



A4-10

REF. : CE / 416 / VMS / OT-III / Clar.

REV. NO. : 00

PAGE : 01 OF 03

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CLARIFICATION & AMENDMENTS TO PURCHASE SPECIFICATION FOR VIBRATION MONITORING SYSTEM (VMS) FOR NPCIL, KAPP – 3 & 4 (2x700 MWe) AND NPCIL, RAPP – 7 & 8 (2x700 MWe)

REVISION : 00

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01/10/2015



Clarification & Amendments to Purchase Specification

Ref.: CE/416/VMS/OT-III/Clar.
REV.NO.: 00
PAGE : 2 of 3

AA) Bidders to note following amendments to Purchase Specification Section – C & D

1. Clause 1.1 (viii) *amendment*: Provision of REDUNDANT soft-link communication of vibration signals in MODBUS / TCP protocol, shall be made available for Plant DCS.
2. Clause 1.2.30 NOTES, bullet point no. 9, *amendment*: Vendor shall offer two runs of single mode, 4 core, armoured, Fiber optic cable (500 meter each run) FOR EACH UNIT and shall also consider both end termination of fiber optic cables FOR EACH UNIT (AS THE CCWP & ACWP MACHINES ARE UNIT SPECIFIC).
3. Clause 1.2.30 NOTES, bullet point no. 10, *amendment*: Vendor shall offer redundant networking components like Fiber optic converter (4nos.), LIU (2nos.), Patch cord (4nos. of 3 meter each), SC-SC connector (4 nos.). Vendor shall mount half-set of these networking component in their offered VMS Panel at CW Pump house control room. The other half-set of these components will be mounted by 3rd Party in their Condition Monitoring system (CMS) Panel at Main control room. THE ABOVE BOM SHALL BE OFFERED FOR EACH UNIT (AS THE CCWP & ACWP MACHINES ARE UNIT SPECIFIC).
4. Machine Data ref. CE/416/VMS/NPCIL-SCS/MD, Note 1, *amendment*: VMS racks/modules for ACWP/CCWP & their Motors shall be in separate panel common for both units located at CW Pump house control room, which is approximately 500 meters from CCR. Provision for mounting Condition Monitoring rack will be provided in the VMS Panel at CW Pump house control room. Single mode, 4 core, armoured Fiber optic cable with redundant networking hardware shall be provided in VMS Panel at CW Pump house control room. REDUNDANT FO CABLE & REDUNDANT NETWORKING COMPONENTS SHALL BE SEPARATE FOR EACH UNIT (AS THE CCWP & ACWP MACHINES ARE UNIT SPECIFIC).
5. Clause 11.0 Warranty, *clarification*: Bidders to offer as per RFQ SCC sl. no. 10 for Warranty.

BB) Bidders to note following clarifications to Purchase Specification:

1. Query: Whether the installations have to be in India or other countries to meet the PQR.
BHEL reply: As per RFQ Spec. ref. CE/416/VMS/NPCIL/PQR, clause 2.0 Qualifying Criteria, reference of installation in India or other countries are acceptable.
2. Query: If both the plants KAPP 3 & 4, RAPP 7 & 8 units are safe guarded or nonsafe guarded units
BHEL reply: Please refer RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS, General Requirement at CC (ii).
3. Query: With reference to clause AA (iv) Scope of Supply & Services at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; only VMS is asked by M/s BHEL for machines mentioned in CE/416/VMS/NPCIL-SCS/MD. Hence, VMS rack will be connected to Plant DCS either thru Hardwired 4-20mA analog output or thru Modbus. OPC protocol is not applicable.
BHEL reply: Noted.
4. Query: With reference to clause DD 1.1 (iii) Requirement for VMS Hardware at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; clarify the scope of Cables from Field JB's to VMS Rack.
BHEL reply: Field cables between field junction box and panel, will be supplied & erected by BHEL.



Clarification & Amendments to Purchase Specification

Ref.: CE/416/VMS/OT-III/Clar.
REV.NO.: 00
PAGE : 3 of 3

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5. Query: With reference to clause DD 1.2.1 Cabinet Requirement at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; is Cabinet Depth 800mm acceptable to M/s BHEL or NPCIL instead of 600mm?
- BHEL reply: Panel / Cabinet shall be of typical size 750 mm (width) x 800 mm (depth) x 2200 mm (height). Anti-vibration pad of about 15mm shall be provided.
6. Query: With reference to clause DD 1.2.30 Notes at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; M/s BHEL to confirm requirement of FO Cable links, connectivity & space required for analysis interface modules mentioned in TSS scope.
- BHEL reply: Confirmed.
7. Query: With reference to clause DD 9.0 Notes at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; M/s BHEL to specify more about this clause. Installed spare modules requirement is Rack-wise or Cabinet-wise?
- BHEL reply: Specification calls for the spare in the system. Bidders to offer spares as per their system design / configuration and the specified requirements in clause 9.1, 9.2 and 9.3.
8. Query: With reference to clause DD 12.0 Training for VMS at RFQ Spec. ref. CE/416/VMS/KAPP-SCS/PS and CE/416/VMS/RAPP-SCS/PS; training is required at Indian works or at manufacturer's works (for OEM outside India). If it is required at manufacturer's works (for OEM outside India), confirm the scope of lodging, boarding, airfare, visa, local conveyance - will be in scope of client/NPC.
- BHEL reply: Bidder's to offer separate line-price offer for TRAINING as per clause 12.0 and separate line-price offer for all traveling expenses (from Mumbai), boarding and lodging, local transportation expenses etc. for the six numbers of NPCIL engineers to manufacturer's works.
9. Query: M/s BHEL to confirm about requirement of Display indication in the VMS Racks, if any.
- BHEL reply: Bidder's to offer display indication as per their system design / configuration. Bidder's to clearly declare in their offer, the provision of display indication for their system.
10. Query: M/s BHEL to give us project specific VMS layout.
- BHEL reply: Bidder's to refer the Machine Data ref. CE/416/VMS/NPCIL-SCS/MD and include the configuration / layout drawing of their offered system, as per clause DD 13.0 (a).
11. Query: M/s BHEL to Confirm requirement of Calibration equipment for VMS scope if any.
- BHEL reply: Sensors are not part of this specification. However, if bidder's system required any Calibration equipment, then same shall be included in their offer. Bidder's to clearly declare in their offer, the requirement of Calibration equipment for their system.
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