






TTTD-106-1 Rev No. 5 Form No.		<b>PROJECT ENGINEERING &amp; SYSTEM DIVISION</b> <b>BHEL, HYDERABAD –32.</b>			<b>PY51283</b>
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<p> <b><u>TECHNICAL SPECIFICATION</u></b>  <b><u>FOR</u></b>  <b><u>FIRE EXTINGUISHERS</u></b> </p>					
<div> <div> <b>Revisions :</b> </div> <div> <b>Prepared by:</b> </div> <div> <b>Checked by:</b> </div> <div> <b>Approved By:</b> </div> <div> <b>Date</b> </div> </div>					
<div> <div>03</div> <div>D V PRASHANT KUMAR</div> <div>P CHANDRASEKHAR</div> <div>M N SRINIVASA RAO</div> <div>17/07/2017</div> </div>					


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<b>COPYRIGHT AND CONFIDENTIAL</b> 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><b>1. INTENT OF SPECIFICATION:</b></p> <p>The intent of this document is to establish the minimum requirement of design, engineering, supply, selection, selection, manufacture, assembly, inspection, shop testing, shop painting, transportation and delivery at site.</p> <p>The equipment and supply shall conform to high standard of engineering and applicable codes/standards and shall be capable of performing intended operation in a manner acceptable to the Purchaser and end customer</p> <p><b>2. SPECIAL NOTES TO BIDDERS</b></p> <p>2.1. In case of any discrepancy arising between this specification &amp; its enclosures, the most stringent of all (as determined by purchaser) shall be followed. 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 other commercial implications.</p> <p>2.2. All materials supplied under this contract shall be new and unused. All equipment connected with the above systems shall be ISI, UL or FM marked as per material code indicated as per variant table and enquiry.</p> <p>2.3. All mounting hardware/ accessories/fittings etc. required for the completion of supply and installation of fire extinguishers shall be included in the scope of bidder and the same shall be included in the base price even if such items are not explicitly mentioned in this specification.</p> <p>2.4. The Bidder shall accept full responsibility for the completeness and for the faultless working of all the Portable fire extinguishers as a whole.</p> <p>2.5. Bidder offer shall be strictly as per these specification requirements. Unsolicited or Alternate offers from the bidders will not be entertained.</p> <p>2.6. All such clarifications required by the bidder shall be intimated to BHEL together as a single notice within a week of receipt of enquiry by bidder.</p> <p>2.7. The design information, specifications and drawings indicate the "Minimum" requirements and are intended to enable Bidders to ascertain the extent of the work</p>		
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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.	<p>involved. Bidders are expected to supplement the information included in this specification as required and submit a comprehensive bid.</p> <p><b>3. BIDDER'S SCOPE OF SUPPLY :</b></p> <p>The scope of supply includes Selection, manufacture, assembly, inspection, shop testing, painting, proper packing, transportation up to project site of all the fire extinguishers as per technical requirements as per relevant standards.</p> <ul style="list-style-type: none"> <li>i. Bidder to quote for the item with material code as mentioned in the enquiry. Relevant technical parameters of the material code/item shall be as per the variant table and their relevant clauses of this specification.</li> <li>ii. Bidder to include all the first fill consumables like DCP, CO2, Foam etc. till successful handing over of Portable fire extinguishers to BHEL.</li> <li>iii. Price of these items shall be construed to be included in the main package price. No separate price for the same shall be offered.</li> <li>iv. Any equipment not specifically mentioned above but if required for satisfactory operation of Portable fire extinguishers and to meet desired intent of specification shall be included in scope of supply of bidder.</li> <li>v. Spare chargers like chemicals, gas cartridge etc. shall be as per relevant IS codes.</li> </ul> <p><b>3.1. <u>ERECTION &amp; FIXING HARDWARE:</u></b></p> <ul style="list-style-type: none"> <li>i. The bidder shall furnish a complete set of all erection &amp; fixing hardware like nuts, bolts, brackets etc. with necessary tools boxes as required for operation and maintenance of the portable fire extinguishers supplied, as a part of scope of supply.</li> <li>ii. 1 set of tools and tackles required for maintenance and repairs of the Portable fire extinguishers shall be included in the bidder's scope. Such list of tools and tackles shall be furnished by bidder in his offer. The tool kit shall be supplied in an exclusive pack.</li> <li>iii. The necessary trolleys and mounting fixtures to mount fire extinguishers shall be included by the bidder in his scope.</li> <li>iv. All supporting arrangements such as clamps, wall hanging supports, and any other item required for the housing and successful usage of the portable fire extinguisher shall be in bidder's scope.</li> </ul>		
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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>v. All special tools and tackles required for O &amp; M purpose shall be included by the bidder in his scope.</p> <p><b>4. BIDDER'S SCOPE OF SERVICES</b></p> <p>4.1. The bidder's major scope of services includes the following:</p> <ul style="list-style-type: none"> <li>i. Submission and obtaining approval of all engineering documents related to manufacturing of the items, data sheets, drawings etc.</li> <li>ii. Packing &amp; Transportation to project site</li> <li>iii. Coordination and statutory approval from government/non-government bodies/agencies</li> <li>iv. Supply of all test reports /certificates</li> </ul> <p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>1. Bidder to note that the above list is not exhaustive and any other service required as per the intent of this specification / project requirements /good engineering practice shall be deemed to be included in bidder's scope without any commercial implication to the purchaser.</li> <li>2. In case of defects observed at site during the installation of portable fire extinguishers, the same shall be rectified/replaced without any additional cost to BHEL.