NHPC LIMITED

(A Govt. of India Enterprise)

CIN: L40101HR1975GOI032564

Corrigendum No. III

Name of Work: Mega Risk Policy including Terrorism & Third Party Liability Policy for NHPC Power Stations (For one year w.e.f 30.10.2023 to 29.10.2024)

Bid No: Bid No: GEM/2023/B/3859823 dated 22.08.2023

Tender Reference No.: NH/CCW/CC-II/CO-264/PR10023/182 dated 22.08.2023

Clarification to the Bidder's are as under:

Sl. No	Query	Reply/Clarification
1	Dam Safety Inspection reports of Dulhasti mentions longitudinal shallow cracks which requires continuous monitoring and remedial measures; can NHPC give a timeline of doing rectification works	The longitudinal cracks at the dam top in block no. 12,10,4,1,3 & 5 are being monitored on regular basis and no further widening/unusual behaviour has been noticed. Further a Ground penetration test (GPR) has also been carried out and it was observed that the cracks are shallow in nature and may not permeate water at deeper depths. The behaviour of these cracks are monitored regularly by installed surface mounted square shaped metal plates both upstream and downstream of Dam top. There is no further change.
2	Do we have DAM/Barrage safety inspection report for all locations, what is the frequency of such inspection and NHPC confirmation that all falls within dam safety act guidelines?	In NHPC, pre-monsoon and post-monsoon Dam safety inspections are conducted annually for all Power Stations of NHPC to ensure safety, surveillance and timely maintenance of dams and appurtenant structures in compliance to "Dam Safety Act 2021". The Pre & Post Monsoon Dam safety inspections are being conducted as per the 'Guidelines for Safety Inspection of Dams issued by Central Water Commission (CWC) vide document no. CDSO_GUD_DS_07_v1.0 of January 2018'.
3	Please provide the list of spares inventory recognised by insured and maintained against the same	List of Major spares inventory recognised attached as Annexure-I. However, apart from that based on the requirement & past consumption pattern other miscellaneous spares also maintained at power station.
4	Do we have any critical items sourced from OEM based in foreign country?	NHPC power stations maintain the critical spares as well as other mandatory spares as mentioned in

	What could be the lead time	reply against point no. 3. Further, NHPC does not place any supply order to the foreign-based OEM. However, some of the spares like GIS spares (Circuit Breaker, Surge Arrestor, Disconnector, etc) & others spares are being sourced by the OEM's from their foreign based manufacturing facility after we place order to the Indian vendors. Lead-time of such items may vary from 4 months to 12 months.
5	SEWA II- HRT inspection – structural integrity report and post loss remedial measures	As a remedial measure, the lost stretch of HRT was realigned and a new stretch of tunnel of 720m length has been constructed well inside the hill with safe and sufficient lateral and vertical cover. Prior to this, extensive topographical, geological, geophysical surveys were carried out to explore the various alternatives for stable and earliest restoration as well as most optimized and safe solution for restoration. The restoration was completed in February 2022. All the required support measures such as shotcrete, rock anchors, consolidation grouting, steel ribs, concrete lining have been adopted in construction. Since restoration of the HRT after February 2022, the area is being regularly inspected during Pre-Monsoon and Post-Monsoon visits by team of officers from Corporate Office Design (Civil), Geology division, Hydrology along with Power Station officials. No signs of distress, slides, seepage etc. have been noticed in the restored portion and the HRT is functioning properly without any problem. Risk Inspection Reports of Sewa-II have already been shared with bidders along with clarification-II.
6	Measures taken from landslide protection – for Dhualiganga & Teesta V power station; If possible pls share photographs of the measures taken post loss	**Dhauliganga Power Station** - Various Landslide protection measures are implemented in the affected area to mitigate landslides and as remedial measures such as retaining walls, gabions, surface drainage management by providing contour drains, rock bolting, shotcrete etc. **Teesta V Power Station** – Various measures have been provided for left bank slope stabilization of Teesta-V power Station such as RCC retaining wall provided for toe support of thick overburden mass, Concrete toe structure with mass concrete, RCC cladding, Gabion wire crates

		layer, Bamboo piling/sall balli, Pressure Relief holes, grouted anchors, Contour Drain. Refer Photographs.
7	Rangit Power station, Tapovan complex of dhauliganga – Flood protection measures	**Dhauliganga Power Station** - Spurs, Retaining Wall, gabions, etc. are provided in the affected stretch as flood protection measures.
8	Parbati III & II- Post flood losses, risk mitigation measures adopted.	**Parbati-III Power Station** – Subsequent to devastating flood incidence in Sainj river due to heavy rainfall in Kullu district between 08.07.23 and 10.07.23 following have been observed in Parbati-III Power Station: **1. Post Flood Loss**: Sill beams of Radial Gate No.-1, Radial Gate No.-2 and Stop Log Gate No.-2 have damaged. These need to be re-installed. **Risk Mitigation Measures Adopted**: Proper remedial measures would be taken during lean season to re-install the Sill beams **2. Post Flood Loss**: Spillway Glacis in Bay No.-1 has damaged ranging from depth 0.25 m to 0.5 m. Spillway Glacis in Bay No.-2 has damaged ranging from depth 0.25 m to 4.00 m. **Risk Mitigation Measures Adopted**: Proper remedial measures would be taken during lean season. Further modification with more strengthening would be carried out with High Performance Concrete (HPC) grade M65/A20 and Steel liners. **Parbati-II** - Post flood losses & Risk mitigation measures **General** The roads connecting major Project components such as Dam, HRT DBM Site, HRT TBM Site, Power House and various Trench Weir sites were blocked at many places due to which shifting of diesel to various sites, Power supply and all the project activities were got affected. The restoration work for connecting roads to various components are in progress. The ongoing activities of HRT from TBM sites have been started and from DBM site shall be started shortly.

		Power House • The permanent structures of power house are not affected by the flood. However, temporary river joining works at the end of the Tail race Channel have been damaged. The restoration works for the river joining works and bank protection have been planned and under progress. • The back slope of the Power House was completely intact, no sign of any distress or seepage etc. was observed. • The foundation of E&M Store has got washed away for approx. length of 15-20m and the foundation footings have been completely exposed. The restoration work is under progress. **Manihar, Pancha and Hurla Trench weir sites** • Due to the heavy slide on the right abutment, Sheelagarh Bailey Bridge has been damaged. Further, approach road from Sheelagarh to Hurla Trench weir site has also been washed out in various stretches. The restoration works are in progress. • The damaged pockets have been noticed on the Hurla trench weir top and reinforcement has also been exposed at some location on the top of the Trench weir. The restoration work will be taken up shortly. • The Trash rack of Hurla trench weir is damaged and shall be rectified. **Parbati-II Power House Colony (Sainj)** Due to heavy flood major portion of the riverbed/terrace adjacent to the boundary wall of the colony has been damaged. The river was flowing almost adjacent to boundary wall and has damaged boundary wall in stretches of 30-40m at different locations. The restoration work has been planned and shall be taken up in due course of time.

Encl: As Above

13/9/2023

General Manager (CC-II),
Contracts (Civil) Division,

Teesta V Power Station

801128/2023/Section-II_CCI

Annexure-I

List Of Spares Maintained At NHPC Power Stations

Sl. No.	Description
1	Runner
2	Guide vanes
3	**Liners/Cheek Plates**
	(a) Top cover liners/ cheek plates
	(b) Bottom cover liners/ cheek plates
4	**Labyrinth/ Wearing Ring**
	(a) Moving Top
	(b) Moving Bottom
	(c) Fixed Top
	(d) Fixed Bottom
5	Shaft Seal complete assembly
6	Spares for Shaft Seal segment/drum
7	Runner Cone
8	MIV Seal - Maintenance
9	MIV Seal - Service
10	UGB Pad
11	LGB Pad
12	TGB Pad
13	Thrust Bearing Pad
14	Brake Pads
15	**Generator**
	(a) Stator Bars
	(b) Rotor Pole
	(c) CT
	(d) VT
	(e) LA
	(f) Brake Pad
	(g) NGT
16	Stator Cooler
17	UGB Coolers
18	LGB Coolers
19	TGB Coolers
20	GSU transformer
21	**GIS**
	(a) Circuit Breaker
	(b) Earth Switch
	(c) Isolator
	(d) GIS Surge Arrester
22	**Switchyard**
	(a) CB (complete pole)
	(b) LA
	(c) CT
	(d) CVT/PT
23	**Protection System**
a	Generator Protection Relay
b	Line Protection Relay
c	Shaft Current Protection Relay
d	Synchronizing Relay
e	Bus Bar Protection Relay
f	Transformer Protection Relay
g	Rotor earth fault relay
24	**Governing System**

Sl. No.	Description
a	Pump Motor set
b	Solenoid valve
c	Governor controller card with I/O Card
d	Power supply module
e	Actuators/ Proportional Valve
25	**MIV/Turbine**
a	Pump Motor set
b	Solenoid valve
26	**Excitation System**
a	Excitation Transformer
b	Field Breaker
c	Thyristors
d	Controller card with I/O Card
e	Field flashing Transformer
27	**EOT crane/Draft Tube/GIS hall/TRT**
a	Drives/PCB Card
28	**SCADA System**
a	PLC/Controllers
b	Controller card with I/O Card
c	Power supply module
29	**Cooling Water System**
a	Pump Motor set
30	**Drainage & Dewatering System**
a	Pump Motor set-Submersible Pump
b	Pump Motor set-VT Pump
31	**HS Lubrication**
a	One complete set AC&DC
32	**Fire Fighting system**
a	Pump Motor set
33	**CW system**
a	Pump & Motor
b	Heat Exchanger