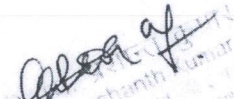


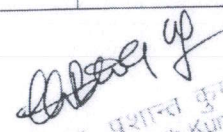
# Annexure-G

|  | Project : Patratu STPP 3X800 MW                                                                         |                      |                                                         |                                      | Doc No             | QA C&I-FDPS 01             |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------|--------------------------------------|--------------------|----------------------------|
|                                                                                   | Package : FDPS Package                                                                                  |                      |                                                         | Sub-Vendor List for controlled items | Rev No             | 0                          |
|                                                                                   | Main Contractor : BHEL, Hyderabad                                                                       |                      |                                                         | Control & Instrumentation Items      | Date               | 02.04.2019                 |
|                                                                                   | Sub Contractor :                                                                                        |                      |                                                         |                                      |                    |                            |
|                                                                                   | Contract No. : CS-9585-001-2                                                                            |                      |                                                         |                                      |                    |                            |
| Sl No.                                                                            | Item                                                                                                    | QP/<br>Insp.<br>Cat. | Acceptable Supplier<br>As Per Database                  | Place of Manufacturing               | Approval<br>Status | Remarks                    |
| 1                                                                                 | Fire Alarm Panel - Microprocessor Based                                                                 | II                   | Notifier                                                | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | Tyco                                                    | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | Autronica                                               | Norway                               | A                  |                            |
|                                                                                   |                                                                                                         |                      | Schrack                                                 | Austria                              | A                  |                            |
|                                                                                   |                                                                                                         |                      | Edward                                                  | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | ESSER (Honeywell)                                       | Germany                              | DR                 |                            |
| 2                                                                                 | ADDRESSABLE DETECTORS (MULTI SENSOR, PHOTO & HEAT DETECTORS TYPE), INTERFACE UNITS & MANUAL CALL POINTS | II                   | Notifier                                                | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | Tyco                                                    | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | Autronica                                               | Norway                               | A                  |                            |
|                                                                                   |                                                                                                         |                      | Schrack                                                 | Austria                              | A                  |                            |
|                                                                                   |                                                                                                         |                      | Edward                                                  | USA                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | ESSER (Honeywell)                                       | Germany                              | DR                 |                            |
| 3                                                                                 | Coupling / Interposing Relays                                                                           | III                  | Paramount /Omron/Oen/Jyoti/Elsa Or OEM Approved Sources |                                      |                    | NOTE-6                     |
| 4                                                                                 | Electrical Actuator (With Gear Box, If Applicable)                                                      | II                   | Antrieb Technik Pvt Ltd                                 | Chennai                              | A                  | for low torque application |
|                                                                                   |                                                                                                         |                      | Auma                                                    | Bangalore                            | A                  |                            |
|                                                                                   |                                                                                                         |                      | Limitorque                                              | Faridabad                            | A                  |                            |
|                                                                                   |                                                                                                         |                      | Rotork                                                  | Chennai/Banglore                     | A                  |                            |
| 5                                                                                 | Fiber Optic Cable                                                                                       | II                   | HFCL                                                    | Goa                                  | A                  |                            |
|                                                                                   |                                                                                                         |                      | Aksh Fibre                                              | Bhiwadi                              | A                  |                            |
|                                                                                   |                                                                                                         |                      | Finolex                                                 | Pune/Goa                             | A                  |                            |
|                                                                                   |                                                                                                         |                      | M/S Birla Cable Limited                                 | Rewa                                 | A                  |                            |
|                                                                                   |                                                                                                         |                      | R&M                                                     | Switzerland                          | A                  |                            |
|                                                                                   |                                                                                                         |                      | Apar Industries Limited                                 | MUMBAI                               | DR                 |                            |
|                                                                                   |                                                                                                         |                      | RPG Cables Limited                                      | Thane                                | DR                 |                            |

