

FRAMEWORK AGREEMENT FOR FGD FPS PROJECTS
Un-Priced Price Bid Format

R01 -30.10.2020

Item: FIRE HOSE WITH COUPLING
 PR No: 1900141129

SI No	PR No	Material Code	Material Description	UOM	PR Qty (No.s)	Technical Specification	Price Weightage Factor	Bidder Confirmation (Quoted)
1	1900141129	PY9751393043	15M FIRE HOSE WITH COUPLING (IS636-A-II)	EA	1,078	PY51393	0.84103	
2	1900141129	PY9751393051	7.5M FIRE HOSE WITH COUPLING (IS636-A-II)	EA	278	PY51393	0.15897	
Total							1.00000	

NOTES:

- 1) Vendor to Quote Lumpsum Price for the Total Package.
- 2) Line Item Rates of the individual items shall be derived by multiplying the "Price Weightage Factor" with the Lumpsum Price quoted.
- 3) Unit Rates of the Individual items thus arrived, shall be binding on the bidder, for the total period of Framework Agreement.
- 4) Observations / Objections, if any, of the Bidder, to the "Price Weightage Factor" shall be brought to the notice of BHEL, during Pre-Bid Stage.
- 5) No Observations / Objections shall be entertained after the Techno-Commercial Bid is opened.
- 6) Bidder to indicate "Quoted" in the column "Bidder's Confirmation" as a confirmation of their bid to the respective item.
- 7) The Bid Evaluation is on Overall L1 Basis. Each and Every item of the Package shall be quoted by the bidder.
- 8) Partial offers will not be considered for evaluation and the same are liable for rejection.
- 9) The details of the Projects for which Framework Agreement is proposed are given elsewhere in the NIT. The distribution of the line items across the projects is attached as **Annexure-A**.
- 10) The permissible ordering limits specified in NIT are strictly applicable on the Total Framework Value. The same are not applicable at the Individual Project level.
- 11) The Total Lump price quoted shall be INCLUSIVE of Freight, Packing & Forwarding and Testing Charges.
- 12) The Total Lump price quoted shall be EXCLUSIVE of GST, Third party inspection (TPI) & Insurance Charges.

DISTRIBUTION OF FRAMEWORK ITEMS ACROSS PROJECTS
 ITEM: FIRE HOSE WITH COUPLING
 PR NO 1900141129

Annexure-A to Price Bid Format

SL NO	ITEM	Material No	Material Desc	UOM	PMD No	UWT	KOTHAGUDEM	BHADRADRI	NORTH KARANPURA	BARH-1	BARH-2	MAUDA	BRBCL NABINAGAR	NPGCL NABINAGAR	RAMAGUNDAM	KORBA	NSPCL BILLAI	TUTICORIN	UDANGUDI	SAGARDIGHI	ENNORE	BHUSAWAL	YADADRI	PATRATU	PANKI	CONTINGENCY
1.00	FIRE HOSE	PY9751393043	15M FIRE HOSE WITH COUPLING	EA	PE.MP.589		46	70	50	30	30	30	50	50	50	50	30	46	374	286			149	198		
2.00	FIRE HOSE	PY9751393051	7.5M FIRE HOSE WITH COUPLING	EA	PE.MP.589		0	0	34	18	18	24	34	34	34	34	24	0	0	0			0	143		

1. The quantities indicated are total quantity with additional 50 % qty variation considered
2. The above list of Quantity , project/customer is tentative only. Final details of quantity, Project/ Customer shall be informed at the time of PO

BULK PROCUREMENT OF GENERIC PIPING ITEMS Pre-Qualification Criteria (Technical)

Package Name : FIRE HOSE WITH COUPLING
PR No : 1900141129

Manufacturers of **FIRE HOSE WITH COUPLING**, qualified as per the Pre-qualification criteria laid down below, are allowed to bid. Documentary evidence shall be provided by such bidders to establish their claim. **However, offer consideration is subjected to approval from end Customer.**

The bid evaluation shall be on Overall L1 basis. The Bidder shall meet the Pre-Qualification Criteria (listed below.

Non-compliance to any of the criteria listed below will lead to disqualification of bidder for the subject item of the tender.