</li> <li>3. The cost of the services given in this clause shall be a part of the basic price of the equipment.</li> </ul> <p>4.2. <b><u>EXCLUSIONS:</u></b></p> <ul style="list-style-type: none"> <li>i. Storage, preservation of Materials/Equipment at site.</li> <li>ii. Erection and Commissioning of Fire Extinguishers.</li> </ul> <p><b>5. TECHNICAL DETAILS:</b></p> <p>5.1. <b><u>APPLICABLE CODES &amp; STANDARDS:</u></b></p> <p>The ISI approved fire extinguishers shall be as per the requirements of the following codes:</p> <ul style="list-style-type: none"> <li>❖ IS 15683: Portable fire extinguishers-Performance and construction.</li> <li>❖ IS 16018: Wheeled Fire Extinguishers- Performance and construction.</li> <li>❖ IS: 5 - Colours for Ready Mixed Paints and Enamels</li> <li>❖ IS 2878: Fire Extinguisher, Carbon Dioxide Type (Portable and Trolley Mounted) – Specification</li> <li>❖ IS 7285: Specification for Seamless Steel Cylinders for Permanent and High Pressure Liquefiable Gases</li> <li>❖ IS 738: Wrought aluminium alloys, drawn tube for general engineering purposes</li> <li>❖ IS 3224: Valve Fittings for Compressed Gas Cylinders Excluding Liquefied Petroleum Gas (LPG) Cylinders – Specification</li> </ul>		
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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.		<div data-bbox="418 289 1425 720"> <ul style="list-style-type: none"> <li>❖ IS 1079: Hot Rolled Carbon Steel Sheets and Strips - Specification</li> <li>❖ IS 318: Specification for Leaded Tin Bronze Ingots and Castings</li> <li>❖ IS 5382: Specification for Rubber Sealing Rings for Gas Mains, Water Mains and Sewers</li> <li>❖ IS 319: Free Cutting Brass Bars, Rods and Sections – Specification</li> <li>❖ IS 4947: Gas Cartridges for Use in Fire Extinguishers – Specification</li> <li>❖ IS 513: Cold Rolled Low Carbon Steel Sheets and Strips</li> <li>❖ IS 3601: Steel Tubes for Mechanical and General Engineering Purposes – Specification</li> <li>❖ IS 14609: Dry chemical powder for fighting ABC class fires — Specification</li> <li>❖ IS 15222: Carbon dioxide as fire extinguishing media for fire protection — Specification</li> </ul> </div> <p>The UL/FM approved fire extinguishers shall be as per the requirements of the following codes:</p> <ul style="list-style-type: none"> <li>❖ NFPA 10: Standard for Portable Fire Extinguishers</li> </ul> <p><b>5.2. <u>STATUTORY REQUIREMENTS:</u></b></p> <p>Requirements of the following local statutory authorities (as applicable) shall be taken into account for compliance as per the variant/ material code requirement:</p> <ol style="list-style-type: none"> <li>i. Tariff Advisory Committee (TAC) Guidelines (for Insurance purposes)</li> <li>ii. Petroleum &amp; Explosives Safety Organization</li> <li>iii. Bureau of Indian Standards approval</li> <li>iv. NFPA-10</li> <li>v. UL/FM</li> </ol> <p><b><u>NOTES:</u></b></p> <ol style="list-style-type: none"> <li>i. All addenda including the latest addenda to all the above codes and standards (latest editions) shall be followed by the bidder.</li> <li>ii. All the legal formalities including preparation of documents, furnishing clarifications, information etc. as and when required, for obtaining any of the permissions and approvals related to the Portable fire extinguishers will have to be done by the bidder.</li> </ol> <p><b>6. PAINTING</b></p> <p>The color of the fire extinguishers shall be shade mentioned in the relevant IS or NFPA codes as applicable for the variant.</p>		
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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>7.6. Inspection Certificate</p> <p>i. Bidder shall submit, copy of each Inspection Certificate (IC) / Inspection Release Note (IRN) issued by TPIA, along with all attachments mentioned therein.</p> <p>7.7. Inspection agency:</p> <p>i. Purchaser / Third Party appointed by purchaser</p> <p>ii. The inspection agency shall be indicated in the quality plan and shall be as per the approved quality plan.</p> <p>7.8. Warranty:</p> <p>The Bidder shall provide warranty for the portable fire extinguishers for a period of 12 months from the date of receipt at site.</p> <p><b>8. MARKING , PACKING AND DESPATCH</b></p> <p>8.1. The markings on the ISI approved portable fire extinguishers shall be in line with the requirements as mentioned in Cl.10.2 of IS:15683 and for ISI approved wheeled fire extinguishers shall be as per Cl.9.2 of IS:16018.</p> <p>8.2. The markings on the UL/FM approved portable fire extinguishers shall be in line with the requirements as mentioned in NFPA 10.</p> <p>8.3. A suitable temporary rust preventive with minimum life of two years shall be applied inside the item/equipment body in order to prevent corrosion.</p> <p>8.4. 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 Export Packing guidelines, AA 0490009, Rev-01).</p> <p>Each item / equipment after end protection should be wrapped in polythene sheet before packing in the cases.</p> <p>Each packing case must contain two copies of the shipping list giving details of all the contents of the case.</p> <p>8.5. The following marking shall be done on each packing case minimum on two sides and at the top.</p>		
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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>(a) Complete address of the consignee and destination as per BHEL Purchase Order.</p> <p>(b) BHEL Purchase order Number</p> <p>(c) BHEL item Material Code</p> <p>(d) Number of pieces in each packing case</p> <p>(e) Net Weight</p> <p>(f) Gross Weight</p> <p>(g) Packing case number and total number of packings</p> <p>(h) Arrow indicating top of the packing case.</p> <p><b>9. DOCUMENTATION:</b></p> <p><b>9.1. Along with the offer:</b></p> <p>Signed and stamped copy of this specification as token of acceptance of the specification for execution in the event of Order.</p> <p><b>9.2. After PO Placement:</b></p> <p>Two copies each of the following documents shall be submitted for approval.</p> <ul style="list-style-type: none"> <li>G.A. Drawings with weights and dimensions</li> <li>Technical Data sheets, Catalogue</li> <li>Tests to be conducted</li> <li>O&amp;M manuals</li> <li>Storage/Preservation instructions for at least three years.</li> </ul> <p>Final documentation consisting of above documents shall be submitted in requisite sets (to be decided post order) of hard and soft copies.</p> <p>Schedule for document submissions:</p> <table border="1"> <thead> <tr> <th>S.no</th> <th>Description</th> <th>Schedule</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Submission of GA drawing &amp; Technical Datasheet by vendor</td> <td>7 days from the date of P.O.</td> </tr> <tr> <td>2</td> <td>Approval GA drawing &amp; Technical Datasheet by BHEL</td> <td>14 days from receipt of the document*</td> </tr> </tbody> </table> <p>* The GA drawing &amp; Technical Datasheet submitted by vendor shall be strictly in compliance to all applicable standards and specification.</p>			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*
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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><b>10. PRICE BID FORMAT</b></p> <p>10.1. Price bid format is enclosed as Annexure-2, bidder to furnish the offer inline with the same.</p> <p>10.2. Portable fire extinguishers System as envisaged in this bid document shall be quoted by the bidder on Lump sum basis.</p> <p>10.3. All the items included in the price bid format shall be quoted as per tender specification and pre-bid clarifications, if any. Responsibility of ensuring correctness &amp; completeness of scope of supply as per specification requirement solely lies with bidder.</p> <p>10.4. Prices quoted by the bidder shall remain firm till the successful handing over of the Fire Protection plant to end customer. Any request for upward revision of price during any intermediate stage before handing over the plant to end customer will be summarily rejected by BHEL.</p> <p>10.5. Bidder to quote only base rates for all the items, Applicable taxes and duties shall be indicated separately.</p> <p>10.6. The Priced Bid shall be submitted in Original (without any copy) duly signed and stamped on each page in a separate sealed envelope super scribing "Price Bid –Do not Open" This shall not contain any condition whatsoever failing which the Bids shall be liable to be rejected. In case of any correction, the bidder shall put its signature and its stamp. Eraser fluid will not be allowed for making any correction.</p> <p>10.7. Bidder shall confirm to the unpriced bid as part of their offer.</p> <p><b>11. DEVIATIONS TO SPECIFICATIONS:</b></p> <p>11.1. In case bidder feels that it is necessary to exclude some components of scope of supply &amp; some features of specification requirements, due to genuine constraints if any, bidder has to clearly bring out the same to the notice of BHEL and take their prior approval before submission of bid. Bidders are requested to bring out only those deviations which are impractical to meet (or) not technically advisable as per the experience of bidder, for BHEL's review before the submission of bid. All such clarifications required by the bidder shall be intimated to BHEL together as a single notice within a week of receipt of enquiry by bidder.</p> <p>11.2. Deviation to specification shall be submitted only in Deviation format (Annexure-8). Deviations mentioned in any other part of the quotation shall NOT be considered.</p>		
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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.	<p>11.3. In case the bidder considers requirement of additional instrumentation, controls, safety devices and any other accessories/auxiliaries essential for safe and satisfactory operation of the equipment, he shall recommend the same along with reasons in a separate section as a part of pre-bid query to enable purchaser take a suitable decision on the requirement of the same.</p> <p>11.4. Information like Bill of materials (BOM), Instrument list, datasheets, and typical specifications enclosed by the bidder as a part of their bid, shall be retained for information only and shall not be referred by contractor as contractual agreement. No implication shall be admissible on the basis of these documents during any stage of contract execution.</p> <p><b>12. DEFINITIONS</b></p> <p>12.1. BIDDER: Bidder means the party supplying of portable fire extinguishers for this project.</p> <p>12.2. QUALITY ASSURANCE PLAN (QAP) / INSPECTION AND TEST PLAN (ITP): It is a document generated by the supplier with complete listing of various inspection stages, tests, material certification requirements and parties involved with their respective roles in inspection; indicating the requirements of Hold (H),Witness (W) Inspection, and Review (R) of Quality control documents / records for an item. QAP and ITP are considered synonymous.</p> <p>12.3. THIRD PARTY INSPECTION AGENCY (TPIA): Third Party Inspection Agency means an inspection agency appointed by the EPCC/LSTK CONTRACTOR for carrying out Inspection and witness of tests of equipment and material being procured by the CONTRACTOR for the Project.</p> <p>12.4. INSPECTION CATEGORY: Inspection category determines the scope of Inspection for the Supplier, TPIA / OWNER for various equipment and material depending upon their use, serviceability, safety criteria and complexity.</p> <p>12.5. SUPPLY COMPLETION: Supply Completion of systems shall mean that all items of the system have been delivered and tested in accordance with approved drawings, approved specification, applicable code as defined in the document, accepted international good engineering practices and all the activities have been completed in a comprehensive manner by the bidder.</p> <p><b>13. LIST OF ANNEXURES:</b></p> <table border="1"> <thead> <tr> <th colspan="3">LIST OF ANNEXURES</th> </tr> <tr> <th>Sl. No</th> <th>Drawings/Documents</th> <th>Drg/Doc no</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Technical Data Sheets/Technical Information</td> <td>Annexure-1</td> </tr> <tr> <td>2.</td> <td>Price Bid Format</td> <td>Annexure-2</td> </tr> <tr> <td>3.</td> <td>Document List</td> <td>Annexure-3</td> </tr> </tbody> </table>			LIST OF ANNEXURES			Sl. No	Drawings/Documents	Drg/Doc no	1.	Technical Data Sheets/Technical Information	Annexure-1	2.	Price Bid Format	Annexure-2	3.	Document List	Annexure-3
	LIST OF ANNEXURES																	
Sl. No	Drawings/Documents	Drg/Doc no																
1.	Technical Data Sheets/Technical Information	Annexure-1																
2.	Price Bid Format	Annexure-2																
3.	Document List	Annexure-3																
Ref. Doc.																		