  
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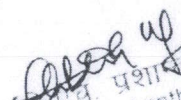
|  | Project : Patratu STPP 3X800 MW                                |                      |                                        |                                      | Doc No             | QA-C&I-FDPS-01                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------|----------------------------------------|--------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                   | Package : FDPS Package                                         |                      |                                        | Sub-Vendor List for controlled items | Rev No             | 0                                                                                                                                                                                                 |
|                                                                                   | Main Contractor : BHEL, Hyderabad                              |                      |                                        | Control & Instrumentation Items      | Date               | 02.04.2019                                                                                                                                                                                        |
|                                                                                   | Sub Contractor :                                               |                      |                                        |                                      |                    |                                                                                                                                                                                                   |
|                                                                                   | Contract No. : CS-9585-001-2                                   |                      |                                        |                                      |                    |                                                                                                                                                                                                   |
| Sl No.                                                                            | Item                                                           | QP/<br>Insp.<br>Cat. | Acceptable Supplier<br>As Per Database | Place of Manufacturing               | Approval<br>Status | Remarks                                                                                                                                                                                           |
| 6                                                                                 | Instrument Cables (F, G & T/C Cables) Note-2                   | I                    | Paramount Communication Ltd            | Khushkhera                           | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Polycab                                | Daman                                | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Delton                                 | Faridabad                            | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Kei                                    | Bhiwadi                              | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Elkey Telelinks                        | Faridabad                            | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Cords                                  | Kaharani                             | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Cords                                  | Bhiwadi                              | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Nicco                                  | Kolkata                              | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Universal Cable                        | Satna                                | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Thermocables                           | Hyderabad                            | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Gupta Power Infrastructure Ltd.        | Khurdha                              | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Cmi                                    | Faridabad                            | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Advance Cables Pvt Ltd                 | Bangalore                            | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Gemscab Industries Ltd                 | Bhiwadi                              | A                  | PVC, FRLS type                                                                                                                                                                                    |
|                                                                                   |                                                                |                      | Apar Industries Limited                | Valsad                               | A                  | PVC, FRLS type                                                                                                                                                                                    |
| 7                                                                                 | 24 V Intelligent Battery Charger / DCDB & BHMS (As applicable) | II                   | Eltech                                 | Gurgaon                              | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | MasTech                                | Jalgaon                              | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | VERTIV ENERGY PVT LTD                  | Mumbai                               | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      |                                        |                                      | A                  |                                                                                                                                                                                                   |
| 8                                                                                 | PLC System                                                     | I                    | GE Intelligent Platforms Pvt Ltd       | Bangalore                            | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | ABB                                    | Bangalore                            | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | Schneider                              | Nasik                                | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | Rockwell                               | Sahibabad                            | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | Siemens                                | Nasik                                | A                  |                                                                                                                                                                                                   |
|                                                                                   |                                                                |                      | Honeywell                              | Pune                                 | A                  | 1-PLC modules should be procured from M/s Honeywell Co Ltd, Korea. 2-Make of Panel (Blank Enclosure), Terminal block, Network components & interposing relay should be from NTPC approved source. |

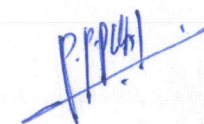
  
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 BHEL HYD-32

  
 P. Prakash



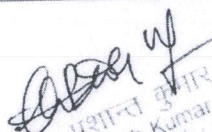
| <div>एनटीपीसी<br/>NTPC</div>                                                                                                          | Project : Patratu STPP 3X800 MW           |                      |                                        |                                      | Doc No             | QA-C&I-FDPS-01               |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------|----------------------------------------|--------------------------------------|--------------------|------------------------------|
|                                                                                                                                       | Package : FDPS Package                    |                      |                                        | Sub-Vendor List for controlled items | Rev No             | 0                            |
|                                                                                                                                       | Main Contractor : BHEL, Hyderabad         |                      |                                        | Control & Instrumentation Items      | Date               | 02.04.2019                   |
|                                                                                                                                       | Sub Contractor :                          |                      |                                        |                                      |                    |                              |
|                                                                                                                                       | Contract No. : CS-9585-001-2              |                      |                                        |                                      |                    |                              |
| Sl No.                                                                                                                                | Item                                      | QP/<br>Insp.<br>Cat. | Acceptable Supplier<br>As Per Database | Place of Manufacturing               | Approval<br>Status | Remarks                      |
| 9                                                                                                                                     | IR Detectors                              | III                  | Neola Corporation (ODTI)               | Pawane                               | A                  |                              |
|                                                                                                                                       |                                           |                      | Patol                                  |                                      | A                  |                              |
|                                                                                                                                       |                                           |                      | AGNI Controls                          | Chennai                              | DR                 |                              |
| 10                                                                                                                                    | Terminal Block (Cage And Clamp Type)      | III                  | Weidmuller                             | Germany                              | A                  |                              |
|                                                                                                                                       |                                           |                      | Phoenix                                | Germany / India                      | A                  |                              |
|                                                                                                                                       |                                           |                      | Wago                                   | Germany / India                      | A                  |                              |
|                                                                                                                                       |                                           |                      | Elmex                                  | Vadodara                             | A                  | Model should have CE Marking |
| 11                                                                                                                                    | Ni-Cd Battery                             | I                    | AMCO SAFT INDIA LIMITED                | Bengalure                            | A                  |                              |
|                                                                                                                                       |                                           | I                    | HBL POWER                              | Hyderabad                            | A                  |                              |
|                                                                                                                                       |                                           | II                   | HOPPECKE BATTERIEN GMBH & CO KG        | Germany                              | A                  |                              |
| 12                                                                                                                                    | Short term fire proof cables, MICC Cables | III                  | Pentair                                | UK                                   | A                  |                              |
|                                                                                                                                       |                                           |                      | Wrexham Mineral                        | UK                                   | A                  |                              |
|                                                                                                                                       |                                           |                      | KME                                    | Italy                                | A                  |                              |
|                                                                                                                                       |                                           |                      | TYCO                                   | UK / China                           | A                  |                              |
|                                                                                                                                       |                                           |                      |                                        |                                      |                    |                              |
| Following C&I items (as applicable) to be supplied as per main contractor approved sources meeting the NTPC Specification requirement |                                           |                      |                                        |                                      |                    |                              |
| 1                                                                                                                                     | Air Filter Regulator/ Lubricator          | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 2                                                                                                                                     | Annunciator                               | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 3                                                                                                                                     | Battery Health Monitoring System          | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 4                                                                                                                                     | Compression Fittings(Ss)                  | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 5                                                                                                                                     | Conduits / Pipe (Gi)                      | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 6                                                                                                                                     | Conduits Lead Coated (Flexible)           | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 7                                                                                                                                     | Copper Tubing/Brass Connectors            | III                  | Main Contractor approved sources       |                                      |                    |                              |
| 8                                                                                                                                     | Beam Detector                             | III                  | Main Contractor approved sources       |                                      |                    |                              |

  
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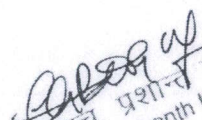


| एनटीपीसी<br>NTPC | Project : Patratu STPP 3X800 MW                                                |                      |                                        |                                      | Doc No             | QA-C&I-FDPS-01 |
|------------------|--------------------------------------------------------------------------------|----------------------|----------------------------------------|--------------------------------------|--------------------|----------------|
|                  | Package : FDPS Package                                                         |                      |                                        | Sub-Vendor List for controlled items | Rev No             | 0              |
|                  | Main Contractor : BHEL, Hyderabad                                              |                      |                                        | Control & Instrumentation Items      | Date               | 02.04.2019     |
|                  | Sub Contractor :                                                               |                      |                                        |                                      |                    |                |
|                  | Contract No. : CS-9585-001-2                                                   |                      |                                        |                                      |                    |                |
| SI No.           | Item                                                                           | QP/<br>Insp.<br>Cat. | Acceptable Supplier<br>As Per Database | Place of Manufacturing               | Approval<br>Status | Remarks        |
| 9                | Desk for Ows/Ews/Printer/Server                                                | III                  | Main Contractor approved sources       |                                      |                    |                |
| 10               | Push Button stations                                                           | III                  | Main Contractor approved sources       |                                      |                    |                |
| 11               | Blank Panel / Local control panel                                              | III                  | Main Contractor approved sources       |                                      |                    |                |
| 12               | Flow Gauge                                                                     | III                  | Main Contractor approved sources       |                                      |                    |                |
| 13               | Flow Switch                                                                    | III                  | Main Contractor approved sources       |                                      |                    |                |
| 14               | Frp Junction Box                                                               | III                  | Main Contractor approved sources       |                                      |                    |                |
| 15               | Furniture for Control Room (along with<br>Chair, Almira, Lock - if applicable) | III                  | Main Contractor approved sources       |                                      |                    |                |
| 16               | Graphic Interface Unit                                                         | III                  | Main Contractor approved sources       |                                      |                    |                |
| 17               | Hand Held Calibrator                                                           | III                  | Main Contractor approved sources       |                                      |                    |                |
| 18               | Impulse Pipes/Tubes                                                            | III                  | Main Contractor approved sources       |                                      |                    |                |
| 19               | Instrument Fittings (Air)                                                      | III                  | Main Contractor approved sources       |                                      |                    |                |
| 20               | Instrument Valve(Needle Valve)                                                 | III                  | Main Contractor approved sources       |                                      |                    |                |
| 21               | Level Gauge / Indicator (Transperent &<br>Reflex, Tubular Type)                | III                  | Main Contractor approved sources       |                                      |                    |                |
| 22               | Level Indicator (Float & Board, Tubular<br>Type)                               | III                  | Main Contractor approved sources       |                                      |                    |                |
| 23               | Level Switch - Float/Displacer Type/Paddle                                     | III                  | Main Contractor approved sources       |                                      |                    |                |
| 24               | Level Switch Capacitance Type                                                  | III                  | Main Contractor approved sources       |                                      |                    |                |
| 25               | Limit Swtch                                                                    | III                  | Main Contractor approved sources       |                                      |                    |                |
| 26               | Maintenance And Calibration Equipment                                          | III                  | Main Contractor approved sources       |                                      |                    |                |
| 27               | Mini UPS Up to 3.5 Kva                                                         | III                  | Main Contractor approved sources       |                                      |                    |                |
| 28               | Orifice Plate Assembly                                                         | III                  | Main Contractor approved sources       |                                      |                    |                |
| 29               | Pr./ Vacuum/ Dp Gauges                                                         | III                  | Main Contractor approved sources       |                                      |                    |                |
| 30               | Press, Dp, Vacuum Switch                                                       | III                  | Main Contractor approved sources       |                                      |                    |                |

  
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| <b>एनटीपीसी<br/>NTPC</b> | Project : Patratu STPP 3X800 MW                                  |                      |                                        |                                      | Doc No             | QA C&I-FDPS-01 |
|--------------------------|------------------------------------------------------------------|----------------------|----------------------------------------|--------------------------------------|--------------------|----------------|
|                          | Package : FDPS Package                                           |                      |                                        | Sub-Vendor List for controlled items | Rev No             | 0              |
|                          | Main Contractor : BHEL, Hyderabad                                |                      |                                        | Control & Instrumentation Items      | Date               | 02.04.2019     |
|                          | Sub Contractor :                                                 |                      |                                        |                                      |                    |                |
|                          | Contract No. : CS-9585-001-2                                     |                      |                                        |                                      |                    |                |
| SI No.                   | Item                                                             | QP/<br>Insp.<br>Cat. | Acceptable Supplier<br>As Per Database | Place of Manufacturing               | Approval<br>Status | Remarks        |
| 31                       | Lead Acid Battery for Fire Alarm Panel                           | III                  | Main Contractor approved sources       |                                      |                    |                |
| 32                       | Printer (Inkjet / Laser)                                         | III                  | Main Contractor approved sources       |                                      |                    |                |
| 33                       | DC UPS for PLC                                                   | III                  | Main Contractor approved sources       |                                      |                    |                |
| 34                       | Rotameter                                                        | III                  | Main Contractor approved sources       |                                      |                    |                |
| 35                       | Sight Flow Indicator                                             | III                  | Main Contractor approved sources       |                                      |                    |                |
| 36                       | Socket Weld Fittings                                             | III                  | Main Contractor approved sources       |                                      |                    |                |
| 37                       | Solenoid Valve                                                   | III                  | Main Contractor approved sources       |                                      |                    |                |
| 38                       | Temperature Gauge(With Thermowell)                               | III                  | Main Contractor approved sources       |                                      |                    |                |
| 39                       | Temperature Switch                                               | III                  | Main Contractor approved sources       |                                      |                    |                |
| 40                       | Valve Manifolds                                                  | III                  | Main Contractor approved sources       |                                      |                    |                |
| 41                       | Ultrasonic Type Level Transmitter                                | III                  | Main Contractor approved sources       |                                      |                    |                |
| 42                       | Siren                                                            | III                  | Main Contractor approved sources       |                                      |                    |                |
| 43                       | Transmitter (Electronic) (Pressure, DP, Flow, Level Application) | III                  | Main Contractor approved sources       |                                      |                    |                |
| 44                       | LHS Cable                                                        | III                  | Main Contractor approved sources       |                                      |                    |                |

  
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 P.P. Pathi



8: Mandatory spares to be treated

~~P.P. 10/10/19~~  
AGM (CA)  
03/10/2019