would be required to offer the equipment for field evaluation on a "No Cost No Commitment" basis.

28. **Operational Characteristics and Features.** The broad operational characteristics and features including Scope of Work (SOW) that are to be met by the equipment are elucidated at **Annexure II to Appendix A** to this RFP.

29. **Technical Offer.** The Technical Offer must enable detailed understanding of the functioning and characteristics of the equipment as a whole and each sub-system independently. It must include the performance parameters as listed at **Appendix 'A' to this RFP** and any other information pertaining to the technical specifications of the equipment considered important/relevant by the Bidder. The technical proposal should also include maintenance schedules to achieve maximum life and expected life of each assembly/subassembly {or Line Replaceable Unit (LRU)/Shop Replaceable Unit (SRU)}, storage conditions/environment condition recommended and the resultant guaranteed in-service/shelf life. The range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be evaluated during FET. Any Bidder found to be providing lesser ESP/MRLS in terms of range and depth will have to make good the deficiency at no extra cost. The revised list of MRLS to this effect is to be submitted prior Staff Evaluation.

30. If there is any associated optional equipment on offer that should also be indicated separately along with the benefit that are likely to accrue by procuring such optional equipment. Should the Bidder be contemplating any upgrades or modifications to the equipment being offered, the details regarding these should also be included in the Technical Proposal.

31. **Technical Details.**

(a) The technical details should be factual, comprehensive and include specifications of the offered system/equipment against broad requirements listed in **Appendix 'A'** of RFP.

(b) Insufficient or incomplete details may lead to rejection of the offer. Mere indication of compliance may be construed as incomplete information unless system's specific technical details are available in the offer. A format of the compliance table for the technical parameters and certain important commercial conditions of RFP is attached as **Appendix 'B'** to this RFP.

32. The technical offer should have a separate detachable compliance table as per format given at **Appendix 'B'** to this RFP stating specific answers to all the parameters as listed at **Appendix 'A'** to this RFP. It is mandatory to append answers to all the parameters listed in **Appendix 'A'** to this RFP. Three copies of the Technical Proposal should be submitted (along with one soft copy), however only One copy of the commercial proposal is required.

33. **Malicious Code Certificate.** The Bidder is required to submit a 'Malicious Code Certificate' (only for Electronic items and software) along with the Technical Proposal. The format is placed at **Appendix E** to this RFP.



34. **Field Evaluation Trials (FET).** The Bidder is requested to confirm his willingness to provide the equipment for trial evaluation in India on "No Cost No Commitment" basis when so requested. During FET the bidder is to prove the system in accordance with the requisites placed at **Appendix G**. The Buyer, at his own expense, will depute its representatives for the Field Evaluation trials (FETs). If any part of the FETs are conducted in the Buyer's facilities, the Bidder shall depute his personnel and equipment at his own expenses and bear the cost of all expenses of trials other than the cost of ranges, platform or facilities which the Buyer may choose to provide free of cost.

35. **Product Support.** After induction, the equipment / system after the specified warranty period, would be repaired and maintained by Indian technicians as per the repair and maintenance philosophy at Appendix F to this RFP. The information on Engineering Support Package that is required to be provided is enclosed at **Annexures I to IV to Appendix F** to this RFP.

36. **Spares.** The spares requirement will be as per **Appendix F** to this RFP. The spares are required to be categorized in four categories as follows:-

- (a) Manufactured by Bidder as OEM and can be sourced as per Part No.
- (b) Bought out items and customized by the OEM for the specific purpose and such customization would require OEM intervention.
- (c) Bought out from other OEMs/Third Party as specialised items and used without any customization. Such items can be sourced by quoting their Part No./Identification No. as given by OEM/Third Party and directly utilised.
- (d) General Engineering items/COTs which can be sourced by stating the relevant standards and item description.

37. As brought out at Para 29, the range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be evaluated during FET. Any Bidder found to be providing lesser ESP/MRLS in terms of range and depth will have to made good the deficiency at no extra cost. The revised list of MRLS to this effect is to be submitted prior Staff Evaluation. The Buyer would also have the option to amend the MRLS proposed by the Bidder within one year of the expiry of the warranty period. The Bidder would either 'Buy Back' the spares rendered surplus or exchange them on cost to cost basis with the spares as required by the Buyer. The said spares would be purchased/ replaced by the Bidder, based on the prices negotiated in the contract.

38. **Active Technology Obsolescence Management.** Bidder is to indicate the methodology on how the Bidder intends to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of system/subsystem/ units on completion of its fair service life. The Bidder/OEM shall also intimate Buyer on likely technology obsolesce of various sub-assemblies/units/modules of equipment through an annual bulletin. In case of impending obsolescence of components bulletin should specify either alternate items or option for life time buy as under:-

- (a) The Bidder/OEM will notify the Buyer not less than two years production line before the closure of its before the closure of its about the intention to close production of purchasing equipment for provision spare parts, before closure of the said production line.



(b) Three years prior to completion of design/service life of equipment, the OEM/Bidder will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for next 15 years.

Evaluation of Technical Offers

39. The Technical Offer submitted by the Bidder will be evaluated by a Technical Evaluation Committee (TEC) to confirm that the equipment being offered meets the Essential Parameters as elaborated at **Appendix A**.

Field Evaluation Trials (FET)

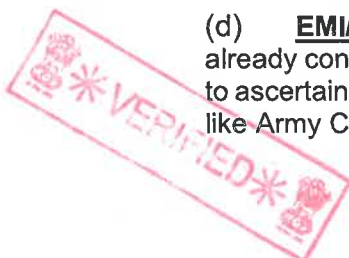
40. For an equipment to be introduced in service, it is mandatory that it successfully clears all stipulated tests/trials/evaluations as per RFP. The trial evaluation process comprises of the following phases:-

(a) **User Trials**. These will involve functional testing by user of the equipment in various specified conditions as per requirement and may be done in more than one phase. Trials will be conducted only pertaining to conditions where the equipment is most likely to be deployed. In other conditions where the probability of deployment is not high, appropriate Bidder certifications confirming the functional effectiveness under such conditions can be given and simulations based testing can be resorted to wherever applicable. In case equipment fielded requires any repairs/modifications during the course of trials, these in situ servicing, repair, maintenance actions or modifications as requested by the Bidder will be permitted. Towards this, Bidders shall ensure availability of requisite maintenance teams/ experts onsite during the conduct of trials. Permission for trial equipment to move out of the trial location for a defined period for such repairs or modifications can be permitted on a case to case basis. In single Bidder cases permission for the above may be permitted by the OIC Trials itself.

(b) **Technical Trials**. Technical trials will be conducted by QA agency as per Technical Evaluation Plan (to be specified at Para 42, 43 below) to assess conformance to the quality requirements, standards and specifications. Equipment/assemblies/sub-assemblies will be subjected to environmental tests wherever applicable. As far as possible, physical evaluation will only be carried out of critical parameters and other parameters will be evaluated based on Bidder certification duly supported by certification by NABL accredited laboratories/internationally recognised laboratories. Towards this, Bidder will submit the technical documentation and draft ATP as part of technical bid. QA agencies will finalise ATP in respect of all Bidders during Technical trials.

(c) **Maintainability Evaluation Trial (MET)**. MET to address maintenance, repair and spares support aspects of acquisition, wherever feasible, will be undertaken through the OEM documentation concurrent to the User Trials. Essential tests towards establishing maintainability would be undertaken to establish adequacy of maintenance tools, test equipment and spares utilisation. Actual stripping of the equipment to establish adequacy of maintenance tools, test equipment and spares utilisation will ideally be undertaken, where considered necessary by the Buyer.

(d) **EMI/EMC Evaluation**. This will consist of either review of reports of EMI/EMC tests already conducted as part of qualification testing from authorised labs or physical conduct of tests to ascertain compatibility. EMC/ EMI Evaluation would be carried out by designated testing centers like Army Center for Electromagnetics (ACE), Mhow etc. on parameters having direct bearing on



the operational employability of the equipment based on desired standards as given out in the Trial Directive. For remainder parameters, certification of accredited labs can be accepted.

41. Commercial offers will be opened only of Bidders whose equipment is short-listed, after technical trials and evaluation and these have been accepted technically. In other words, the equipment would be required to be trial evaluated and found suitable prior to commencement of any commercial negotiations.

Quality Assurance Instructions & Technical Evaluation Plan

42. The bidder would be required to submit the drawings to DQA(WP) for QA approval post approval of the drawings by the steering directorate and the professional directorate. Once the drawings have been approved, the bidder would be required to submit the draft QAP for approval in accordance with QAD-R02 available online on DGQA website to DQA(WP) to commence the QA inspections.

43. Bidder is to submit a Draft Acceptance Test Protocol (ATP) along with the Technical bid, as per the QA instructions and Technical Evaluation Plan. Based on the draft ATP, the ATP will be finalised by the Steering Directorate and Professional directorate. The Buyer reserves the right to modify the ATP if necessary. The ATP will lay down the tests to be carried out during PDI and JRI. It shall be ensured that there are no repetition of QA tests in PDI and JRI. The JRI would normally be restricted to quantitative checks only, except where check proof is required to be carried out. QA of equipment will be carried out as per finalised QAP prepared in accordance with QAD-R02 as available online on DGQA website and duly approved by the Directorate of Quality Assurance (Warship Project) (DGQA(WP)). For technical trials by QA agencies, the firm will arrange all requisite test facilities at OEM premises or NABL accredited laboratories for establishing conformance. The successful Bidder would also be required to provide those test facilities at OEM premises/accredited laboratories for quality assurance, which are not available with QA agencies. Details of the same will be intimated to the Bidder during finalisation of ATP in Technical trials.

Marking and Packaging

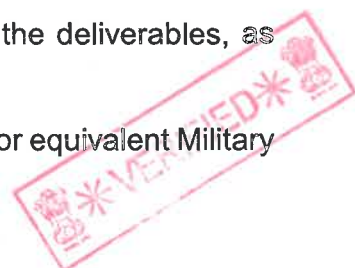
44. **Marking of Deliverables.** The Bidder shall ensure that each deliverable is marked clearly and indelibly, as follows:-

- (a) In accordance with the requirements specified in the RFP or if no such requirement is specified, with the indicated codification number or alternative reference number specified.
- (b) Ensure that any marking method used does not have a detrimental effect on the strength, serviceability or corrosion resistance of the deliverables.
- (c) Where the deliverables have a limited shelf life, with the cure date/date of manufacture or expiry date expressed as months and years.

45. Where it is not possible to mark a deliverable with the required particulars, these should be included on the package in which the deliverable is packed

46. **Packaging of Deliverables.** The Bidder shall pack or have packed the deliverables, as applicable:-

- (a) In accordance with DEFSTAN 81-041 (Part 1)/STANAG-4280 or equivalent Military



Standard.

(b) To ensure that each deliverable may be transported in an undamaged and serviceable condition.

47. The Bidder shall ensure that each package containing the deliverable is labeled to include:-

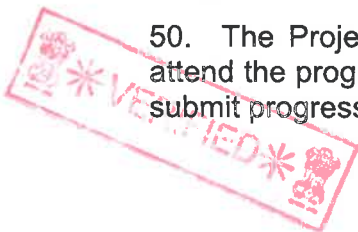
- (a) The name and address of the consigner and consignee including
- (i) The delivery destination/address if not of the consignee
- (ii) Transit destination / address (for aggregation / disaggregation, onward shipment etc).
- (b) The description and quantity of the deliverables.
- (c) The full part number in accordance with codification details.
- (d) The makers part, catalogue, serial, batch number.
- (e) The contract number.
- (f) Any statutory hazard markings and any handling markings including the mass of any package which exceeds 3 Kg.
- (g) The Packaging Label (Military J, N or P, special H, commercial A, C etc) (specify reference to DEFSTAN 81-041 (Part 1)/STANAG-4280 or equivalent Military Standard.)

48. **Monitoring of Project Based on Contractual Milestones/PR.** After placement of order, the progress of the project will be monitored by the Buyer for compliance with various activities towards achieving contractual milestones involving delivery, installation, integration, trials and commissioning. The contractual milestones will be integral part of the contract. In case the project does not proceed as per the indicated timelines for various contractual milestone(s), the Buyer will have the right to invoke Termination of the project. The indicative list of Contractual Milestones and broad range of timelines (earliest and latest time for completion) for the project is as follows:-

Ser	Milestone	Timeline	Remarks
(a)	Submission of documents for Advance payment	T ₀ + 01 Month	Bidder
(b)	Conduct of FATs and Pre-Dispatch Inspection (PDI) of First System	T ₀ + 09 Months	Bidder
(c)	Joint Receipt Inspection (JRI) and Delivery of balance FWS (2 nd to 7 th)	T ₀ + within 16 Months	Bidder
(d)	Installation and commissioning of FWS onboard each submarine.	04 Months from the date of intimation of availability of Platform by IN.	Bidder

49. The Bidder is to indicate the proposed timelines for the above milestones in the Commercial Bid. On conclusion of the Contract, these milestones will be monitored by the Buyer.

50. The Project Monitoring Meeting is to be organized at regular intervals. The Bidder shall attend the progress monitoring meetings through its suitably qualified representatives and shall submit progress reports to the Buyer.



PART III : COMMERCIAL ASPECTS

51. The third part of the RFP consists of the commercial clauses and Standard clauses of contract. The bidders are required to give confirmation of their acceptance of these clauses.

Commercial Bid

52. The Bidder is requested to take into consideration the **Commercial Clauses and Payment Terms** given at **Appendix H** to this RFP while formulating the Commercial Offers. The bidders are required to quote their price in Price bid format given in **Appendix J** to this RFP. Commercial offers will be opened only of the Bidder whose equipment is short-listed, after technical trials and staff evaluation. The Commercial Offer must be firm and fixed and should be valid for at least 18 months from the date of submission of offer.

Commercial Bid Opening

53. The Commercial Offers will be opened by the Contract Negotiation Committee (CNC) and if Bidder desires he may depute his representative, duly authorised in writing, to be present at the time of opening of the offers. The date, time and venue fixed for this purpose will be intimated separately after the evaluations are completed. The CNC will determine the lowest bidder (L1).

Additional Aspects

54. **Standard Conditions of RFP.** The Government of India desires that all actions regarding procurement of any equipment are totally transparent and carried out as per established procedures. The bidder is required to accept our standard conditions furnished at **Appendix K** to this RFP regarding Agents, penalty for use of undue influence and Integrity Pact, access to books of accounts, arbitration and clauses related to Law. These conditions along with other clauses of the Contract form the Standard Contract Document (as at **Chapter VI** of DAP 2020) indicates the general conditions of contract that would be the guideline for all acquisitions. The draft contract would be prepared as per these guidelines.

55. **Acceptance Trials.** All Test Specification documents related to the undermentioned trials are to be supplied by the bidder **four months** before each scheduled trial (FATs, STW and HATs). The BUYER will check the Test Specifications and intimate suitability **three months** from the date of receipt of the Test Specifications. The Contractor would offer FATs, PDI, JRI, STW and HATs for all the systems to the Indian Navy (IN):-

- (a) Factory Acceptance Trials (FATs) of the following:-
 - (i) Control and Display unit.
 - (ii) Planetary subunit (PS).
 - (iii) Integrated system trials along with above units and sensors.
- (b) Setting to Work (STW) of the following [for All System]:-
 - (i) Control and Display unit.
 - (ii) Planetary Subunit (PS).
 - (iii) Integration of FWS with existing power supplies of the submarine.
 - (iv) Integrated system trials along with above units and sensors.

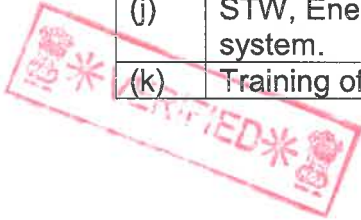


(c) Harbour Acceptance Trials (HATs) and Commissioning of the following [for All System]:-

- (i) Control and Display unit.
- (ii) Planetary Subunit.
- (iii) Integrated system trials along with above units and sensors.

(d) Scope of IN and Bidder.

Ser	Scope of work	IN or BIDDER
(a)	Field Evaluation Trials (FET)	Bidder
(b)	Pre Dispatch Inspection (PDI).	Bidder
(c)	Joint Receipt Inspection (JRI).	IN and Bidder
(d)	Pre-installation checks of system components and replenishing any non-operational item till commissioning of system.	Bidder
(e)	Manufacturing of Bulk Head glands and welding it onboard and testing.	IN
(f)	Manufacturing of Cable hangers (as required)	Bidder
(g)	Installation of system and laying of cables and Connectorisation.	Bidder
(h)	Interfacing and proving of FWS units with the power supply system of submarine.	Bidder
(j)	STW, Energisation, HATs and Commissioning of system.	Bidder
(k)	Training of the personnel.	Bidder



PART IV: EVALUATION AND ACCEPTANCE CRITERIA

56. A list of documents/details to be submitted along with the bids is placed at **Appendix L** to this RFP as a reference to help in completeness of bid and meeting the procurement process schedule.

57. The bids shall be unconditional and unqualified. Any condition or qualification or any other stipulation contained in the bid shall render the bid liable to rejection as a non-responsive bid.

58. The bid and all communications in relation to or concerning the bidding documents shall be in English language.

59. **Evaluation and Acceptance Process.**

(a) **Evaluation of Technical Proposal.** The technical proposals forwarded by the Bidders will be evaluated by a Technical Evaluation Committee (TEC). The TEC will examine the extent of variations/differences, if any, in the technical characteristics of the equipment offered by various Bidders with reference to the NSQRs and prepare a "Compliance Statement" for shortlisting the Bidders. The shortlisted Bidders shall be asked to send the desired units of the equipment system for Field Evaluation in varying environmental and simulated conditions. Field Evaluation would be conducted for Essential Parameters-A. A Staff Evaluation will be carried out, which will give out the compliance of the demonstrated performance of the equipment vis-à-vis the requirements. The compliance would be determined only on the basis of the parameters specified in the RFP. The Staff Evaluation will analyse the field evaluation results and shortlist the equipment recommended for introduction into service.

(b) **Evaluation of Commercial Bid.** The Commercial bids of only those bidders will be opened, whose technical bids have been cleared by TEC; equipment has been shortlisted after Field Evaluation(Trials) and Staff Evaluation; Comparison of bids would be done on the basis of Evaluation criteria given in **Appendix J** to this RFP. The bidders are required to quote their price in Price bid format given at **Para 2 of Appendix J** to this RFP. The L-1 bidder would be determined by Contract Negotiation Committee (CNC). Only L-1 bidder would be invited for negotiations by CNC.

(c) **Contract Conclusion / Placement of Order.** The successful conclusion of CNC will be followed by contract conclusion.



Appendix A

(Refers to Para 27 of RFP of Part II)

**OPERATIONAL CHARACTERISTICS AND FEATURES
OF FIRE WARNING SYSTEM (FWS)**

1. The primary role of Fire Warning System is to detect a developing fire emergency in a timely manner and alert the watch keepers and the firefighting organizations of the submarine to fight fire.

2. **Application.** Fire Warning System is proposed to be installed onboard Sindhughosh Class submarines. The FWS will detect, a developing fire emergency in a timely manner and alert the watch keepers and the firefighting organizations of the submarine to fight fire. It gives an automatic early warning of the outbreak and location of developing fire by way of an audio alarm and on a display unit, thereby alerting the watch keeper and firefighting organization to take necessary action.

Broad Operational Parameters.

3. The broad operational parameters of the Fire Warning System are as mentioned below:-

Ser	Description	Range / Remarks
(a)	Mode of Power Supply	Primary – From Battery Pit No.1 – Main and Reserve. Secondary – From Battery Pit No.2 – Main and Reserve.
(b)	Power Supply for system operation	(i) 127 V 50Hz Single phase OR 220 V 50 Hz Single phase OR 270-320 V DC. The power supply solution with optimal size and least maintenance is preferable. (ii) The components are to be provided power supply from a Main source and a Reserve Source via a changeover switch.
(c)	Available Supply Mains Voltage	175-320 V DC.
(d)	Backup Emergency Supply	In-built battery backup/ UPS (04 hours endurance) be incorporated in the system to ensure availability of the system in case of total power failure.
(e)	Rated Duty at Mains voltages 190-320 V 175-190 V	Continuous. Short time (15 mins).
(f)	Temperature Rise	Maximum 5°C from ambient temperature up to a maximum temperature of 60°Celcius.
(g)	Insulation class	Class 'H'.
(h)	Permissible Overheating °C of Console	Not more than 60°Celcius over a duration of 4 hours of continuous operation.
(i)	Insulation resistance of current	Not less than 0.5 mega ohm.

Ser	Description	Range / Remarks
	carrying parts, not under	
(k)	Weight of complete system, Kg	Not more than 200 Kg. [Weight of complete system includes console unit, planetary subunits, manual call points and sensors. It does not include cables, cable accessories and insulation material]
(l)	Type of enclosure	Water proof cooled by self ventilation.
(m)	Degree of Protection	IP 65 (Terminal Box Enclosure).
(n)	Earth Protection	External earthing to be provided as per drawing.
(p)	EMI/EMC Requirements	As per MILSTD 461G.
(q)	Binding data	Cable entry/routing, PLC board drawings, circuit diagrams, supply indications, interfacing diagrams and connections are to be mapped from the existing arrangement/ fittings onboard.
(r)	Cable / Cable Gland Details (Type/ Size /No. of cores)	As per approved drawings. ATEX graded cables and cable glands to be used.
(s)	Lifting Arrangement	Enclosures (Panels) to be provided with provision to lift (eyebolt securing arrangement with eyebolt).
(t)	Painting	(aa) Steel Surfaces to be cleaned to bare metal by grit blasting/wire brushing. (ab) Immediately after surface preparation apply two coats of paint Ready for Use (RFU) priming zinc chromate as per IS 1874. Dry Film Thickness (DFT) of each coat is 35-40 microns. (ac) Apply two coats of RFU finishing Fire retardant, as per JSS-3-47-05. Each coat 35-40 microns. The colour of the finishing coat of the equipment as Eau-de-Nil code no.216 as per IS 5. (Annexure I to Appendix A refers).

Technical Parameters

4. **System Configuration.** This system is to be viable and capable for providing fire warning capability onboard Sindhughosh class of submarines. The system configuration should consist of the following: -

- (a) Control and Display Unit (CDU) (Qty – 02)
- (b) Planetary Subunits (PS) (Qty – 04 minimum)

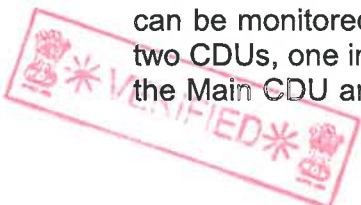


- (c) Manual Call Points (MCP) (Qty – 11 minimum)
- (d) Sensors
 - (i) IR-UV.
 - (ii) Heat / Temperature Sensors – The heat sensor should activate at following temperature conditions: -
Note:-
 - (aa) At minimum temperature $\geq 50^{\circ}\text{C}$ warning signal to be activated.
 - (ab) At minimum temperature $\geq 65^{\circ}\text{C}$ alarm should be activated.
 - (iii) Rate of temperature rise Sensors – 6.7°C to 8.3°C per minute.
 - (iv) Motion Sensor.
 - (v) Pressure Sensor.
 - (vi) Smoke Sensor.

5. The system should be able to perform the following activities: -

- (a) To detect gradient temperature rise, hot spots, smoke, gradient increase in smoke.
- (b) To initiate visual / sound alarm in all the compartments and in the central monitoring console [Control and Display Unit (CDU) of FWS] installed in Control Room.
- (c) Environment. The sensors should be able to function and perform in marine environment and under higher atmospheric pressures (upto 10 kg/cm^2). Depending on the requirement or location viz. smoke sensor, flame sensor, heat sensor, motion sensor, multifunction sensor etc can be used.
- (d) There should be a minimum of eleven *Manual Call Point (MCP)* to raise the audio alarm in case the fire warning system fails to detect the fire.
- (e) There should be a central *Control and Display Unit (CDU)* in Control Room (C/R – II Compartment) and Motor Room (M/R – V Compartment) and four (minimum) *Planetary Subunits (PS)* in other compartments for indication and action. The size of the CDU and PS should be compact and ruggedized.
- (f) Interchangeable/ Modular sensors and components with a universal interface to facilitate inclusion of new/ different sensors/ components. The sensors/ components should be able to operate simultaneously without interference, in accordance with the system configuration.
- (g) System design should not be based on Ethernet Over Power Line (EOPL).

6. **Architecture of Fire Detection System.** The sensors should be configured with a Distributed Control. In a Distributed Control and Distributed Monitoring architecture, the sensors can be monitored and controlled from more than one Programmable Controller. There will be two CDUs, one in Control Room and second in Motor Room. The CDU at Control Room will be the Main CDU and CDU at Motor Room will be secondary CDU. The CDUs will get the feeds



from all the PS and all the sensors of compartment in which they are installed. The CDUs will be able to control and give command to other PS and CDU. PS will be installed in the remaining other compartments at suitable locations. The PS will get feed from the sensors of their compartment. The feed from PS will be sent to both the CDUs. The feed of the sensors in control Room and Motor Room will be fed to both the CDUs. The Bidder should submit the design with redundancy features

7. **Reliability and Maintainability.** Bidder to share the calculation details for all the parameters.

- (a) The probability that the equipment will be available at any instant during the operational periods shall not to be less than 99.94%.
- (b) The down time due to preventive maintenance activities during operation period shall not exceed 30 minutes.
- (c) Sufficient onboard spares are to be scaled such that the risk of the stock falling low would be less than 10%.
- (d) In respect of failures, which are not repairable at sea, the probability that the equipment will survive the maximum operational period of 6000 hours at the stated usage without failure is to be greater than 99.005%.
- (e) In respect of failures which are repairable at sea during the operational period, the probability that the equipment will survive a period of 6000 hours continuous operation without such a failure is to be greater than 99%.
- (f) The Median active time (50 percentile) to restore or repair the equipment after failure using specified procedures and resources is not to be greater than 30 minutes. The maximum (95 percentile) active repair time is not to be greater than 60 minutes.

8. **Material.** All material should be of 316 Stainless Steel.

9. **Standards and Specifications.** The following specifications or latest edition in force are to be adhered for MIL grade components in the system. COTS items are to be suitably ruggedised for use in submarine environment:-

<u>Ser</u>	<u>Standards</u>	<u>Remarks</u>
(a)	JSS-0251-I	Documentation should be supplied i.a.w. JSS-0251-I.
(b)	MIL-E-17555G (Amend 2)	Electronic and Electrical Equipment Accessories, and Repair Parts.
(c)	MIL STD 1472F	Standard for human engineering.
(d)	Quality Assurance Plan (QAP) format	QA will be in accordance with QAD-R02 available online on DGQA website.
(e)	MIL-STD-202	Test Methods for Electronics and Electrical Component Parts.
(f)	MIL-STD-242	Electronic Equipment parts.
(g)	MIL HDBK 217F	Reliability Prediction.
(h)	NSS Grade II	Shock standards.



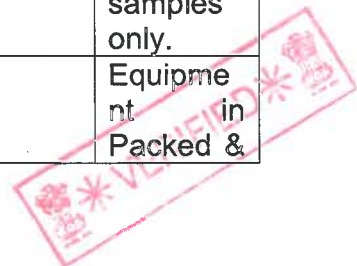
<u>Ser</u>	<u>Standards</u>	<u>Remarks</u>
(j)	MIL-STD-461G	Electromagnetic Interference Characteristics requirements for Equipment.
(k)	MIL STD 2164A/344A (or) DQA(N) guidelines promulgated vide letter 66301/Policy-07/DQAN/QA-07 dated 09 Aug 16 for ESS.	Environmental Stress Screening (ESS). (Refer to Para 13)
(l)	10(l)-IEEE-12207	Software Development life cycle.
(m)	JSS 55555-2012, Rev 03	Environmental Tests (ET). (Refer to para 14)
(n)	IP 65	Ingress Protection standards for Control panel.
(p)	ESS 66301/Policy-10 /DQAN /QA-10 dated 14 Jun 13 for endurance (Burn-in) test.	Endurance (Burn-in) test. (Refer to para 15)

10. **Details of Qualification Test.** The environmental specification of JSS 55555 – 2012 (Rev 3) is as follows:-

<u>Ser</u>	<u>Test Name</u>	<u>Reference</u>	<u>Description</u>	<u>Protected Units</u>	<u>Remarks</u>
(a)	Vibration test (Sinusoidal)	JSS 55555 N3-28-2.1	Refer JSS table 4.28.2 Serial No. 2 © Freq 5-33 Hz +/-0.125mm constant displacement, sweep duration 5 min, 1 oct/min	✓	-
(b)	Vibration Test Endurance	JSS 55555 N3-28-2.2	If resonance frequencies are observed & cannot be eliminated, carry out endurance for 1 Hr at observed resonance freq (1 hr equally distributed among observed resonance frequencies) in that axis only. If no resonance is observed, carry out endurance at 14,22 & 33 Hz. Each of 20 minutes duration in each of the three axis, (refer JSS 55555- guidance 5.28-2 Para 1.5.1.2)	✓	-
(c)	Vibration Testing	MIL-STD-810H	MIL-STD-810H Vibration testing under Life Phase category–Operational; Platform category - Marine Vehicles;(Test Method 514.8)	✓	



Ser	Test Name	Reference	Description	Protected Units	Remarks
(d)	High Temperature (Operational)	JSS 55555 (REV -3):2012, N3-17,N-320	+55°C + 3° for 16 Hrs Measurement to be taken at the last half an hour	✓	-
(e)	High Temperature (storage)	JSS 55555 (REV-3):2012, N3-17, N-320	+70°C + 3° for 16 Hrs Performance check after 2-4 Hrs recovery at room temperature.	✓	-
(f)	Damp Heat Test (Operational)	JSS 55555 (REV-3):2012, N3-10	+40°C + 2°C, 95 + 2% RH for 16 Hrs. Measurement to be taken at the last half an hour	✓	-
(g)	Low Temp (Operational)	JSS 55555 (REV-3):2012, N3-20	-10°C + 3°C for 16 Hrs Performance check during last 30 Minutes. Procedure 4 condition H.	✓	-
(h)	Salt Corrosion	JSS 55555 (REV-3):2012, N3-9	To determine the suitability of electronic and electrical equipment for use/storage in salt laden atmosphere. This test is intended mainly for evaluating the quality and uniformity of protective coatings. Procedure - 1(for exposed & Submersible) Procedure-2 (for Protected) Temp: 35° C RH: 90-95%	✓	On represent ative samples only.
(j)	Shock Test	JSS 55555,2012 REV - 3, Test No 24	NSS Grade-II (for equipment fitted below waterline) -50g, 11ms(vertical) and 22g, 8ms (lateral).	✓	-
(k)	Pressure Test	As per ATP	Test Pressure for Strength =10 kg/ cm ² (As per procedure promulgated - in ATP)	✓	-
(l)	Mould growth	JSS 55555, (REV - 3): 2012, N3 - 21	To determine the resistance of electronic and electrical equipment against mould growth (28 days)	✓	On represent ative samples only.
(m)	Roadability	JSS 55555, 2012 REV - 3 Test No 29	The objective of this test is to ensure that the equipment shall be	✓	Equipme nt in Packed &

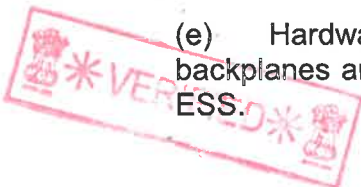


<u>Ser</u>	<u>Test Name</u>	<u>Reference</u>	<u>Description</u>	<u>Protected Units</u>	<u>Remarks</u>
			capable of withstanding the vibrations and other dynamic forces normally induced during transportation (by land, sea, air).		Switched OFF condition. Distance 50 Km & Speed 16Km/Hr
(n)	Tropical Exposure	JSS 55555, 2012 REV – 3 Amd-1 Test No 27	Test condition A :7 cycle Temp : 20 deg C to 35 Deg C RH: 95% Duration : 24 hrs (one cycle)	✓	
(p)	Drip proof	JSS 55555 test no. 11	Vertical Water drip 1m height for 15 minutes	✓	
(q)	Inclination / tilt test	Clause 0563 Sec 19 As per laid down specification	30°C Inclination, 2 Dir, 01/dir	✓	
(r)	Ship Motion Test	NES 1004	±15°C for 1 Hr in transportation axis	✓	

11. **EMI / EMC Tests.** Equipment (indigenous/ imported) is required to comply with MIL-STD-461G. The Bidder will be required to formulate an EMI/EMC Acceptance Plan (EMIAP) post placement of order for approval of IHQ MoD(N)/NEC(MB). The EMI/EMC testing would be carried out as per test plan approved by IHQ MoD(N). Relevant test reports are to be submitted for scrutiny of IHQ MoD(N)/NEC(MB) for clearance which will be one of the pre-requisite for dispatch of equipment to end consignee.