Qualification Criteria of the Bidder:

- 1.** The bidder should be an established manufacturer of **Fire hose with coupling** and should have successfully completed Manufacture, Supply of **Fire hose with coupling**.
- 2.** The Bidder should have successfully completed supply of **Fire hose with coupling** for similar specification with a total minimum quantity of 950 **No.s** through a single Purchase Order or multiple Purchase Orders in the last 5 years ending on original due date of this tender, with at least one order executed after 01.01.2019.
- 3.** Detailed BOQ of the items supplied, satisfying the criteria laid down above, shall be provided in the format enclosed as Annexure-1, with details like Project & Customer, Description & Quantity of Items supplied, PO details etc. as a minimum for assessing pre-qualification. **PO Copies, Inspection Reports and Dispatch documents shall be enclosed for the references provided.**
- 4.** The bidder should not have been under suspension for business or blacklisted by any of the BHEL units.

TTTD-106-1
Rev No. 5

Form No.



**PROJECT ENGINEERING & SYSTEM DIVISION
BHEL, HYDERABAD -32.**

PY51393

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TECHNICAL SPECIFICATION
FOR FIRE HOSE WITH COUPLING

Revisions :	Prepared by:	Checked by:	Approved By:	Date
	-SD-	-SD-	-SD-	
00	Anupam	Amit/PCS	MNSR	27.07.18



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1. SCOPE/INTENT:

- 1.1.** This specification covers the technical requirements of constructional features, accessories, inspection, tests, test certificates, documentation, preservation, packing and forwarding of Fire Hose with coupling.
- 1.2.** Scope of supply shall include design, manufacture, inspection, shop testing, shop painting, packing and delivery.
- 1.3.** The supplier shall strictly comply with this standard in all respects. No deviation shall be allowed. However, bidder can raise technical queries on the specification during pre-bid stage and clarifications may be sought from BHEL before the bid submission.

APPLICATION:

These items suitable for fire protection systems (Water based protection system).

2. VARIANT TABLE:

Var. No.	Description	Material Code
01	25M FIRE HOSE WITH COUPLING (UL LISTED)	PY9751393019
02	15M FIRE HOSE WITH COUPLING (UL LISTED)	PY9751393027
03	7.5M FIRE HOSE WITH COUPLING (UL LISTED)	PY9751393035
04	15M FIRE HOSE WITH COUPLING (IS636-A-II)	PY9751393043
05	7.5M FIRE HOSE WITH COUPLING (IS636-A-II)	PY9751393051
06	15M FIRE HOSE WITH COUPLING (IS 636-B)	PY9751393060
07	7.5M FIRE HOSE WITH COUPLING (IS 636-B)	PY9751393078

Note: Bidder to quote as per Material Code as mentioned in the Enquiry

3. TECHNICAL REQUIREMENTS:**3.1. FIRE HOSE WITH COUPLING (UL LISTED):**

Sl. No.	Requirements	Compliance
	FIRE HOSE	
3.1	Application	Hydrant System
3.2	Code/Standard	BS 6391:2009 Type I
3.3	Size & Length*	
3.3.1		63 mm x 25 Meter length
3.3.2		63 mm x 15 Meter length
3.3.3		63 mm x 7.5 Meter length
3.4	Type of Hose	RRL flexible hose
3.5	Working Pressure	15 kg/cm ² (g)

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3.6	Test Pressure	23 kg/cm ² (g)
3.7	Burst Pressure	38 kg/cm ² (g)
3.8	End Fitting / Material	Instantaneous spring lock type male / female coupling of SS 304 construction at both sides confirming to BS 336
3.9	Type of Coupling	SS (304) Instantaneous Spring type BS 336 Marked Coupling
3.10	Approval	UL Listed
3.11	Marking	a) Type of the hose b) Size of the hose c) Length of the hose d) Manufacturer's name or trade-mark or both e) Month and year of manufacture.
	COUPLING	
3.12	Type	Instantaneous Spring lock type male and female for 63 MM hose
3.13	Code/Standard	BS 336 Marked Coupling
3.14	Material of Construction	SS 304

