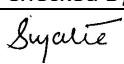
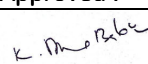


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<u>TECHNICAL SPECIFICATION FOR</u> <u>FIRE DETECTION & ALARM SYSTEM</u>					
<u>PROJECT</u> : <u>2x660 MW Maitree TPS</u> <u>CUSTOMER</u> : <u>Bangladesh-India Friendship Power Company</u> <u>(Pvt).Limited, Bangladesh</u>					
Revisions: Refer to record of revisions					
Prepared By:  Vineet Kumar		Checked By :  Sujatha Sapavat		Approved :  K. Anand Babu	
				Date : 20.08.2019	

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CHECK LIST

(To be filled by BIDDER and submitted along with Technical offer is compulsorily)

Vendor shall submit the following documents mandatorily as part of COMPLTE technical offer.

Enquiry No. / Date :

Name of the Bidder :

Project Name :

Item Description :

S. No	Document	Bidder confirmation (Yes/No)	Remarks
1	Technical offer complies with the specifications and its associated annexures, pre-bid clarifications in Toto and there are no technical deviations. Signed and stamped copy of this specification along with annexures enclosed along with technical offer.		
2	In case of deviation, vendor to confirm that these are technically not feasible deviations and same are submitted in BHEL format. In case technically feasible deviations are proposed by the bidder and subsequently withdrawn, no commercial implications can be claimed by the bidder		
3	All items are manufactured conforming to latest version of material grade standard and manufacturing standard mentioned in this specifications		
4	Bidder to quote as per BHEL price format only. No other format is acceptable. Bidder to attach un-priced price bid format by indicating "QUOTED" against each item and submit with technical offer duly signed & stamped.		
5	For addition/reduction of quantity, unit rate quoted in the present offer shall be considered during ordering and shall be valid up to execution of the contract to the extent of + 10% and -10% of order Value.		
6	Bidder to agree that Bill of materials / list of equipment furnished in the offer is only for information; Vendor shall supply all the material to meet the performance, sizing & technical requirement as per specification & its Annexures, scope matrix etc.		
7	All the equipment's / items / etc., supplied by bidder are having valid statutory approval certificates and same will be produced at any stage of contract execution to BHEL. The same were eligible to take local statutory regulatory body approval during commissioning of the system		

 (Bidder's Signature and stamp with date)

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		1. SCOPE This technical specification covers the Design, Engineering, Manufacturing, Assembly, testing at vendor works, inspection by purchaser, packing and transportation to site with necessary documentation like data sheets, statutory approvals, O&M manuals etc., as required for Fire Detection & Alarm System components like Fire Alarm panels, Multisensor detectors, Loop cable, Fiber optic cables, erection hardware etc. 2. INSTRUCTIONS TO BIDDERS 2.1 Bidders are advised to contact BHEL for essential technical queries in writing within one week of issue of Enquiry. In the event of any conflict between these specifications, data sheets, related standards, codes etc. the vendor shall refer the matter to the purchaser for clarifications before bid submission and the decision of Purchaser shall be final & binding on Bidder, without any cost & delivery implications. In the event of conflict, most stringent requirements shall be followed in general. 2.2 Further, if a requirement in this specification or any of the enclosures, calls for a decision from the Purchaser, it shall be bidder's sole responsibility to clearly bring out/highlight the same distinctively in his pre-bid queries, so as to enable purchaser to furnish their decision/clarification. If such issues/requirements are not duly addressed by bidder during the pre-bid stage and if such issues/requirements are observed later during order execution stage, it shall be binding on the bidder to comply with the final decision made by the purchaser subsequently, without any cost, delivery, or any other commercial implications. 2.3 Offers with incomplete information will not be considered for evaluation, and are likely to be rejected outright without any further interaction with the Bidder. 2.4 Any technical features [over & above BHEL enquiry specification requirements] proposed by Bidder will not be given preference for the purpose of evaluation. 2.5 Bidder shall submit the "Duly filled & Signed copy of Check list" compulsorily along with technical offer without which offer is liable for rejection without any further interaction with the Bidder. 2.6 Unsolicited requests from bidders like change in prices, change in model numbers, change in vendors etc., for alterations to their already submitted offer will not be entertained. These would not be taken cognizance, and offers will be evaluated without taking into account such requests/correspondence. 2.7 Compliance with this specification shall not relieve the bidder of the responsibility of furnishing equipment and accessories of proper design, materials and workmanship to meet the specified start up and operating conditions. 2.8 Bidders are advised to comply to specification in total, unless the requirement is not feasible. Nature of Deviations shall only be of Design / Manufacturing constraints and non-availability of items / components / makes in market. Reasons for the deviations shall be specified in the Remarks column. All such deviations/queries shall be clarified from BHEL before submitting the techno-commercial bid. No deviations/clarification post-bid are allowed including any price impact. 2.9 FDA package BOM (Main Items and Mandatory spares) and Price format shall be as per Annexures-[II & III] of this specification.	



