

Bid Corrigendum

GEM/2024/B/5123590-C3

Following terms and conditions supersede all existing "Buyer added Bid Specific Terms and conditions" given in the bid document or any previous corrigendum. Prospective bidders are advised to bid as per following Terms and Conditions:

Buyer Added Bid Specific Additional Terms and Conditions

1. **OPTION CLAUSE:** The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.
2. **Bidder financial standing:** The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.
3. Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.
4. Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.
5. Supplier shall ensure that the Invoice is raised in the name of Consignee with GSTIN of Consignee only.
6. Actual delivery (and Installation & Commissioning (if covered in scope of supply)) is to be done at following address
CENTRAL STORE
URI POWER STATION
NHPC LIMITED
BARAMULLA
JAMMU & KASHMIR
.
7.
 1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.
 2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.
 3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.
8. Bidders can also submit the EMD with Account Payee Demand Draft in favour of
NHPC LIMITED
payable at
FARIDABAD
.
Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.
9. Buyer uploaded ATC document [Click here to view the file.](#)
10. Buyer Added text based ATC clauses

1. Bid Security:

Bidders are advised to submit EMD related documents like DD to

Sh. Anand Kumar, General Manager (Elect.), Contracts (E&M) -IV, 2nd Floor, Jyoti Sadan, NHPC Limited, Sector-33, Faridabad-121003, Haryana and PBG to Engineer-In Charge, Uri Power Station.

Bid Security (Earnest Money): Bidder shall submit along with the bid, the requisite Bid Security for an amount of Rs. 92,00,000/- (Rupees Ninety Two Lakh Only) as mentioned in the Bid document. Bid security may be deposited either in the form of a Crossed Bank Draft in favour of NHPC Limited, payable at Faridabad or in the form of a Bank Guarantee issued by an Indian Industrialized Bank or any Scheduled Bank in India/ Insurance Surety Bond in the prescribed proforma valid for a period not less than 90 days beyond the Bid offer validity. Failure to do so may prevent a tender from being considered. Bidder has to upload scanned copy of Bank draft/BG/Insurance Surety Bond as proof along with the bid and has to ensure delivery of hard copy within 5 days of Bid end date/ Bid opening date.

2. Bidder is requested to submit duly signed and stamped copy of complete Tender Document for their acceptance.

3. Bidder shall submit the following documents along with their bid for Vendor Code Creation:

- a. Copy of PAN Card.
- b. Copy of GSTIN.
- c. Copy of EFT Mandate duly certified by Bank.

4. Bidder is requested to submit BOQ Price Breakup in Financial document only in GeM Portal.

Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of

this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

*This document shall overwrite all previous versions of Bid Specific Additional Terms and Conditions.

[This Bid is also governed by the General Terms and Conditions](#)

NHPC LIMITED
(A Govt. of India Enterprise)
NHPC Office Complex, Sector-33, Faridabad-121003, Haryana (India)
CIN: L40101HR1975GOI032564

Dated; 05.08.2024

Replies to Bid queries alongwith Amendment No. 1

Description of Work: Replacement of Stator Assembly in Two (02) Nos Generating Units at Uri Power Station.

GeM Bid No.: GEM/2024/B/5123590 dated 12.07.2024

In reference to subject tender, please find enclosed herewith the replies of the queries of the prospective bidders annexed as Appendix-I alongwith Amendment No. 1 to the tender document.

Encl.: i) Amendment No. 1 (14 Pages)
ii) Appendix-I (Reply to Bid Queries) (55 Pages)

For & on behalf of NHPC Ltd.

Sd/-

General Manager (E)
Contracts (E&M)-IV Division

NHPC Limited
(A Govt of India Enterprises)

Date: 05.08.2024

Amendment No.1

Name of Work: Replacement of Stator Assembly in Two (02) Nos Generating Units at Uri Power Station.

GeM Bid No. GEM/2024/B/5123590 dated 12.07.2024

In reference to subject tender, the following amendments are hereby authorized to be incorporated in the tender document:

Sl. No.	Volume	Clause No.	Tender Provision	Amendment
Volume 0-ITB, IFB & QR				
1	Volume 0 - IFB	IFB Cl. 5.i), 5.ii)	Accommodation facility & storage at site: 5.i) Employer shall provide accommodation on chargeable basis subject to availability. In case of non-availability of accommodation, contractor shall make their own arrangement. 5.ii) Employer shall provide free necessary open space and covered space for storing Stator components subject to the space availability/ limitation. The Contractor, if required shall build their temporary establishment for maintaining their offices, stores and other miscellaneous infrastructure at the power station site.	The IFB Clause 5 (i) & (ii) is amended as below: 5.i) Employer shall provide unfurnished accommodation facility free of cost to the contractor's, as is where is basis. 5.ii) Employer shall provide free necessary open space and covered space (without any temperature and humidity control) for storing stator components. The contractor shall build their temporary establishment for maintaining their offices, stores and other miscellaneous infrastructure at the power station site, if required.

2	Volume- 0- IFB	IFB Cl. 8	Electric Power: The Contractor shall make their own arrangement for power requirement by installing of DG's etc for the temporary establishment required for maintaining their offices, stores and other miscellaneous infrastructure at the power station site. All work areas shall be suitably lighted by the contractor at his own expenses for proper execution and inspection to the satisfaction of the Engineer-in-charge in accordance with the provisions of the Indian Electricity Act/rules or any other law in force.	The following para is added to the existing IFB Clause 8: On request of Contractor Employer shall provide electricity supply to the contractor at site, store and camp on chargeable basis."
Volume II A (GCC)				
3	Volume IIA	GCC 38.5	Liability for Accidents and Damages: The following para is added at the end of GCC Clause 38.5	The Employer shall indemnify and hold harmless the Contractor & its employees, officers & Sub-contractors from any liability for loss of or damage to property of the employer, other than the facilities not yet taken over, i.e. caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC clause 39(Insurance), provided that such fire, explosion or other perils were not caused by any act or failure of the contractor.
4	Volume IIA	GCC 52.3	Force Majeure	A new clause 52.8 added in GCC. GCC Clause – 52.8

				Notwithstanding GCC Sub-Clause 52.6, Force Majeure shall not apply to any obligation of the Employer to make payments to the Contractor herein.
Volume II B (SCC)				
5	Volume II B (SCC)	SCC 5.0	TERMS OF PAYMENT: Clause no. 41.1 of GCC is deleted and replaced by following: A. For Supplies: 1. 80% of the pro-rata Contract Price of the material supplied subject to documentary evidence against presentation of the following documents to the Consignee:- • Evidence of dispatch (GR / LR etc.) • Contractor's detailed invoice • Detailed packing list • Material Dispatch Clearance Certificate along with Test Certificate (if any). • Copy of Insurance Intimation/ Cover. 2. 20% of the Contract Price of the material shall be paid upon taking over of the equipment after successful erection and commissioning.	TERMS OF PAYMENT: Clause no. 41.1 of GCC is deleted and replaced by following: A. For Supplies: 1. 10% of the total supply amount with all applicable taxes & duties after submission of proof of procurement of major raw material for manufacturing of Stator and approval of drawing after completion of Design, Engineering works of Stator and on expiry of 3 months reckoned from the date of issue of Letter of Award. 2. 70% of the pro-rata Contract Price of the material supplied subject to documentary evidence against presentation of the following documents to the Consignee:- • Evidence of dispatch (GR / LR etc.) • Contractor's detailed invoice • Detailed packing list

				• Material Dispatch Clearance Certificate along with Test Certificate (if any). • Copy of Insurance Intimation/ Cover. 3. 20% of the Contract Price of the material shall be paid upon Unit wise taking over of the equipment after successful erection and commissioning.
6	Volume IIB/SCC –	SCC 11.0 b) point (iii)	REJECTION LIMIT: b) DEFICIENCY IN FINAL TESTING: iii) If the contractor again fails to successfully conduct the Final Testing the Employer reserves the right to reject order and material already supplied, if any, shall be returned but penalty of 10% of the contract shall be imposed.	The Sub Clause 11.0 b) (iii) is amended as below: REJECTION LIMIT: b) DEFICIENCY IN FINAL TESTING: iii) If the contractor again fails to successfully conduct the Final Testing as per field test specified in approved Quality Testing Plant (as applicable) the Employer reserves the right to reject order.
7	Volume IIB/SCC –	SCC 14.0	TRANSIT AND ERECTION INSURANCE: 5. Supplies of replacements for transit and other losses by the supplier shall be deemed to be covered in the scope of the contract. In case, supplier fails to supply the same, action in terms of clause covered in general conditions of contract shall be taken by the purchaser for the procurement of the same at the risk and cost of Contractor including	The Sub Clause 14.0 (5) is amended as below: TRANSIT AND ERECTION INSURANCE: 5. Supplies of replacements for transit and other losses by the supplier shall be deemed to be covered in the scope of the contract.

			recovery of loss to NHPC due to non-supply of such items.	In case, supplier fails to supply the same, action in terms of clause covered in general conditions of contract shall be taken by the purchaser for the procurement of the same at the risk and cost of Contractor ~~including recovery of loss to NHPC due to non-supply of such items.~~
8	Volume – II B/ SCC		New Clause	A new Clause has been added at Sl. No. 31.0 of SCC: Cl. 31.0 CONFIDENTIAL INFORMATION: 31.1 The Employer and the Contractor shall keep confidential and shall not, without the written consent of the other Party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an

				undertaking of confidentiality similar to that imposed on the Contractor under this SCC Clause 31. 31.2 The Employer shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the Facilities. Similarly, the Contractor shall not use such documents, data and other information received from the Employer for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract. 31.3 The obligation of a party under SCC Sub-Clauses 31.1 and 31.2 above, however, shall not apply to that information which (a) now or hereafter enters the public domain through no fault of that Party. (b) can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party hereto. (c) otherwise lawfully becomes available to that Party from a third party that has no obligation of confidentiality.
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				31.4 The above provisions of this SCC Clause 31 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof. 31.5 The provisions of this SCC Clause 31 shall survive termination, for whatever reason, of the Contract.
9	Volume – II B/ SCC		New Clause	A new Clause has been added after Sl. No. 2.0 of SCC: Cl. 2.1 Work Schedule: The Contractor shall submit to Engineer-In Charge work schedule within 30 days from Letter Of Award showing various major activities for completion of work as per the contract completion period.
Volume III (TECHNICAL SPECIFICATION)				
10	Volume – III / Technical Specifications	A 2. (c) Dismantling & Assembly Works:	New stators assembly are required to be housed in the existing barrel and shall utilize the existing civil foundation/sole plate for stator. However, existing sole plates/ foundation shall be checked for any cracks/ voids/ defects. Defected soleplate shall be replaced / repaired and voids shall be removed suitably. Further the new generators shall adhere for the existing layout as well as electrical connection. if any	The Sub Clause A.2(c) is amended as below: “New stator assembly are required to be housed in the existing generator barrel and shall utilize the existing civil foundation/sole plates for stator placement/fixing. However, existing sole plates/ foundation shall be checked for any cracks/ voids/