3.2. FIRE HOSE WITH COUPLING AS PER IS 636 TYPE A

Sl. No.	Requirements	Compliance
	FIRE HOSE	
3.1	Application	Hydrant System
3.2	Code/Standard	IS: 636, Type-A (Type-II)
3.3	Size & Length*	
3.3.1		63 mm x 15 Meter length
3.3.2		63 mm x 7.5 Meter length
3.4	Type of Hose	RRL confirming to IS: 636, Type-A with elastomeric coating
3.5	Working Pressure	15 kg/cm ² (g)
3.6	Test Pressure	23 kg/cm ² (g)
3.7	Burst Pressure	38 kg/cm ² (g)
3.8	End Fitting / Material	Instantaneous spring lock type male / female coupling of SS-304 construction at both sides confirming to IS: 903
3.9	Type of Coupling	SS-304 instantaneous type IS: 903 marked coupling
3.10	Approval	ISI Marked
3.11	Marking	a) Type of the hose b) Size of the hose



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		c) Length of the hose d) Manufacturer's name or trade-mark or both e) Month and year of manufacture.
	COUPLING	
3.12	Type	Instantaneous Spring lock type male and female for 63 MM hose
3.13	Code/Standard	IS:903
3.14	Material of Construction	SS 304

3.3. FIRE HOSE WITH COUPLING AS PER IS 636 TYPE B

Sl. No.	Requirements	Compliance
	FIRE HOSE	
3.1	Application	Hydrant System
3.2	Code/Standard	IS: 636, Type-B (Type-III)
3.3	Size & Length*	
3.3.1		63 mm x 15 Meter length
3.3.2		63 mm x 7.5 Meter length
3.4	Type of Hose	RRL confirming to IS: 636, Type-B with elastomeric coating
3.5	Working Pressure	15 kg/cm ² (g)
3.6	Test Pressure	23 kg/cm ² (g)
3.7	Burst Pressure	38 kg/cm ² (g)
3.8	End Fitting / Material	Instantaneous spring lock type male / female coupling of SS-304 construction at both sides confirming to IS: 903
3.9	Type of Coupling	SS-304 instantaneous type IS: 903 marked coupling
3.10	Approval	ISI Marked
3.11	Marking	a) Type of the hose b) Size of the hose c) Length of the hose d) Manufacturer's name or trade-mark or both e) Month and year of manufacture.
	COUPLING	
3.12	Type	Instantaneous Spring lock type male and female for 63 MM hose
3.13	Code/Standard	IS:903
3.14	Material of Construction	SS 304

***Size & Length of Fire Hose shall be as per Description mentioned in the Enquiry.**



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4. PAINTING

Color of the Hose shall be informed after post order.

5. INSPECTION AND TESTING

As per BHEL QAP (Refer attached Annexure)

6. DOCUMENTATION:

6.1. Along with the offer:

Signed and stamped copy of this specification as token of acceptance of the specification for execution in the event of Order.

6.2. After PO Placement:

Two copies each of the following documents shall be submitted for approval.

- G.A. Drawings with weights and dimensions
- Technical Data sheets, Catalogue
- Material specification details
- Tests to be conducted
- O&M manuals
- Storage/Preservation instructions for at least three years.

Final documentation consisting of above documents shall be submitted in requisite sets (to be decided post order) of hard and soft copies.

Schedule for document submissions:

S.no	Description	Schedule
1	Submission of GA drawing & Technical Datasheet by vendor	7 days from the date of P.O.
2	Approval GA drawing & Technical Datasheet by BHEL	14 days from receipt of the document*

* The GA drawing & Technical Datasheet submitted by vendor shall be strictly in compliance to all applicable standards and specification.



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7. PRESERVATION, PACKING & MARKING OR PACKING CASE:

- 7.1.** A suitable temporary rust preventive with minimum life of two years shall be applied inside the item/equipment body in order to prevent corrosion.
- 7.2.** All the item / equipment shall be packed suitably in closed wooden cases in order to avoid damage during transit and storage at BHEL. Suitable supports shall be provided inside the cases in order to avoid internal movement. In case of exported consignments, the packing shall be seaworthy (Refer enclosed Annexure for Export Packing guidelines, AA 0490009, Rev-01).

Each item / equipment after end protection should be wrapped in polythene sheet before packing in the cases.

Each packing case must contain two copies of the shipping list giving details of all the contents of the case.

- 7.3.** The following marking shall be done on each packing case minimum on two sides and at the top.
- (a) Complete address of the consignee and destination as per BHEL Purchase Order.
 - (b) BHEL Purchase order Number
 - (c) BHEL item Material Code
 - (d) Number of pieces in each packing case
 - (e) Net Weight
 - (f) Gross Weight
 - (g) Packing case number and total number of packing
 - (h) Arrow indicating top of the packing case.

Sl. No	Components & Operation	Characteristics	Class	Type of check	Quantum of check		Reference Document	Acceptance Norms	Format of Records		Agency			Remarks
					M	C/N			M	C	N			
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
1	Final Inspection	Workmanship	Minor	Visual	100%	10%	Approved Data sheet / IS : 636-1988 Type 'A'	Approved Data sheet / IS : 636-1988 Type 'A'	TC / IR	√	P	W	V	
		Length, Diameter, Weight	Major	Measurement	100%	10%	-- Do --	-- Do --	TC / IR	√	P	W	V	
		Hydrostatic Pressure Proof Test	Major	Hydraulic Test at 22 Kg/Cm ²	As per IS:636	As per IS: 636	-- Do --	-- Do --	TC / IR	√	P	W	V	
		Hydrostatic Burst Pressure Test	Major	Hydraulic Test at 36 Kg/Cm ²	One per Lot	One per Lot	-- Do --	-- Do --	TC / IR	√	P	W	V	
		Kink Test, Change in Size (Dia. & length), Adhesion Test, Abrasion Resistance, Heat Resistance, Accelerated Ageing Test	Major	Visual & Measurement	As per IS : 636	As per IS: 636	-- Do --	-- Do --	TC / IR	√	P	W	V	
		Packing, Marking & ISI Logo	Major	Verification	As per IS: 636		-- Do --	-- Do --	IR	√	P	V	V	

NOTE: 1. MATERIAL SHALL BE AS PER APPROVED DRAWINGS/DATA SHEETS.

2. FOR COUPLING REFER SEPARATE APPROVED QP

LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

** M: MANUFACTURER / SUB-SUPPLIER C: MAIN SUPPLIER, N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION.

AS APPROPRIATE, CHP: NTPC SHALL IDENTIFY IN COLUMN "N" AS 'W'.

FORMAT NO.: QS-01-QAI-P-10/F3-R1

ENGG. DIV./QA&I



ITEM :
FIRE FIGHTING
DELIVERY HOSE
(From BIS Approved
Sources)

STANDARD QUALITY PLAN

CONFORMING TO CODE:
IS : 636 -1988, TYPE 'A'

QP NO.: 0000-999-QOM-S -018

REV. NO: 1 DATE : 15/06/06

PAGE 1 OF 1

VALID UPTO : 14/ 06/2009

REVIEWED BY:

U. SUDEEP

S. SIMLAI

O.P. NIRANJAN

APPROVED BY:

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QAP GUIDELINES & FORMAT


(ANNEXURE)

The QAP format and guidelines for filling up the format shall be used by vendor for preparation and submission of QAP after order placement.

Note :

1. Typical /Indicative /Standard QAP(s) for equipment /package attached is reference document and to use by successful bidder in future for preparation and submission of QAP for BHEL /CUSTOMER approval.
2. No deviation to reference document is acceptable.

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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.	<u>PREPARATION OF QUALITY ASSURANCE PLAN</u>		
	Ref. Doc	<ol style="list-style-type: none"> 1. QAP shall be made in landscape mode on A4 size paper as per the format enclosed. Font size shall be minimum 10. 2. Each page of QAP shall contain the following information. <ol style="list-style-type: none"> a) Vendor's name & address. b) Customer: BHEL, Hyderabad. c) Project. d) BHEL Product Standard Number/revision number as referred in P.O. e) BHEL Purchase Order Number & Date. f) Product as per P.O. description. g) QAP Number (unique and shall not repeat)/revision number/date. h) Page number and number of pages 3. QAP shall contain four parts / stages as follows. <ol style="list-style-type: none"> a) Raw materials and bought out items. b) In process Control / Inspection. c) Final assembly, Inspection & Testing. d) Painting, preservation & packing. 4. Under 'Component', indicate name of the component (say casing, rotor, pressure gauge, etc). 5. Under 'Characteristics', indicate appropriately (say chemical analysis, mechanical properties, NDT (UT,DP etc.), hydrostatic test, calibration check etc.) 6. Under 'Class', indicate minor, major or critical depending on the importance of characteristic. 7. Under 'Type of check', indicate appropriately (say chemical, mechanical, UT, DP etc.) 8. Under 'Quantum of check', indicate appropriately (say 100%, 10%, sample, per melt, per heat, all pieces etc.) 9. Under 'Reference document' and 'Acceptance norms', appropriate National & International standards, BHEL standards, approved drawing references etc. should be indicated. It is not correct to mention as "Vendor's internal standards or Vendor's standard practice etc.". If vendors' internal standards are referred, same shall be in line with BHEL Spec. indicated in the P.O. These may require review & approval by our Engineering dept. 10. Under 'Format of record', indicate appropriately supplier's test certificate, calibration certificate, lab report, inspection report etc. 11. Please refer 'Agency' in QAP format. Under P: Perform, W: Witness, V: Verify Indicate against each characteristic 1: (BHEL CQS/Nominated inspection agency), OR 2: (Vendor / Sub vendor) Note: Performing agency is normally vendor or his sub vendor (Legend 2). Where witness points are indicated in specification, P.O., Drawing etc., for such operations, 	