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DEVIATION FORMAT

Enquiry No.:**Item:****Name of Bidder:****Offer Ref. No.:**

Sl. No.	Clause no. & Spec. no.	Description as per Specification	Deviation taken	Nature of Deviation	Remarks

NOTES:

1. Technical offer of the bidder will be evaluated only on the basis of Deviation Schedule. Deviation Schedule constitutes this sheet (with these Notes) duly signed and stamped.
2. Deviations, if any, shall be clearly brought out only in this format. Deviations mentioned / taken elsewhere or in any other format will be ignored.
3. Additional sheets in the same format can be attached by the vendor, if necessary.
4. Nature of Deviations shall only be of Design / Manufacturing constraints and non-availability of items / components / makes in market.
5. No price implications shall be entertained for deviations withdrawn during the technical scrutiny. If any deviations are accepted by BHEL during technical scrutiny, then also there will be no price implication. Hence, in no case there will be consideration of Price implications.
6. Reasons for the deviations shall be specified in the Remarks column.
7. If there are no deviations from the specifications, bidder still has to submit the signed copy of this format by writing "NO Deviations" on this format.
8. If the "Deviation Schedule" is not submitted along with the offer, the bidder's offer is likely to be rejected without any further interaction with the bidder. Only the accepted deviations in conjunction with the original tender shall constitute the contract document for the award of job to the bidder

SIGNATURE OF THE BIDDER_____

NAME_____

DESIGNATION_____

DATE_____

COMPANY SEAL

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		3. DOCUMENTATION 3.1 INFORMATION TO BE INCLUDED WITH OFFER Vendor shall make the offer in detail, with respect to every item of the Purchaser's specifications. Any offer not conforming to this shall be summarily rejected. a) Duly filled & Signed copy of Check list b) Deviation list, if any (as per "No deviation format" given in this specification). If there are no deviations, bidders shall submit "Deviation format" by mentioning deviations "Nil". c) Unpriced price schedule (To be submitted compulsorily without fail) d) Proven Track record and reference list (if applicable) e) Bill of materials (only for information) 3.2 DOCUMENTS TO BE SUBMITTED DURING FINAL INSPECTION & TESTING AND BEFORE EQUIPMENT DISPATCH. (Note: submission of these documents are commercially linked) - All in 16 sets (2 sets to be included with item dispatch and balance to BHEL purchase department). a) Complete O& M manual. b) Approved Engg documents c) As-Shipped documents d) As-Built documents e) Guarantee and all test certificates for review and acceptance by BHEL and / or BHEL's Customer sets of CD-ROM – containing O&M manual and Engineering documents (1 set to be included with item dispatch and balance to BHEL purchase department). 4. DOCUMENTATION SCHEDULE a) After the award of contract, kick off meeting planned and the requirement documentation shall be finalized. Typical list of documentation is enclosed as annexure as Master Documentation List (MDL) for ready reference. Vendor shall clearly bring their input documentation requirement, project execution methodology etc., during this kick of meeting only. b) First submission of the set of documents shall be submitted within 2 weeks of LOI/ PO. c) All vendor documents of FDA and its sub-items shall be submitted to Customer / Consultant for approval during order execution (if applicable). Any comment furnished by Customer / Consultant / BHEL shall be taken care by vendor during ordering execution. d) Further BHEL with provide comments on vendor submitted document within 7 to 10 working days for revision & resubmission. Vendor shall follow up with BHEL for non- receipt of comments/approvals. e) Revised drawings / Documents shall be submitted by Bidder in 07 days of receipt of comments / observations from BHEL. BHEL shall revert within 07 days on receipt of these revised documents / drawings from vendor for approvals.	

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED . It must not be used directly or indirectly in any way detrimental to the interest of the company.		f) All the approvals required for manufacturing shall be completed within 2 months from P.O to meet the P.O delivery schedule. Accordingly, vendor shall ensure the submission of approval category documents (which are required for manufacturing) and obtain their approvals. g) Vendor shall obtain final approvals on all technical + quality aspect documents before inspection dates. h) It is vendor’s responsibility to obtain approvals from BHEL as earliest as possible to meet PO delivery schedules. Accordingly, vendor to plan and execute the supplies in time					
		5. GUARANTEE a) Guarantee shall be valid for a minimum period of 24 calendar months commencing from the date of supply or 18 calendar months commencing from date of commissioning whichever is earlier. b) The equipment shall be guaranteed to meet the performance, functional and accuracy requirements enumerated in the specification. c) Bidder shall replace all instruments failing to meet the performance stipulations of the specification at any stage of the project with in the guarantee. d) Vendor shall be fully responsible for all the items to be supplied in this package. i.e. vendor shall provide a guarantee certificate for trouble free performance of all the items & system. e) Vendor shall have tie-ups with sub-vendors for providing guarantee & only OEM authorized agency shall handle the warranty period services.					
		6. INSPECTION AND TESTING REQUIREMENTS: a) The detailed test procedures for each of these tests are to be submitted by the bidder and are subject to approval by Owner/ Consultant. b) Quality requirements of Smoke detectors, Fire alarm system components shall also be as per QAP Format.					
		7. MARKING, PACKING AND DESPATCH a) Sea worthy packing is applicable for the items. Please refer Annexure-VI of this specification. b) All items shall be marked (stamped/etched) in accordance with the applicable code/standard/specification. In addition, the item code, if available, shall also be marked. c) For ease of identification, the color of painted strip (wherever required) shall be as per the applicable standard. d) Part number/Dispatch link-up of all the equipment’s/items supplied and also their co-relation with system/drawing/approved BOQ. e) Paint or ink for marking shall not contain any harmful metal or metal salts which can cause corrosive attack either ordinarily or in service. Special items/smaller items shall have attached corrosion resistant tag providing salient features.					

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		f) The equipment shall be transported to site by the vendor in fully assembled condition. However, in case some components are liable to be damaged during transit, the same shall be dismantled and supplied separately, to be reassembled at site the vendor. Assembly of the item supplied loose at site and repairing of any item damaged during transport shall be in the vendor’s scope. The vendor shall send each consignment to site with a detailed packing list. g) All the equipment shall be divided into several sections for protection and ease of handling during transportation. The equipment shall be properly packed for transportation by ship/rail or trailer. The equipment shall be wrapped in polythene sheets before being placed in crates/cases to prevent damage to the finish. Crates/cases shall have skid bottom for handling. h) Special notations such as 'Fragile', 'This side up', 'Center of gravity', 'Weight', 'Owner's particulars', 'PO Nos.' etc. shall be clearly marked on the package together with other details as per purchaser order. i) The equipment/items may be stored outdoors for long periods before installation. The packing shall be completely suitable for outdoor storage in areas with heavy rains/high ambient temperature, unless otherwise agreed. j) The following minimum packing procedures shall be followed:- ✓ All items shall be dry, clean and free from moisture, dirt and loose foreign material of all kinds. ✓ All items shall be protected from rust, corrosion, and mechanical damage during transportation and handling. ✓ Each variety and size of item shall be supplied in separate packaging marked with the purchase order no., item code (if available), and the salient specifications. ✓ All electrical, instrumentation etc., shall be properly packed to prevent damage during transport, storage, handling at site. ✓ All the items which the Bidders considered liable to be damaged during shipment or storage, shall be packaged for separate shipment. If instruments are removed from the panel, they and their connection shall be suitably tagged to ensure simple re installation at the job site. Each instrument shall be sealed in plastic bags containing moisture absorbing desiccants. ✓ It shall be bidder’s sole responsibility to protect all the material during period of dispatch, storage and erection against corrosion, incidental damage due to vermin, sunlight, rain, high temperature, humid atmosphere, rough handling in transit and including delays in transit. ✓ Mandatory Spare parts shall be packaged separately and clearly marked as ‘Mandatory Spares’. ✓ Commissioning spares, Tools & tackles to be packed separately & suitably tagged (If applicable). k) If mandatory spare items are ordered, same shall be sent in pre-decided lots in containers /secure boxes distinctly marked in Red color with boldly written "S “mark on each face of the containers /secure boxes	

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		l) Loose vendor items sent by vendor to sites shall be quantified/numbered/tagged and not merely mentioned as ONE lot of loose items. m) A packing list covering items having shelf life are to be intimated to site. Also, shelf life items shall be packed separately in black color painted box for easy identification at site. 8. SUB VENDOR LIST a) Refer Annexure –II & I / BOM & respective data sheet for approved make and model No. b) Supply items for which no definite “make/brand” is indicated, shall be procured only from reputed makes & models having proven track records and requires purchaser approval.	



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RECORD OF REVISIONS

Rev. No.

Date

Revision Details

Revised By

Approved By

00

20.08.2019

Original issue

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K. Anand Babu

K. M. Rabe

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