			civil work involved w.r.t existing sole plate same be in the scope of supplier/bidder.	defects. Defected soleplate shall be suitably repaired by Contractor. Further, the new stator assembly shall adhere to the existing layout as well as electrical connection. Civil work involved, if any w.r.t existing sole plate, the same shall be in the scope of NHPC".																													
11	Volume – III / Technical Specifications	5) Rating and Functional Characteristics	<table><tr><th colspan="2">Generator Losses</th></tr><tr><td>39</td><td>Friction losses</td><td>760 KW</td></tr><tr><td>40</td><td>Iron losses</td><td>410 KW</td></tr><tr><td>41</td><td>Constant losses</td><td>1170 KW</td></tr><tr><td>42</td><td>Load losses</td><td>570 KW</td></tr><tr><td>43</td><td>Excitation losses</td><td>250 KW</td></tr><tr><td>44</td><td>Total losses at 110 % of rated o/p and 0.9 pf</td><td>1667.5 KW</td></tr><tr><td>45</td><td>Total losses at 100 % of rated o/p and 0.9 pf</td><td>1560.2 KW</td></tr><tr><td>46</td><td>Total losses at 95 % of rated o/p and 0.9 pf</td><td>1421.9 KW</td></tr><tr><td>47</td><td>Total losses at 75 % of rated o/p and 0.9 pf</td><td>1341.8 KW</td></tr></table> Air Friction Loss	Generator Losses		39	Friction losses	760 KW	40	Iron losses	410 KW	41	Constant losses	1170 KW	42	Load losses	570 KW	43	Excitation losses	250 KW	44	Total losses at 110 % of rated o/p and 0.9 pf	1667.5 KW	45	Total losses at 100 % of rated o/p and 0.9 pf	1560.2 KW	46	Total losses at 95 % of rated o/p and 0.9 pf	1421.9 KW	47	Total losses at 75 % of rated o/p and 0.9 pf	1341.8 KW	TS Clause 5 (15) - Rating and Functional Characteristics is amended as below: 15. Existing losses at rated continuous output (KW): - Ventilation & Friction : 608.9 - Iron : 351.1 - Constant losses: 960 - Stator Copper @75 deg Cel: 271.1 - Stray load : 107 - Field Winding @75 deg. Cel.: 201.9 - Excitation System: 20.2 Also losses at different outputs are as: - Total losses at 110% of rated O/P and 0.9 pf : 1667.5 kW - Total losses at 100% of rated O/P and 0.9 pf : 1560.2 kW The revised "TECHNICAL DATA SHEET OF EXISTING GENERATOR, GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY and
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				INFORMATIVE TECHNICAL DATA SHEET" is attached as Annexure-I.
12	Volume – III / Technical Specifications	GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY		The revised "GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY and INFORMATIVE TECHNICAL DATA SHEET is attached as Annexure-I.
13	Volume – III / Technical Specifications	51 & 52. TECHNICAL DATA OF EXISTING GENERATOR AT URI POWER STATION: VOLUME-III GTP 16. GUARANTEED	Air Cooler Data Cooling water inlet temperature : 27 °C. Cooling water Outlet temperature : 37.9 degree C at rated load & 39 degree C at Overload Air Cooler data Inlet Water Temperature : 30 °C. Outlet Water Temperature : 35.5 degree C at rated load & 36.5 degree C at Overload (Tentative)	Surface air coolers for generator to be supplied under this contract shall be designed for Inlet Water temp of air cooler: 30 Deg C and Outlet water temp (Hot water) from Air cooler: 40 Deg C. Further, Clause No. C.5-14 (Rating and functional characteristics) of Technical specification, the cooling water inlet temperature shall be read as 30 deg Cel. instead of 27 deg. Cel. The revised "GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY" is attached as Annexure-I.
14	Volume – III / Technical Specifications	A) 1. v) Supply and Installation	Supply, installation, testing and commissioning of two (02) sets of continuous online partial discharge measurement system complete with PD Couplers/sensors, input/output module, control/processor units, relays, junction boxes, cabling and associated accessories for measuring, monitoring, and data acquisition of the partial discharge over	Technical specification Clause A).1.v) First Para is amended as below: Supply, installation, testing and commissioning of two (02) sets of continuous online partial discharge measurement system complete with PD Couplers/sensors, input/output

			the complete spectrum to monitor the healthiness of the stator insulation. The system shall be able to record, trend, analyse and diagnose the acquired data. PD Couplers shall be capable to function in stringent condition imposed by operation like noise, moisture, dust interferences etc. The PD couplers shall be installed in the stator winding in each parallel paths of the winding connections. In addition, a portable unit with one (1) no. laptop for both sets equipped with diagnostic tool shall also be supplied.	module, control/processor units, relays, junction boxes, cabling and associated accessories for measuring, monitoring, and data acquisition of the partial discharge over the complete spectrum to monitor the healthiness of the stator insulation. The system shall be able to record, trend, analyse and diagnose the acquired data. PD Couplers shall be capable to function in stringent condition imposed by operation like noise, moisture, dust interferences etc. The PD couplers shall be installed in the stator winding in each parallel paths of the winding connections. The test reports of the PD couplers shall be provided by the Contractor.
15	Volume – III / Technical Specifications	A) 1. vii) A) 2. d) Supply and Installation:	Supply and installation of two (02) sets of Stator surface air cooler complete with isolating valves & other accessories to be housed in the existing barrel/ stator pit and shall utilize the new installed frame of the stator. The Generator cooler pipeline shall be (vapour proof insulation with cladding or other suitable type insulation to avoid condensation) along with necessary valves, fasteners, air vents, pressure gauge & pressure transducer, necessary instrumentation for monitoring of air (Hot and cold air for each air cooler) and water temperature (In and Out).	TS Clause A).1.vii) is amended as below: Supply and installation of two (02) sets of Stator surface air cooler complete with isolating valves, piping (within the barrel up to manifold) & other accessories to be housed in the existing generator barrel. The Generator cooler pipeline shall be (vapour proof insulation with cladding or other suitable type insulation to avoid condensation) and shall be provided with necessary isolating / control valves, fasteners, air vents, pressure

		Dismantling & Assembly Works:	Also fixing of new stator air coolers within the existing generator barrel along with the new pipelines. Replacement of any component of bearings, if required shall be provided by NHPC.	gauge & pressure transducer, necessary instrumentation for monitoring of air (Hot and cold air for each air cooler) and water temperature (In and Out).
16	Volume – III / Technical Specifications	A) 2. c) Dismantling & Assembly Works:	2. Dismantling & Assembly Works: However, existing sole plates/ foundation shall be checked for any cracks/ voids/ defects. Defected sole plate shall be replaced / repaired, and voids shall be removed suitably. Further the new generators shall adhere for the existing layout as well as electrical connection. if any civil work involved w.r.t existing sole plate same be in the scope of supplier/bidder.	Technical specification Clause A).2.c) is amended as below: "New stator assembly are required to be housed in the existing generator barrel and shall utilize the existing civil foundation/sole plates for stator placement/fixing. However, existing sole plates/ foundation shall be checked for any cracks/ voids/ defects. Defected soleplate shall be suitably repaired by Contractor. Further, the new stator assembly shall adhere to the existing layout as well as electrical connection. Civil work involved, if any w.r.t existing sole plate, the same shall be in the scope of NHPC".
17	Volume – III / Technical Specifications	C) 10) Design and Construction	Housing & Support: (1st Paragraph) The supporting brackets fabricated from structural steel shall be rigid enough to support and transmit the load to the concrete structure / foundation under worst conditions.	Housing & Support: (1st Paragraph) - Deleted
18	Volume – III / Technical Data Sheet		GENERATOR LOSSES	Refer, Technical Data sheet , Generator losses Sl. no. 39 to 47 is amended as below :

				39. Ventilation & Friction : 608.9 40 Iron : 351.1 41 Constant losses: 960 42 Stator Copper @75 deg Cel: 271.1 43 Stray load : 107 44 Field Winding @75 deg. Cel.: 201.9 45 Excitation System: 20.2 46 Total losses at 110% of rated O/P and 0.9 pf : 1667.5 kW 47.Total losses at 100% of rated O/P and 0.9 pf : 1560.2 kW The revised "TECHNICAL DATA SHEET OF EXISTING GENERATOR, GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY and INFORMATIVE TECHNICAL DATA SHEET" is attached as Annexure-I.
Volume – IV MQAP & QTS				
19	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Generator Stator Punching B In Process iii) Check for Quality of Lamination Varnishing, Thickness & IR value, Record Format-JIR, Remarks -CHP iv) Specific Total loss- Record Format-JIR, Remarks-CHP v) Magnetic Polarization, Record Format - JIR, Remarks-CHP	Generator Stator Punching B In Process iii) Check for Quality of Lamination ,Varnishing, Thickness & IR value-Record Format-TC, Remarks -TC iv) Specific Total loss- Record Format-TC, Remarks-TC v) Magnetic Polarization, Record Format -TC, Remarks-TC

20	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Generator - Air & Oil Coolers B iv) Trial assembly of oil coolers (or dummy frame) in Upper and Lower Brackets , Record Format-JIR, Remarks-CHP	Generator - Air Coolers B iv) Trial assembly of oil coolers (or dummy frame) in Upper and Lower Brackets -Deleted (However Trial Assembly of oil coolers (or dummy frame) in Upper and Lower Brackets shall be ascertain by the supplier as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at site)
21	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Generator- Instruments/ other Devices 1. Instruments, Record Format-TC, Remarks-TC 2. Other items/devices(As Applicable), Record Format-TC, Remarks-TC	Generator- Instruments/ other Devices 1. Instruments, Record Format-TC/COC, Remarks-TC/COC 2. Other items/devices(As Applicable), Record Format-TC/COC, Remarks-TC/COC Note-TC /COC shall be provided for instruments and device which are in scope of supply. However, performance of other items/instruments shall be ascertain by the supplier as per approved field test Plan agreed between Contractor & Engineer-In-Charge at site.
22	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Stator Frame Final Inspection C g) Painting & Preservation, Record Format-JIR, Remarks-CHP	Stator Frame Final Inspection C g) Painting & Preservation, Record Format-Review of Records(R/R), Remarks-Review of Records(R/R)

23	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Generator-Stator Winding Bars Fiber Glass Covered Epoxy/Polyestrimide Varnish Bonded Recangular Copper Conductor B Mica Tape v) Voltality Content.,Record Format-TC, Remarks-TC Vii Shelf Life (Tape life),Record Format-TC, Remarks-TC	Generator-Stator Winding Bars Fiber Glass Covered Epoxy/ Polyestrimide Varnish Bonded /Insulated Rectangular Copper Conductor C Mica Tape v) Voltality Content,Record Format- TC, Remarks-TC vii) Shelf Life (Tape life),Record Format-TC, Remarks-TC
24	Volume – IV MQAP & QTS	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	2 Field Tests Terminal tests according to IEC 60137 (C).	2 Field Tests .Terminal tests according to IEC 60034-8

Except above, all other Terms Conditions and Scope of Work & Technical Specifications of the tender Document shall remain unchanged.

Sd/-

**General Manager (E)
Contracts (E&M)-IV Division**

NHPC LIMITED
(A Govt. of India Enterprises)

Replies to Pre-Bid Queries

Name of Work : Replacement of Stator Assembly in Two (02) Nos Generating Units at Uri Power Station.

GeM Bid No. : GEM/2024/B/5123590 dated 12.07.2024

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
Volume 0 – ITB & QR				
1	NIT	Online Bid Submission End Date & Time	We request you to extend the online bid submission date by 6 weeks from the date of replies of pre bid queries as the bidder has to incorporate the pre-bid meeting replies, considering the magnitude of the work in this prestigious project.	Bid condition is clear in this regard. Please adhere with bid condition.
2	GEM Bid Document	Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:	We kindly request you to change the applicability of Reverse Auction, i.e. RA shall be done only if the prices quoted by the L1 bidder is more than 107.5% of Estimated Bid Value.	Bid condition is clear in this regard. Please adhere with bid condition.
3	IFB Cl. 5.(i) & (ii)	Accommodation facility & storage at site: Employer shall provide accommodation on chargeable	We understand that accommodation will be provided by NHPC. In case of non-availability of accommodation, NHPC shall provide safe & secure	Please Refer Amendment No. 1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		basis subject to availability. In case of non-availability of accommodation, contractor shall make their own arrangement.	location with adequate security for setting up camp site for contractor's manpower. Please confirm.	
4	IFB Cl. 8	Electric power: Contractor shall provide own arrangement of power by installing DG's etc. For the temporary establishment.	We request NHPC to provide required electricity to contractor at site, store and camp site on chargeable basis. Please accept.	Please Refer Amendment No. 1.
Volume-IIA GCC				
1	New Clause	Definition Commencement / Effective Date of Contract (New Definition)	For Clarity, we request M/s NHPC to kindly incorporate the following definitions of effective date and commencement date. 1. Effective date shall be the date of issuance of Letter of Award to the contractor 2. Commencement date shall be the latest of the following events. a). Date of signing of the contract agreement. b). Date of completion of System Checks/reverse engineering within a period of 1 month from the effective date. Please accept	Bid condition is clear in this regard. Please adhere with bid condition.
2	GCC 9.3	MATERIALS AND WORKMANSHIP: All materials shall be erected after being approved and passed by the Engineer-in-Charge. The erection shall be done according to the best practices being followed with	We request M/s NHPC to modify this clause as under:- All materials shall be erected after being approved and passed by the Engineer-in-Charge. The erection shall be done according to the best practices being followed with the best erection equipment's and tools, so as to give satisfactory results.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		the best erection equipment's and tools, so as to give satisfactory results. The dimensions shown on the drawings shall be adhered to strictly and work performed to the satisfaction of the Engineer-in-Charge. The Contractor shall guarantee all workmanship executed by him to be free from defects whatsoever.	The dimensions shown on the drawings shall be adhered to strictly and work performed to the satisfaction of the Engineer-in-Charge/as per Contract Agreement. The Contractor shall guarantee all workmanship executed by him to be free from defects whatsoever.	
3	GCC Cl. 10.1	INTERCHANGEABILITY All parts shall be made accurately to standard gauges so as to facilitate replacement and repairs. All corresponding parts of similar material shall be interchangeable.	We understand that Unit- 2 & 3 are covered in the tender scope. Both the units are fully identical (including civil foundation) & all components to be retained are interchangeable. Please confirm	Stator line and neutral terminations in Unit # 1 & 3 are identical whereas same are shifted in Unit # 2 & 4. Please refer attached drawing in this regard. Firm may visit the site for further information.
4	GCC Cl. 13.2	Power To Vary or Omit Work: If any suggested variation would in the opinion of the Contractor, if carried out, prevent him from fulfilling any of his obligations or guarantees under the Contract he shall notify the Engineer-in-Charge thereof in writing, and the Engineer-in-Charge shall decide forthwith whether or not the same shall be carried out, and if the Engineer-in-Charge confirms his instruction, the Contractor's obligations and guarantees shall be modified to	Please delete the last sentence of the said sub-clause The decisions of the Engineer-in-Charge in this regard shall be final and binding.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		such an extent as may be justified. The decisions of the Engineer-in-Charge in this regard shall be final and binding.		
5	GCC 14.1	NEGLIGENCE: If the Contractor neglect to manufacture plant & equipment's or execute the work in terms of the Contract as the case may be, with due diligence and expectation, or refuse or neglect to comply with any reasonable orders given to him in writing by the Engineer-in-Charge in connection with the work, or contravene any provisions of Contract, the Purchaser may give seven days' notice in writing to the Contractor to make good the failure, neglect or contravention complained of within reasonable time as specified by Engineer-in-charge. If the Contractor fail to comply with the notice and in the event of failure, neglect, or contravention capable of being made good within that time, then and in such a case the Purchaser shall forthwith perform such work as the Contractor may have neglected to do, or if the Purchaser shall think fit, it shall be lawful for him to take the	We request M/s NHPC to kindly amend the clause as follows:- If the Contractor neglect to manufacture plant & equipment's or execute the work in terms of the Contract as the case may be, with due diligence and expectation, or refuse or neglect to comply with any reasonable orders given to him in writing by the Engineer-in-Charge in connection with the work, or contravene any provisions of Contract, the Purchaser may give thirty days' notice in writing to the Contractor to make good the failure, neglect or contravention complained of within reasonable time as specified by Engineer-in-charge. If the Contractor fail to comply with the notice and in the event of failure, neglect, or contravention capable of being made good within that time, then and in such a case the Purchaser shall forthwith perform such work as the Contractor may have neglected to do, or if the Purchaser shall think fit, it shall be lawful for him to take the work wholly, or in part, out of the Contractor's hands and give it to another person(s) or Contractor at a reasonable price or provide any other materials, tools, tackle, or labour for the purpose of completing the work, or any part thereof, and in that event the Purchaser shall, without being	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		work wholly, or in part, out of the Contractor's hands and give it to another person(s) or Contractor at a reasonable price or provide any other materials, tools, tackle, or labour for the purpose of completing the work, or any part thereof, and in that event the Purchaser shall, without being responsible to the Contractor for fair wear and tear of the same, have the free use of all the materials, tools, tackles, or other things which may be on the site, for use at any time in connection with the work, to the exclusion of any right of the Contractor over the same, and the Purchaser shall be entitled to retain and apply any balance which may be otherwise due on the Contract by him to the Contractor or such part thereof as may be necessary, to the payment of the cost of executing such work as aforesaid.	responsible to the Contractor for fair wear and tear of the same, have the free use of all the materials, tools, tackles, or other things which may be on the site, for use at any time in connection with the work, to the exclusion of any right of the Contractor over the same, and the Purchaser shall be entitled to retain and apply any balance which may be otherwise due on the Contract by him to the Contractor or such part thereof as may be necessary, to the payment of the additional cost if any of executing such work as aforesaid. Please accept.	
6	GCC 15.1	COMPLIANCE WITH REGULATIONS: The Contractor shall comply with all applicable laws, ordinances, codes, approved standards, rules and regulations and shall procure all necessary municipal and government permits, licenses etc. at his own cost. The	The said clause is contradictory with clause 30.4.3 as below "employer responsibility" All permits, approvals and licenses shall be in employer's scope as mentioned in clause 30.4.3, Hence it is requested to delete the same.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		Contractor shall keep the Purchaser and Engineer-in-Charge harmless as a result of any infractions thereof.		
7	GCC Cl. 16	Death, insolvency and breach of Contract: The Purchaser may at any time, by giving notice, in writing summarily determine the Contract without compensation to the Contractor in any of the following events, that is to say: i) If the Contractor being an individual, or a firm or any partner thereof, shall at any time, be adjudged insolvent or shall have received order for administration of his estate made against him or shall take any proceeding for compensation under the Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any arrangement or composition with his creditors or suspend payment or if the firm has been dissolved under the Partnership Act; or ii) If the Contractor being a company is wound up voluntarily or by the order of a court or a Receiver, Liquidator or Manager on behalf of the Debenture holder is appointed or circumstances have arisen which entitle the court or	Please modify the said sub-clause in order to incorporate the following In case of termination due to insolvency, winding up or breach, Contractor should be entitled for all payments outstanding as on the date of termination from the Employer. Contractor is not liable to pay extra expenditure if any incurred by the Employer in case of termination due to death, insolvency or breach of contract. Termination right of Employer for breach should only be applicable if the breach is 'material' and the same is not cured by Contractor within 30 days' notice period from the Employer.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		Debenture holders to appoint a Receiver, Liquidator or manager; or iii) If the Contractor commits any breach of the Contract not herein specifically provided in the Contract. Provided always that such determination shall not prejudice any right of action or remedy which shall have accrued or shall accrue thereafter to the Purchaser and provided also that the Contractor shall be liable to pay to the Purchaser for any extra expenditure he is thereby put to and the Contractor shall under no circumstances be entitled to gain on such purchase.		
8	GCC,17.1	Time for Completion: 17.1 The Contractor shall provide full programme of the Supplies and or Works in detail and delivery schedule thereto. Strict adherence to the prescribed time schedule mentioned in the Contract shall be the essence of the Contract.	We request to modify the said sub-clause as The Contractor shall provide full programme of the Supplies and or Works in detail and delivery schedule thereto. Strict adherence to the overall prescribed time schedule mentioned in the Contract shall be the essence of the Contract for reasons for delay solely attributable to Contractor, except for delays on account of the Employer or any third party or due to reasons beyond the control of the Parties.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
9	GCC18	Delay in Works: 18.1 If the Contractor fails to attain completion of the scope of work or any part thereof within the prescribed time for completion under clause 17.0 or any extension thereof under GCC Clause 22.1 to 22.3 (Extension of time for Completion), the Contractor shall pay to the Purchaser liquidated damages equal to the amount computed @ ½ (half) percent per week or part thereof of the Contract Price. The aggregate amount of such Liquidated damages shall in no case exceed 10% of the Contract Price.	We understand that liquidated damages shall be payable by the Contractor if delay is due to reasons specifically attributable to Contractor only in sub-clause 18.1. We agree with the weekly LD rates provided in the GCC 18.1 and suggest that these liquidated damages shall be considered as a sole & exclusive LDs for any delay on part of the Contractor.	Bid condition is clear in this regard. Please adhere with bid condition.
10	GCC 22.1	Extension of Time for Completion: 22.1The Time(s) for Completion specified in the Contract may be extended if the work is delayed or the Contractor is impeded in the performance of any of its obligations under the Contract by reason of any of the following: (a) any Change in the scope of work (b) any occurrence of Force Majeure as provided in GCC Clause 52.1 to 52.5. (c) any suspension of work	As the site has been identified and chosen by the Purchaser and the Contractor has a limited role of supply and services of Works, we suggest that the Contractor shall also be entitled for extension of time and cost compensation due to any strikes and labour disturbances at the project site. Under Point (a) of sub-clause 22.1, we understand that any Change in the scope of work includes any variation as provided in sub-clause 13.1 to 13.5 also.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		order given by the Engineer-in-charge under GCC Clause 23.1 to 23.4 (Suspension) hereof or reduction in the rate of progress pursuant to GCC Clause 23.2 or (d) any default or breach of the Contract by the Purchaser, specifically including failure to supply the items to be supplied by the Purchaser as per the Contract Agreement, or any activity, act or omission of any other contractors employed by the Purchaser or (e) by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.		
11	GCC 22.4	EXTENSION OF TIME FOR COMPLETION: 22.4 In the event of extension of Time for Completion granted pursuant to GCC sub-clause 22.1 (c) and (d) under the Contract, the Contractor shall be entitled of cost towards idling of Contractor's resources as per the Annexure-III: Valuation of Idling Time Cost Claims.	We request M/s NHPC to kindly add idling charges clause as per NHPC Standard clause as mentioned in other Tenders, which is as under:- In the event of extension of Time for Completion granted pursuant to GCC sub-clause 22.1 (c) and (d) under the Contract, the Contractor shall be entitled of cost towards idling of Contractor's resources as per mutually agreed price. Please accept.	Bid condition is clear in this regard. Please adhere with bid condition.
12	GCC 26.1	SURPLUS MATERIALS	We request NHPC to please provide	Please refer IFB Clause no. 1

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		On completion of the works, all materials left surplus from those supplied by the Contractor under the Contract and those supplied by the Purchaser for erection will be handed over to the Purchaser at the Purchaser's stores.	the distance of store from the site	"Introduction".
13	GCC 30.2	RESPONSIBILITY OF THE CONTRACTOR AND EMPLOYER: The Purchaser shall have the right to require the Contractor to make any such change in the designs which may be necessary in the opinion of the Engineer-in-Charge to make the Plant and Works as the case may be, conform to the provisions & contents of the specification, without any extra cost to the Purchaser. Approval by the Engineer-in-Charge or by the representative of the Purchaser, to the Contractor's or sub-contractor's drawings, designs, materials or of other parts of the works involved in the Contract, or of test carried out either by the Contractor or by the Sub-Contractor shall not relieve the Contractor of any requirements/obligations of the specification or of the responsibility/obligation for the correctness of the Contractor's design and drawings. Any	Any such changes in design which leads to changes in cost and time shall cover under clause no .13.4 of GCC (Power to vary or omit work) and clause no. 22.1 of GCC (Extension of time for completion). Please Confirm.	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		manufacture or the work performed prior to the approval of drawings and tests will be at the risk and cost of the Contractor.		
14	GCC 32	Inspection and Testing: 32.3 The Contractor shall, if required, give the Engineer-in-charge, notice of any plant, being ready for testing, and the Engineer-in-charge or his representative, if so desired, shall, on giving twenty-four hours previous notice in writing to the Contractor, attend at the Contractor's premises within fifteen days of the date on which the plant is notified as being ready failing which, visit or alternatively if the Purchaser, at its own discretion waives of the inspection and testing the Contractor may proceed with the tests which shall be deemed to have been made in the Engineer-in-Charge's presence, and he shall forthwith forward to the Engineer-in-Charge duly certified copies of the test results and certificates in six copies for approval of the Purchaser. The Plant shall be dispatched only after the test certificates have been approved by the Purchaser in writing. 32.6 When the tests have been satisfactorily completed at the Contractor's works, the	We request for removal of the last line of sub-clause 32.3 beginning with 'The Plant shall be.....' in writing. We also request for amendment in sub-clause 32.6 wherein equipment will deemed to be accepted based on Contractor's factory inspection report only if the certificate of approval on such report is not issued in 14 days from the date of notice for final inspection by the Contractor.	Bid condition is clear in this regard. Please adhere with bid condition.

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		Engineer-in-Charge or his authorized representative shall issue a certificate to this effect. The Engineer-in-Charge or his authorized representative will jointly seal the material inspected in testimony of inspection being carried out by him.		
15	GCC 34.3	The Purchaser shall ensure readiness of the associated Civil works including foundations matching with the requirements at site as per the Inspection Schedule approved by the Engineer-in-Charge.	Bidder proposes exclusion of any kind of civil works from the scope. Please confirm.	It is to clarify that No Civil work is in the Scope of Contractor.
16	GCC 38.3	Liability for accidents and damages: 38.3 Until the plant is taken over or is deemed to have been taken over as aforesaid, the Contractor shall also be liable for and shall indemnify the Purchaser in respect of all injury to person or damage to property resulting from the negligence of the Contractor or from defective design or work, but not from other causes.	We request M/s NHPC to Kindly modify this clause as under:- Until the plant is taken over or is deemed to have been taken over as aforesaid, the Contractor shall also be liable for and shall indemnify the Purchaser in respect of all injury to person or damage to property resulting from the gross/wilful negligence of the Contractor or from defective design or work, but not from other causes. Please accept.	Bid condition is clear in this regard. Please adhere with bid condition.
17	GCC 38.5	Liability for accidents and damages: 38.5 The Contractor will indemnify and save harmless the Purchaser against all actions, suits, claims, demands, costs or expenses caused in connection with injuries (other than such as may be	Clause 38.5 – Contractor's all obligations towards the Purchaser has already been covered in the Contract and therefore suggest that Contractor's indemnification obligations shall only be restricted to any third party's claims restricted for any damage to a tangible property and for any physical injury.	Please Refer Amendment No. 1.

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		attributable to the Purchaser or his employees) suffered prior to the date when the Plant shall have been taken over under clause 50.1 to 50.4 hereof by persons employed by the Contractor or his sub-contractor on the work whether at common law or under the Workmen's Compensation Act, 1923 or any other statute in force at the date of Contract relating to the question of the liability of employers for injuries suffered by employees, and will, if called upon to do so, take out the necessary policy or policies of insurance to cover such indemnity.		
18	GCC 40.1	REPLACEMENT OF DEFECTIVE WORK OR MATERIAL: 40.1 If during the progress of the work, the Engineer-in-Charge shall decide and notify, in writing, to the Contractor that the Contractor has executed any unsound or imperfect work or has supplied any plant, material etc. as may be covered under the scope of the work, inferior in quality to Volume-IIA (GCC) that specified, the Contractor, on receiving details of such defects or deficiency, shall at his own expense, within such time as may be reasonably necessary for	We request M/s NHPC to kindly amend the clause as under If during the progress of the work, the Engineer-in-Charge shall decide and notify, in writing, to the Contractor that the Contractor has executed any unsound or imperfect work or has supplied any plant, material etc. as may be covered under the scope of the work, inferior in quality to Volume-IIA (GCC) that specified, the Contractor, on receiving details of such defects or deficiency, shall at his own expense, within such time as may be reasonably necessary for making it good, proceed to alter, reconstruct or remove such work, or supply fresh materials up to the standard of the Specification and in case the Contractor shall fail to do so,	Bid condition is clear in this regard. Please adhere with bid condition.

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		making it good, proceed to alter, reconstruct or remove such work, or supply fresh materials up to the standard of the Specification and in case the Contractor shall fail to do so, the Purchaser may, on giving the Contractor seven days notice in writing of his intention so to do, proceed to remove the work complained of, and at the cost of the Contractor, perform all such work or supply all such material, provided that nothing in this clause shall be deemed to deprive the Purchaser of or affect any right under the Contract, which he may otherwise have in respect of such defects or deficiencies.	the Purchaser may, on giving the Contractor Thirty (30) days notice in writing of his intention so to do, proceed to remove the work complained of, and at the cost of the Contractor, perform all such work or supply all such material, provided that nothing in this clause shall be deemed to deprive the Purchaser of or affect any right under the Contract, which he may otherwise have in respect of such defects or deficiencies. Please accept.	
19	GCC 42	Deductions from Contract Prices: 42.2 Any sum of money due and payable to the Contractor (including Performance Guarantee returnable to him) under this Contract may be appropriated by the Purchaser and set off against any claim of the Purchaser out of or under any Contract made by the Contractor with the Purchaser.	Please delete the said sub-clause 42.2 in entirety ~~Any sum of money due and payable to the Contractor (including Performance Guarantee returnable to him) under this Contract may be appropriated by the Purchaser and set off against any claim of the Purchaser out of or under any Contract made by the Contractor with the Purchaser~~	Bid condition is clear in this regard. Please adhere with bid condition.
20	GCC 44.2	Payment upon Termination 44.2 If the Contract is terminated at the Purchaser's convenience or because of a fundamental breach of Contract by the Purchaser, the Engineer-	Please modify the said sub-clause 44.2 as If the Contract is terminated at the Purchaser's convenience or because of a fundamental breach of Contract by	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		in-Charge shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the works less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract and less taxes due to be deducted at source as per applicable law.	the Purchaser, the Engineer-in-Charge shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges, cost incurred by the Contractor in protecting the Works and leaving the Site in a clean and safe condition, the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have undertaken with third Parties in connection with the Contract and that is not covered here , repatriation of the Contractor's personnel employed solely on the works less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract and less taxes due to be deducted at source as per applicable law.	
			We request M/s NHPC to amend the clause 44.2 as under:- If the Contract is terminated at the Purchaser's convenience or because of a fundamental breach of Contract by the Purchaser, the Engineer-in-Charge shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment along with termination cost (if any), repatriation of	Bid condition is clear in this regard. Please adhere with bid condition.

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			the Contractor's personnel employed solely on the works less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract and less taxes due to be deducted at source as per applicable law. Further all submitted Bank guarantees submitted by the contractor shall be released. Please accept.	
21	GCC 46.1	REGULATIONS OF LOCAL AUTHORITIES: 46.1 The Purchaser shall during the currency of this Contract and in respect of all matters arising out of performance thereof, assist the Contractor in the service of all notices and the obtaining of all consents, approval and permission required in accordance with the regulations and by laws of any local or other authority, if so necessary and applicable to the works, and also in the obtaining of right of way and like facilities from private parties. The Purchaser shall not, however, be responsible for any delay on this account and the Contractor shall not be absolved of any of his contractual obligation whatsoever in this regard.	We request M/s NHPC to add the following provisions in the clause:- Any delay in obtaining of all consents, approval and permission required in accordance with the regulations and by laws of any local or other authority, then Contractor shall have right to claim extra time on mutually agreed conditions basis. Please accept.	Bid condition is clear in this regard. Please adhere with bid condition.
22	GCC 49.1	REJECTION OF DEFECTIVE PLANTS/WORKS: 49.1 If the completed Plants/Works or any portion	We request M/s NHPC to kindly amend the clause as following:- If the completed Plants/Works or any portion	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		thereof, before it is taken over, be found to be defective, or being failed to fulfil the requirements of the Contract, the Engineer-in-Charge shall give the Contractor notice setting forth particulars of such defects or failure, and the Contractor shall forthwith make the defect good or alter the same to make it comply with the requirements of the Contract. If the Contractor fails to do so within reasonable time, the Purchaser may reject and replace at the cost of Contractor, the whole or any portion of the Plant/Works as the case may be which is defective or fails to fulfil the requirements of the Contract, such replacement/rectification shall be carried out by the Purchaser within the requirements of the Contract within a reasonable time and at the reasonable price and where reasonably possible to the same specification and under competitive conditions. In case of such replacement/rectification delivered and or erected as provided for in the original Contract, such extra cost being the ascertained difference between the price paid by the Purchaser under the provisions above mentioned for such	thereof, before it is taken over, be found to be defective, or being failed to fulfil the requirements of the Contract, the Engineer-in-Charge shall give the Contractor notice of Thirty (30) days setting forth particulars of such defects or failure, and the Contractor shall forthwith make the defect good or alter the same to make it comply with the requirements of the Contract. If the Contractor fails to do so within reasonable time, the Purchaser may reject and replace at the cost of Contractor, the whole or any portion of the Plant/Works as the case may be which is defective or fails to fulfil the requirements of the Contract, such replacement/rectification shall be carried out by the Purchaser within the requirements of the Contract within a reasonable time and at the reasonable price and where reasonably possible to the same specification and under competitive conditions. In case of such replacement/rectification delivered and or erected as provided for in the original Contract, such extra cost being the ascertained difference between the price paid by the Purchaser under the provisions above mentioned for such replacement/rectification and the Contract price for the plant/works so replaced/rectified and also to repay any sum paid by the Purchaser to the Contractor in respect of such defective	

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		replacement/rectification and the Contract price for the plant/works so replaced/rectified and also to repay any sum paid by the Purchaser to the Contractor in respect of such defective plant/works.	plant/works. Please accept.	
23	GCC 49.2	Rejection of defective Plants/Works 49.2 In the event of such rejection, the Purchaser shall be entitled to the use of the Plant/Work in reasonable and proper manner till a time reasonably sufficient to enable him to obtain other replacement plant/carryout the rectification of the Work. During the period the rejected plant/work is used commercially, the Contractor shall be entitled to a reasonable sum of payment for such use. Provided that the decision of the Engineer-in-Charge in regard to quantum of such payment shall be final and binding on the Contractor.	Clause 49.2–We suggest that any commercial operation of the Plant/Work shall lead to deemed Taking Over of such work.	Bid condition is clear in this regard. Please adhere with bid condition.
24	GCC 52.3	Force Majeure: Upon the occurrence of such cause and upon its termination, the party alleging that it has been rendered unable, as aforesaid, thereby shall notify the other party in writing by registered notice within 72 (seventy two) hours of the alleged beginning and ending	We request to modify the said sub-clause in order to incorporate that the Contractor is obliged to notify Employer about the force majeure event should be at least 10 days. Further, the time frame for providing certificate from local Chamber of Commerce or the statutory authority should be at least 30 days.	Please refer Amendment No. 1.

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		thereof. The Notice shall be followed by a Certificate from local Chamber of Commerce or the Statutory Authority as satisfactory evidence in support of the claim within 15 days of occurrence and cessation of such Force Majeure conditions.	Also, the obligation of the Employer to make payments under the contract should not be relieved due to force majeure.	
25	GCC 52.5	Force Majeure: 52.5 If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution. 52.6 No delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall constitute a default or breach of the Contract if and to the extent that such delay or non- performance is caused by the occurrence of an event of Force Majeure.	Please add the following at the end of the said sub-clause Failing which either Party may terminate the Contract by giving a notice to the other and the Purchaser should be under an obligation to pay all outstanding amounts, paid costs, overhead and profit incurred to the date of termination. 52.6 In the event of termination pursuant to GCC Sub-Clause 52.5, the rights and obligations of the Employer and the Contractor shall be as specified in GCC Sub-Clauses 56.1.2 and 56.1.3.	Bid condition is clear in this regard. Please adhere with bid condition.
26	GCC 56.1.1	Termination for Employer's Convenience: The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that	We request M/s NHPC to kindly amend the clause as follows:- The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		refers to this GCC Sub-Clause 56.1	of thirty (30) days that refers to this GCC Sub-Clause 56.1 Please accept.	
27	GCC 56.2.1	Termination for Contractor's Default: 56.2.1 The Employer, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons there for to the Contractor, referring to this GCC Sub Clause 56.2:	We request M/s NHPC to kindly amend the clause as follows:- The Employer, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination of thirty (30) days and its reasons there for to the Contractor, referring to this GCC Sub-Clause 56.2. Please accept.	Bid condition is clear in this regard. Please adhere with bid condition.
28	GCC 56.2.2 (d)	Termination for Contractor's Default: (d) Refuses or is unable to provide sufficient materials, services or labor to execute and complete the Facilities in the manner specified in the program furnished under GCC Clause 17.0 at rates of progress that give reasonable assurance to the Employer that the Contractor can attain Completion of the Facilities by the Time for Completion as extended then the Employer may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor stating the nature of the default and requiring the Contractor to remedy or to take steps to remedy the same within fourteen (14) days of its receipt	We request M/s NHPC to amend the clause as follows:- Refuses or is unable to provide sufficient materials, services or labor to execute and complete the Facilities in the manner specified in the program furnished under GCC Clause 17.0 at rates of progress that give reasonable assurance to the Employer that the Contractor can attain Completion of the Facilities by the Time for Completion as extended then the Employer may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor stating the nature of the default and requiring the Contractor to remedy or to take steps to remedy the same within thirty (30) days of its receipt of such notice, then the Employer may terminate the Contract forthwith by giving a notice of	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		of such notice, then the Employer may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GCC Sub-Clause 56.2.	termination to the Contractor that refers to this GCC Sub-Clause 56.2. Please accept.	
29	GCC 56.2.4	Termination for Contractor's Default: 56.2.4 The Employer may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third party. The Employer may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Employer and with an indemnification by the Employer for all liability including damage or injury to persons arising out of the Employer's use of such equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as the Employer considers expedient for the supply and installation of the Facilities. Upon completion of the Facilities or at such earlier date as the Employer thinks appropriate, the Employer shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the	We request M/s NHPC to incorporate the following provisions in the clause:- The Employer may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third party. The Employer may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Employer and with an indemnification by the Employer for all liability including damage or injury to persons arising out of the Employer's use of such equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as the Employer considers expedient for the supply and installation of the Facilities. Upon completion of the Facilities or at such earlier date as the Employer thinks appropriate, the Employer shall give notice of 7 days to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the site	notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the site. Please accept	
30	GCC 59.1	Contract Documents and matters to be treated confidential: 59.1 All documents, correspondence, decisions and other matters concerning the Contract shall be considered as confidential and of restricted nature by the Contractor and he shall not divulge or allow access thereto to unauthorized person of any kind.	Clause 59.1– As both the parties will be sharing confidential information amongst themselves, we suggest that this provision shall be made mutual.	New Clause added. Please Refer Amendment No. 1 in SCC.
Volume-II B SCC				
1	SCC 2	COMPLETION PERIOD: Total completion period for Engineering, design, manufacture, quality assurance, quality control, shop assembly, shop testing, delivery at site, site storage and preservation, dismantling, installation, testing, commissioning, handing over to NHPC of 02 Nos. Stator assemblies shall be 16 months from the date of issue of Letter of Award/ contract generated on GeM	The completion period mentioned is short considering the complexity involved in the work and we kindly request you to have relook on the same. Our recommendation is to ammend the same as 24 Months from the date of LOA issued or 20 months from the date of issue of drg./ design approval, whichever is later.	Bid condition is clear in this regard. Please adhere with bid condition.
			We request M/s NHPC to amend the clause in line with site conditions and severity of work as follows: - Total completion period for Engineering, design, manufacture, quality assurance, quality control, shop	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
			assembly, shop testing, delivery at site, site storage and preservation, dismantling, installation, testing, commissioning, handing over to NHPC of 02 No assemblies shall be 22 months from the date of LOA/Contract generating ON GeM. Kindly Confirm	
2	SCC 5	Terms of Payment: Clause no. 41.1 of GCC is deleted and replaced by following: A. For Supplies: 1. 80% of the pro-rata Contract Price of the material supplied subject to documentary evidence against presentation of the following documents to the Consignee:- • Evidence of dispatch (GR / LR etc.) • Contractor's detailed invoice • Detailed packing list • Material Dispatch Clearance Certificate along with Test Certificate (if any). • Copy of Insurance Intimation/ Cover. 2. 20% of the Contract Price of the material shall be paid upon taking over of the equipment after successful erection and commissioning.	Considering the budget for the scope we request following payment terms. For Supplies: - 10 % interest free advance against the submission of equivalent amount BG. - 20% against the drawing approval from the Purchaser. - 60% of the pro-rata Contract Price of the material supplied subject to documentary evidence against presentation of the following documents to the Consignee: - o Evidence of dispatch (GR / LR etc.) - o Detailed packing list - o Material Dispatch Clearance Certificate along with Test Certificate (if any). - o Copy of Insurance Intimation/ Cover. - 10% of the Contract Price of the material shall be paid upon unit wise taking over of the equipment after successful erection and commissioning. For Dismantling, Erection, Testing	Please Refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		C. Dismantling, Erection, Testing and Commissioning: 100% of the dismantling and erection cost will be paid on the successful completion of commissioning and testing of the work under the Contract with submission of relevant As built Drawings & manuals/catalogues and taking over certificate issued by Engineer-In charge or his duly authorized representative.	and Commissioning : 100% of the dismantling and erection cost will be paid on the Unit wise successful completion of commissioning and testing of the work under the Contract with submission of relevant As built Drawings & manuals/catalogues and taking over certificate issued by Engineer-In charge or his duly authorized representative.	
			We kindly request you to modify the clause as below: A. For Supplies: 20% of the contract price shall be paid as interest free advance against submission of ABG. 60% of the pro-rata Contract Price of the material supplied subject to documentary evidence against presentation of the following documents to the Consignee :- 20% of the Contract Price of the material shall be paid upon taking over of the equipment after successful erection and commissioning. Incase Erection and commissioning is delayed beyond 3 months from schedule due to reasons solely attributed to customer then balance 20% of supply portion shall be released against submission of Bank Guarantee.	Please Refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
3	SCC 6	Warranty	New Clause – As the parties have agreed on Contractor's warranty obligations in detail, we suggest to include a new provision which shall state that all implied and statutory warranties, including warranty for fitness for purpose and merchantability have been excluded.	Bid condition is clear in this regard. Please adhere with bid condition.
4	SCC 6	WARRANTY 1.For a period of 24 (Twenty Four) calendar months commencing upon the setting to work of Plant/ commissioning, the Contractor shall remain liable to replace any defective parts that may develop in the Plant of his own manufacture or those of his Sub contractor under the conditions provided in the Contract under proper use and arising solely out of faulty design, materials or workmanship, provided always that such defective parts as are not, repairable at site and are not essential in the meantime to the maintenance in commercial use of the Plant are promptly returned to the . 2. If it becomes necessary for the Contractor to replace or renew any defective parts of the Plant under this clause, the provisions of the first para, of this clause shall apply to the	We request Purchaser to replace this clause as per NHPC standard clause in other floated tender for Salal, Excitation system, which is as under:- 1. For a period of Eighteen (18) calendar months commencing from the date of commissioning of Plant or Twenty four (24)months from the date of receipt of Equipment complete with all accessories at site (last consignment in case of dispatch in parts) to the Purchaser whichever is earlier (called the warranty period) , the Contractor shall remain liable to replace any defective parts that may develop in the Plant of his own manufacture or those of his Sub-contractor under the conditions provided in the Contract under proper use and arising solely out of faulty design, materials or workmanship, provided always that such defective parts as are not repairable at site and are not essential in the meantime to the maintenance in commercial use of the Plant are promptly returned to the Contractor's works at the expense of	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		parts of the plant so replaced or renewed until the expiration of six (6) months from the date of such replacement or renewal or until the end of the above mentioned period of thirty six (36) months, whichever may be later	the Contractor unless otherwise arranged. 2. If it becomes necessary for the Contractor to replace or renew any defective parts of the Plant under this clause, the provisions of the first para of this clause shall apply to the parts of the plant so replaced or renewed until the expiration of six months from the date of such replacement or renewal or until the end of the above mentioned period of twenty four months, whichever may be later. Please confirm.	
5	SCC 7	LIQUIDATED DAMAGE: Firm is also advised to take all efforts to complete the Supply, Erection Testing and Commissioning work in stipulated time as provided in this contract to the satisfaction of Engineer-in-charge. If the firm fails to attain completion of the work or any part thereof within the prescribed time for completion, the firm shall pay to the Purchaser liquidated damages equal to the amount computed @ ½ (half) percent per week or part thereof of Contract Price. The aggregate amount of such Liquidated damages shall in no case exceed 10% of the Contract Price.	We kindly request you to modify the clause as below: Firm is also advised to take all efforts to complete the Supply, Erection Testing and Commissioning work in stipulated time as provided in this contract to the satisfaction of Engineer-in-charge. If the firm fails to attain completion of the work or any part thereof within the prescribed time for completion, the firm shall pay to the Purchaser liquidated damages equal to the amount computed @ ½ (half) percent per week or part thereof of the respective Contract Price of Supply / Work . The aggregate amount of such Liquidated damages shall in no case exceed 10% of the respective Contract Price of Supply / Work	Bid condition is clear in this regard. Please adhere with bid condition.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
			We request M/s NHPC to modify this clause as under:- Firm is also advised to take all efforts to complete the Supply, Erection Testing and Commissioning work in stipulated time as provided in this contract to the satisfaction of Engineer-in-charge as per Contract Agreement. If the firm fails to attain completion of the work or any part thereof within the prescribed time for completion for the reasons Solely attributable to the Contractor, the firm shall pay to the Purchaser liquidated damages equal to the amount computed @ ½ (half) percent per week or part thereof of delayed portion of Contract Price. The aggregate amount of such Liquidated damages shall in no case exceed 10% of the Contract Price. Kindly Confirm.	Bid condition is clear in this regard. Please adhere with bid condition.
6	SCC 11 b) pt (iii)	Deficiency In Final Testing: 11 b) (iii) If the contractor again fails to successfully conduct the Final Testing the Employer reserves the right to reject order and material already supplied, if any, shall be returned but penalty of 10% of the contract shall be imposed.	We request NHPC to define the successful criteria for Final testing. Also define the breakup % and criteria for the penalty which is defined maximum of 10%.	Please Refer Amendment No. 1.
7	SCC 14 (5)	TRANSIT AND ERECTION INSURANCE: 5. Supplies of replacements for transit and other losses by the supplier shall be deemed to be	We request M/s NHPC to delete the last line of the clause and modify the same as follows Supplies of replacements for transit and other losses by the supplier shall be deemed	Please Refer Amendment No. 1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		covered in the scope of the contract. In case, supplier fails to supply the same, action in terms of clause covered in general conditions of contract shall be taken by the purchaser for the procurement of the same at the risk and cost of Contractor including recovery of loss to NHPC due to non-supply of such items.	to be covered in the scope of the contract. In case, supplier fails to supply the same, action in terms of clause covered in general conditions of contract shall be taken by the purchaser for the procurement of the same at the risk and cost of Contractor. Please accept	
8	SCC 25	Completeness of Offer: In case of any item not mentioned in the Scope of Work to meet the requirements of the Contract, it should be included in the offer, so as to make the offer complete in all respects. No claims for the extra payment shall be entertained on the plea that the equipment specification/Scope of Work was not complete.	We understand that this is renovation job and Contractor is responsible only for the Scope of Work mentioned in Tender. There may be some additional scope upon dismantling the units. Therefore, pls delete the last line "No claim for not Complete"	Bid condition is clear in this regard. Please adhere with bid condition.
9	GTC 4 Cl v of Note	EMD	We understand that bidders with annual turnover of INR 500 Crore or more are not required to submit EMD as per clause no "v" - Sellers/ Service Provider having annual turnover of INR 500 Crore or more, at least in one of the past three completed financial year(s).	Please refer General Terms and Conditions (GTC) on GeM 4.0 (Version 1.15) dt 11 th June 2024 at Sl. No. 4.xiii (m) v.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
Volume- III Technical Specifications				
1	Volume-III Technical specifications Cl. A).1. i)	Supply and Installation: i. Supply, installation and testing of two (02) sets of new stator assembly comprising of frame , stator core including bar type stator winding	We request you to provide following existing drawings: 1.A/W Coolers interface drawing (Ventilation data) 2.Air Water Cooler piping drawing 3. Stator Bar drawing, 4. Stator Terminal dimensional drawing. 5.Stator Terminal connection with IPBD details 6.Upper and Lower Air Guide drawings 7. Existing Air Water Cooler drawing 8-Stator Frame.	Available drawings attached.
2	Volume-III Technical specifications Cl. A).2.a)	Dismantling & Assembly Works: One (1) set of rotor pedestals are available at site. However, other tools required shall be in the scope of contractor. The rotor lifting shall be done with the available EOT cranes (2x120/25Ton) at Power house	We understand that all the devices required for handling the Rotor complete are available at site and same shall be used for handling the Rotor assembly. Please confirm.	Rotor pedestals, lifting beam for tandem operation of crane for rotor lifting, pole lifting device and Bolt Tensioner [for Generator and Turbine Shaft coupling] are available at site and will be provided by NHPC. All other required tools & tackles for stator components are in the scope of bidder in accordance to technical specifications Clause no A -1[xi-xiii]
3	Volume-III Technical specifications Cl. A).2.d)	d) Also fixing of new stator air coolers within the existing generator barrel along with the new pipelines.	New piping only connection portion of pipe in between existing manifold and cooler to considered. Please confirm.	Refer TS Clause no. A.1.(vii) & 9 (Stator air cooler assembly) which is self-explanatory.
4	Volume-III Technical specifications Cl. B)	B) Design Consideration Page 340 Technical Data of Existing	As per existing Generator Technical data, Max. permissible continuous field current (1545 A) is lower than the Rated filed current (1560 A) ,kindly	Rated field current for excitation is 1545 A.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		Generator: Since the existing excitation system is to be retained so the design of generator should be done considering the parameters of the existing excitation system as mentioned in data sheet provided. TECHNICAL DATA OF EXISTING GENERATOR AT URI POWER STATION	confirm. Please also provide the data sheet for Existing Excitation along with technical specification.	
5	Volume-III Technical specifications Cl. C)	Design and Construction: 2) Stator Frame: Material for structure steel for supports, brackets and components & Stator frame shall be ASTM A516 Gr 70 or IS 2062 Gr E 350BR.....	Please include material S355 according to EN 10025-2; this material is equivalent to IS 2062 Gr E350 BR	Bid Specifications are clear in this regards. Please refer clause C)- Design and Construction Point -2) Stator Frame
6	Volume-III Technical specifications Cl. C) 5)	Design and Construction: 5) Rating and Functional Characteristics;	Based on limited scope of supply, Iron loss and Load losses of Stator winding @ 75°C shall be guaranteed. All other losses shall be taken from existing data sheet which are provided in technical specification. Please confirm.	Agreed
7	Volume-III Technical specifications Cl. C) 12)	Design and Construction 12) Documentation (Drawings, calculations & reports) i) Electrical calculations and characteristics including magnetic circuit.	i) Generator Data sheet with required parameters shall be provided for approval. Iv) Iron loss and Load losses of Stator shall be guaranteed and shall be provided in Generator data sheet. All other losses shall be taken from existing data sheet shall be mentioned	Please adhere to bid specification.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		 iv) Calculation of guaranteed losses v) Capability curve for the generator vi) Calculation to prove short circuit withstand capability vii) The Contractor shall also provide other calculations and reports	in Generator data sheet. vi) Generator Data sheet with required parameters shall be provided for approval. Please confirm	
8	Volume-III Technical specifications Cl. C) 13)	Design and Construction 13) Spare Parts, 1. Stator Core punching	Once machine is assembled, no stator core punching can be used at later stage. No spare required for stator core punching. Please confirm.	Please adhere to bid specification.
9	Volume-III Technical specifications Cl. C) 13)	Design and Construction 13) Spare Parts, 5. Air guide / shroud cover of each type.	The life of air guides are same as machine life, no spare required for Air Guides. Please confirm.	Please adhere to bid specification.
10	Volume-III Guaranteed Technical Datasheet of Stator Assembly	Sl. No. 4, 5 and 6. Generator Reactance, Time constants and Short Circuit Ratio.	We request NHPC Ltd. to provide data regarding Damper Winding and Pole shoe information so that the Reactance calculation can be done. However, this shall be for information purpose only and cannot be same as existing Generator as each OEM performs its own calculation and variation will happen. Please Provide.	The required information shall be provided during detailed engineering.
11	Volume-III Technical specifications	Supply, installation, testing and commissioning of two (02) sets of continuous online partial	Two (02) sets of continuous online partial discharge measurement system along-with portable unit with one (1)	Please refer Amendment No. 1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	Cl. A).1. v)	discharge measurement system complete with PD Couplers/sensors, input/output module, control/processor units, relays, junction boxes, cabling and associated accessories for measuring, monitoring, and data acquisition of the partial discharge over the complete spectrum to monitor the healthiness of the stator insulation. The system shall be able to record, trend, analyze and diagnose the acquired data. PD Couplers shall be capable to function in stringent condition imposed by operation like noise, moisture, dust interferences etc. The PD couplers shall be installed in the stator winding in each parallel paths of the winding connections. In addition, a portable unit with one (1) no. laptop for both sets equipped with diagnostic tool shall also be supplied.	no. laptop for both sets equipped with diagnostic tool has been requested in this clause. Kindly requesting NHPC to clarify the requirement (Cont. On-Line OR Portable type) so that Bidders can consider in their bids accordingly.	
12	Volume-III Technical specifications Cl. A).1. vii) Page: 2 of 14	Supply and installation of two (02) sets of Stator surface air cooler complete with isolating valves & other accessories to be housed in the existing barrel/ stator pit and shall utilize the new installed frame of the	As per clause: A).2. a) scope of new pipeline is limited within the Generator barrel, so we understand that scope of supply of new air cooler pipeline & related accessories (valves, RTDs, pressure gauge, pipeline insulation	Please refer Amendment No. 1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		stator. The Generator cooler pipeline shall be (vapor proof insulation with cladding or other suitable type insulation to avoid condensation) along with necessary valves, fasteners, air vents, pressure gauge & pressure transducer, necessary instrumentation for monitoring of air (Hot and cold air for each air cooler) and water temperature (In and Out).	etc.) is limited to inside the Generator barrel / pit. Please confirm.	
13	Volume-III Technical specifications Cl. A).1. x) Page: 2 of 14	Protection equipment/field devices for split phase like CT along with the relays for two (02) units shall be in the scope of the firm. Split Phase protection relay & field equipment (CTs) for new generators is under the scope of supplier. Grounding of the star point is through existing NGR (Neutral grounding resistor) in each unit. The same grounding shall be retained.	Split phase protection is applicable for multi-turn stator coil type winding where unbalanced flow of current measurement is required due to failure of inter-turn insulation of the coil. As roebel bar type winding has been requested in this tender and roebel bar is having single turn only and hence split phase protection is not required and hence requirement to be deleted from the tender specification. Secondly, we understood that Neutral Grounding System components are out of scope for this tender. Please confirm.	Please adhere to bid specification. Existing Grounding system shall be retained.
14	Volume-III Technical specifications Cl. A).2. a) Page: 3-	Methodology of Dismantling and Erection: Cleaning of complete rotor including rim ventilation	As per this clause rotor rim has ventilation passages. So please check and confirm the rim ventilation duct size & number, as this detail is not available	Available drawings attached. TS Clause A) 2.a) Before testing, cleaning of rotor poles shall be carried out on both faces, cleaning

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	4 of 14	passages, excitation leads/DC busbar and rotor poles, red gel touch-up where necessary and testing of rotor poles to check its healthiness for two units before placement into the pit again.	in the drawing of rotor complete. In addition to that, requesting NHPC to share the rim assembly drawing as well. Secondly, from this clause we understood that healthiness check of rotor poles will be checked on rotor complete without dismantling of pole-to-pole connections. Please confirm.	of excitation leads/ DC bus shall also be carried out. To carry out this activity Rotor poles shall be dismantled before cleaning.
15	Volume-III Technical specifications Cl. A).2. a) Page: 3-4 of 14	Methodology of Dismantling and Erection: One (1) set of rotor pedestals are available at site. However, other tools required shall be in the scope of contractor. The rotor lifting shall be done with the available EOT cranes (2x120/25Ton) at Powerhouse.	We understand that all the OEM supplied tools & tackles, devices, slings etc. (including rotor lifting beam) required for erection/dismantling of the unit shall be provided by NHPC in healthy condition before the start of work at site. Please confirm. We understand that load test, healthiness check / certification and crane operators for PH EOT cranes shall be in NHPC scope. Please confirm.	Rotor pedestals, rotor lifting beam and Bolt Tensioners [for Generator and Turbine Shaft coupling] are available at site and will be provided by NHPC. All other required tools & tackles required for handling , assembly/ dis-assembly of stator components are in the scope of bidder in accordance to technical specifications Clause no A -1[xi-xiii]. EOT crane Load Test Certificate shall be provided by NHPC. Ultrasonic testing report of rotor lifting beam shall be provided by NHPC. Crane operator for the handling, dismantling and re-assembly work under this Contract shall be in bidder's scope.
16	Volume-III Technical specifications Cl. A).2. c) Page: 4 of 14	2. Dismantling & Assembly Works: However, existing sole plates/ foundation shall be checked for any cracks/ voids/ defects. Defected sole plate shall be replaced / repaired, and voids shall be removed suitably.	As unit is running and Unit can't be dismantled for sole plates inspection at this stage and hence Bidders can't be able to perform inspection of sole plates and check cracks/voids/defects in sole plates at this bidding stage. So, we are proposing the scope of the supply/repairing of sole plates to be	Please refer Amendment No. 1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		Further the new generators shall adhere for the existing layout as well as electrical connection. if any civil work involved w.r.t existing sole plate same be in the scope of supplier/bidder.	decided after thorough inspection during the execution stage and this will be an additional change order for the contractor at execution stage. Secondly, for case of replacement of stator sole plates, civil work scope e.g., breaking existing concrete and grouting work in addition to the healthiness check of existing foundation will be in NHPC scope.	
17	Volume-III Technical specifications Cl. A).2. d) Page: 4 of 14	Replacement of any components of bearings, if required shall be provided by NHPC.	From this statement we understood that all components of bearings/bearing assemblies along with bearing oil for flushing and refilling will be in NHPC scope. Please confirm.	Confirmed
18	Volume-III Technical specifications Cl. A).2. e) Page: 4 of 14	Electrical connections of all type of instrumentation of the complete stator assembly for two units in generator instrumentation terminal box with proper identification and marking.	Terminal boxes for Instrumentation as per scope defined in tender are in scope of Bidders?	Generator marshalling box & termination box for firefighting detectors are already installed outside generator barrel and shall be retained. However, if any additional termination is required between instruments and marshalling box, then it shall be under bidder scope.
19	Volume-III Technical specifications Cl. A).2. f) Page: 4 of 14	Boxing up of all bearing housing & completion of the balance works of generating unit as per O&M manual of generator.	We understand that O&M manual of the existing machine shall be provided by NHPC to the contractor during the execution stage. Please confirm.	Confirmed
20	Volume-III Technical specifications Cl. A).2. f)	The complete alignment of the generating unit including turbine after the installation works of the generator shall be	We agree, however any turbine supplies & consumables that will be required for scope execution will be in NHPC scope and all the relevant	Confirmed

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	Page: 4 of 14	under the scope of the contractor.	drawings & document related to unit alignment will be shared by NHPC during execution stage. Please confirm.	
21	Volume-III Technical specifications Cl. A).2. g) Page: 4 of 14	Coupling of the generator shaft and the turbine shaft	As dismantling / coupling of generator & turbine shaft is in scope of Bidder and hence T-G shaft coupling drawing and coupling type need to be shared to the Bidders.	Available drawings attached
22	Volume-III Technical specifications Cl. C).5.14)	Maximum permissible temperature of stator winding under maximum power (150 MVA) with ambient temperature 40 deg.C and cooling water inlet temperature 27 deg.C – 120 deg.C	To check about maximum temperature, withstand capacity of newly supplied stator winding, we need following information/inputs which are missing in tender specifications: - a. Pole sheet drawing + Pole assembly drawing b. Rotor Rim sheet drawing + Rim assembly drawing c. Fan (DE / NDE) drawing	Available drawings attached
23	Volume-III Technical specifications Cl. C).5.14)	Housing & Support The supporting brackets fabricated from structural steel shall be rigid enough to support and transmit the load to the concrete structure / foundation under worst conditions.	As supporting brackets are not part of scope of supply as per tender specifications and hence need to be deleted from the tender specifications.	Please refer Amendment No. 1.
24	Volume-III Technical specifications Cl. C).11. Page: 12 of 14	Fire Fighting System – CO2 based FF system.	As generator fire protection system is not part of scope of supply as per tender specifications and hence need to be deleted from the tender specifications.	This Clause is for informative purpose only. The Dismantling of firefighting pipe, nozzles, instruments etc. if carried out during erection stage, the re-installation of the same is under the scope of Bidder.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
25	Volume-0, ITB Cl. 6, Page: 29 of 30	Transportation Limits Lowest point of height barrier near tunnel – 4100 mm.	We understood that Height limitations which is mentioned in this clause is at entry point of PH tunnel with Fabricated structure available at entry of PH tunnel and Fabricated structure can be removed temporary for transporting consignment having height more than 4100 mm. Please confirm.	The bidder is requested to visit the site for transportation dimensions restriction inside powerhouse/tunnel.
26	Volume-III, Technical Datasheet,	Guaranteed Technical Data Sheet of Stator Assembly	Guaranteed Technical datasheet of Stator assembly has been found in the tender specifications and Bidders have to sign and stamped the duly filled Guaranteed Technical data sheet and shall be submitted along with the Bid. As per this tender, scope is supply / erection / testing and commissioning of Stator wound complete including air-guides, air-water coolers and instrumentation etc and hence Bidder can't guarantee all data (e.g. Constant Losses, Reactances, Time constants, Inertia Constant etc). So, here Bidder / Contractor can guarantee data for which he is responsible. Rest of the information/data bidder can fill in the Technical Datasheet however these information/data will be for information ONLY. For this, NHPC have to share Guaranteed Technical Datasheet in editable format to all the Bidders.	The revised "TECHNICAL DATA SHEET OF EXISTING GENERATOR, GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY and INFORMATIVE TECHNICAL DATA SHEET" is attached As Annexure-I.
27	Volume-III Technical	Dismantling & Assembly Works:	a. For dismantling of Existing (Old) stator we understanding that in old	a). Existing stator assembly procedure is to join the stator segments inside the pit. If bidder opt

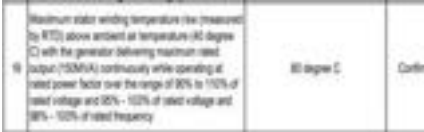
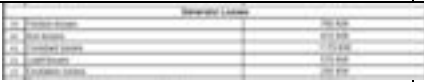
Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	specifications Cl.2 a)	Methodology of Dismantling and Erection: For each unit, the existing generator barrel components related to the stator like stator frame, stator core, stator coils etc. shall be dismantled & removed from the generator pit and transported to the Uri PS site store (central store, Boniyar, Uri Power Station) from the Power house complex.	stator after removing of the winding, stator core will be dismantled in segmental wise please confirm. Please clarify on Special Tools and Tackles required for dismantling of existing Generator parts as it must be provided by NHPC in healthy condition. Pedestal for Rotor in Service Bay, Rotor & Turbine Shaft De-coupling device etc.	for dismantling and lifting of the complete stator assembly then extra arrangements [all tools & tackles including lifting arrangement] shall be in the scope of bidder. b).Rotor pedestals, rotor lifting beam, pole lifting device and Bolt Tensioners [for Generator and Turbine Shaft coupling] are available at site and will be provided by NHPC, however all other required slings, tools & tackles for stator components are in the scope of bidder in accordance to technical specifications Clause no A -1[xi-xiii].
28	Volume-III Technical specifications Cl. A). 2 b)	Dismantling and assembly works: Methodology of Dismantling and Erection:- Checking of all thrust pads and rotating disc/runner along with thrust collar in the combined bearing area of two generating units before reusing them for boxing up the Units.	We understand that for removing of Thrust bearing pads, pads removing tool provided by the NHPC kindly confirm.	There is no specific tool available with power station for removal of thrust bearing pads and can be dismantled manually from inspection window. Any special tool, if any required shall be in the scope of bidder.
29	Volume-III Technical specifications Cl. A). 2 a)	Dismantling & Assembly Works: Cleaning of complete rotor including rim ventilation passages, excitation leads/DC bus bar and rotor poles, red gel touchup where necessary and testing of rotor poles to check its healthiness for two units	Please clarify purpose of testing of rotor pole requirement. In case any defect found during pole testing and if any corrective measures/any scope of supply and services required against the same, it shall be considered as additional/variation order.	To ensure the healthiness of rotor poles, activities as per technical specifications clause no A -2[a] are in the scope of bidder. In case, any pole found faulty during testing, the spare poles will be provided by NHPC for re-assembly.

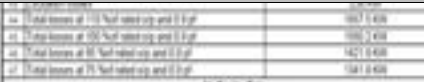
Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		before placement into the pit again.	Please review and confirm.	
30	Volume-III Technical specifications Cl. A). 2 d)	Methodology of Dismantling and Erection:- Replacement of any component of bearings, if required shall be provided by NHPC	We understand that bearing components like insulation washers, insulation plugs shall be provided by NHPC but in case of any cracks found on any of the thrust, guide bearing pads those must be re-babbited or replaced by the NHPC kindly confirm.	Confirmed
31	Volume-III Technical specifications Cl. A). 3 l)	Transportation, Storage, preservation, loading and unloading:- Stacking of dismantled material at Central Store/ disposal yard in a lock and key available space, of Uri Power station which is approx. 15 KM from the Powerhouse site	NHPC to ensure availability of Covered Store for storing of New Generator materials at site with Security along with lifting gears including Hydra, slings etc.	Please refer Special conditions of contract clause no 4.0 & IFB clause no 5 [2] regarding this query which is self-explanatory.
32	Volume-III Technical specifications Cl. A). 2 a)	Methodology of Dismantling and Erection:- However, power house EOT cranes (2x 120/25MT) can be used for handling of components in power house.	NHPC to ensure healthiness of EOT crane with Load Test Certificate before start of Generator works. NHPC to ensure availability and healthiness of Lifting Beam, Slings, Shackelsetc including TPI certification for Existing Generator removal works and kindly share such a list for verification.	EOT crane Load Test Certificate shall be provided by NHPC. Ultrasonic testing report of existing rotor lifting beam shall be provided by NHPC. General tools required like Slings and D-shackles for dismantling & assembly of generator components except stator components shall be provided by NHPC.
33	Volume-III Technical specifications Cl. C).9)	Stator Air Cooler Assembly The coolers shall be sized for easy removal through the existing generator top cover panels without dismantling any other part.	Request you to share with us the existing air water cooler drawing/document including datasheet of coolers and generator top cover drawing.	Requisite documents/ drawing is attached

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
34	Volume II B Special Conditions of Contract in Page no-56.	2. 0 COMPLETION PERIOD : Total completion period for Engineering, design, manufacture, quality assurance, quality control, shop assembly, shop testing, delivery at site, site storage and preservation, dismantling, installation, testing, commissioning, handing over to NHPC of 02 No assemblies shall be 16 (Sixteen) Months from date of issue of "Letter of Award/Contract generated on GeM".	We understand that dismantling and refurbishment of the new generators will be done from November onwards one after another. We also understand that the service bay will be available during the refurbishment work of both machine in a parallel way. Kindly confirm.	Please refer Special conditions of contract (SCC) Clause no 13.0 "Project Implementation" regarding this query which is self-explanatory.
35	Volume-III Technical specifications Cl. A). 2 a)	Methodology of Dismantling and Erection:- However, the rotor of the unit shall be placed and kept at appropriate location in Service Bay of Powerhouse ensuring sufficient space for erection works.	It is understand that the Service bay area is sufficient to execute of any lifting works on old stator as well as positioning of old rotor on service bay. Please review and confirm.	Please refer technical specifications (TS) Clause no A -2.0 (a) & SCC Clause 13.0 regarding this query. Due to the limitation of space in service bay, the dismantled stator components are required to be transported to store immediately after its dismantling so that space required for building of new stator can be availed.
36	Volume-III Technical specifications Cl. A). 2 a)	Dismantling & Assembly Works: Dismantling & withdrawal of the Rotor along-with generator shaft of two (02) sets of generating units and their placement at service bay, as per applicability.	Please clarify on Turbine scope of works as it is Vertical Unit and Decoupling of Turbine Shaft with Rotor Shaft required to lift existing Rotor to Service bay. Its tools must be provided by NHPC in healthy condition.	Please refer NHPC reply at (26) above in Technical query.
37	General	Operational details	Please provide below information to check existing generator : 1.Operation log for rated output,	Available reports attached. Other data is voluminous so will be provided later stage.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
			temperature of stator core/winding & ambient temperature 2. Air flow and pressure of motor fan 3. Generator electrical report 4. Generator ventilation calculation report 5. Guaranteed technical data including efficiency, losses, temperature rise 6. Site performance test report	
38	General - Preconditions	Construction Power	It is assumed that the Construction Power shall be provided by NHPC free of cost in power house works.	Construction Power shall be provided by NHPC free of cost.
39	Volume-III Technical specifications Cl. A).1. xiii)	Detailed Scope of Contractor: One (1) set of device for stator bar installation/removal along with all accessories & power packs shall be under the scope of supplier which shall be retained by the NHPC.	For stator bar installation GE will provide necessary tools as per OEM design practice. Please review and confirm.	No special tools/ device is available with power station for removal of existing stator bars. All tools & tackles used during removal and installation of stator bars shall be in the scope of the bidder and shall be retained by NHPC.
40	Volume-III Technical specifications Cl. A). 2 a)	Dismantling and assembly works: Cleaning of complete rotor including rim ventilation passages, excitation leads/DC bus bar and rotor poles, red gel touchup where necessary and testing of rotor poles to check its healthiness for two units before placement into the pit again.	Please clarify purpose of testing of rotor pole requirement. In case any defect found during pole testing and if any corrective measures/any scope of supply and services required against the same, it shall be considered as additional/variation order.	Please refer NHPC reply at sl. No. 28 above in Technical query.
41	Volume-III Technical specifications Cl. A). 2 b)	Dismantling and assembly works: Checking of all thrust pads and rotating disc/runner along with thrust collar in the combined bearing area of two generating	In case any defect found during thrust pads checking and if any corrective measures/any scope of supply and services required against the same, it shall be considered as additional/variation order.	Activities as per technical specifications clause no A -2[b] are in the scope of bidder. In case, thrust pad found faulty during thrust pad checking, the spare thrust pads will be provided by NHPC to the firm

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
		units before reusing them for boxing up the Units.	Please review and confirm.	for re -assembly.
42	Volume-III Technical specifications Cl. A). 2 c)	Dismantling and assembly works: New stators assembly are required to be housed in the existing barrel and shall utilize the existing civil foundation/sole plate for stator. However, existing sole plates/ foundation shall be checked for any cracks/ voids/ defects. Defected soleplate shall be replaced / repaired and voids shall be removed suitably. Further the new generators shall adhere for the existing layout as well as electrical connection. if any civil work involved w.r.t existing sole plate same be in the scope of supplier/bidder.	We shall not be able to perform inspection of sole plates at this tendering stage and the same can be inspected only after dismantling of stator complete. Therefore we propose the scope of the supply of sole plate shall be decided based on the inspection report during execution stage as an additional/ variation order. In case of replacement of stator sole plate, we understand that the related civil work, like breaking existing concrete and grouting shall be in Customer's scope. Please review and confirm.	Please refer Amendment No. 1.
43	VOLUME-III TECHNICAL SPECIFICATIO NS5. Rating and Functional Characteristics: (14)Page no-10 of 32 (pdf) VOLUME-III TECHNICAL SPECIFICATIO NSB. Design Consideration	Maximum permissible temperature of stator winding under maximum power (150MVA) with ambient temperature 40 °C and cooling water inlet temperature 27 °C.: 120 °C. Temperature rise :- The stators shall be capable of delivering continuous rated power i.e. 136MVA at the rated power factor (0.9) over the ranges of 90% to 110% of rated	We understand the rating as below: Rated Output : 136 MVA, Maximum Output: 150 MVA Voltage variation +/-10% and frequency variaton -5%+3% We propose as below: As per IEC 60034-1 at rated output, rated power factor and within Zone A (i.e voltage variation +/-5% and frequency variaton +/-2%) , temperature rise of stator shall be as per class B at ambient temperature of 40 °C i.e Stator : 85 K	The provision of bid specifications may be adhered

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	Page no- 6 of 32 (pdf) VOLUME-III GTP19. GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY	voltage and 95% to 103% of rated frequency without exceeding the max permissible temperatures The combined voltage and frequency variation shall be limited to +/-10% 	Absolute temperature : 125 °C and at maximum output, rated power factor, voltage variation (+/-10%) and frequency variation (-5+3%) outside Zone A and combined voltage and frequency limited to (+/-10%) temperature rise of stator shall be 10 K above class B as per IEC 60034-1 Stator : 95 K Absolute temperature: 135 °C Please review and confirm	
44	VOLUME-III TECHNICAL SPECIFICATIO NS C) 5). Rating and Functional Characteristics: (15)	Generator Losses: 	We understand as below : Constant Loss: 1170 kW Friction Loss : 760 kW Iron Loss: 410 kW Ventilation Loss: Please furnish Load Loss : 570 KW Stator Copper Loss: Please furnish and at what temperature Rotor Copper Loss: Please furnish and at what temperature Stray Load Loss: Please furnish We understand excitation loss of 250 KW is typo error , kindly furnish the correct the value.	Please refer Amendment No.1.
45	VOLUME-III TECHNICAL SPECIFICATIO		As per given data ; Constant Loss : 1170 KW and Load Loss : 570 KW; Hence the total loss : 1740 KW	Please refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	NS C) 5). Rating and Functional Characteristics: (15)		However in the GTP data point no, 45, shows Total losses of 1560 KW. Please confirm the correct total losses.	
46	VOLUME-III GTP 16. GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY Page no- 1 of 2 (pdf)	GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY	Please note that against the GTP point no 4, 5, 22 & 23 we will not guarantee the parameters however we shall ensure that the values are within the range for given scope of supply. Please note that for point no 15 i.e. generator losses, we will guarantee only stator copper losses and stator iron loss	Please refer Amendment No.1.
47	VOLUME-III TECHNICAL SPECIFICATION NS 6. Generator capabilities:: (d) Page no- 11 of 32 (pdf)	The generator shall be capable of operating continuously on an unbalanced system such that with none of the phase currents exceeding the rated current, the ratio of negative sequence component of current (I_2) to the rated current (I_n) does not exceed 0.08, and under fault conditions shall be capable of operation with the product of $(I_2/I_n)^2$ and time in seconds (t) less than 20.	As GE scope of supply is only stator, unbalance load requirement will be taken care by existing equipments hence this clause is not applicable.	Agreed, however bid provisions are clear in this regard.
48	VOLUME-III TECHNICAL SPECIFICATION NS	Stator assemblies shall be designed in compliance to existing Capability &	Please furnish existing Capability, Characteristic curves and V Curves.	Existing Capability and Characteristics curve is attached. V- curve is not available with power station.

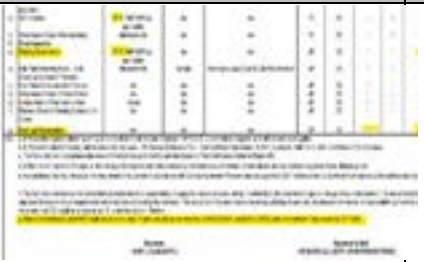
Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	6. Generator capabilities:: (d) Page no- 11 of 32 (pdf)	Characteristic Curves attached with the bid.		
49	VOLUME-III TECHNICAL SPECIFICATIONS 7. Runaway speed withstand capability: Page no- 12 of 32 (pdf)	Runaway speed withstand capability The generators shall be designed and constructed to be capable of safely withstanding maximum runaway speed of 615 rpm, for a period of 15 minutes without incurring damage from stresses under such conditions.	This Clause is not applicable, as GE scope of supply is only Stator. Please review and confirm.	Please adhere to bid specifications.
50	VOLUME-III TECHNICAL SPECIFICATIONS 8. Performance Guarantee: Page no- 12 of 32 (pdf)	Performance Guarantee The stator assemblies supplied under this contract shall be capable of performing intended duties under specified conditions. The Contractor shall guarantee the reliability of the supplied equipment and shall ensure that short circuit ratio (SCR), is not less than the existing. Also, the bidder shall ensure the stator copper loss and iron loss not more than the value mentioned in detailed technical data enclosed.	As GE scope of supply is only stator, GE will guarantee only stator copper loss and iron loss. During execution stage, we propose to conduct finger print measurement of these losses before dis-assembly of the existing machine. During commissioning of the new retrofit stator, we shall guarantee these losses shall be equal OR better than the measured finger print losses of existing machine.	The tender specifications are clear in this regard
51	VOLUME-III	The coolers shall be sized for easy removal through the	Request you to share with us the existing air water cooler drawing/document including	Agreed. Drawing/ data sheets of the existing Stator air cooler and generator top cover drawing is

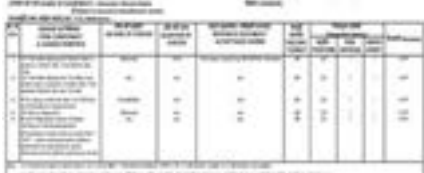
Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	TECHNICAL SPECIFICATION 9. Stator Air Cooler Assembly Page no- 12 of 32 (pdf)	existing generator top cover panels without dismantling any other part	datasheet of coolers and generator top cover drawing.	attached. The stator air coolers supplied under this contract shall be designed and supplied considering design parameters mentioned in the Technical specification/ Data sheet AND please refer NHPC reply at Sl. no. 27 below i.e. Inlet Water temp of air cooler: 30 Deg C and Outlet water temp (Hot water) from Air cooler: 40 Deg C.
52	VOLUME-III TECHNICAL SPECIFICATION 12. Documentation (Drawings, calculations & reports): (iii) Page no- 14 of 32 (pdf)	The Contractor shall submit the design calculation covering at least the following, for review/acceptance. Ventilation of generator	As we have scope of only stator replacement and no scope of rotor and ventilation system (fan), we shall provide losses related to stator (core and winding) only and no calculation shall be submitted for the ventilation of the generator. Please review and confirm.	Bid provisions are clear in this regard.
53	VOLUME-III TECHNICAL SPECIFICATION 51 & 52. TECHNICAL DATA OF EXISTING GENERATOR AT URI POWER STATION: Page no- 18 of 32 (pdf) VOLUME-III	Air Cooler Data Cooling water inlet temperature : 27 °C. Cooling water Outlet temperature : 37.9 degree C at rated load & 39 degree C at Overload Air Cooler data Inlet Water Temperature : 30 °C.	There is discrepancy in water inlet and outlet temperature, please confirm the correct value and also confirm water temperature rise. Please also furnish existing air water cooler datasheet/drawing	Please refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	GTP 16. GUARANTEED TECHNICAL DATA SHEET OF STATOR ASSEMBLY (iii) Page no- 1 of 2 (pdf)	Outlet Water Temperature : 35.5 degree C at rated load & 36.5 degree C at Overload (Tentative)		
54	VOLUME-II A GENERAL CONDITIONS OF CONTRACT (GCC)FOR SUPPLY & ERECTION 5.0 CONTRACT DRAWINGS Page no- 10 of 110 (pdf)	5.2 within 30 days of the receipt of such drawing, the Engineer-in-Charge shall signify his approval to the Contractor and in the event of his disapproving the drawings, the Contractor shall submit fresh / amended drawings within 30 days of such disapproving as per requirement of the Purchaser for his approval.	We propose to keep document review duration as 14 days for the engineer-in-charge considering service project and limited scope.	Bid condition is clear in this regard. Please adhere with bid condition.
55	General	Ventilation Circuit	In order to simulate existing ventilation circuit , please furnish fan drawings with all details i.e. diameter of fan, Pressure of fan etc.	Baffle type fan is installed on the Rotor.
56	General	Foundation Forces	Please provide the existing foundation forces details.	Foundation forces details are attached.
57	General	Additional information required	Please furnish existing (present condition) cooling performance data(air flow measurements), Cooling Air RTD temperature data, Stator RTDs temperature and excitation system details for operating points (Power, Voltage, frequency and p.f) at same time	Details are attached.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
58	General	Additional information required	Please provide following technical parameters/ details required for us to design the Stator Existing machine Dismantling sequence List of existing tools and tackles used in dismantling Upper bracket and stator frame interface drawings and details needed. Rotor pole sheet and coil dimensions/ drawings, Damper bar detail drawing and Pole to pole connection drawing Please furnish Rotor Rim drawings and rotor spider drawings, Fan drawings Stator frame and stator sole plate drawing to match interfaces provisions. Please furnish stator slot section drawings, stator bar drawings,	Available drawings attached
59	VOLUME-III TECHNICAL SPECIFICATIONS B. Design Consideration: Page no- 6 of 32 (pdf)	The capability of generator shall be checked for generating maximum power continuously. The combined voltage and frequency variation shall be limited to +/- 10%.	Please note that generator capability will be checked for given scope of supply only.	Bid provisions are clear in this regard.
60	General	Asbestos	We understand that there is no presence of Asbestos in the plant.	Please refer IFB Clause No. 10.
61	Volume -III TECHNICAL DATA SHEET	Page 16 of 32 GENERATOR LOSSES	Please clarify the discrepancy: the technical data sheet states a total loss of 1560.2 kW at 100% rated load in S.No 45, while the sum of the losses from S.No 39 to 42 amounts to 1990 kW.	Please refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)				
1	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	Sole Plate – Dimensional & Flatness	As Stator sole plate's scope could not be defined at bidding stage and hence test requirements for Sole plates to be deleted from MQAP.	In case of new Stator Sole Plate required, MQAP of the same will be applicable.
2	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	B. In process iii) Check for Quality of Lamination varnishing, thickness & IR value iv) Specific Total loss v) Magnetic Polarization	Tests mentioned here are applicable for raw material of Stator sheets and hence we are proposing submittal of material Test Certificate (TC) to the Purchaser. Hope material TC will be acceptable to NHPC. Please confirm.	Please refer Amendment No.1.
3	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS)	B. Fiber Glass Covered Epoxy/ Polyestrimide Varnish Bonded Rectangular Copper Conductor	Insulation material type for rectangular CU conductor should be kept open for all the Bidders. Please confirm your acceptance for same.	Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
4	Volume-IV Model Quality Assurance Plan (MQAP) & Quality Test Specification (QTS) Cl. 2 Page 31-32 of 32	Quality test specification (QTS) clauses: 2. Field tests High voltage withstand test on individual stator winding.	From this clause, we understand that NHPC is asking for a High Voltage test on individual Bars / Coils. If our understanding is correct, then we are proposing a high voltage test on individual Bar/ Coil at our shop and not at the site. Hope this will be acceptable to NHPC. Please confirm.	Field Tests shall be carried out as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at Site as mentioned in QTS. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
5	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		1) We understand that there is choice to perform RT/ UT test for weld joining, We will follow Ultrasonic test to check the weld joint as per drawing 2) There is customer hold point (CHP) as per MQP line No.Cg) after final painting stage. We recommend to follow RR(Review of Report) for customer to limit number of visit of customer 3) Note number g) Cyber security is not applicable for Stator Frame	1.NDT of welds shall be carried out as per applicable standard/ Approved Drawings. Hence Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS) should be adhered. 2) Please refer to Amendment Sheet No-1 3) Cyber security compliance needs to be submitted as per order no-12/34/2020-T&R, dated-24.12.2021 (Latest Amendment if any) issued by MOP, GOI.
6	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		1) We understand to submit mill test certificate as per material standard defined in drawing, Mill certificate will cover the test which is required as per applicable standard. 2) Model QAP line number B Vii) and D i) - Trail Assembly of punching /Core assembly is not feasible at manufacture place , We will submit dimensional report measured by CMM/ Faro 3) Note number g) Cyber security is not applicable for Stator punching	1. Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS). 2) Model QAP clauses for the same are clear. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification(QTS). 3) Cyber security compliance needs to be submitted as per order no-12/34/2020-T&R, dated-24.12.2021(Latest Amendment if any) issued by MOP,GOI.
7	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		1) MQP SrNo.B iii) Break down test is required at room and Rated temperature, We will submit test certificate as per GE internal standard HIME650119_M or as applicable. Mica Tape B -1) MQP sr no B V) Volatility content e of check' is	1. Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS). 2) Please refer Amendment No.1.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
			mentioned chemical/thermal'. Which need to be considered as visual check and Tape manufacture will provide certificate with date of production and indicate the Self life hence it will be a kind of documentation check / review Mica Tape B -1) MQP sr no B Vii) for tape shelf life nature of check' is mentioned chemical/thermal'. Which need to be considered as visual check and Tape manufacture will provide certificate with date of production and indicate the Self life hence it will be a kind of documentation check / review. 2) MQP sr no B Vii) for Resin flow rate nature of check is mentioned Chemical/thermal'. We are using VPI (Vacuum Pressure Impregnation) tape hence it is required to be omitted from MQP. Resin flow rate it is related to heat curable resin rich and it is applicable only for resin rich hence Resin Flow rate and Resin Content (For Resin Rich Only) is not applicable in our case.	3) Please refer Amendment No.1. 1) The same is already specified in clause no-1B iv & 1B vii) for Model Quality Assurance Plan (MQAP) of copper conductor. Hence .Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
8	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		We understand that Stator assembly will be performed at site hence this MQP is not applicable	1. Model QAP clauses for the same are clear. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
9	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		MQP Line No B iv) - Trail assembly for Oil Cooler (or dummy frame) in Upper and Lower Bracket is not feasible at supplier end due to only cooler manufacturing scope.	Please refer Amendment No.1.
10	VOLUME-IV MODEL QUALITY ASSURANCE PLAN (MQAP)		MQP for Generator- Instrument and other device- We will submit certificate available from manufacturer.. It may be test certificate (TC) or COC (Certificate of compliance). We will updated MQP during submission with TC/ CC)	Please refer Amendment No.1.
11	QUALITY TEST SPECIFICATION (QTS)	INSPECTIONS AND TESTS FOR GENERATOR STATOR: 1. Shop Tests The Generator components shall be routine tested as per relevant International/National Standards with local amendments. Following tests shall be carried out by the manufacturer at their works. A) Working Examination on fabricated parts (Stator Frame). Shall be performed :- • Checking of Surface Defects:- Magnetic Particle or Liquid Penetrant Examination • