

674693/2024/HEP-STE40100



**Technical Pre-qualification requirements (PQR) for Main Steam Isolation Valve (MSIV)-  
2X700 MW Kaiga 5 & 6**

Purchase indent no. 340148174

Date: 28.10.2024

Vendor must fulfill the following pre-qualification requirements (PQR):

Sr. No.	Description	Vendor Complied	Supporting Documents needed from vendor to accept the compliance
1	Offered valves should be qualified as per ASME QME-1.	YES /NO	<p>If offered valve is ASME QME-1 qualified, Bidder shall submit the ASME QME-1 qualification report and procedure of offered valve.</p> <p align="center">OR</p> <p>If offered valve is not ASME QME-1 qualified, then</p> <ol style="list-style-type: none"> <li>1) Bidder to submit the ASME QME-1 qualification report of any identical type valve (to be considered as a Parent) along with the procedure and also submit the letter of confirmation to carry out the qualification of offered valve as per ASME QME-1 after PO placement.</li> </ol> <p align="center">OR</p> <ol style="list-style-type: none"> <li>2) If there are no QME-1 qualified valves available with bidder, then the bidder must submit ASME QME-1 qualification procedure along with the Lab details, where QME-1 testing to be performed. Bidder must also submit the Lab confirmation for QME -1 testing.</li> </ol> <p>QME tests are as follow for qualification:</p> <ol style="list-style-type: none"> <li>i) Valve leakage test</li> <li>ii) Cold &amp; Hot cyclic test</li> <li>iii) Pipe reaction end loading qualification test</li> <li>iv) Static equivalent test.</li> <li>v) Flow interruption test.</li> </ol>

Member -1	Member -2	Member -3
 संजीव कुमार / SANJEEV KUMAR वरि. उप महाप्रबंधक / Sr.Dy.General Manager एस.टी. ई. विभाग / S.T.E. Division बी.एच.ई.एल. भोपाल / BHEL, Bhopal	 दिनेश चन्द्र निर्मल / Dinesh Chandra Nirmal वरि. उप महाप्रबंधक / Sr. DGM एस.टी.ई. विभाग / S.T.E. Division बी.एच.ई.एल. भोपाल / B.H.E.L., BHOPAL	 तमकर कुमार / TOMKAR KUMAR वरि. उप महाप्रबंधक / Sr. Dy. General Manager एस.टी.ई. विभाग / S.T.E. Division बी.एच.ई.एल. भोपाल / B.H.E.L., BHOPAL

Prepared by

Checked by

Approved by

28/10/24  
 S.A. Ahmed (S4-STE)

28.10.24  
 AMIT KUMAR



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2	The valves shall be seismically qualified for Operating Basis Earthquake (OBE) & Safe Shut down Earthquake (SSE).	YES /NO	If Yes, Bidder to submit the report.  If No, Bidder must submit the procedure along with confirmation to carry out OBE & SSE qualification.
3	Past experience	YES /NO	Bidder must have experience for supply of electrically /manual /air operated gate valve of size $\geq 8"$ as per design standard ASME SEC III-NC to any Nuclear Power Station.  As an evidence of successful execution, vendor must submit PO copy, LR copy, data sheet & General arrangement drawing / SRV copy / customer completion certificate.

NOTE: All the credentials submitted by the vendors shall be reviewed & approved by BHEL & NPCIL and if any additional document required by NPCIL/BHEL, BIDDER shall furnish the same.

Final price bid shall be opened only for those vendors who will be approved by the end customer (NPCIL) on the basis of credentials.

STE PQR TECHNICAL REVIEW COMMITTEE

Member -1	Member -2	Member -3
 <b>संजीव कुमार / SANJEEV KUMAR</b> वरि. उप महाप्रबंधक / Sr.Dy.General Manager एस.टी. ई. विभाग / S.T.E. Division बी.एच.ई.एल. भोपाल / BHEL, Bhopal	 <b>दिनेश चन्द्र निर्मल / Dinesh Chandra Nirmal</b> वरि. उप महाप्रबंधक / Sr. DGM एस.टी.ई. विभाग / S.T.E. Division बी.एच.ई.एल., भोपाल / B.H.E.L., BHOPAL	 <b>ओमकार कुमार / OMKAR KUMAR</b> उप महाप्रबंधक / Dy. General Manager एस.टी. ई. विभाग / STE Division बी.एच.ई.एल. भोपाल / B.H.E.L., BHOPAL

Prepared by

28/10/24  
 S. A. Ahmad (SY-STE)

Checked by

28.10.24  
 ANSHU KUMAR

Approved by



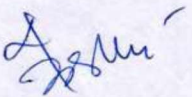
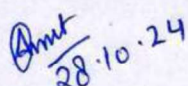
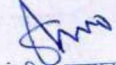
**ANNEXURE-T**

1. Following documents shall be submitted to BHEL Bhopal within 1 month from the placement of purchase order for NPCIL approval:
  - a. Quality Assurance Plan, Data sheet, Arrangement drawings,
  - b. Welding Procedure Specification (WPS), Procedure Qualification Record (PQR) and Welders' Qualification.
  - c. Heat Treatment (Time Temperature Monitoring)
  - d. Impact Test (Verification of Impact Strength)
  - e. NDE (RT, UT, WFMT, LPT)
  - f. Procedure approval of Stress Relieving for Casting Repair and Hard Facing
  - g. Qualification procedure of Weld Seat/ Hard Facing/ Corrosion Resistant deposition
  - h. Functional Testing
  - i. Painting
  - j. Hydro Test, Valve Closure Test, Back Seat Test, Pneumatic Test & Packing Leakage Test.
  - k. Qualification Procedure for QME-1
  - l. Seismic Test Procedure
  - m. Cleaning, Preservation, Marking and Packing.

If any additional documents are required from the customer, vendor shall furnish the same.

2. Vendor registration form with credentials shall be filled and submitted to BHEL along with techno-commercial offer for NPCIL approval.
3. All the documents (QAP, Data sheet, arrangement drawings, seismic analysis, QME qualification etc.) shall be submitted in line with technical specification no. GHAVP-1&2/PC/E/08002\_ R0.
4. Tentative Floor response spectra is enclosed in the technical specification. If any changes required from customer, same shall be intimated to vendor after PO placement.

Page no. 1 of 2

PREPARED BY	CHECKED BY	APPROVED BY
	 28.10.24	 संजीव कुमार/SANJEEV KUMAR परि. उप महाप्रबंधक/Sr.Dy.General Manager एस.टी. ई. विभाग/S.T.E. Division बी.एच.ई.एल. भोपाल/BHEL. Bhopal



5. Delivery period shall start from the date of manufacturing clearance from BHEL Bhopal.
6. All the Technical data shall be filled in the Annexure-1 of technical specification and submitted to BHEL along techno-commercial.
7. Inspection shall be carried out by NPCIL and BHEL/ BHEL appointed TPI as per NPCIL approved QAP.
8. Item shall be directly sent to kaiga site.

Consignee address is as follows:

Consignee Address:

Chief Construction

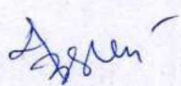
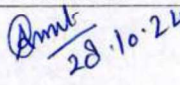
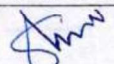
Engineer, Kaiga Atomic Power

Project-5&6 (KAIGA-5&6)

Kaiga Site, Via - Karwar, Dist-

Uttar Kannada, Karnataka-581400

Page no. 2 of 2

PREPARED BY	CHECKED BY	APPROVED BY
	 28.10.24	

संजीव कुमार/SANJEEV KUMAR  
वरिष्ठ उप महाप्रबंधक/Sr.Dy.General Manager  
एस.टी. ई. विभाग/S.T.E. Division  
बी.एच.ई.एल.,भोपाल/BHEL. Bhopal

**NUCLEAR POWER CORPORATION OF INDIA LTD.****(A Government of India Enterprise)****CHECKLIST & RECOMMENDATION FOR EVALUATION OF VENDORS**

**Tender No** : CMM/ETM/00/40/11/0005

**Item/Package** : TURBINE ISLAND PACKAGE

**Name of Main Contractor** : BHEL

**Address and contact details of Main Contractor** : Heavy Electrical Plant, BHEL Bhopal, MP-462022,

**Name of Sub-contractor/Vendor** : To be filled by vendor

**Address of Sub-contractor** : To be filled by vendor

**Items for which approval is sought** : To be filled by vendor

**1.0 General:**

- 1.1) Key Personnel contacted : To be filled by vendor
- a) Senior Management : To be filled by vendor
- b) Quality Co-ordinator : To be filled by vendor
- c) Others (Production, Planning etc.) : To be filled by vendor

**FOLLOWING ARE TO BE COMMENTED**

- 1.2) Recognition details if any code Stamps like U1, U2, ASME N, NPI or certification Like ISO : To be filled by vendor  
9001, 14000 etc. (Verify the records)
- 1.3) Floor space availability for present Activities/for future expansion : To be filled by vendor
- a) Indoor : To be filled by vendor
- b) Outdoor : To be filled by vendor
- 1.4) Level of House keeping : To be filled by vendor

- 1.5) Whether NPCIL jobs executed earlier : To be filled by vendor along with credentials
- 1.6) Delivery Performance (Schedule vs Actual) (Verify records) :
- 2.0 Technical**
- 2.1) Quality Control
- (a) Incoming Material Inspection : Yes/No
- (b) Process Inspection : Yes/No
- (c) Final Inspection : Yes/No
- 2.2) Plant & Machinery : To be filled by vendor with credentials
- (a) General condition & Age :
- (b) Confirms to the details submitted in application :
- 2.3) Calibration facilities : To be filled by vendor with credentials
- 2.4) Calibration records : To be filled by vendor with credentials
- 2.5) NDE Qualification records : To be filled by vendor with credentials
- 2.6) Is there a system of selecting/short listing Sub-vendors? : To be filled by vendor
- 2.7) Availability of Testing facilities : To be filled by vendor with credentials)
- 2.8) Whether working of following are satisfactory?
- (a) Production : To be filled by vendor
- (b) Quality control : : To be filled by vendor
- 2.9) Understanding of scope of work : To be filled by vendor
- 2.9.1) Understanding of technical requirement of Job : To be filled by vendor

- 2.10) Availability and understanding of related standards. : To be filled by vendor
- 2.11) Capacity of the Vendor to fabricate and inspect : To be filled by vendor
- 2.12) Understanding of special Examination/ Testing (like ultrasonic Examination/ Helium Leak testing, Optical alignment testing etc.) : To be filled by vendor
- 2.13) Availability of special facilities : To be filled by vendor with credentials
- 2.14) Facilities/Machineries/testing equipment available in the shop floor to meet technical requirement of the job : To be filled by vendor with credentials
- 2.15) Qualified and experience Manpower in the shop floor to execute the specified job : To be filled by vendor with credentials

### **3.0 Quality System :**

- 3.1) If ISO certified, check the availability and accessibility of Quality system manual : To be filled by vendor
- 3.2) Validity of ISO certification : To be filled by vendor
- 3.3) Whether Quality Control plan and Procedures are prepared? : To be filled by vendor
- 3.4) Whether organisation chart is available? : To be filled by vendor with credentials
- 3.5) What is the level of Quality Control in the organisation? : To be filled by vendor with credentials
- 3.6) Whether working of following are Satisfactory?
- (a) Document control : Yes/NO
- (b) Process Control : Yes/NO

(c) Non-conformances control : Yes/NO

3.7) Whether Internal Quality Audits are carried out? : Yes/NO

3.8) Whether non-conformities during Internal Audits are recorded and disposed off following laid down procedure? : Yes/NO

#### 4.0 Assessment: To be filled by BHEL

##### 4.1 Understanding and interpretation by vendor

Sl No	Area of Assessment	Observation	Remark
1	Scope of work	Good/Satisfactory/Unsatisfactory	
2	Related standard	Good/Satisfactory/Unsatisfactory	
3	Construction features	Good/Satisfactory/Unsatisfactory	
4	Functional Requirement	Good/Satisfactory/Unsatisfactory	

##### 4.2 Capability of Vendor

Sl No	Area of Assessment	Observation	Remark
1	To design/develop	Good/Satisfactory/Unsatisfactory	
2	To fabricate	Good/Satisfactory/Unsatisfactory	
3	To inspect	Good/Satisfactory/Unsatisfactory	
4	Specify remark on the capability of vendor to execute the job	Good/Satisfactory/Unsatisfactory	

4.3 Comments if any w.r.t. delivery schedules: NA

4.4 Comments if any on quality of product: NA

#### 5.0 Conclusion:

##### Signature of Team Members

Sl. No.	Name	Designation	Sign & Date
1	BHEL Employee	BHEL Employee	BHEL Employee
2	BHEL Employee	BHEL Employee	BHEL Employee
3	BHEL Employee	BHEL Employee	BHEL Employee



674720/2024/HEP-STEAM-1000

**BHEL**

**MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT**  
**(FOR GHAVP- 1 & 2, KAIGA- 5 & 6 AND GHAVP- 3 & 4)**  
**मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट**  
**(GHAVP- 1 & 2, KAIGA- 5 & 6 AND GHAVP- 3 & 4 के लिये)**

<b>Ref No:</b> संदर्भ सं.:	BHEL/VER /CCI/POMSSV, Rev 00	<b>Date:</b> तिथि:	05.11.2022
<b>i.</b>	<b>Main Contractor</b> मुख्य संविदाकार	BHEL, Bhopal	
<b>ii.</b>	<b>Project / परियोजना</b>	GHAVP- 1 & 2, KAIGA- 5 & 6 AND GHAVP- 3 & 4 (NPCIL)	
<b>iii.</b>	<b>Package Name</b> पैकेज का नाम	TURBINE ISLAND PACKAGE	
<b>iv.</b>	<b>Proposed Item / प्रस्तावित मद</b>	MAIN STEAM ISOLATION VALVE (MSIV)	
<b>v.</b>	<b>Name and Address of the proposed Sub-vendor's works</b> / प्रस्तावित सब-वेंडर का नाम तथा पता: Filled by Vendor		
<b>vi.</b>	<b>Brief description of the Sub-contractor, their products and capabilities in terms of manpower, machines, testing facilities etc.:</b> - Details are mentioned below;  <b>Products: -</b> Filled by Vendor along with credentials  <b>Capabilities: -</b> Filled by Vendor along with credentials  <b>Manpower: -</b> Filled by Vendor along with credentials  <b>Testing Facilities:-</b> Filled by Vendor along with credentials  Vendor to furnish any additional details in Annexure		
<b>vii.</b>	<b>Supplier Performance Rating out of 100</b> (If applicable)	NA.	
<b>viii.</b>	<b>BHEL PO Numbers already Placed on Vendor</b>	Filled by vendor	
<b>ix.</b>	<b>Details of and financial capability of Sub-contractor: -</b> Details are mentioned below  Filled by Vendor along with credentials  <i># Negative PBT of any company do not imply that vendor lacks resources to execute orders. It means margins are low in the present business scenario. Vendor has already successfully executed BHEL POs in year 2021 &amp; 2020, in spite of negative PBTs in previous years.</i>		

674720/2024/HEP-STE40100



# **MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT** **(FOR GHAVP- 1 & 2, KAIGA- 5 & 6 AND GHAVP- 3 & 4)**

**मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट**  
**(GHAVP- 1 & 2, KAIGA- 5 & 6 AND GHAVP- 3 & 4 के लिये)**

x.	<p>Whether the Sub-contractor supplied the Equipment/item/component to BHEL/NPCIL earlier. If supplied, please mention the project name and year; - Details are mentioned below</p> <p><i>Filled by Vendor along with credentials</i></p>	
xi.	<p>Details of the other customers of the Sub-contractors: -  Details are mentioned below.</p> <p><i>Filled by Vendor along with credentials</i></p>	
xii.	<p>Details of their ISO and other certifications: - Details are mentioned below</p> <p><i>Filled by Vendor along with credentials</i></p>	
<p><b><i>We confirm that as per BHEL assessment, the proposed sub-vendor is fully capable for supplying the item in the project.</i></b>  <b>BHEL के आकलन के अनुसार इस बात की पुष्टि करते हैं कि, प्रस्तावित उप-विक्रेता प्रस्तावित मद की आपूर्ति के लिए इस परियोजना में उपयुक्त है।</b>  <b>Additional Remarks: -</b>  <i>To be filled by BHEL</i></p>		
<b>Name / नाम</b>	<b>Design./ पद</b>	<b>Sign &amp; Date / हस्ताक्षर व तिथि</b>
BHEL Employee	BHEL Employee	BHEL Employee
BHEL Employee	BHEL Employee	BHEL Employee
BHEL Employee	BHEL Employee	BHEL Employee