12. **Details of Environmental Stress Screening (ESS).** Environmental Stress Screening tests (ESS) are carried out in accordance with DQA (N) ESS guidelines promulgated vide letter no. 66301/policy-07/DQA (N)/QA-07 dated 09 Aug 2016. The functional tests during ESS will be carried out as per their respective ATP document. The abstract of guidelines for conduct of ESS as promulgated by DQAN is listed below:-

- (a) ESS tests to be conducted either on unit or sub system level (based on lowest feasible indenture level).
- (b) ESS is applicable to 100% electronics components/modules/assemblies as part of manufacturing process for indigenously manufactured electronics including spares.
- (c) In case of Imported / COTS items going in assembly, ESS to be carried at next higher indenture level.
- (d) ESS to be exempted for Imported / COTS used in "as it is" condition based on Certificate of Conformity (CoC) & other requisite documents.
- (e) Hardware incorporating purely mechanical system/elements including wire wrapped backplanes and electronic components viz. LCD panels & Hard disk are exempted from ESS.



(f) Notch the spectrum in frequency band of 5 Hz before and after the resonant frequency to avoid peak damage.

13. **Environmental Tests (ET)**. The purpose of this test is to check the ability of the equipment to withstand prolonged environmental effects (climatic and induced) under which the Unit Under Test (UUT) is likely to operate or stored. The UUT is thus exposed to simulated environment at accelerated scale for shorter duration. This test will be undertaken on the first of the type item. In case the test has been conducted on the item earlier, the Bidder will submit the test reports. ET, if already undertaken by the firm against an earlier order, will only need to be repeated if design, manufacturing process, Bidder or any other specifications have changed. The guidelines for conducting ETs for equipment have been promulgated vide JSS 55555 – 2012 (Rev 3) for indigenous equipment and MIL 810G for imported equipment. The shock test for indigenous equipment will be in accordance with NSS Grade 2 and that for imported equipment will be MIL STD 901D. The detailed ET plan for the system indicating the device being subjected, test parameters, severities and venue for conduct of the test is to be included in the QAP.

14. **Endurance (Burn-in) Test**. Endurance test would be carried out on the integrated system on completion of FATs as per guidelines promulgated by DQAN vide letter no. 66301/Policy-10/DQA (N)/QA-10 dated 14 Jun 13.

15. **Protection Checks**. Following protection checks on electrical equipment are to be undertaken as per NES 511.

- (a) High Voltage (HV) Test.
- (b) Insulation Resistance before and after HV test.

16. Conformal coating of PCBs are to be undertaken as per DQA(N) policy no. 580930/DQA(N)/EL dated 17 Feb 14.

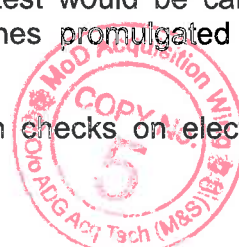
17. **Service Life**.

- (a) Operation life upto medium repair, hours : 46000 – 47000 hours
- (b) Design Life : 15 years
- (c) Period of operation without maintenance: 4500 hours
- (d) Period of storage before installation. Two years (OEM may recommend specific preservation /maintenance requirements for storage beyond two years)

18. **Failure Analysis**. The firm shall carry out the failure analysis of the system using failure data of various constituent components and forward MTBF analysis and Failure analysis report. While forwarding the binding data along with the failure analysis also is to be provided.

19. **Technical Binding Data**. The following data is to be provided as a part of binding data within two months of placement of purchase order:-

- (a) Technical Characteristics.
- (b) Heat Load.
- (c) Power Supply requirements.



- (d) Terminal Connection details for cable termination/ Terminal connection diagram.
- (e) Dimensions/ detailed profile drawing.
- (f) Foundation/mounting details and foot prints indicating distance between bore holes and their size.
- (g) Reliability prediction analysis proving target figures.
- (h) Functional Diagram.
- (j) Location and size of Earthing fastener.
- (k) Electrical Schematic.
- (l) Preliminary design report.
- (m) Ingress Protection.
- (n) Bill of Material.

Additional Parameters

20. **Packaging.**

- (a) Should be strongly and securely packed for submarine, entering a minimum cubic space, in such a manner to prevent damage and pilferage in transit from point of shipment to the destination.
- (b) Metal parts where necessary should be well slushed with preservatives to prevent rusting during transit and shelf life period.
- (c) The main equipment, accessories and spares should be separately packed.

21. **Shipping.** All equipment shall be adequately packed and protected with supports to ensure adequate protection during all modes of transportation. Each unit within a package/container shall be clearly marked for identification. The container shall clearly indicate the item description with caution marks, quantity, weight, size etc. A separate document giving details and instructions for storage, preservations, handling and transportation after delivery is to be supplied. The Bidder should indicate the delivery schedule, transport, packing, preservation, insurance etc.

22. **Installation Material.** One set of installation material that includes cables, connectors, shock mounts, special fasteners, special tools, special fittings etc. should be supplied by the OEM with the system.

Maintainability and Ergonomics Parameters

23. **General Characteristics.** The general characteristics of Fire Warning System are to be as follows:-



Sr	Attribute	Value / Remarks
(a)	Weight and Dimension	The units of the system should be designed so as to be fitted in Sindhughosh Class of submarines within available space.
(b)	Input power supplies	(i) 127 V, 50Hz Single phase OR 220 V 50 Hz Single phase OR 270-320V DC. (ii) In case MAIN supply fails, ALTERNATE inbuilt provision for emergency supply has to be provided. (iii) Provision for conversion to stabilised voltages for use by sensors, CDU, PS and sub-units are to be included. (iv) Energy Spike tolerant.
(c)	MMI/Control Panel	The size and layout of the panel should cater for ergonomic design with all necessary indications and system status available on a single screen for all modes of operation.
(d)	Identification Markings	All units should have identification markings for easy identification of system components and follow the standard nomenclature.

24. **Operating Conditions.** The conditions under which the Fire Warning System is required to be operated are placed below:-

Ser	Attribute	Value / Remarks
(a)	System Endurance	Not less than 6000 hours.
(b)	Main Power Supply	127 V, 50Hz Single phase (or) 220 V 50 Hz Single phase (or) 270-320V DC.
(c)	Ambient temperature conditions Inside submarine	10° C to 55°C.
(d)	Humidity Range inside submarine	Upto 90% RH.

25. **Physical Dimensions of Fire Warning System.** The dimensions of Units should be limited to following:-

Sr	Unit	Physical Dimensions (Not More than)
(a)	Control and Display Unit (CDU)	(i) Length x Breadth x Height mm (400 x 250 x 300) (ii) Weight : < 30 kg (iii) Other Features: Forced Air Cooling through Blowers, Air Inlet Through EMI/EMC Filters, Heaters For Anti Condensation. For Sealed equipment cooling provision through conduction to be facilitated. (iv) Water tight
(b)	Planetary Units (PS)	(i) Length x Breadth x Height mm (400 x 150 x 300) (ii) Weight : < 20 kg (iii) Other Features: Forced Air Cooling Through Blowers, Air Inlet Through EMI/EMC Filters, Heaters For Anti Condensation. For Sealed equipment cooling provision through conduction to be facilitated. (iv) Water tight

26. **Maintainability and Reliability.** The requirements pertaining to maintenance, reliability of the system and training required prior operations is as placed below:-

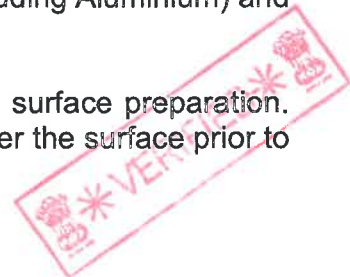
Sr	Attribute	Value / Remarks
(a)	Switching on time	Not to exceed three minutes
(b)	down time due to preventive maintenance activities during operation period	Not to exceed 30 Minutes.
(c)	High MTBF (Mean Time Between Failure)	Not less than 10000 hours for PS, CDU and various sensors.
(d)	Mean Time to Repair (MTTR)	Should not be more than 30 minutes
(e)	Supply of spares/system supportability	For a minimum service life of 15 years
(f)	Fault indication	Fault codes on MMI with suitable visual alarms should be included in system design.
(g)	Details of FDFL (Fault Detection and Fault Localization)	Online and Offline BITE with facility to isolate faults upto LRU level. The defect thus detected during BITE should be visible in Control and Display Unit (CDU) and respective Planetary Subunits (PS).
(h)	Command, Control and Communication (C ³) System	<p>(i) The FWS should be controlled by CDU. The protocols for shifting the Main control between primary and secondary CDU should be defined. This should include the overriding protocols of controls and functionality of the PS and MCP panel as well.</p> <p>(ii) There should be option of giving command from CDU to PS in respective posts/ compartment/ location.</p>



Annexure I to Appendix A
[Refer to Para 3(t) of App A]

REQUIREMENTS OF PAINT SCHEME

1. On completion of satisfactory tests & trials, the equipment is to be duly cleaned, painted and packed prior to dispatch from the manufacturer's works or testing site.
2. **Surface Preservation of Equipment.** The surface preservation of any equipment includes three main activities or processes. These are:-
 - (a) Surface preparation.
 - (b) Application of primer.
 - (c) Application of finishing coat.
3. **Surface Preparation.** Careful surface preparation is a must to ensure proper adhesion of the paint scheme to the surface, which needs to be preserved. All metal surfaces must be clean and free from scale, rust or grease. Details of approved cleaning processes are given in DEF-STAN 03-2. In brief the cleaning process include the following steps:-
 - (a) Removal of corrosion by mechanical (vacuum/abrasive blasting/rotary discs) or hand means (chipping/wire brushing/emery). All surfaces where the thickness is greater than 3 mm, corrosion is to be removed by blasting. In areas where the thickness is less than 3mm or where blasting is not feasible like in corners etc., only mechanical cleaning by chipping/wire brushing followed by emery is to be carried out. Non-ferrous metallic surfaces are to be abraded with emery.
 - (b) Degreasing.
 - (c) Drying.
 - (d) In case of galvanised and phosphate treated steels only degreasing and drying are to be carried out. In the case of non-ferrous metals the surface has to be abraded a second time after degreasing and drying.
4. **Application of Primer.** Primer is the first coat of paint which is applied on a prepared/pre-treated surface which acts as a bond between the metal surface and the finishing coat of the paint scheme. The primer to be applied depends on the type of finishing paint to be used in the paint scheme. The various types of primer to be used are:-
 - (a) Paint RFU priming Zinc Chromate to IS 1874 - All steel surfaces of equipment to be installed in areas other than machinery spaces.
 - (b) Epoxy red oxide primer to NCD 1435 - All steel surfaces of equipment to be installed in machinery spaces.
 - (c) Etch primer to DEF-STAN 80-15 - All non-ferrous metals (including Aluminium) and Stainless Steel.
 - (d) The primer is to be applied within 4 hours of completing the surface preparation. This is essential to prevent formation of rust/accumulation of dust over the surface prior to



application of the primer. Further humidity levels at the time of primer application should not exceed 75% and temperature should not be below 15 degrees centigrade.

5. **Application of Finishing Coat.** The finishing coat of a paint scheme is the actual layer of paint which needs to be selected depending upon the type of surface and type of environment under which the surface needs to be preserved. The various types of finishing paints to be used are:

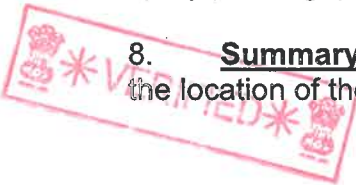
- (a) Paint RFU Finishing Fire Retardant to JSS 3-47-05- All steel surfaces of equipment to be installed in areas of other than machinery spaces and all non-ferrous metals.
- (b) Paint Epoxy Enamel two components glossy to IS 14209 – All steel surfaces of equipment to be installed in machinery spaces.

6. **Precautions.** The following precautions are to be taken while carrying out surface preservation:-

- (a) Care must be taken to avoid damaging plated, anodic coatings, screw threads etc. during cleaning/surface preparation.
- (b) Surface should be absolutely dry before application of the paint scheme.
- (c) The primer is to be applied within 4 hours of completing the surface preparation.
- (d) Inter coat interval not to exceed 16-24 hours.
- (e) The humidity levels at the time of paint application should not exceed 75%.
- (f) The temperature should not be below 15 degrees centigrade at the time of paint application.
- (g) The paint thickness should not exceed the specified limits.

7. Only spray painting is to be carried out wherever possible. Where not possible to carryout spray painting, paint should be applied with wire brush to the desired thickness.

8. **Summary.** The various types of paints to be used depending upon the type of surface and the location of the equipment is summarised in the table below, to serve as ready reference.



Paint Scheme Table

<u>Sl.</u>	<u>Type of Surface</u>	<u>Location of Eqpt</u>	<u>Surface Preparation</u>	<u>Primer</u>	<u>Paint Finishing</u>
1	Steel Substrate	Machinery spaces	>3mm- vacuum/grit blasting or wire brushing where blasting is not possible. < 3mm - Wire brushing/emery, degreasing, drying	Epoxy Red oxide Primer Specification - NCD1435 no. of coats - 2 DFT- 25-30 microns (each coat)	Epoxy Enamel two component glossy specs - IS 14209. No. of coats - 2 (1 base coat + 1 finishing coat) DFT-30 - 40 microns (each coat) The Colour of finishing coat of equipment as Eau-de-Nil (Pista green) - code No. 216 as per IS5.
2.	Steel substrate	Non-machinery spaces	Same as above	RFU priming zinc chromate specs-IS 1874. No of coats -2 DFT-35-40 microns (each coat)	RFU finishing Fire Retardant Specs - JSS 3-47-05. Number of coats - 2 DFT-35-40 microns (each coat) Colour: Machinery - Eau-de-Nil (Pista Green) - Code No. 216 as per IS5 Electrical items-Eau-de-Nil (Pista Green)-Code No. 216 as per IS5 (both inside and outside)
3.	Non-ferrous (including Al & SS)	All spaces	Wire brushing Abrading with emery Degreasing Drying Abrading with emery second time.	Etch primer specs-DEFSTAN 80-15. No of Coats-1. DFT - 10 microns (each coat). RFU priming zinc chromate as above.	RFU finishing Fire Retardant as above.

Annexure II to Appendix A
(Refer to Para 28 of RFP)

SCOPE OF WORK IN SEQUENCE

1. **Field Evaluation Trials (FET)**. Offering of FET to the *IN* team post submission of Techno-commercial bid.
2. **Factory Acceptance Trials (FATs)**. FATs of the system to be offered to the *IN* team at Bidder's site in accordance with the FATs document to the satisfaction of the *IN* team.
3. **Handing Over of System Drawings**. Drawings pertaining to the distribution of the system components in the submarine compartment along with dimensions and mounting requirements, layout of cables and types of connectors are to be handed over to the Naval Dockyard. This is to schedule the scope of work and to manufacture requisites with respect to mounts and stands required to install/ mount the system components. BIDDER representative to be actively involved in this process to ensure and avoid repetitions and reworks.
4. **Joint Receipt Inspection (JRI)**. The BIDDER representative to be present at the *IN* site to undertake JRI.
5. **Pre-Installation Checks of System and Components**. The components are to be inspected, assembled and checked for their correctness of operation. If any component is mal functioning then the same has to be renewed at this stage itself. This is to avoid any rework post fitment onboard.
6. Installation of System, STW, HATs and Commissioning of the Fire Warning System.
7. Training of Crew and the Naval Dockyard Personnel in accordance with the scope as defined in at **Annexure IV to Appendix F**.
8. A total of thirteen sets of documents, each comprising of system drawings, technical document, part identification document, technical specification document with range of acceptance mentioned, Defect Identification and Defect Rectification document etc are to be handed over. One set of document each to be handed over to the respective Ships staff (Seven), respective Naval Dockyard repair agency (Two) and QC agency (Two) in Eastern Command and Western Command and one set of documents to the O/o respective COMCOS/Chief Electrical Officer (CLO) (Two). The details of the same will be elaborated in the contract document.
9. Warranty coverage to the system for 36 months from the date of completion of JRI or 12 Months from the date of commissioning onboard respective submarine, whichever is earlier.



Appendix B
(Refers to Para 27 of RFP)

COMPLIANCE TABLE

**FOR FITMENT OF FIRE WARNING SYSTEM ONBOARD SINDHUGHOSH CLASS
SUBMARINE**

Ser No	Requirement as per the RFP	Compliance/ Partial Compliance	Indicate references of Paras/Sub Paras of the Main Technical Document
General Conditions of RFP (Para 1 to 59 of Part I to Part IV)			
	Indigenous Design (Annexure I to Appendix B refers)		
Technical Parameters as per Appendix A			
	Essential Parameters 'A'		
	Compliance to offering of FET (of work Appendix J refers)		
Commercial Parameters as per RFP			
	Performance – cum – Warranty Bank Guarantee as per Para 2 of Appendix H of RFP		
	Advance Bank Guarantee as per Para 1.4.1 of Appendix H of RFP		



Annexure I to Appendix B
(Refers to Appendix B)

UNDERTAKING TO COMPLY WITH INDIGENOUS DESIGN

We, _____ ("Name of Vendor"), do hereby certify, undertake 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.

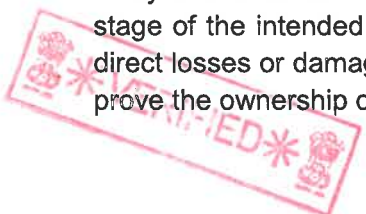
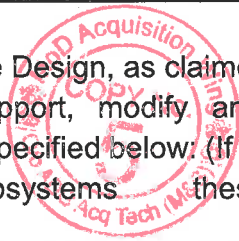
2. Further, we confirm that the Design of the Named Product, as claimed by us, has not been licensed from a foreign third party except for standard software licences such as, but not limited to OS / Database / _____ (Strikeout / Specify as applicable).

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.



WARRANTY CLAUSE

1. The seller warrants that the goods/services with respect to Fire Warning System (FWS) and its associated accessories and spares) supplied under this contract conform to technical specifications prescribed and shall perform according to the said Technical Specifications.
2. The seller warrants for a period of 12 months, from the date of successful installation and commissioning or 36 Months from the date of JRI whichever is earlier, that the goods, stores and services supplied under this contract and each component used in the manufacture thereof should be free from all types of defects / failures (including latent and patent defects).
3. If within the period of warranty, the FWS and its associated accessories and spares are reported by the BUYER to have failed to perform as per the specifications, the SELLER shall either replace or rectify the same free of charge, maximum within 30 days of notification of such defect by the BUYER provided that the goods are used and maintained by the BUYER as per instructions contained in the Operating Manual. Warranty of the equipment would be extended by such duration of downtime. Record of the down time would be maintained by user in log book. Spares and all consumables required for warranty repairs shall be provided free of cost by SELLER. The SELLER also warrants that the special oils and lubricants required for the warranty repair of the equipment shall be provided by the SELLER himself. All activities including diagnosis, rectification, calibration, transportation etc, required for making equipment serviceable and available would be the SELLER's responsibility. The SELLER also undertakes to diagnose, test, adjust, calibrate and repair / replace the goods/ equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the BUYER and the SELLER. The SELLER shall intimate the assignable cause of the failures.
4. SELLER hereby warrants that necessary service and repair back up during the warranty period of the equipment shall be provided by the SELLER and he will ensure that the cumulative downtime period for the equipment does not exceed 10 days of the warranty period.
5. If a particular equipment/goods fails frequently and/or, the cumulative down time exceeds 5 % of the warranty period or a common defect is noticed in more than 10% of the quantity of goods with respect to a particular item/component/sub-component, that complete item/equipment shall be replaced free of cost by the SELLER within a stipulated period of 10 days of receipt of the notification from the BUYER duly modified/upgraded through design improvement in all equipment supplied / yet to be supplied and ESP supplied and yet to be supplied.
6. SELLER shall associate technical personnel of maintenance agency and QA of BUYER during warranty repair and shall provide complete details of defect, reasons and remedial actions for averting recurrence of such defects.
7. In case the complete delivery of Engineering Support Package is delayed beyond the period stipulated in this contract, then the SELLER undertakes that the warranty period for the goods / stores shall be extended to that extent.
8. The SELLER warrants that the FWS and its associated accessories and spares supplied will conform to the Temperature and Humidity conditions as mentioned at **Appendix A** to RFP.



Appendix D
(Refers to Para 6 of RFP)

CRITERIA FOR BIDDER SELECTION / PRE-QUALIFICATION
FOR - RFP ISSUE / INCLUSION IN RFP REQUIREMENTS

Ser	Parameter	<u>For all Cases except Shipbuilding (Ch XII), Make (Ch III & IV) and Strategic Partnerships (Ch VII)</u>
		<i>The procurement case will be earmarked for MSMEs, provided there are at least two or more MSMEs, who qualify Technical Evaluation & Field Evaluation Trials and accordingly the Commercial bids will be opened. Vendors are required to submit their valid MSME certificate along with Technical Bid.</i>
1	Financial	
(a)	Net Worth	Net worth should be positive.
(b)	Insolvency	The entity should not be under insolvency resolution as per IBC at any stage of procurement process from the issuing of RFP to the signing of contract.
2	Technical	
(a)	Nature of Business	Manufacturing entity or System Integrator of defence equipment and not a trading company, except in cases where OEM participates only through its authorised Bidders.
(b)	Experience in related field	Min 02 Yrs. experience in broad areas like manufacturing/ engineering/ electronics/ explosives etc. as applicable in the instant case. If not, then cumulative experience of at least 03 years in above areas, resulting in gaining of competence for manufacturing the proposed product.
(c)	Integration	Since product involves integration, previous experience of not less than one year/ one project in integration of systems/ equipment shall be required.
(d)	Quality Control	As per RFP requirements.
(e)	Others	
	(i) Industrial License	(i) Posses or be in the process of acquiring a license, if the product under project requires license as per DIPP licensing policy.
	(ii) Registration	(ii) Registered for Min 02 Years, 01 years for MSMEs. Minimum number of years not applicable for JVs constituted specifically for a project.

Appendix E
(Refers to Para 33 of RFP)

CERTIFICATE- MALICIOUS CODE

(To be rendered on the company's letter head)

1. This is to certify that the Hardware and the Software being offered, as part of the contract does not contain embedded malicious code that would activate, either instantly or at a designated time or at the confirmation of certain conditions, procedures to:-

- (a) Inhibit the desired and designed function of the equipment.
- (b) Cause physical damage to the user or equipment during the exploitation.
- (c) Tap information resident or transient in the equipment/networks.

2. The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Rights (IPRs) are caused due to activation of any such malicious code in embedded software.

(Signed)

Designation / Name / Address of firm

Date :

Place :

Appendix F

(Refers to Para 35 of RFP)

REPAIR AND MAINTENANCE PHILOSOPHY
PRODUCT SUPPORT

1. **Maintenance Philosophy.** Maintenance of the equipment is structured on three different levels. The Maintenance philosophy can be categorised into 'O', 'I' levels depending upon the technological complexity of the equipment as under:-

(a) **'O' Level.** Includes Unit and Field Repairs (1st & 2nd Level).

(i) **Unit Repairs.** Repairs, carried out within the unit holding the equipment using tools supplied by the manufacturer. These repairs generally pertain to cleaning, lubrications, minor repairs and replacement of components and minor assemblies including Line Replaceable Units (LRUs) etc, carried out without any sophisticated tools or test equipment. The manufacturer is required to provide the following as per provisions in the RFP for carrying out such repairs:-

(aa) Table of Tools and Equipment (TOTE) with each equipment including operators manual.

(ab) Scaling of Special Maintenance Tools (SMT), Special Test Equipment (STE) and Special Equipment (SE) as required.

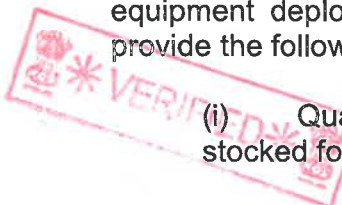
(ii) The manufacturer in addition to the basic unit level SMTs/STEs/SE, is required to provide the following:-

(aa) Quantity and specification of spares up to sub-Module level, other replaceable components that need to be stocked for a specified population and class of the equipment.

(ab) Additional Special Maintenance Tools and Test Equipment needed for each such field/floatilla/station work shop.

(b) **'I' Level.** Includes 3rd level Intermediate Repairs by workshop/Dockyard/Base Repair Depot or other similar service organisation. These are extensive or special repairs carried out to include component level repairs. This level of repair envisages special diagnosis and repairs of the repairable inventory up to Printed Circuit Board (PCB) level, major assemblies, interface equipment/software and other components beyond the scope of field/floatilla/station level repairs. These repairs are carried out in the designated workshops by technicians specially trained for this purpose requiring special tools and spares and the number of such facilities will be stated based on equipment deployment pattern. The manufacturer is required, among others, to provide the following:-

(i) Quantity and specification of spares up to PCB level that need to be stocked for a population of the equipment.



- (ii) Special Maintenance Tools and Test Equipment that has to be provided to each of these workshops.
- (iii) All necessary technical literature.
- (iv) Calibration facilities for test equipment, where applicable.

2. To sustain and support platform/equipment through its operational life-cycle, Product Support requirements for at least 5 years beyond the warranty period will be procured along with the main equipment. The equipment could be provided product support through Engineering Support Package (ESP)

Engineering Support Package (ESP)

3. ESP is the basic engineering support the Seller needs to provide to the Buyer for undertaking essential repairs and maintenance of the equipment during its exploitation. These repairs and maintenance would be in consonance with the Maintenance Philosophy enunciated above. ESP would constitute the following aspects:-

- (a) Spares.
- (b) SMTs/STEs test set-up.
- (c) Technical Documentation.
- (d) Training.

4. **Spares**

(a) **Manufacturers Recommended List of Spares (MRLS)**. This is the list of spares, recommended by the manufacturer, for maintaining operational serviceability of the equipment and sustain it for the period as stipulated in the RFP. Based on the explanation given above, you are requested to provide MRLS to sustain the equipment for a period of 05 years (Onboard Spares (OBS) for two years along with each system fit onboard and B&D spares for five years with respect to seven Fire Warning System) for various levels of repair as per format given at **Annexure I to Appendix F**. You will be required to provide these both with Technical and Commercial proposals Cost of the MRLS, along with likely consumption rate of spares is to be provided with the Technical proposal. The MRLS will be supported by Reliability & Maintainability (R&M) report for the proposed spares along with their Mean Time Between Failure (MTBF). MRLS would be provided separately for each such sub system. In order to prevent manipulation of the quantum of MRLS for commercial competitiveness or overload unnecessary MRLS, 'Adequacy' clause and 'Buy Back' clause will be co-opted in the contract as under: -

- (i) **Adequacy' Clause**. The Bidder will confirm to the Buyer the range and depth of Accompanied Accessories/ User Replaceable Parts/Expendable, Spares and SMT/STE/Test Jigs being supplied are complete and adequate for carrying out repairs on the equipment up to the specified level. Any Bidder found to be providing lesser ESP/MRLS in terms of range and depth will have to make good the deficiency at no extra cost (Para 29 and 37 of RFP refers).

The Bidder will also commit that any additional items, spares, tools and equipment needed for use, maintenance and repair will be supplied by the Bidder at prices and within a period as specified in the contract, on receipt of notification from the Buyer for the Life-Cycle Support period. The Bidder will confirm that, if two different prices have been given for the same/similar item, then the lower price quoted will prevail. In case, the quoted accessories has several items viz, Sampling Accessory Kit and add up price of these items is higher than the quoted price of the accessory, then the price would be lowered / adjusted proportionately for the items.

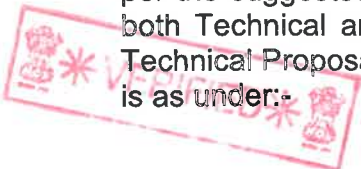
(ii) **'Buy Back' Clause.** The Buyer would have the option to amend the Manufacturer's Recommended List of Spares (MRLS) proposed by the Bidder within a period specified in the contract, post expiry of the warranty period. The Bidder needs to agree to either 'Buy Back' the spares rendered surplus or exchange them on 'cost-to-cost' basis with the spares, as required by the Buyer. The said spares would be purchased / replaced by the Seller, based on the prices negotiated in the contract. The 'Buy Back' clause would not be applicable for additional spares included by the Buyer in MRLS during FET and SE stage, as brought out at Para 29 of RFP.

(b) The spares are required to be categorized in four categories as follows: -

- (i) Manufactured by Bidder as OEM and can be sourced as per Part No.
- (ii) Bought out items and customized by the OEM for the specific purpose and such customization would require OEM intervention.
- (iii) Bought out from other OEMs/Third Party as specialised items and used without any customization. Such items can be sourced by quoting their Part No./Identification No. as given by OEM/Third Party and directly utilised.
- (iv) General Engineering items/COTs which can be sourced by stating the relevant standards and item description.

5. **Special Maintenance Tools / Special Test Equipment and Test Jigs (SMTs/STEs/Test Jigs).** SMTs, STE and Test Jigs are essential tools/Jigs/fixtures required to undertake effective engineering support / repairs on the equipment and its systems, based on the Maintenance Philosophy. This would be formulated in a similar manner as explained for MRLS and details are to be included in both Technical and Commercial Proposals as per suggested format at **Annexure II to Appendix F**. SMTs, STEs and Test Jigs will be provided by the Seller, as per the list prepared by the Buyer on completion of MET, where applicable. The list of equipment required to be supplied will incorporate Adequacy Clause, as elaborated above.

6. **Technical Documentation.** The Bidder will be required to provide the technical literature preferably in IETM (Interactive Electronic Training Manuals) in Level 4 format or higher. The details of technical literature to be supplied with the system should be listed as per the suggested format at **Annexure III to Appendix F**. This should be provided with both Technical and Commercial Proposals. The cost column may be left blank in the Technical Proposal. An illustrated list of documents which may be submitted by the Seller is as under:-



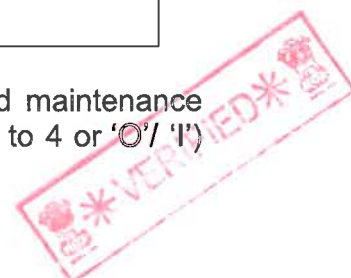
- (a) User Handbook/Operators Manual in English.
- (b) **Technical Manuals.** (as per governing JSG/Guide for other technologies)
- (i) **Part I.** Tech description, specifications, functioning of various systems.
- (ii) **Part II.** Inspection/Maintenance tasks repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STEs).
- (iii) **Part III.** Procedure for assembly/disassembly, repair up to component level, safety precautions.
- (iv) **Part IV.** Part list with drawing reference and List of SMTs/STEs Test Bench.
- (v) Rotable list, norms of consumption, mandatory/ non-mandatory spares list for each system.
- (c) Table of Tools & Equipment (TOTE) & carried spares.
- (d) Complete Equipment Schedule.
- (e) Repair and Servicing schedule.
- (f) Design Specifications.
- (g) Technical Manual on STE with drawing references.
- (h) Condemnation limits.
- (j) Packing specifications /instructions.
- (k) Any additional information suggested by the OEM.

7. **Details of OEMs.** For major / complex equipment, a large number of other OEMs may also be involved in manufacture of various systems/sub systems / support equipment. Details of such OEMs will also be intimated by the Bidder as per table below:-

Table - Format for Submitting Details of OEMs

Ser No	Equipment	Part No	OEM	Contact Details (Tel/Fax/Email)	Details of Government License to OEMs

8. **Training.** A training package for operators, operator trainers and maintenance personnel to undertake operation and maintenance of equipment (level 1 to 4 or 'O' / 'I')



and QA personnel of Naval Dockyards for QC of equipment repairs as stipulated in respective contract (**Annexure IV to Appendix F** refers), along with tools and test jigs training would be required to be carried out in English language. Requirements such as training aids, projection system, complete equipment with accessories, technical literature, spares, test equipment, test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc will be provided by the Seller for the conduct of training. Training should preferably be conducted before the induction of the equipment. The Seller will provide the Operator and Maintenance & Repair training, for the duration, strength and locations specified in the RFP and Contract. These training courses will be held in English and conducted in India. The complete training courses for the Fire Warning System (FWS) covering the under mentioned is to be provided (refer to **Annexure V to Appendix F** for detailed requirement). The following may also be noted:-

- (a) The requirement of training and associated equipment must be clearly specified in Part I and details should be placed as per **Annexure V to Appendix F**.
- (b) The costs for aggregates and training must only be indicated in the commercial proposal.
- (c) **Sufficiency clause** in terms of installation material and spares should also be included.

Miscellaneous Aspects The following may also be noted: -

- (d) **Embedded Software**. The details of systems/subsystems with devices or components having embedded software is to be made available to the Buyer. Details of these modules with resident software, and, part number of memory modules and backup software needs to be delivered. At least two copies of backup software would be required.
- (e) **Operating System and Application Software**. A copy of the operating system and application software [in soft (disc) and hard (binded book)] need to be provided in order to establish back up and repair support for these systems after completion of acceptance trials.

Annexure I to Appendix F
(Refers to Para 4(a) of Appendix F)

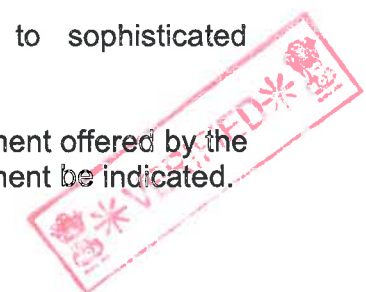
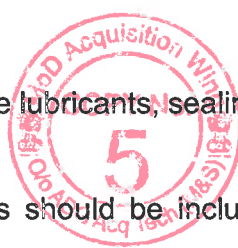
MANUFACTURER'S RECOMMENDED LIST OF SPARES (MRLS)

EQUIPMENT : _____
Original Equipment Manufacturer(OEM) : _____

<u>Ser No.</u>	<u>Manufacturer's Part No</u>	<u>Source of Supply</u>	<u>Nomenclature</u>	<u>Nos fitted in one equipment</u>	<u>Illustrated Spare Part List (ISPL) Reference</u>	<u>Unit cost</u>	<u>Recommended Quantity for 07 Systems for two Years</u>				<u>Total Cost</u>				<u>Remarks</u>
							<u>Unit Repair</u>	<u>Field Repair</u>	<u>Intermediate Repair</u>	<u>Base Repair</u>	<u>Unit Repair</u>	<u>Field Repair</u>	<u>Intermediate Repair</u>	<u>Base Repair</u>	
Total Cost															

Notes: -

1. Maintenance spares/stores like lubricants, sealing compound, gases should be given separately giving source of supply.
2. Spares for component repairs should be included under the column of Dockyard Repair as suggested by OEM.
3. In 'Remarks' column following information (if applicable) be given:-
 - (a) If an item has a shelf/operational life it be marked as 'G' and life indicated
 - (b) Matching set of components be indicated.
 - (c) Item which can be locally manufactured should be marked 'LM'.
 - (d) Items which cannot be manufactured in India due to sophisticated design/technology may be marked as 'SI' special item.
 - (e) If a component/assembly is common to other similar equipment offered by the OEM earlier these should be marked 'CM' and name of the equipment be indicated.



4. MRLS should be drawn out of the 'Part List' of the equipment, which should be separately given as part of Technical Manual Part IV.
5. If the main equipment consists of other equipment then MRLS should be prepared for them under proper heads
6. MRLS be prepared as per the maintenance concept of the customer, **Appendix F** to this RFP.
7. Items provided along with the equipment as spares should also be included in MRLS.
8. Modules/Shop Replaceable Unit (SRU)/assemblies should be listed and their components should be included under them so as to relate each item of spare to their module/SRU/assembly.
9. Complete MRLS should be costed separately for Field, Nodal and Base repairs as it is required to be included as part of 'Total Costed Engineering Support Package' (ESP). OEM may give cost details in confidence to Contract Negotiation Committee (CNC), but other details as above be provided during Maintainability Equipment Trial (MET).
10. MRLS for test equipment should also be provided on the similar format.

Annexure II to Appendix F
(Refers to Para 5 of App F)

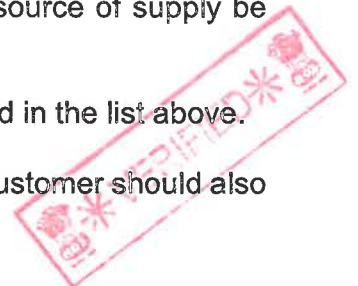
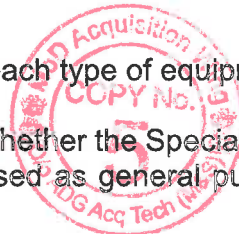
LIST OF SMT/STEs, JIGS, FIXTURE AND INFRASTRUCTURE

Equipment: _____
Original Equipment Manufacturer (OEM): _____

<u>Ser No</u>	<u>Manufacturer's Part No</u>	<u>Designation</u>	<u>Unit Cost</u>	<u>Nos Required</u>		<u>Brief Purpose</u>	<u>Details of SubBidder/ Subcontractor</u>	<u>Remarks</u>
				On board Repair	Dockyard (Base and Depot Repair)			

Notes:-

1. Prepare separate sheet for each type of equipment.
2. Specify in remarks column whether the Special Test Equipment (STE)/Special Maintenance Tools (SMT) can be used as general purpose equipment on any other kind of equipment.
3. For Dockyard (Base) repairs quantity required should be for repair of one equipment at a time.
4. If test equipment is commercially available ex-India, the source of supply be specified.
5. Test equipment for calibrating the STEs should be included in the list above.
6. Test equipment which are required to be provided by the customer should also be included in the list above.



Annexure III to Appendix F
(Refers to Para 6 of App F)

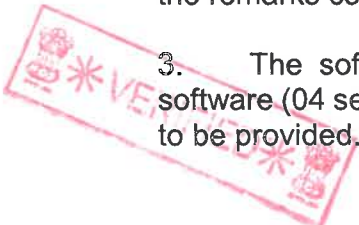
TECHNICAL LITERATURE

Equipment: _____
Original Equipment Manufacturer (OEM): _____

Ser	Technical Literature	Unit Cost	Qty	Total cost	Remarks
1.	User Handbook/operators Manual		13		
2.	Design Specifications		13		
	(The literature is to include component level details/circuit diagrams in order to allow IN Yard level Repair / Maintenance of WES and AHWCS)				
3.	<p>Technical Manual</p> <p>(a) <u>Part I.</u> Tech description, specifications, functioning of various Systems</p> <p>(b) <u>Part II.</u> Inspection/Maintenance tasks Repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STE)s.</p> <p>(c) <u>Part III.</u> Procedure assembly/disassembly, repair up to component level, safety precautions.</p> <p>(d) <u>Part IV</u></p> <p>(i) Part list with drawing reference</p> <p>(ii) List of SMT/STEs with Test Bench</p> <p>(e) Interactive Electronic Technical Manual(IETM)</p> <p>(f) Software tools and documents</p>		13		
4.	Manufacturer's Recommended List of Spares (MRLS)		13		
5.	Illustrated Spare Part list (ISPL)		13		
6.	Technical Manual on STE with drawing reference.		13		
7.	CDs on all the above Tech literature		13		
8.	Any other (specify)				
	Total Cost				

Notes: -

- In case any additional equipment is used their technical literature will be included.
- If certain technical literature is being provided free of cost it should be indicated in the remarks column.
- The soft copy (02 sets) of all of the abovementioned literature and embedded software (04 sets), operating system (04 sets) and all related software (04 sets), should also be provided.



Annexure IV to Appendix F
(Refer to Para 8 of App F)

TRAINING OF CREW, MAINTENANCE PERSONNEL

1. The Bidder would provide the following training to the personnel of the Buyer based on agreed terms of contract details of total training duration, number of trainee, batch size, place of training etc to be included as applicable: -

(a) **Operator Training**. Operator training for 05 working days, for 56 personnel in Seven batches (of each batch consisting of 08 personnel) are to be provided both at Naval Dockyard in Mumbai and Visakhapatnam.

(b) **Repair and Maintenance Course**. Maintenance training for 20 working days, for 60 personnel in four batches at Naval Dockyard in Mumbai and is to be undertaken both for Field and Base level repairs.

(c) The above training should enable the personnel to envisage special diagnosis and repairs of the repairable inventory up to Printed Circuit Board (PCB) level, major assemblies, interface equipment/software and other components that are beyond the scope of field/flotilla/station level repairs.

(d) These repairs will have to be carried out in the designated workshops by technicians specially trained for this purpose requiring special tools and spares and the number of such facilities will be stated based on equipment deployment pattern & maintenance of the complete equipment, Special Maintenance Tool (SMTs) and Special Test Equipment (STEs), test set up, assemblies / sub-assemblies as per the stipulated repair philosophy.

(e) Training for QA personnel of Naval Dockyards for QC of equipment repairs as per scope covered in repair and maintenance course at Para 1(b), (c) and (d) above for 10 personnel in two batches are to be undertaken at Naval Dockyard in Mumbai and Visakhapatnam. Bidder to provide the duration (working days) for training as per defined scope, in the Technical Bid.

(f) Details of training to be imparted to the personnel: -

<u>Ser</u>	<u>Personnel</u>	<u>No. of Personnel/ batch</u>	<u>No of batches</u>	<u>No of working Days/batch</u>	<u>Remarks</u>
(i)	Operator Training to Ships Staff & Squadron staff	08	07	05	Training to be imparted at Naval Dockyard (Mumbai) and Naval Dockyard (Visakhapatnam).
(ii)	Maintenance Training to Yard Personnel	15	04	20	

Annexure V to Appendix F
(Refer to Para 8 of App F)

TRAINING AGGREGATE

EQUIPMENT: _____ OEM: _____

Ser	Description of Training Aggregate	Scale for (qty) Eqpt	Unit Cost	Total cost	Remarks
1.	Complete Equipment				
2.	Sectionised Equipment				
3.	Shop Replaceable Units (SRU)/PCB/Modules/Assemblies as under: (a) (b) (c)				
4.	Computer based training package based on interactive multimedia to include (a) Full graphics, animation, text and sound (b) Symptoms-fault correlation (expert system).				
5.	Training Aids to include (a) Charts (b) Slides (c) Training Brochures (d) Training Work models (e) Blow up diagram (f) Video films				
6.	Cost of training operators and technicians in country of OEM				
7.	Any other				

Total Cost:

TRIAL METHODOLOGY

FIELD EVALUATION TRIALS (FET) OF FWS

1. The validation methods have been categorized as under:-

Ser	Nomenclature	Detail	Remarks
(a)	T1	Live demonstration	Trials/ Checks to be conducted at test site.
(b)	T2	Documentation	Suitable documentation by OEM.
(c)	T3	Certification	Suitable Third party certification.

2. Vendors are required to submit suitable documents for Parameters which are being validated by documentation/ certification in the table below along with the Technical Offer, in accordance with Para 65/ Chapter II of DAP 2020.

(a) **Scope.** The Scope of this document is to ascertain the firm's technical capability to manufacture Fire Warning System (FWS) for Sindhughosh Class submarine by undertaking Field Evaluation Trials of FWS on site. The FET will involve both documentation and Trials carried out on the system shall evaluate the sensors and documentation and certificates with respect to the other components of the system.

(b) **System Overview.** The proposed FWS is to complete of the following minimum hardware:

Ser	Description	Range / Remarks	Documentation/ Certification / Demonstration
(i)	Schematic diagram	Schematic of the FWS to be installed onboard Sindhughosh Class submarine	T2
(ii)	Control and Display Unit (CDU).	This unit shall reside in the Control Room. (aa) The CDU should comprise of a display of adequate size so that the user is able to clearly monitor and take action on the fire warning/alarms generated. (ab) Indication of all the sensors that are installed as part of the system are to be available in the CDU. (ac) CDU should be able to communicate with all PS. (ad) CDU should be able to override PS commands. (ae) CDU should have visual and audio alarm.	(aa) T2 (ab) T2 (ac) T2 (ad) T2 (ae) T2

<u>Ser</u>	<u>Description</u>	<u>Range / Remarks</u>	<u>Documentation/ Certification / Demonstration</u>
(iii)	Planetary Subunits (PS).	(aa) These subunits shall reside in the compartments for indication and action. (ab) The PS should be able to show the status of self-compartment. (ac) Should have visual and audio alarm. (ad) The PS should have facility to receive indication of call from adjacent compartment MCP.	(aa) T2 (ab) T2 (ac) T2 (ad) T2
(iv)	Manual Call points (MCP)	(aa) A minimum of one Manual Call Point (MCP) in each compartment, in case the sensors fail to detect the fire. (ab) MCP are to raise manual alarm and should have two way communication with the CDU and adjacent compartment PS	(aa) T2 (ab) T2
(v)	Various Sensors	The compartments will house various types of sensors. During evaluation, all sensors are to be tested evaluated.	
		(aa) Sensor & Power supply	T2 and T3
		(ab) IR-UV	T2 and T3
		(ac) Heat / Temperature sensor (i) At minimum temperature $\geq 50^{\circ}\text{C}$ warning signal to be activated. (ii) At minimum temperature $\geq 65^{\circ}\text{C}$ alarm should be activated	T1
		(ad) Rate of temperature rise sensor 6.7°C to 8.3°C per minute	T1
		(ae) Motion sensor. Motion Sensors should detect human activity within the compartment during fire hazard. The same to be notified to the watch keeper so that appropriate action can be taken.	T1
		(af) Pressure sensor (ag) Smoke sensor	T2 and T3 T1
(vi)	Power Supply Unit (PSU).	All of the above needs to be powered through a PSU. Ship supply provided shall be 220V AC 50Hz or 24V DC as alternate. The PSU is responsible to convert and provide the required power supply to the above equipment/sensors.	T2
(vii)	Backup Emergency Supply	In-built battery backup/ UPS (04 hours endurance) be incorporated in the system to ensure availability of the system in case of total power failure.	T2 and T3
(viii)	Degree of Protection	IP 65 (Terminal Box Enclosure).	T2 and T3
(ix)	Earth Protection	External earthing.	T2 and T3
(x)	EMI/EMC compliance	As per MILSTD 461G.	T2 and T3

<u>Ser</u>	<u>Description</u>	<u>Range / Remarks</u>	<u>Documentation/ Certification / Demonstration</u>
(xi)	Cable / Cable Gland Details (Type/ Size /No. of cores)	ATEX graded cables and cable glands	T1, T2 and T3
(xii)	Lifting Arrangement	Enclosures (Panels) to be provided with provision to lift (eyebolt securing arrangement with eyebolt).	T2 and T3
(xiii)	Certification of Confirmation of Painting to be submitted	<p>(aa) Steel Surfaces to be cleaned to bare metal by grit blasting/wire brushing.</p> <p>(ab) Immediately after surface preparation apply two coats of paint Ready for Use (RFU) priming zinc chromate as per IS 1874. Dry Film Thickness (DFT) of each coat is 35-40 microns.</p> <p>(ac) Apply two coats of RFU finishing Fire retardant, as per JSS-3-47-05. Each coat 35-40 microns. The colour of the finishing coat of the equipment as Eau-de-Nil code no.216 as per IS 5. (Appendix A refers).</p>	T2 and T3
(xiv)	Evaluation and Testing	<p>(aa) The sensors are to be mounted at different locations.</p> <p>(ab) The sensors are to be energised with requisite power supply (127V 50Hz Single Phase or 270-320 V DC).</p> <p>(ac) Sensor to activate in accordance with specifications at Appendix A.</p>	T1



COMMERCIAL CLAUSES

1. **Payment Terms**

1.1 **INCOTERMS for Delivery.** The delivery of goods (Fire Warning System and all associated items as per contract) will be based on DDP INCOTERM-2020 with ultimate consignee as Material Organisation - MO(Mbi) and MO(Vzg).

1.2 **Currency of Payment**

1.2.1 Indian bidders should submit their bids in Indian Rupees. All payments will be paid to the Bidder in Indian Rupees.

1.3 **Contract Price and Requirement of Bank Guarantees**

1.3.1. **Total Contract Price.** The Total Contract Price will be the final price negotiated by CNC including taxes and duties applicable at the time of signing of Contract.

1.3.2 **Base Contract Price.** The Base Contract Price will be considered as Total Contract Price excluding taxes and duties applicable at the time of signing of Contract.

1.3.3 **Bank Guarantee(s).** For the purpose of payment of Advances to the Bidder and submission of various Bank Guarantees by the Bidder i.e Advance Payment Bank Guarantee (APBG), Base Contract price will be considered. For Performance cum Warranty Bank Guarantee (PWBG), Total Contract Price including taxes and duties is to be considered.

1.3.4 All Bank Guarantee(s) requirements viz Advance Payment Bank Guarantee (APBG), Performance-cum-Warranty Bank Guarantee (PWBG), Additional Bank Guarantee (ABG), Performance Bank Guarantee (PBG) etc are to be submitted as per following:-

1.3.4.1 **Indian Bidder.** In case of Indian Bidders, the Bank Guarantee(s) shall be from any Indian Public or Private Scheduled Commercial Bank.

1.4 **Payment.** The schedule for payments will be based on the Buyers requirements, enumerated at succeeding Paragraphs. The summary of delivery schedule, payments to be made and schedule of submission/release of Advance Bank guarantee (s), as applicable, is specified at **Annexure IV to Appendix H.**

1.4.1. **Advance Payment.** Fifteen (15%) of the Base Contract Price shall be paid within thirty (30) days of submission of claim and a Bank Guarantee for the equivalent amount, subject to correction and acceptability of the documents submitted. The prescribed format of the Advance Payment Bank Guarantee (APBG) is placed at **Annexure I to Appendix H.** The Advance Payment Bank Guarantee (APBG) will deemed to be proportionately and automatically reduced until full extinction along with and prorate to value of each delivery, as evidenced by corresponding copy of document proving delivery and invoices of goods/services supplied/provided. The date of delivery would be reckoned from the date

of release of Advance payment by the Buyer to the Seller (T₀), provided the Seller submits the documents mandated by the DAP for release of advance by the Buyer within 45 days of signing of contract. In the event of the Seller not submitting the said document within 45 days of signing of contract, the period between the 45th day and actual submission of documents will be excluded from the actual date of advance payment to arrive at the delivery date. In case, no advance is to be paid, the date for reckoning date of delivery would be the date of signing of contract.

1.4.2. On Delivery of First System. 10% of the Total Contract Price of deliverables shall be paid on successful completion of following: -

1.4.2.1. JRI of First (1st) Fire Warning System.

1.4.2.2. Training to Yard personnel and QA personnel (Refer to **Annexure IV to Appendix F**) at Naval Dockyard (Mumbai/Visakhapatnam) wherein the FIRST FWS is delivered.

1.4.3. On Delivery of 2nd, 3rd & 4th System. 27% of the Total Contract Price of deliverables shall be paid on successful completion of following: -

1.4.3.1 JRI of Second, Third and Fourth Fire Warning System.

1.4.3.2 Training to Yard and QA personnel (Refer to **Annexure IV to Appendix F**) at Naval Dockyard (Mumbai/Visakhapatnam), if not conducted during delivery of first FWS.

1.4.4. On Delivery of 5th, 6th & 7th System. 27% of the Total Contract Price of deliverables shall be paid on successful completion following: -

1.4.4.1 JRI of Fifth, Sixth and Seventh Fire Warning System.

1.4.4.2 Training to Yard and QA personnel (Refer to **Annexure IV to Appendix F**) at Naval Dockyard (Mumbai/Visakhapatnam), if not conducted during delivery of first FWS.

1.4.5. On installation of Individual System. 3% of the Total Contract Price will be paid to the Bidder on successful installation, STW, HATs, Training to the crew of respective submarine (05 personnel) as per **Annexure IV to Appendix F** and commissioning of **each** FWS onboard submarine amounting to 21% of the Total Contract Price.

1.4.6. The mode of payment shall be through DBT, the payment shall be made within thirty (30) days of receipt of Original Invoice along with documents mentioned at **Para 1.4.7** for claiming respective stage's final payment. post successful completion of HATs and training and Certified Receipt Voucher (CRV) issued by the Buyer and other relevant documents as mentioned above for final payment, but such payments will be subject to the deductions of such amounts as the Seller may be liable to pay under the agreed terms of the Contract. This mode will be followed and will be applicable for all the seven Fire Warning Systems (FWS) that are to be installed and commissioned with STW, HATs and training to the crew, yard personnel and QA personnel.

1.4.7. Documents that are to be forwarded along with Original Invoice for each payment respectively are tabulated.

<u>Ser</u>	<u>Document</u>	<u>Details of stages where required</u>	<u>Reference</u>
(a)	Ink-signed copy of Commercial invoice (Three copies)	For all payments	All stages
(b)	Ink-signed copy of Seller's bill (Three Copies).	For all payments	All stages
(c)	JRI certificate/ CRV Certificate (Three Copies).	For all seven FWS systems	1 st , 2 nd , 3 rd stage
(d)	HATs completion Certificate and Commissioning letter (as applicable) (Two Copies)	For all seven FWS systems	4 th stage for individual systems
(e)	Training Completion letter	(i) Individual certificate for completion of training to all seven batches of Ships staff. (ii) Individual certificate for completion of training to four batches of Yard personnel (Two batches each at Eastern Naval Command and Western Naval Command). (iii) Individual certificate for completion of training to two batches of QA personnel (One batch each at Eastern Naval Command and Western Naval Command).	1 st , 2 nd & 3 rd stage (as applicable) Annexure IV to Appendix F
(f)	Packing List.	Along with the FWS systems	1 st , 2 nd , 3 rd stage
(g)	Certificate of Origin	As applicable	1 st , 2 nd , 3 rd stage
(h)	Claim for statutory and other levies to be supported with requisite documents/GST invoice (with QR code, when made applicable)/proof of payment, as applicable.		1 st , 2 nd , 3 rd stage
(j)	Exemption certificate for taxes/duties	If Applicable	If Applicable
(k)	Warranty certificate from the SELLER along with each System.	Along with all the Seven systems individually.	1 st , 2 nd , 3 rd stage
(l)	Preservation certificate with validity of four years along with each system.	Along with all the Seven systems individually.	1 st , 2 nd , 3 rd stage

1.4.8. **Payment of Taxes and Duties.** Payment of taxes, duties and statutory levies will be made on submission of requisite documentary proof to Paying authority. Reimbursement of taxes and duties will be as per rates and amounts indicated in the commercial bid/contract or as per actuals whichever is lower.

1.4.9. **Exchange Rate Variation.** Exchange Rate variation shall be applicable for Rupee contracts with Indian Bidders, based on RFPs issued under all categories of capital acquisitions mentioned at Para 6 to 11 of Chapter I of DAP. The indigenous & import

components as also the various currencies (of the import components) for ERV purposes, must be determined in advance. The guidelines on protection of Exchange Rate Variation are given at **Annexure V to Appendix H**.

2. **Performance-cum-Warranty Guarantee Clause.** A Performance-cum-Warranty Bank Guarantee (PWBG) of 5% of value of the Total Contract Price including taxes and duties would be furnished by the Bidder in the form of a Bank Guarantee to sequentially act as Performance Bank guarantee till the delivery and as Warranty Bank Guarantee on delivery. The PWBG shall be submitted by the Bidder within one month of signing of contract and shall be valid for a period, until three months beyond the warranty period, as specified in the RFP. If at any stage, the Performance Guarantee is invoked by the Buyer either in full or in part, the Bidder shall make good the shortfall in PWBG within 30 days by an additional Bank Guarantee for equivalent amount. In the event of failure to submit the required Bank Guarantee against invoked Performance Guarantee, equivalent amount will be withheld from the next stage payment till the shortfall in the Bank Guarantee is made good by the Bidder. The prescribed format of the Performance-cum-Warranty Bank Guarantee is placed at **Annexure II to Appendix H**.

3. **Inspection.** Pre Dispatch Inspection (PDI) would be at the discretion of the Buyer. In addition Joint Receipt Inspection (JRI) shall be carried out. If it is PDI, the Bidder should intimate at least 45 days prior to the day when the equipment is to be offered for PDI to enable Buyer's QA personnel to be available for inspection. All the expenses towards PDI will be borne by the Bidder except transportation and accommodation of Buyer's PDI team, which will be deputed at Buyer's expense. In case of rejection of Goods during PDI, re-PDI will be undertaken at Bidder's premises at Buyer's sole discretion. All expenses including transportation and accommodation of Buyer's PDI team will be borne by the Bidder. Towards this, the expenses towards transportation and accommodation of Buyer's PDI team will be initially done by the Buyer and subsequently reimbursed by the Bidder either by remittance or by recovery from the Balance Payment/PWBG. In the event of a failed PDI, the Bidder shall consult the Buyer for rescheduling re-PDI. In case of JRI, the representative of the Seller may be present for inspection after the equipment reaches the concerned destination. The Seller would be informed of the date for JRI.

4. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct trials, installation of equipment, training and MET as per schedule specified in this contract, the BUYER may, at his discretion withhold cost of the specific lot/batch or 1% of the Project cost, whichever is higher, until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of **1/100 of the delay percentage** {Delay percentage = (Period of Delay in Delivery in Weeks) x 100 / (Delivery Period in weeks as per contract)} of the Base Contract Price of the delayed/ undelivered stores/ services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than **10%** of the contract price of the value of delayed stores/ services (Any extension given by the Buyer for delay attributable to Buyer or Force Majeure Clause to be factored in delivery period).

5. **Denial Clause.** In case the delay in delivery is attributable to the Seller or a non-force majeure event, the Buyer may protect himself against extra expenditure during the extended period by stipulating a denial clause (over and above levy of LD) in the letter informing the Seller of extension of the delivery period. In the denial clause, any increase in statutory duties and/or upward rise in prices due to the Price Variation Clause (PVC) and/or any adverse fluctuation in foreign exchange are to be borne by the Seller during the extended delivery period, while the Buyer reserves his right to get any benefit of downward revisions in statutory duties, PVC and foreign exchange rate. Thus, PVC, other variations and foreign exchange clauses operate only during the original delivery period. The format for extension of delivery period/performance notice under the Denial clause is at **Annexure III to Appendix H**.

Annexure I to Appendix H
(Refers to Para 1.4.1 of **Appendix H**)

BANK GUARANTEE FORMAT FOR ADVANCE

To

The _____
Ministry of _____
Government of India
_____ (complete postal address of the beneficiary)

1. "Whereas President of India represented by the _____ Ministry of _____ Government of India (hereinafter referred to as BUYER) have entered into a Contract No. _____ Dated _____ with M/s _____ (Name of SELLER) (referred to as SELLER) and whereas according to the said Contract the BUYER has undertaken to make an advance payment of ₹ _____ being payment of _____% of the total value of ₹ of the said Contract, against issuance of an advance guarantee by a bank."

2. We _____ (indicate the name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the BUYER intimating that the SELLER is in breach of the Contractual obligations stipulated in the said Contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our total liability under this guarantee shall be restricted to an amount not exceeding ₹ _____.

3. We undertake to pay to the BUYER any money so demanded notwithstanding any dispute or disputes raised by the SELLER in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the SELLER shall have no claim against us for making such payment.

4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the BUYER under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged or till _____ office/ Department /Ministry of _____ certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said SELLER and accordingly discharges this guarantee

5. We, further agree with the BUYER that the BUYER shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said SELLER from time to time or to postpone for any time or from time to time any of the powers exercisable by the BUYER against the said SELLER and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, Amendment issued vide MoD ID No. 4(50)/D(Acq)/08 dated 20.06.2016 or extension being granted to the said SELLER or for any forbearance, act or omission on the part of the BUYER or indulgence by the BUYER to the said SELLER or by any such matter or thing whatsoever which under law relating to sureties would, but for this provision, have effect of so relieving us.

6. The amount of this guarantee will be progressively reduced by (percentage of advance) _____ of total value of each part shipment/services against the stage payment released by the BUYER for that shipment/services made by the SELLER and presentation to us of the payment documents.
7. This guarantee will not be discharged due to the change in the constitution of the bank or the BUYER/SELLER.
8. We, undertake not to revoke this guarantee during the currency except with the previous consent of the BUYER in writing.
9. Notwithstanding anything contained herein above:-
- (a) Our liability under this Guarantee shall not exceed ₹ _____
(in words) _____.
- (b) This Bank Guarantee shall remain valid until ____ (hereinafter the expiry date of this guarantee) the Bank Guarantee will cease to be valid after _____ irrespective whether the Original Guarantee is returned to us or not.
- (c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before _____ (Expiry Date).

Dated the _____ day of _____ (month and year)

Place :

Signed and delivered by _____ (Name of the bank)

Through its authorised signatory

(Signature with seal)

Annexure II to Appendix H
(Refers to Para 2 of Appendix H)

BANK GUARANTEE FORMAT FOR PERFORMANCE - CUM - WARRANTY

To

The _____
Ministry of _____
Government of India
_____ (complete postal address of the beneficiary)

Dear Sir,

1. Whereas President of India represented by the _____ Ministry of _____ Government of India (hereinafter referred to as BUYER) have entered into a Contract No. dated _____ (hereinafter referred to as the said Contract) with M/s. _____ (hereinafter referred to as the SELLER) for supply of goods as per Contract to the said BUYER and whereas the SELLER has undertaken to produce a bank guarantee amounting to ₹ _____ which is 5% of the Total Contract Price (including taxes and duties) to cover 5% of Total Contract Price (including taxes and duties) each for Performance and Warranty in sequence, to secure its obligations towards Performance-cum- Warranty to the BUYERS.

2. We, the _____ bank hereby expressly, irrevocably and unreservedly undertake the guarantee as principal obligors on behalf the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/failure to perform by the said SELLER of any of the terms and conditions in the Contract related to Performance and Warranty clauses, we will pay you, on demand and without demur, all and any sum up to {5% of Total Contract Price (including taxes and duties)} _____ ₹ only at any instance under this Guarantee. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said Contract. We shall not be entitled to ask you to establish your claim or claims under this guarantee but will pay the same forthwith without any protest or demur. We undertake to effect payment upon receipt of such written demand.

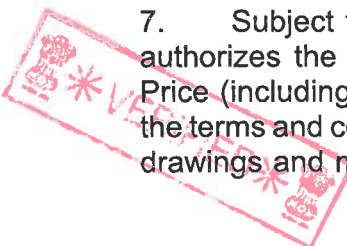
3. We shall not be discharged or released from the undertaking and guarantee by any arrangements, variations made between you and the SELLER, indulgence to the SELLER by you, or by any alterations in the obligations of the SELLER or by any forbearance whether as to payment, time performance or otherwise.

4. We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute or controversy that may exist or arise between you and the SELLER or any other person.

5. In no case shall the amount of this guarantee be increased.

6. This Performance-cum-Warranty guarantee shall remain valid for a period until three months beyond the warranty period as specified in the Contract i.e. up to _____.

7. Subject to the terms of this Bank Guarantee, the issuing bank hereby irrevocably authorizes the beneficiary to draw the amount of up to ₹ _____ {5% of Total Contract Price (including taxes and duties)} for breach/failure to perform by the SELLER of any of the terms and conditions of the Contract related to performance and warranty clause. Partial drawings and multiple drawings under this Bank Guarantee are allowed within the above



stated cumulative amount subject to each such drawing not exceeding 5% of the Total Contract Price (including taxes and duties) (₹_____only) (Mention BG amount).

8. This guarantee shall be continuing guarantee and shall not be discharged by any change in the constitution of the Bank or in the constitution of M/s_____. We undertake not to revoke this guarantee during the currency except with previous consent of BUYER in writing.

9. Notwithstanding anything contained herein above:

(a) Our liability under this Guarantee shall not exceed ₹_____ (Rupees _____only (in words)).

(b) This Bank Guarantee shall remain valid until 3 months from the date of expiry of warranty period of the Contract, i.e up to_____ (mention the date) which is 3 months after expiry of the warranty period and the BG shall cease to be valid after _____irrespective whether the Original Guarantee is returned to us or not.

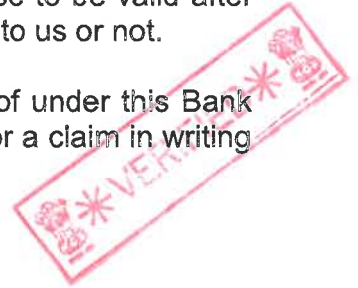
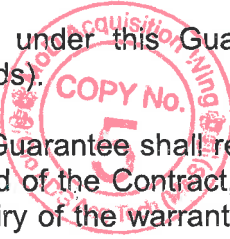
(c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before _____ (Expiry Date).

Dated the _____ day of _____ (month and year)

Place :

Signed and delivered by _____ (name of the bank)

Through its authorised signatory
(Signature with seal)



Annexure III to Appendix H
(Refers to Para 5 of Appendix H)

FORMAT FOR EXTENSION OF DELIVERY PERIOD/PERFORMANCE NOTICE

Name of the Procuring Entity..... Extension of Delivery
 Period/Performance Notice

To

M/s (name and address of firm)

Sub: Contract No..... dated.....for the supply of.....

Ref: Your letter no. dated:

Dear Sir,

7. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In your letter under reply you have asked for [further] extension of time for delivery. In view of the circumstances stated in your said letter, the time for delivery is extended from (fill in date) to (fill in date).

8. Please note that notwithstanding the grant of this extension in terms of Clause (fill in clause number) of the subject contract an amount equivalent to % (..... per cent) of the delivered price of the delayed goods for each week of delay or part thereof (subject to the ceiling as provided in the aforesaid clause) beyond the original contract delivery date/the last unconditionally re-fixed delivery date (as & if applicable), viz., (fill in date) will be recovered from you as liquidated damages. You may now tender the Stores for inspection [balance of the Stores] in terms of this letter. Stores if any already tendered by you for inspection but not inspected will be now inspected accordingly.

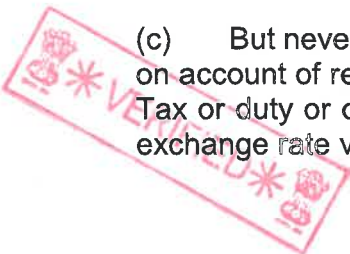
9. You are also required to extend the validity period of the performance guarantee for the subject contract from (fill in present validity date) to (fill in required extended date) within 15 (fifteen) days of issue of this amendment letter.

10. The above extension of delivery date will also be subject to the following Denial Clause:-

(a) That no increases in price on account of any statutory increase in or fresh Imposition of customs duty, GST or on account of any other taxes/duty, including custom duty, leviable in respect of the Stores specified in the said contract which takes place after (insert the original delivery date) shall be admissible on such of the said Stores, as are delivered after the said date; and,

(b) That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after (insert the reckoning date as per DAP 2020) shall be admissible on such of the said Stores as are delivered after the said date.

(c) But nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, GST or on account of any other Tax or duty or on any other ground as stipulated in the price variation clause or foreign exchange rate variation which takes place after (insert the original delivery date).



11. All other terms and conditions of the contract remain unaltered. This is without any prejudice to Buyer's rights under the terms and conditions of the subject contract.

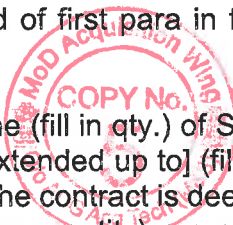
12. Please intimate your unconditional acceptance of this amendment letter within 10 (ten) days of the issue of this letter failing which the contract will be cancelled at your risk and expense without any further reference to you.

Yours faithfully,
(Authorised Officer)
Duly authorised,
for and on behalf of
The President of India

Note: Select one option within { } brackets; delete portion within [] brackets, if not applicable; fill in () brackets. Brackets and this note are not to be typed.

Substitute following first para instead of first para in format above, for issuing a performance notice.

1. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In spite of the fact that the time of delivery of the goods stipulated in the contract is deemed to be of the essence of the contract, it appears that (fill in the outstanding quantity) are still outstanding even though the date of delivery has expired. Although not bound to do so, the time for delivery is extended from (fill in date) to (fill in date) and you are requested to note that in the event of your failure to deliver the goods within the delivery period as hereby extended, the contract shall be cancelled for the outstanding goods at your risk and cost.



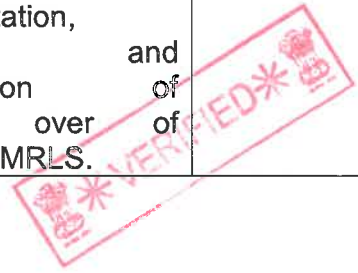
Annexure IV to Appendix H
(Refers to Para 1.4 of Appendix H)

DELIVERY SCHEDULE AND STAGES OF PAYMENT

1. The terms of payment may vary between each project depending upon a variety of factors such as complexity of equipment/system, requirement of validation trials for establishing 'proof of concept', delivery period, integration requirements etc. However, some broad guidelines for payments terms are appended below: -

Ser	Activity	Delivery Timelines (T ₀ + Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(a)	Signing of contract				
(b)	Release of advance payment to the firm	T ₀	15% of the Base contract price	APBG of equivalent amount to be submitted	On submission of documents as per Para 1.4.1 of Appendix H
(c)	On Delivery of 1 st FWS system and associated spares including documentation & Training of Yard personnel and QA personnel	T ₀ + 10 Months	10% of the Total contract Price		
(d)	On Delivery of 2 nd , 3 rd & 4 th FWS systems and associated spares including documentation & Training of Yard and QA personnel.	T ₀ + 14 Months	27% of the Total contract Price		
(e)	On Delivery of 5 th , 6 th & 7 th FWS systems and associated spares including documentation & Training of Yard and QA personnel.	T ₀ + 16 Months	27% of the Total contract Price	APBG is to be returned on completion of delivery of all FWS system (and associated MRLS spares, installation spares) documentation, training and on commissioning of the FWS individually on each submarine totaling to seven submarines.	APBG will be divided into seven equal parts wherein each part will be returned to the Bidder on completion of commissioning of each FWS onboard submarine.

Ser	Activity	Delivery Timelines (T ₀ + Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(f)	On Installation, STW, Commissioning and Final Acceptance and completion of delivery of documentation, training and confirmation of handing over of complete MRLS.		3% of the Total contract Price per FWS system amounting to 21% in total for seven FWS.	APBG is to be returned on pro-rata basis as per successful installation and commissioning including STW, HATs and training of Fire Warning System (FWS) along with documentation, training and confirmation of handing over of complete MRLS.	



Annexure V to Appendix H
(Refers to Para 1.4.9 of Appendix H)

GUIDELINES OF PROTECTION OF EXCHANGE RATE VARIATION IN CONTRACTS

1. Parameters to be kept in view while formulation ERV Clause.
- (a) In contracts with Indian Vendors in all categories of capital acquisitions where there is an import content, ERV clause will be provided. However, ERV clause shall not be applicable to contracts in following conditions:-
- (i) The delivery period is less than one year; or
- (ii) The rate of exchange variation is within the band of +/- 2.5%.
- (b) ERV clause will be framed according to the specific requirements of the contract. While calling for information at the RFP stage/formulation of ERV clauses in the contracts, the following factors are to be taken into consideration depending upon the requirements of the individual contracts:-
- (i) Year wise and major currency wise import break up is to be indicated.
- (ii) Detailed time schedule for procurement of imported material/Services and their value at the FE rates adopted for the contract is to be furnished by the vendor as per the format given below:-
- | Year | Total cost of imported material/ services (in Rupees) | FE content-out flow (equivalent in ₹ Rupees) | | | |
|------|---|--|------------------|-------------------|--|
| | | Dollar Denominated | Euro Denominated | Pound Denominated | Other Currencies Denominated (as applicable) |
| | | | | | |
- (iii) ERV clause will not be applicable in case delivery periods for imported content are subsequently to be refixed/extended unless the reasons for delivery period extension are attributable to the buyer.
- (iv) For purposes of ensuring uniformity, the Base Exchange Rate on the ERV reckoning date will be adopted for each of the major foreign currencies. The Base Exchange Rate will be the BC Selling Rate of the Parliament Street Branch of State Bank of India, New Delhi. The ERV reckoning date will be the last date of submission of commercial bids as per RFP. In cases where Option Clause is exercised, the date of reckoning of ERV will be the last date of submission of bids for the RFP of the Original Procurement Case.
- (v) ERV clause in the contract is to clearly indicate that ERV is payable/refundable depending upon exchange rate as prevalent on the date of transaction with reference to Base Exchange Rate on the ERV reckoning date.
- (vi) Other issues which are peculiar to the contract.

2. **Methodology For Claiming ERV.** "The prices finalised in the contract are based on the base exchange rates indicated in the contract. The year-wise amount of foreign exchange component of the imported items as indicated in the contract shall be adjusted for the impact of exchange Rate Variation of the Rupee based on the exchange rate prevailing on the date of each transaction, as notified by the SBI, Parliament Street Branch, New Delhi. The impact of notified Exchange Rate Variation shall be computed on an yearly basis for the outflow as tabulated in Annexure..... (The table at Para 1(b) (ii) is to be an Annexure to the contract) and shall be paid/refunded before the end of the financial year based on the certification of Finance Head of the concerned Division.....".

3. Paying authority is to undertake a pre-audit of the documents before payment.

4. **Documentation for Claiming ERV.** The following documents would need to be submitted in support of the claim on account of ERV:

- (a) A bill of ERV claim enclosing worksheet.
- (b) Banker's Certificate/debit advice detailing Foreign Exchange paid and Exchange rate as on date of transaction.
- (c) Copies of import orders placed on the suppliers.
- (d) Invoice of supplier for the relevant import orders.

Appendix J

(Refers to Para 11, 59 of RFP)

EVALUATION CRITERIA AND PRICE BID FORMAT**1. Evaluation Criteria.** The guidelines for evaluation of Bids will be as follows:-

1.1. Only those Bids will be evaluated, which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially. The bidder, whose price is arrived as lowest as per Evaluation criteria given in this Appendix, will be declared as L-1 bidder by Buyer.

1.2. Custom duty on input materials shall not be loaded by the Indian Bidders in their price bids, if they are exempted under the existing Notifications. In such cases, necessary Custom Duty Exemption Certificate (CDEC) shall be issued by the Buyer. In cases where Custom Duty is not exempted, Basic Custom Duty on input material is to be included in the cost of Basic Equipment, Installation/ Commissioning/ Integration, MRLS, SMT, STE and any other item listed at Column (ii) of Para 2 below.

1.3. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected based on indicative rates of taxes and duties at columns (vi) and (vii) of Para 2 below. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.

2. Price Bid Format. The Price Bid Format is given below and Bidders are required to fill this correctly with full details. No column of the Bid format has to be left blank. The clubbing of serials/sub serials to indicate a consolidated cost is not acceptable. Columns of 'quantity', 'unit cost', 'total cost (including all taxes and duties)', 'GST/IGST (%) and Custom Duty (%) are to be filled up with '0', 'positive numerical values' or 'Not Applicable' at every row as applicable. If any column is not applicable and intentionally left blank, the reason for the same has to be clearly indicated in the remarks column.

Ser	Items	Qty	Unit Cost	Total Cost (iii)x(iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v)+(vi)+(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
(A)	Cost of Basic Equipment. Full break-up details may be given.							
(B)	Cost of Installation / Commissioning/ Integration							

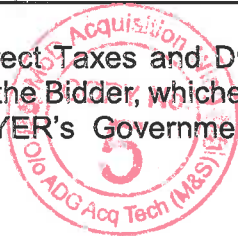
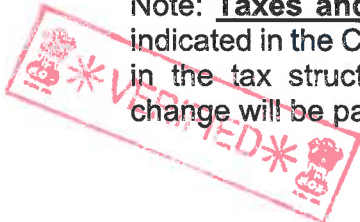
Ser	Items	Qty	Unit Cost	Total Cost (iii)x(iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v)+(vi)+(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
	(where applicable)							
(C)	Cost of Manufacturer's Recommended List of Spares (OBS and B&D spares) as per the format given at Annexure I to Appendix F. in case equipment is already in usage, the spare parts requirement must be specific rather than being based on MRLS.							
(D)	Cost of Special Maintenance Tools and Special Test Equipment as per format given at Annexure II to Appendix F.							
(E)	Cost of Operator's Manual and Technical Literature (in English Language) including Illustrated Spare Parts List as per Annexure III to Appendix F.							
(F)	Cost of Training Aids such as simulators, cut out models, films, charts etc as recommended by the bidder as per Annexure-V to Appendix F.							
(G)	Cost of recommended period of Training excluding the cost of travel and boarding and lodging. This should be given under heads as per Annexure IV to Appendix F, in India.							
(H)	Cost of Preservation / Depreservation							To be paid as in the contract, if utilised
(J)	Any other cost (to be							



Ser	Items	Qty	Unit Cost	Total Cost (iii)x(iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v)+(vi)+(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
	specified).							
(K)	Freight and Transit Insurance Cost (where applicable).							
(L)	Total Cost (Total of Serial A to K)							This will be used in determining L1 vendor.
(M)	CDEC (if applicable), its authority and amount for which required.							

Total (in words) _____.

Note: **Taxes and Duties.** All Indirect Taxes and Duties will be paid at actuals or as indicated in the Commercial bid by the Bidder, whichever is lower. In case of any change in the tax structure/rates by BUYER's Government, only incremental/decremented change will be paid.



STANDARD CONDITIONS OF RFP

LAW

1. The present Contract shall be considered and made in accordance to the laws of Republic of India.

ARBITRATION
(for Indian Private Bidders)

2.1 All disputes or differences arising out of or in connection with the present Contract, including the one connected with the validity of the present Contract or any part thereof, shall be settled by bilateral discussions.

2.2 Any dispute, disagreement or question arising out of or relating to this Contract or relating to construction or performance (except as to any matter the decision or determination whereof is provided for by these conditions), which cannot be settled amicably, shall within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, will be referred to the Arbitration Tribunal consisting of three arbitrators.

2.3 Within sixty (60) days of the receipt of the said Notice, one arbitrator shall be nominated in writing by SELLER and one arbitrator shall be nominated by BUYER.

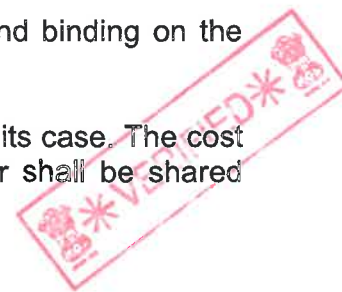
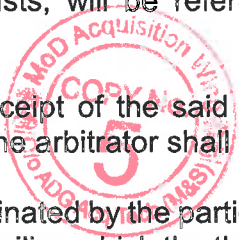
2.4 The third arbitrator, shall be nominated by the parties within ninety (90) days of the receipt of the notice mentioned above, failing which the third arbitrator may be nominated under the provision of Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) or by dispute resolution institutions like Indian Council of Arbitration or ICADR, at the request of either party, but the said nomination would be after consultation with both the parties. The arbitrator nominated under this Clause shall not be regarded nor act as an umpire.

2.5 The Arbitration Tribunal shall have its seat in New Delhi or such other place in India as may be decided by the arbitrator.

2.6 The Arbitration Proceedings shall be conducted in India under the Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only.

2.7 The decision of the majority of the arbitrators shall be final and binding on the parties to this contract.

2.8 Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses of the third arbitrator shall be shared equally by the SELLER and the BUYER.



2.9 In the event of a vacancy caused in the office of the arbitrators, the party which nominated such arbitrator, shall be entitled to nominate another in his place and the arbitration proceedings shall continue from the stage they were left by the retiring arbitrator.

2.10 In the event of one of the parties failing to nominate its arbitrator within sixty (60) days as above or if any of the parties does not nominate another arbitrator within sixty (60) days of the place of arbitrator falling vacant, then the other party shall be entitled after due notice of at least thirty (30) days to request dispute resolution institutions in India like Indian Council of Arbitration and ICADR to nominate another arbitrator as above.

2.11 If the place of the third arbitrator falls vacant, his substitute shall be nominated according to the provisions herein above stipulated.

2.12 The parties shall continue to perform their respective obligations under this contract during the pendency of the arbitration proceedings except in so far as such obligations are the subject matter of the said arbitration proceedings.

2.13 **ARBITRATION (For Central & State PSEs)**. In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 (as amended from time to time) shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorised by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

2.14 **ARBITRATION (For Defence PSUs)**. In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party to the Arbitrator(s) appointed by Defence Secretary. The award of the Arbitrator(s) shall be binding upon the parties to the dispute.

FORCE MAJEURE

3.1 Should any force majeure circumstances arise, each of the contracting party shall be excused for the non-fulfilment or for the delayed fulfilment of any of its contractual obligations, if the affected party within (30 days) of its occurrence informs in a written form the other party.

3.2 Force majeure shall mean fires, floods, natural disasters or other acts such as war, turmoil, strikes, sabotage, explosions, beyond the control of either party.

3.3 Provided the acts of The Government or any state parties of the seller which may affect the discharge of the Seller's obligation under the contract shall not be treated as

Force Majeure.

PENALTY FOR USE OF UNDUE INFLUENCE

4.1 The Seller undertakes that he has not given, offered or promised to give, directly or indirectly any gift, consideration, reward, commission, fees brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or for borne to do any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government. Any breach of the aforesaid undertaking by the seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the seller) or the commission of any offence by the seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1988 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the seller and recover from the seller the amount of any loss arising from such cancellation. A decision of the buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller.

4.2 Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the seller towards any officer/employee of the buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

INTEGRITY PACT

5.1 Further signing of an 'Integrity Pact' would be considered between government department and the bidder for schemes exceeding ₹ 20 Crores. The Integrity Pact is a binding agreement between the agency and bidders for specific contracts in which the agency promises that it will not accept bribes during the procurement process and bidders promise that they will not offer bribes. Under the IP, the bidders for specific services or contracts agree with the procurement agency or office to carry out the procurement in a specified manner. The essential elements of the IP are as follows:-

- (a) A pact (contract) between the Government of India (Ministry of Defence) (the authority or the "principal") and those companies submitting a tender for this specific activity (the "bidders");
- (b) An undertaking by the principal that its officials will not demand or accept any bribes, gifts, etc., with appropriate disciplinary or criminal sanctions in case of violation;
- (c) A statement by each bidder that it has not paid and will not pay, any bribes;
- (d) An undertaking by each bidder that he shall not pay any amount as gift, reward, fees, commission or consideration to such person, party, firm or institution

(including Agents and other as well as family members, etc., of officials), directly or indirectly, in connection with the contract in question. All payments made to the Agent 12 months prior to tender submission would be disclosed at the time of tender submission and thereafter an annual report of payments would be submitted during the procurement process or upon demand of the MoD.

(e) The explicit acceptance by each bidder that the no-bribery commitment and the disclosure obligation as well as the attendant sanctions remain in force for the winning bidder until the contract has been fully executed;

(f) Undertakings on behalf of a bidding company will be made "in the name and on behalf of the company's chief executive officer";

(g) The following set of sanctions shall be enforced for any violation by a bidder of its commitments or undertakings:

(i) Denial or loss of contract;

(ii) Forfeiture of Guarantee for Performance-cum-Warranty Bond (after signing of contract);

(iii) Payment to the Buyer of any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.

(iv) Refund of all sums already paid by the Buyer along with interest at the rate of 2% per annum above LIBOR rate.

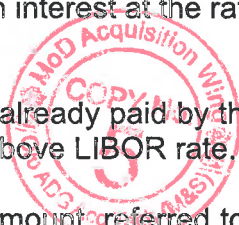
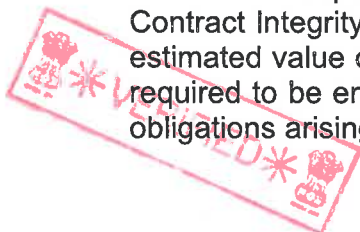
(v) Recovery of such amount, referred to in (iii) and (iv) above, from other contracts of the Seller with the Government of India.

(vi) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities.

(h) Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

(j) The draft Pre-Contract Integrity Pact is attached as **Annexure I to Appendix K**. The Bidders are required to sign them and submit separately along with the technical and commercial offers.

5.2 In respect of bids from DPSUs, the concerned DPSU shall enter in to a Pre-Contract Integrity Pact, on the same lines with their sub-Bidders individually, in case the estimated value of each sub-contract(s) exceed ₹ 20 Crore and such subcontract(s) are required to be entered in to by the DPSU with a view to enable DPSU to discharge the obligations arising out of their bid in question in response to this RFP.

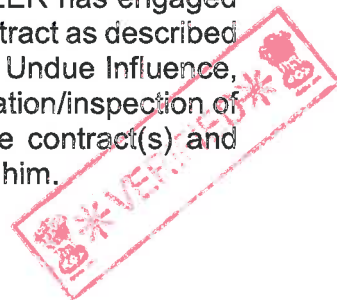


AGENTS

6. The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores referred to in this contract. The Seller confirms that he has not engaged any person, party, firm or institution as an Agent including his Agents already intimated to MoD; to, influence, manipulate or in any way to recommend to any functionaries of the Government of India, whether officially or unofficially, to the award of the contract to the Seller, or to indulge in corrupt and unethical practices. The Seller has neither paid, promised nor has the intention to pay to any person, party, firm or institution in respect of any such intervention or manipulation. The Seller agrees that if it is established at any time to the satisfaction of the buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that Seller has engaged any such person, party, firm or institution and paid, promised or has intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable for any or all of the following actions:-

- (a) To pay to the Buyer any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.
- (b) The Buyer will also have a right to put on hold or cancel the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate
- (c) The Buyer will also have the right to recover any such amount referred in (a) and (b) above from other contracts of the Seller with the Government of India.
- (d) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities

7. In case it is found to the satisfaction of the BUYER that the SELLER has engaged an Agent, or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents and clauses relating to Penalty for Use of Undue Influence, the SELLER, on demand of the BUYER shall provide necessary information/inspection of the relevant financial documents/ information, including a copy of the contract(s) and details of payment terms between the Bidders and Agents engaged by him.



Annexure I to Appendix K
(Refers to Para 21 of RFP)

PRE-CONTRACT INTEGRITY PACT

General

1. Whereas the PRESIDENT OF INDIA, represented by Joint Secretary & Acquisition Manager (Maritime Systems), Ministry of Defence, Government of India, hereinafter referred to as the Buyer and the first party, proposes to procure Fire Warning System (FWS), hereinafter referred to as Defence Stores, and M/s _____, represented by, _____ Chief Executive Officer (which term, unless expressly indicated by the contract, shall be deemed to include its successors and its assignees), hereinafter referred to as the Bidder/Seller and the second party, is willing to offer/has offered the stores.

2. Whereas the Bidder is a private company/public company/partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is a Ministry of the Government of India performing its functions on behalf of the President of India.

Objectives

3. Now, therefore, the Buyer and the Bidder agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence / unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

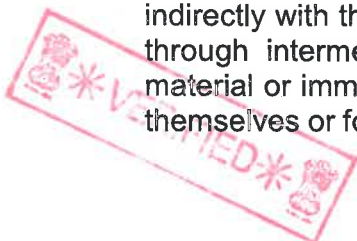
3.1 Enabling the Buyer to obtain the desired defence stores at a competitive price in conformity with the defined specifications of the Services by avoiding the high cost and the distortionary impact of corruption on public procurement, and

3.2 Enabling bidders to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices and the Buyer will commit to prevent corruption, in any form, by their officials by following transparent procedures.

Commitments of the Buyer

4. The Buyer Commits itself to the following: -

4.1 The Buyer undertakes that no official of the Buyer, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organization or third party related to the contract in



exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the Contract.

4.2 The Buyer will, during the pre-contract stage, treat all Bidders alike, and will provide to all Bidders the same information and will not provide any such information to any particular Bidder which could afford an advantage to that particular Bidder in comparison to other Bidders.

4.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

5. In case of any such preceding misconduct on the part of such official(s) is reported by the Bidder to the Buyer with full and verifiable facts and the same is *prima facie* found to be correct by the Buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Buyer and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Buyer the proceedings under the contract would not be stalled.

Commitments of Bidders

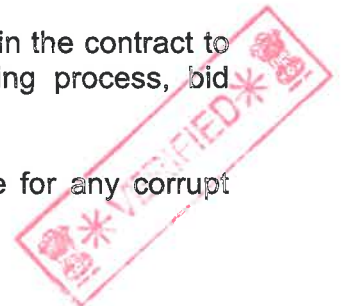
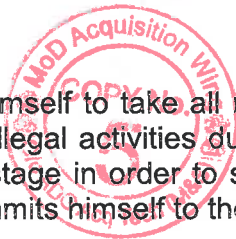
6. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any precontract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits himself to the following:-

6.1 The Bidder will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.

6.2 The Bidder further undertakes that he has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.

6.3 The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

6.4 The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.



6.5 The Bidder further confirms and declares to the Buyer that the Bidder is the original manufacturer/integrator/authorised government sponsored export entity of the defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

6.6 The bidder would not enter into conditional contract with any Agents, brokers or any other intermediaries wherein payment is made or penalty is levied, directly or indirectly, on success or failure of the award of the contract. The bidder while presenting the bid, shall disclose any payments he has made during the 12 months prior to tender submission or is committed to or intends to make to officials of the buyer or their family members, Agents, brokers or any other intermediaries in connection with the contract and the details of such services agreed upon for such payments. Within the validity of PCIP, bidder shall disclose to MoD any payments made or has the intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution as an annual report during the procurement process.

6.7 The Bidder shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.

6.8 The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts. Complaint will be processed as per **Guidelines for Handling of Complaints** in vogue. In case the complaint is found to be vexatious, frivolous or malicious in nature, it would be construed as a violation of Integrity Pact.

6.9 The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

7. Previous Transgression

7.1 The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India.

7.2 If the Bidder makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

8. In the case of successful bidder a clause would also be incorporated in the Article pertaining to Performance cum Warranty Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

9. The provisions regarding Sanctions for Violation in Integrity Pact include forfeiture of Performance cum Warranty Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of Integrity Pact.

10. No interest shall be payable by the Buyer to the Bidder(s) on IPBG for the period of its currency.

11. **Company Code of Conduct.** Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behavior) and a compliance program for the implementation of the code of conduct throughout the company.

12. **Sanctions for Violation**

12.1 Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:-

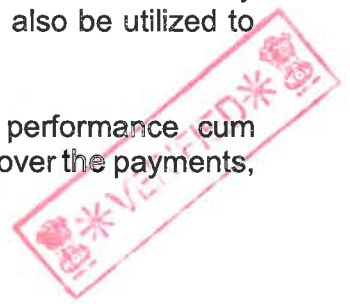
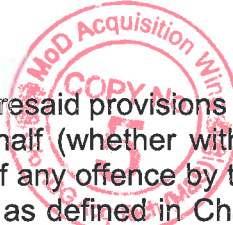
(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.

(ii) The Performance cum Warranty Bond post signing of contract shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.

(iv) To recover all sums already paid by the Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI, and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To encash the advance bank guarantee and performance cum warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Buyer, along with interest.



- (vi) To cancel all or any other Contracts with the Bidder.
- (vii) To Put on Hold or Suspend or Debar the bidder as per the extant policy.
- (viii) To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
- (ix) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder. The term 'close relative' for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependant upon Government servant.
- (x) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Buyer, and if he does so, the Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Buyer resulting from such rescission and the Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.
- (xi) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the Buyer with the Bidder, the same shall not be opened.

12.2 The decision of the Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the Bidder can approach the monitor(s) appointed for the purposes of this Pact.

13. **Fall Clause**

13.1 The Bidder undertakes that he has not supplied/is not supplying the similar systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India and if it is found at any stage that the similar system or sub-system was supplied by the

Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Buyer, if the contract has already been concluded.

13.2 The Bidder shall strive to accord the most favoured customer treatment to the Buyer in respect of all matters pertaining to the present case.

14. **Independent Monitors**

14.1 The Buyer has appointed Independent Monitors for this Pact in consultation with the Central Vigilance Commission. The names and addresses of nominated Independent Monitors (at the time of issue of RFP) are as follows (however the Bidder must refer to the MoD website at www.mod.nic.in to check for changes to these details):- *(names & addresses of Independent Monitors holding office on date of issue of RFP to be included)*

- (a) Shri Ravikant, IAS-Bihar (1984) (Retd.)
Apartment No-502, tower-1, M3M Merlin
Sector-67, Gurugram
Haryana – 122001
- (b) Shri Prabhat Kumar, IAS-UP (1985) (Retd.)
C-120, Sector-39,
Noida, Gautam Buddha Nagar
Uttar Pradesh – 201301

14.2 All communications to Independent Monitors will be copied to Director (Vigilance). The Designation and Contact details of Director (Vigilance) are as follows: -

Shri Rajiv Verma
Director (Vigilance)
Block-A
GPO Complex, INA
New Delhi - 110023

14.3 After the Integrity Pact is signed, the Buyer shall provide a copy thereof, along with a brief background of the case to the Independent Monitors, if required by them.

14.4 The bidder(s), if they deem it necessary, may furnish any information as relevant to their bid to the Independent Monitors.

14.5 If any complaint with regard to violation of the IP is received by the buyer in a procurement case, the buyer shall refer the complaint to the Independent Monitors for their comments/enquiry.



14.6 If the Independent Monitors need to peruse the relevant records of the buyer in connection with the complaint sent to them by the buyer, the buyer shall make arrangement for such perusal of records by the Independent Monitors.

14.7 The report of enquiry, if any, made by the Independent Monitors shall be submitted to the head of the Acquisition Wing of the Ministry of Defence , Government of India for a final and appropriate decision in the matter keeping in view the provision of this pact.

15. **Examination of Books of Accounts.** In case of any allegation of violation of any provisions of this Integrity Pact or payment of commission, the Buyer or its agencies shall be entitled to examine the Books of Accounts of the Bidder and the Bidder shall provide necessary information of the relevant financial documents in English and shall extend all possible help for the purpose of such examination.

16. **Law and Place of Jurisdiction.** This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the Buyer i.e. New Delhi.

17. **Other Legal Actions.** The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

18. **Validity**

18.1 The validity of this Integrity Pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later.

18.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

19. The Parties hereby sign this Integrity Pact at _____ on _____.

BUYER
CMDE(SMAQ),
MINISTRY OF DEFENCE,
GOVERNMENT OF INDIA

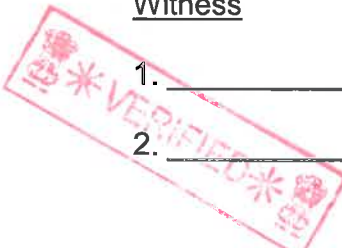
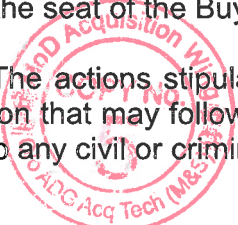
BIDDER
CHIEF EXECUTIVE OFFICER

Witness

Witness

1. _____
2. _____

1. _____
2. _____



Appendix L
(Refers to Para 56 of RFP)

CHECK-OFF LIST – DOCUMENTS TO BE SUBMITTED BY THE BIDDER ALONG WITH THEIR TECHNO-COMMERCIAL PROPOSALS

The list of documents which needs to be mandatorily submitted by the Bidders as part of Technical & Commercial Proposal are placed below. Non-submission of the documents may result in disqualification of the Bidder from the bidding process.

Ser	Reference	Document Description
1.	Para 5 of RFP	Declaration by Bidder : Debarment of Bidders
2.	Para 7 of RFP	Declaration by Bidder : Indigenous Design [Reference - Para 8(b) and Appendix A of Chapter I of DAP 2020]. Annexure I to Appendix B of RFP refers.
3.	Para 18 of RFP	Declaration by Bidder: Government Regulation
4.	Para 19 of RFP	Declaration by Bidder: Obligations Relevant to Transfer of Conventional Arms
5.	Para 20 of RFP	Declaration by Bidder : Patent Rights
6.	Para 22 of RFP	Declaration by Bidder : Fall Clause
7.	Para 29 of RFP	Technical document covering performance parameters.
8.	Para 34 of RFP	Willingness Certificate –FET on NCNC basis
9.	Appendix B	Compliance Table
10.	Appendix C	Warranty Clause
11.	Appendix E	CERTIFICATE: Malicious Code
12.	Annexure I to Appendix F	Manufacturer's Recommended List of Spares (MRLS)
13.	Annexure II to Appendix F	List of SMT/STEs, Jigs, Fixture and Infrastructure
14.	Annexure III to Appendix F	Technical Literature
15.	Annexure IV to Appendix F	Compliance to Training of Crew, Maintenance Personnel
16.	Annexure V to Appendix F	Training Aggregates
17.	Appendix J	Price Bid
18.	Annexure I to Appendix K	Pre-Contract Integrity Pact