TD-106-2 Rev.No. 5	Form No.		<b>PROJECT ENGINEERING &amp; SYSTEM DIVISION</b> <b>BHEL, HYDERABAD –32.</b>		<b>PY51283</b>																																																												
					Rev No. 03																																																												
					Page 12 of 14																																																												
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p style="text-align: center;"><b>COPYRIGHT AND CONFIDENTIAL</b></p> <p>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> </div> <div style="width: 85%;"> <table border="1" style="width: 100%;"> <tr> <td style="width: 5%;">4.</td> <td style="width: 65%;">Guidelines for preparation of Quality Assurance Plan</td> <td style="width: 30%;">Annexure-4</td> </tr> <tr> <td>5.</td> <td>Manufacturing Quality Plan Format</td> <td>Annexure-5</td> </tr> <tr> <td>6.</td> <td>Format for Dispatch details</td> <td>Annexure-6</td> </tr> <tr> <td>7.</td> <td>Pre-Bid Query Format</td> <td>Annexure-7</td> </tr> <tr> <td>8.</td> <td>Deviation Format</td> <td>Annexure-8</td> </tr> <tr> <td>9.</td> <td>Check List</td> <td>Annexure-9</td> </tr> </table> <p style="margin-top: 20px;">Bidder to note that the above annexures are preliminary in nature .These annexures may get revised and /or new annexures will be furnished to bidder. Bidder to however note that they will not be eligible to raise any extra charges on account of this.</p> <p style="text-align: center;"><b><u>VARIANT TABLE (FOR BHEL INTERNAL ONLY)</u></b></p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 10%;">Variant No.</th> <th style="width: 60%;">Item</th> <th style="width: 30%;">Material code</th> </tr> </thead> <tbody> <tr><td>01</td><td>25 Kg capacity DCP type Fire Extinguisher as per IS</td><td>PY9751283019</td></tr> <tr><td>02</td><td>22.5 kg CO2 type Fire Extinguisher as per IS</td><td>PY9751283027</td></tr> <tr><td>03</td><td>9 Lit. Mechanical Foam type Fire Extinguishers as per IS</td><td>PY9751283035</td></tr> <tr><td>04</td><td>50 Lit. Mechanical Foam type Fire Extinguishers as per IS</td><td>PY9751283043</td></tr> <tr><td>05</td><td>4.5 kg CO2 type Fire Extinguisher as per IS</td><td>PY9751283051</td></tr> <tr><td>06</td><td>9 Lit. Pressurized water type (operated by CO2 cartridge) as per IS</td><td>PY9751283060</td></tr> <tr><td>07</td><td>9 Kg capacity DCP type Fire Extinguisher as per IS</td><td>PY9751283078</td></tr> <tr><td>08</td><td>6 Kg capacity DCP type Fire Extinguisher as per IS</td><td>PY9751283086</td></tr> <tr><td>09</td><td>Spare charger for 4.5kg CO2 type Fire Extinguisher</td><td>PY9851283096</td></tr> <tr><td>10</td><td>Spare charger for 6kg DCP type Fire Extinguisher</td><td>PY9851283100</td></tr> <tr><td>11</td><td>Spare charger for 9kg DCP type Fire Extinguisher</td><td>PY9851283118</td></tr> <tr><td>12</td><td>Spare charger for 25kg DCP type Fire Extinguisher</td><td>PY9851283126</td></tr> <tr><td>13</td><td>Spare charger for 22.5kg CO2 type Fire Extinguisher</td><td>PY9851283134</td></tr> </tbody> </table> </div> </div>						4.	Guidelines for preparation of Quality Assurance Plan	Annexure-4	5.	Manufacturing Quality Plan Format	Annexure-5	6.	Format for Dispatch details	Annexure-6	7.	Pre-Bid Query Format	Annexure-7	8.	Deviation Format	Annexure-8	9.	Check List	Annexure-9	Variant No.	Item	Material code	01	25 Kg capacity DCP type Fire Extinguisher as per IS	PY9751283019	02	22.5 kg CO2 type Fire Extinguisher as per IS	PY9751283027	03	9 Lit. Mechanical Foam type Fire Extinguishers as per IS	PY9751283035	04	50 Lit. Mechanical Foam type Fire Extinguishers as per IS	PY9751283043	05	4.5 kg CO2 type Fire Extinguisher as per IS	PY9751283051	06	9 Lit. Pressurized water type (operated by CO2 cartridge) as per IS	PY9751283060	07	9 Kg capacity DCP type Fire Extinguisher as per IS	PY9751283078	08	6 Kg capacity DCP type Fire Extinguisher as per IS	PY9751283086	09	Spare charger for 4.5kg CO2 type Fire Extinguisher	PY9851283096	10	Spare charger for 6kg DCP type Fire Extinguisher	PY9851283100	11	Spare charger for 9kg DCP type Fire Extinguisher	PY9851283118	12	Spare charger for 25kg DCP type Fire Extinguisher	PY9851283126	13	Spare charger for 22.5kg CO2 type Fire Extinguisher	PY9851283134
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TD-106-2 Rev No. 5		Form No.	<div><div><div>बी एच ई एल</div><div>BHEL</div></div></div> <div>PROJECT ENGINEERING &amp; SYSTEM DIVISION BHEL, HYDERABAD –32.</div>		PY51283	
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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.			14	Spare charger for 9lit Press. water type Fire Extinguisher	PY9851283142	
			15	Spare charger for 9lit Mechanical Foam type Fire Extinguisher	PY9851283150	
			16	Spare charger for 50lit Mechanical Foam type Fire Extinguisher	PY9851283169	
			17	9ltr Water type Fire Extinguisher (Stored Pressure type) as per IS	PY9751283175	
			18	9kg CO2 type Fire Extinguisher as per IS	PY9751283183	
			19	30kg CO2 type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283191	
			20	50kg DCP type Fire Extinguisher as per IS	PY9751283205	
			21	75kg DCP type Fire Extinguisher as per IS	PY9751283213	
			22	130ltr Foam type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283221	
			23	2kg Clean Agent type Fire Extinguisher as per IS	PY9751283230	
			24	4kg Clean Agent type Fire Extinguisher as per IS	PY9751283248	
			25	6kg Clean Agent type Fire Extinguisher as per IS	PY9751283256	
			26	Spare charger for 75kg DCP type Fire Extinguisher as per IS	PY9851283266	
			27	5kg CO2 type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283272	
			28	6kg DCP type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283280	
			29	75kg DCP type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283299	
			30	10ltr Foam type Fire Extinguisher (UL/FM approved) as per NFPA	PY9751283302	
			31	60ltr Foam type Fire Extinguisher as per IS	PY9751283310	
			32	Multipurpose Nozzles as per IS	PY9751283329	
			33	Spare charger for 9kg CO2 type Fire Extinguisher	PY9851283339	
			Ref. Doc		34	Spare charger for 60lit Mechanical Foam type Fire Extinguisher

TD-106-3 Rev. No. F Form No.		<b>PRODUCT STANDARD</b> <b>BHEL, HYDERABAD –32.</b> <b>PROJECT ENGINEERING – MECHANICAL</b>				<b>PY51283</b>	
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<b>COPYRIGHT AND CONFIDENTIAL</b>  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.	<b>RECORD OF REVISIONS</b>						
	<b>Rev. No.</b>	<b>Date</b>	<b>Revision Details</b>	<b>Prepared By</b>	<b>Checked By</b>	<b>Approved By</b>	
	00	17/07/2017	ORIGINAL ISSUE	--SD--	--SD--	---SD---	
	01	05/09/2017	REVISED TO ADD NEW MATERIAL CODES	--SD--	--SD--	---SD---	
	02	28/07/2018	REVISED TO ADD NEW MATERIAL CODES	--SD--	--SD--	---SD---	
	03	26/12/2018	GENERALLY REVISED	--SD--	--SD--	---SD---	
	Ref. Doc.						





## ANNEXURE-1

### TECHNICAL INFORMATION FOR FIRE EXTINGUISHERS

Fire extinguishers shall be conforming to IS:15683 and IS:16018. The testing parameters of the fire extinguishers shall conform to as mentioned in the respective IS standards.

All fire extinguishers shall be cartridge operated type only.





ANNEXURE-2  
PRICE BID FORMAT FOR  
FIRE EXTINGUISHERS

Sl. No.	Description	Material Code	Qty.	Unit	PRICE in INR ( Refer notes below)		Weightages
					Unit Price (INR)	Total Price (INR)	
1.	9ltr Water type Fire Extinguisher (operated by CO2 cartridge)	PY9751283060	665	Nos.			13.06%
2.	4.5kg CO2 type Fire Extinguisher	PY9751283051	916	Nos.			34.76%
3.	9kg CO2 type Fire Extinguisher	PY9751283183	54	Nos.			3.91%
4.	22.5kg CO2 type Fire Extinguisher	PY9751283027	92	Nos.			12.69%
5.	6kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283086	1022	Nos.			21.70%
6.	9kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283078	47	Nos.			1.24%
7.	25kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283019	22	Nos.			2.17%
8.	50kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283205	22	Nos.			3.40%
9.	75kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283213	5	Nos.			0.94%
10.	9ltr Foam type Fire Extinguisher (operated by CO2 cartridge)	PY9751283035	202	Nos.			4.49%
11.	45ltr Foam type Fire Extinguisher (operated by CO2 cartridge)	PY9751283043	21	Nos.			1.33%
12.	2 Sand Buckets with Stand along with canopy	PY9751283361	10	Nos.			0.31%
	<b>Grand Total</b>						100%



## ANNEXURE-2

### Notes:

1. This document details the price schedule format for the enquiry. No other format will be entertained. ~~Applicable taxes and duties shall be indicated separately in commercial offer.~~
2. Duly signed & stamped un-priced price schedule format shall be submitted by vendor in the technical offer as a token of concurrence that price schedule would be submitted in this format. Any tampering / modification / additions, etc. are NOT allowed and not considered binding and is liable for rejection of the offer.
3. Bidder to refer to Cl.10 of specification PY51283 Rev-03 before filling this format.
4. The price quoted by the bidder shall be inclusive of the following:
  - i) Scope of Supply (Cl. 3 of PY51283 Rev-03)
  - ii) Scope of Services (Cl. 4 of PY51283 Rev-03)
  - iii) Inspection & Testing (Cl. 7 of PY51283 Rev-03)
  - iv) Marking, Packing & Dispatch (Cl. 8 of PY51283 Rev-03)
  - v) Documentation (Cl. 9 of PY51283 Rev-03)
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  $\pm 10\%$  of order Value. All accessories required for this purpose shall be included in the price quoted.
6. All the fire extinguishers shall be supplied in filled condition to site.
7. Charge required for refilling of 10% of the quantities mentioned above shall be in the scope of the bidder. The same shall be considered in the price quoted and shall be supplied along with the Fire Extinguishers.
8. Offer will be evaluated based on total price of price format.

BIDDER'S SIGNATURE  
NAME:  
DATE  
COMPANY SEAL

**ANNEXURE-A to PRICE BID FORMAT for Project-wise Break-up of BOQ**


Sl. NO	Item Description	Mcode	PMD No	UoM	Unit Wt.	5 x 800 MW Yadadri	1 x 660 MW Panki	1 x 660 MW Bhusawal	3 x 800 MW Patratu	3 x 660 MW Karanpura FGD	2 x 500 MW Mauda FGD	Total
1	9ltr Water type Fire Extinguisher (operated by CO2 cartridge)	PY9751283060	PE.MP.527	EA	15	200	131	91	231	6	6	665
2	4.5kg CO2 type Fire Extinguisher	PY9751283051	PE.MP.527	EA	20	300	157	148	275	18	18	916
3	9kg CO2 type Fire Extinguisher	PY9751283183	PE.MP.527	EA	36		54	0				54
4	22.5kg CO2 type Fire Extinguisher	PY9751283027	PE.MP.527	EA	80	20	22	6	44			92
5	6kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283086	PE.MP.527	EA	10	400	162	152	270	19	19	1022
6	9kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283078	PE.MP.527	EA	20		47					47
7	25kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283019	PE.MP.527	EA	70	11		11				22
8	50kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283205	PE.MP.527	EA	70	11		11				22
9	75kg DCP type Fire Extinguisher (operated by CO2 cartridge)	PY9751283213	PE.MP.527	EA	150		5					5
10	9ltr Foam type Fire Extinguisher (operated by CO2 cartridge)	PY9751283035	PE.MP.527	EA	15	27	55	21	99			202
11	45ltr Foam type Fire Extinguisher (operated by CO2 cartridge)	PY9751283043	PE.MP.527	EA	100		17	4				21
12	2 SandBuckets with Stand along with canopy	PY9751283361	PE.MP.527	EA	100	5			5			10


**ANNEXURE - 3 : FIRE PROTECTION SYSTEM - DWGS/DOCS SCHEDULE**


1	LIST OF SUPERCIDED DRAWINGS / DOCUMENTS			S	TO INDEX PAGE				APPROVED			A
2	LIST OF ACTIVE DRAWINGS / DOCUMENTS			A	TODAY'S DATE			APPROVED WITH COMMENTS			B	
3	LIST OF DRAWINGS/DOCUMENTS UNDER PREPARATION			UP		20-Nov-21		NOT APPROVED			C	
4	LIST OF STEAG APPROVED DRAWINGS			ADS				INFORMATION CATEGORY			D	
								RECORD PURPOSE			R	
	DRAWING NOT FOR APPROVAL, ONLY FOR INFORMATION. INFORMATION FURNISHED IN THE DRAWING IS NOTED										H	
								A		A		
1	Drawings & Documents Pending with BIDDER							A	P-BHEL	B		
2	Drawings & Documents Pending with PURCHASER							A	P-BIDDER	C		
3	Drawings & Documents Approved by PURCHASER							A	ADS	D		
4	Supercided Drawings.							A	S	R		
										H		
S. NO	DRAWING/ DOCUMENTS	DWG. NO.	APPR (A/I)	REV	SENT BY BIDDER (SOFT COPY)	HARD COPY RECEIVED BY BHEL	COMMENTS SEND TO BIDDER BY BHEL	REVISED DWG. / DOC. RECEIVED FROM BIDDER	STS	PEND	STEAG APP STATUS	REMARKS
	DOCUMENTS											
1	9ltr Water type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
2	4.5kg CO2 type Fire Extinguisher		A	0					UP			
3	9kg CO2 type Fire Extinguisher		A	0					UP			
4	22.5kg CO2 type Fire Extinguisher		A	0					UP			
5	6kg DCP type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
6	9kg DCP type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
7	25kg DCP type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
8	50kg DCP type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
9	75kg DCP type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
10	9ltr Foam type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
11	45ltr Foam type Fire Extinguisher (operated by CO2 cartridge)		A	0					UP			
12	2 SandBuckets with Stand along with canopy		A	0					UP			
13	Quality Assurance Plan		A	0					UP			
14	List of Consumables		I	0					UP			
15	List of Shelf life items		I	0					UP			
16	Non destructive testing procedure		I	0					UP			
17	Procedure for storage of Shelf life items (if any)		I	0					UP			
18	Inspection Reports		A	0					UP			

# **ANNEXURE - 3 : FIRE PROTECTION SYSTEM - DWGS/DOCS SCHEDULE**

1	LIST OF SUPERCIDED DRAWINGS / DOCUMENTS		S	TO INDEX PAGE						APPROVED	A
2	LIST OF ACTIVE DRAWINGS / DOCUMENTS		A	TODAY'S DATE					APPROVED WITH COMMENTS	B	
3	LIST OF DRAWINGS/DOCUMENTS UNDER PREPARATION		UP		20-Nov-21				NOT APPROVED	C	
4	LIST OF STEAG APPROVED DRAWINGS		ADS						INFORMATION CATEGORY	D	
									RECORD PURPOSE	R	
		DRAWING NOT FOR APPROVAL, ONLY FOR INFORMATION. INFORMATION FURNISHED IN THE DRAWING IS NOTED								H	
								A		A	
1	Drawings & Documents Pending with BIDDER							A	P-BHEL	B	
2	Drawings & Documents Pending with PURCHASER							A	P-BIDDER	C	
3	Drawings & Documents Approved by PURCHASER							A	ADS	D	
19	Packing List		I	0				UP			
20	O & M Manuals		I	0				UP			
Notes:											
1	List of any other drawing / document required for completion of engineering & supply of the system other than above mentioned list, shall be furnished by bidder within 14 days after Placement of P.O										

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			Rev No. 00
			Page 1 of 3
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Form No.	 <b>बी एच ई एल</b> <b>BHEL</b> HYDERABAD	<b>PRODUCT STANDARD</b> PROJECT ENGINEERING & SYSTEMS DIVISION HYDERABAD	ANNEXURE-4
			Rev No. 00
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<b>COPYRIGHT AND CONFIDENTIAL</b> 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 style="text-align: center;"><b><u>GUIDELINES TO VENDORS FOR PREPARATION OF QUALITY ASSURANCE PLAN</u></b></p> <ol style="list-style-type: none"> <li>1. QAP shall be made in landscape mode on A4 size paper as per the format enclosed. Font size shall be minimum 10.</li> <li>2. Each page of QAP shall contain the following information.           <ol style="list-style-type: none"> <li>a) Vendor's name &amp; address.</li> <li>b) Customer: BHEL, Hyderabad.</li> <li>c) Project.</li> <li>d) BHEL Product Standard Number/revision number as referred in P.O.</li> <li>e) BHEL Purchase Order Number &amp; Date.</li> <li>f) Product as per P.O. description.</li> <li>g) QAP Number (unique and shall not repeat)/revision number/date.</li> <li>h) Page number and number of pages</li> </ol> </li> <li>3. QAP shall contain four parts / stages as follows.           <ol style="list-style-type: none"> <li>a) Raw materials and bought out items.</li> <li>b) In process Control / Inspection.</li> <li>c) Final assembly, Inspection &amp; Testing.</li> <li>d) Painting, preservation &amp; packing.</li> </ol> </li> <li>4. Under 'Component', indicate name of the component (say casing, rotor, pressure gauge, etc).</li> <li>5. Under 'Characteristics', indicate appropriately (say chemical analysis, mechanical properties, NDT (UT,DP etc.), hydrostatic test, calibration check etc.)</li> <li>6. Under 'Class', indicate minor, major or critical depending on the importance of characteristic.</li> <li>7. Under 'Type of check', indicate appropriately (say chemical, mechanical, UT, DP etc.)</li> <li>8. Under 'Quantum of check', indicate appropriately (say 100%, 10%, sample, per melt, per heat, all pieces etc.)</li> <li>9. Under 'Reference document' and 'Acceptance norms', appropriate National &amp; 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 &amp; approval by our Engineering dept.</li> <li>10. Under 'Format of record', indicate appropriately supplier's test certificate, calibration certificate, lab report, inspection report etc.</li> </ol>		
	Ref. Doc		


Form No.	 HYDERABAD	<p align="center"><b>PRODUCT STANDARD</b></p> <p align="center">PROJECT ENGINEERING &amp; SYSTEMS DIVISION HYDERABAD</p>	ANNEXURE-4 Rev No. 00 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>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,          under Witness (W) column use 1. Under 'Verify' column, use code1.</p> <p>12. Under 'D' please put ( <input type="checkbox"/> 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 &amp; 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 &amp; Approved Drawings.</p> <p>15.The following operations/characteristics/check points may be included (AS          APPROPRIATE)</p> <ul style="list-style-type: none"> <li>a) Visual check</li> <li>b) Dimensional check</li> <li>c) Mechanical and Chemical properties.</li> <li>d) Surface preparation before painting (by chemical cleaning, sand blasting, shot blasting          etc. as the case may be.)</li> <li>e) Painting check for shade, Dry Film Thickness (DFT), Adhesion/ peel off test etc.</li> <li>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.</li> <li>g) Verification of test certificate for protection class for the enclosures.</li> <li>h) Mechanical functioning of switches.</li> <li>i) Continuity of earthing and provision of earth points.</li> <li>j) Colour coding of wiring, size, tightness &amp; dressing of wiring.</li> <li>k) Review of test certificates of assembled items, raw materials, internal test reports etc.</li> <li>l) Witness of functional checks, which may include mechanical run &amp; electrical run,          H.V.test, IR measurement, Electrical and Mechanical tests etc.</li> <li>m) PQR, WPS, Welder Qualification Record, welding records (fit up, DP) etc.</li> <li>n) Material identification ( for punch marks of serial numbers, Heat No, Melt No,          Inspector's stamp etc.)</li> <li>o) Hydraulic Pressure Test, Pneumatic Pressure Test, Liquid Penetration Examination and          other Non Destructive Tests.</li> <li>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)</li> <li>q) All tests as per BHEL Product Standard &amp; approved drawings including Type tests and          Routine tests on individual items and on System as a whole.</li> <li>r) Packing and Preservation.</li> </ul>
			Ref. Doc




VENDOR'S NAME & ADDRESS:			<b>MANUFACTURING QUALITY PLAN</b>						QP. NO.:				
									REV NO:		DATE:		
			CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT:			BHEL P.O.NO.: P.O.DATE: BHEL SPEC:			REV:			PAGE 1 OF 1	
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY P W V			REMARKS
1.0	<b>RAW MATERIALS &amp; BOUGHT OUT ITEMS</b>												
2.0	<b>INPROCESS INSPECTION</b>												
3.0	<b>FINAL INSPECTION &amp; TESTING</b>												
4.0	<b>PRESERVATION &amp; PACKING</b>												

**VENDOR TO NOTE:** THIS FORMAT IS IN MICROSOFT WORD. HEADER & FOOTER SHALL BE AVAILABLE IN EACH PAGE OF QP. QP SHALL BE IN LANDSCAPE & A4 SIZE ONLY. FONT SIZE SHALL BE MIN 10. VENDOR SHALL SIGN & STAMP IN EACH PAGE OF QP. LOI REF. & DATE ARE NOT ACCEPTABLE. P.O.NO. & DATE SHALL BE INDICATED. QP NO. SHOULD BE UNIQUE AND SHALL NOT REPEAT. ALL THE TESTS / CHECKS INDICATED IN THE BHEL SPEC. SHALL BE INDICATED IN THE QP.

LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL CQS (OR BHEL NOMINATED INSPECTION AGENCY) & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY	APPROVED BY	APPROVED BY
	VENDOR'S SIGNATURE & STAMP	BHEL QA SIGNATURE & STAMP	CUSTOMER'S SIGNATURE & STAMP

		MANUFACTURING QUALITY PLAN						MQP. NO.: SMQP/FPS/23/092013					
		PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032			PRODUCT: CO2 (PORTABLE & TROLLY MOUNTED FIRE EXTINGUISHER)			REV NO: 00		DATE: 01/09/2013			
								PAGE 1 OF 2					
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*	AGENCY			REMARKS
									D	P	W	V	
1.0	RAW MATERIALS & BOUGHT OUT ITEMS												
1.1	Body (Cylinder)	Visual & Dimn.	Major	Physical Obsvn. & Measure ment	TC/RMTC Review	IS: 7285	IS:7285	TC/RMTC	√	2	2	1	TC/RMTC to be submitted to "1". BIS & CCE approval over cylinder – Document to be submitted to "1"
1.2	Valve	Visual & Dimn.	Major	Physical Obsvn. & Measure ment	TC/RMTC Review	IS:3224	IS:3224	TC/RMTC	√	2	2	1	
1.3	Hose	Burst Pressure	Major	B. P. Test	1/Lot	IS:2878	IS:2878	TC/RMTC/IIR	√	2	2	1	
1.4	CO2 Gas	Quality of Gas	Major	Quality of Gas	TC/RMTC Review	IS:15222	IS:15222	TC/RMTC/IIR	√	2	2	1	
1.5	Syphon Tube	Chemical	Major	Chemical	TC/RMTC Review	IS:738	IS:738	TC/RMTC/IIR	√	2	2	1	
2.0	INPROCESS INSPECTION												
2.1	Complete Assembly	Visual, Dimn. & Assy. Check	Major	Physical Obsvn. & Measure ment	100%	IS:2878	IS:2878	IR	--	2	2	1	
2.2		Performance Test	Major	Performa nce Test	Random 10%	IS:2878 / IS:2004 Cl. 9.1	IS:2878 / IS:2004 Cl. 9.1	IR	--	2	2	1	
2.3		Leakage Test	Major	Leakage Test	1/Lot	IS:2878 / IS:2004 Cl. 9.3	IS:2878 / IS:2004 Cl. 9.3	IR	--	2	2	1	
3.0	FINAL INSPECTION & TESTING												
3.1	Complete Assembly	Visual & Dimn.	Major	Physical Obsvn. & Measure ment	1/Lot	IS:2878	IS:2878	IR	√	2	2	1	Dimn. Report to be submitted
3.2		Painting & Marking	Major	Visual	100%	IS:2878	IS:2878	IR	--	2	2	1	