Form No.	 HYDERABAD	PRODUCT STANDARD PROJECT ENGINEERING & SYSTEMS DIVISION HYDERABAD	ANNEXURE Page 3 of 3
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.	<p>under Witness (W) column use 1. Under 'Verify' column, use code 1.</p> <p>12. Under 'D' please put (✓ Tick) against each characteristic where vendor proposes to submit test certificate/report etc. OR as required as per BHEL Specification.</p> <p>13. Vendor's signature & stamp should be available on each page of QAP.</p> <p>14. Vendor should read the BHEL Product Standard thoroughly and QAP should be made only inline and relevant to the Specification & Approved Drawings.</p> <p>15. The following operations/characteristics/check points may be included (AS APPROPRIATE)</p> <ol style="list-style-type: none"> a) Visual check b) Dimensional check c) Mechanical and Chemical properties. d) Surface preparation before painting (by chemical cleaning, sand blasting, shot blasting etc. as the case may be.) e) Painting check for shade, Dry Film Thickness (DFT), Adhesion/ peel off test etc. f) Check for correctness for all components mounted as per General arrangement Drawing, Bill Of Materials (BOM), etc. for range, rating, make, color, size, location as per GA, quantity, label description including tag nos., annunciator facia, loose components, accessories, spares etc. g) Verification of test certificate for protection class for the enclosures. h) Mechanical functioning of switches. i) Continuity of earthing and provision of earth points. j) Colour coding of wiring, size, tightness & dressing of wiring. k) Review of test certificates of assembled items, raw materials, internal test reports etc. l) Witness of functional checks, which may include mechanical run & electrical run, H.V.test, IR measurement, Electrical and Mechanical tests etc. m) PQR, WPS, Welder Qualification Record, welding records (fit up, DP) etc. n) Material identification (for punch marks of serial numbers, Heat No, Melt No, Inspector's stamp etc.) o) Hydraulic Pressure Test, Pneumatic Pressure Test, Liquid Penetration Examination and other Non Destructive Tests. p) Tests on Galvanised items (Visual, Hammer Test, Knife Test, Thickness, Pierce Test (Copper sulphate test), Hydrogen evaluation test, Stripping test (for Mass of Zinc coating) q) All tests as per BHEL Product Standard & approved drawings including Type tests and Routine tests on individual items and on System as a whole. r) Packing and Preservation. <p>16. QAP Format enclosed.</p> <p>17. Typical Manufacturing QAP is attached.</p>		
Ref. Doc			



**PROJECT ENGINEERING & SYSTEMS DIVISION
RC PURAM, HYDERABAD.
QUALITY & BUSINESS EXCELLENCE**

INSPECTION / TC REVIEW FORMAT

1	Vendor's Name:		5	Applicable BHEL Spec No:	
2	Project:		6	Approved Drawing No:	
3	PO No:		7	Approved Data Sheet No:	
4	Item Description:		8	Approved QAP No:	

OFFER LIST

S.No	BBU/ PO Sr. No.	Item Description	Total Qty as per PO/BBU	Qty. already accepted	Qty offered for TC review	Cumulative Qty	Balance Qty
A							
B							
C							
D							

TC REVIEW REQUISITION

BBU / PO Sr. No.	QAP Clause No.	Format of Record	Certificate No. & Date	Page No.	REMARKS
A. Item Description:					
B. Item Description:					
C. Item Description:					
D. Item Description:					
E. Item Description:					

SUPPLIER / VENDOR SIGNATURE WITH SEAL

BHEL/ BHEL's TPIA SIGNATURE WITH SEAL

Dt:

Dt: