

**LALITPUR POWER GENERATION COMPANY LIMITED(LPGCL)**  
**3X660 MW LPGCL, LALITPUR (U.P) SUPERCRITICAL THERMAL**  
**POWER PROJECT**

**VOLUME-II B**

**TECHNICAL SPECIFICATIONS  
FOR  
VIBRATION ISOLATION SYSTEM  
FOR  
TD BFP (2 NOS FOR EACH UNIT)**

**SPECIFICATION NO. PE-TS-375-614-C001**



**BHARAT HEAVY ELECTRICALS LIMITED  
Project Engineering Management  
PPEI BUILDING, HRD & ESI COMPLEX  
Plot No. 25, Sector 16A  
NOIDA, U.P. – 201301  
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PROJECT: 3 X 660 MW LPGCL, LALITPUR(U.P) STPP

**TECHNICAL SPECIFICATIONS FOR VIS  
FOR TD BFP (6 NOS.) FOUNDATION**

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**SECTION 'A'**

**SCOPE OF WORK**





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## SCOPE

### 1. Supply of Vibration Isolation System (VIS)

- i) Vibration Isolation System (VIS)
- ii) Tools and facilities required for erection and commissioning including seaworthy packing & transportation etc. complete.

### 2. Supervision of erection and commissioning of the VIS.

Vendor shall deploy experienced manpower for setting the VIS in position and final adjustments after machine installation. Vendor shall also confirm the readiness at site before deploying the manpower for supervision of erection. Vendor shall furnish proposed erection strategy of the entire system and procedure for replacement of VIS and downtime involved.

### 3. Design & Engineering for the Vibration Isolation System

Design and engineering shall consist of the following:

- i) Selection of Vibration Isolation System (VIS).
- ii) Static and dynamic analysis and design of RCC deck slab (supporting arrangement for the equipment supported on VIS)
- iii) Calculation of loads on supporting structure along with their points of application and deflection limitations.
- iv) Calculation should establish that no dynamic loads are transferred to the structure supporting VIS and that the foundation system meets the amplitude/frequency requirements.
- v) Checking of stiffness for structure supporting VIS.

### 4. Documentation

Vendor shall furnish following documents:

- i) Bill of materials of various elements included in the supply along with detailed specifications of system and various items included in supply and standards local or international standards to which they conform.
- ii) General Arrangement (GA) drawing showing location and supporting details of VIS.
- iii) GA and reinforced concrete details drawings for deck slab including bar bending schedule.
- iv) Embedment drawings showing location of all embedment and their details pertaining to RCC deck slab.
- v) Design document
- vi) Methodology of providing the shuttering and its removal as well as concreting of deck slab, installation of VIS and sequence of above operation.
- vii) Installation and maintenance manual indicating equipment, procedures, etc. necessary for installation/maintenance VIS.





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- viii) List of power plants where such systems have been successfully installed for such applications.
- ix) Performance certificate from the end user/customer for at least two successfully executed contracts for such system.





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**SECTION 'B'**

**PROJECT INFORMATION**





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**PROJECT INFORMATION**

OWNER	LALITPUR POWER GENERATION COMPANY LIMITED (LPGCL)
CONSULTANT	TATA CONSULTING ENGINEERS LTD.
NAME OF PROJECT	3X660 MW Supercritical Thermal Power Project LPGCL, LALITPUR(U.P)
SITE LOCATION	Located at Mirchwara and Buraugaon near Utari River, Lalitpur District, U.P, India
ACCESS ROAD	Approach to site from National highway is about 23 km from Bansi on NH-26 which connects Jhansi and Sagar.
NEAREST RAILWAY STATION	Nearest Railway Station is Lalitpur (At a distance of 37 kms from site) in the connecting railway line between Jhansi and Bhopal.
NEAREST AIRPORT	Gwalior Airport(At a distance 186 km from site)
NEAREST SEA PORT	Kolkata
Meteorological data :	
Temperature	
i) Annual mean of daily max.	32.4 <sup>0</sup> C
ii) Annual mean of daily min.	17.5 <sup>0</sup> C
iii) Annual mean of monthly max.	45.1 <sup>0</sup> C
iv) Annual mean of monthly min.	1.9 <sup>0</sup> C
v) Maximum extreme temp recorded	46.2 <sup>0</sup> C
vi) Minimum extreme temp recorded	0 <sup>0</sup> C