LEGEND: P: PERFORM, W: WITNESS, V: TEST CERTIFICAT REVIEW. INDICATE 1 FOR BHEL / BHEL NOMINATED INSPECTION AGENCY/END USER/END USER'S REPRESENTATIVE & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY	APPROVED BY	APPROVED BY
	BHEL QA SIGNATURE & STAMP	BHEL QA SIGNATURE & STAMP	CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)

		<b>MANUFACTURING QUALITY PLAN</b>						MQP. NO.: SMQP/FPS/23/092013					
								REV NO: 00		DATE: 01/09/2013			
		PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032				PRODUCT: CO2 (PORTABLE & TROLLY MOUNTED FIRE EXTINGUISHER)				PAGE 2 OF 2			
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	
3.3		Leakage Test	Major	Leakage Test	100%	IS:2878	IS:2878	TC	√	2	2	1	
4.0	<b>PRESERVATION &amp; PACKING</b>												
4.1	Complete Assembly	Properly Packing with necessary marking	Major	Visual	100%	App. TDS / IS:2878	App. TDS / IS:2878	Packing Report	--	2	2	--	
		Preservation must be maintained at proper place	Major	Visual	100%	App. TDS / IS:2878	App. TDS / IS:2878	Packing Report	--	2	2	--	

LEGEND: P: PERFORM, W: WITNESS, V: TEST CERTIFICAT REVIEW. INDICATE 1 FOR BHEL / BHEL NOMINATED INSPECTION AGENCY/END USER/END USER'S REPRESENTATIVE & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY	APPROVED BY	APPROVED BY
	BHEL QA SIGNATURE & STAMP	BHEL QA SIGNATURE & STAMP	CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)

(NOTE: ASSEMBLED UNITS AND ALL LOOSE DESPATCHABLE ITEMS IDENTIFIED IN THIS BOM)

## ANNEXURE-7

TD-106-2	Rev.No. 5 Form No.		<b>PROJECT ENGINEERING &amp; SYSTEMS DIVISION</b> <b>BHEL, HYDERABAD –32.</b>	PESD/HYD-776
				Rev No.: <b>00</b>
				Page 1 of 1

<p style="text-align: center;"><b>COPYRIGHT AND CONFIDENTIAL</b></p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED .</p> <p>It must not be used directly or indirectly in any way detrimental to the interest of the company.</p>		<p style="text-align: center;"><u>PRE-BID QUERRIES FROM SPECIFICATION</u></p> <p>If the proposal submitted has got any Queries from the technical stipulations in the bidding document, the Bidder shall tabulate below the full particulars of such Queries and shall sign below. Additional sheets may be enclosed, if necessary. Queries are to be furnished with mention of specific clause numbers. Technical and commercial Queries to scope of supply and services shall be indicated separately.</p> <table border="1" data-bbox="292 714 1469 1396"> <thead> <tr> <th data-bbox="292 714 527 787">SL.No.</th><th data-bbox="527 714 852 787">Clause No.</th><th data-bbox="852 714 1226 787">Description as per specification</th><th data-bbox="1226 714 1469 787">Queries by Bidder</th></tr> </thead> <tbody> <tr> <td data-bbox="292 787 527 1396" style="height: 250px;"></td><td data-bbox="527 787 852 1396"></td><td data-bbox="852 787 1226 1396"></td><td data-bbox="1226 787 1469 1396"></td></tr> </tbody> </table> <p>We confirm that all the Pre-Bid Queries to the Technical Specification, Job Specification and enclosures including reference documents attached are listed in this Annexure only. No other Pre-Bid Queries even if mentioned elsewhere shall be considered for any technical/ commercial evaluation or for ordering.</p> <p>Bidder's Signature.....</p> <p>Date:.....</p>	SL.No.	Clause No.	Description as per specification	Queries by Bidder				
SL.No.	Clause No.	Description as per specification	Queries by Bidder							

ANNEXURE - 8						
LIST OF DEVIATIONS						
Sl. No.	Part No./ Volume	Page no.	Clause No.	Subject	Deviation/Clarification	Reason for Deviation
1						
2						
3						
4						
5						
6						

**NOTES:**

1. Deviations, if any, shall be clearly brought out only in this format. Deviations mentioned / taken elsewhere or in any other format will be ignored.
2. Additional sheets in the same format can be attached by the vendor, if necessary.
3. Nature of Deviations shall only be of Design / Manufacturing constraints and non-availability of items / components / makes in market.
4. 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.
5. Reasons for the deviations shall be specified in the Remarks column.
6. 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.
7. 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

**ANNEXURE - 9****CHECK LIST FOR OFFER SUBMISSION**

<b>SL No</b>	<b>Description</b>	<b>Bidder's Confirmation</b>
1	Bidder to confirm to the scope of supply and scope of services as per BHEL spec: PY51283	
2	Bidder to submit the No Deviation letter w.r.t. BHEL spec: PY51283 along with offer.	
3	Bidder to quote as per BHEL price format only. Bidder to attached unpriced bid format by indicating "QUOTED" against each item in the technical offer.	
4	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 $\pm 10\%$ of order Value.	
5	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.	
6	It shall be bidder's responsibility to get all his queries and deviations addressed by the purchaser during the pre-bid stage itself. No queries / deviations shall be accepted by purchaser from the bidder after the closure of pre-bid.	
7	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.	
8	Confirm that the quote includes mounting hardware/ accessories required for placing of fire extinguishers.	
9	All the equipments / items supplied by bidder are having valid statutory approval certificates i.e., valid BIS certificate.	
10	Bidder to note that the fire extinguishers shall have staggered delivery. The exact delivery dates and quantities to be delivered at each of the dates shall be informed during detail engineering. Bidder to confirm.	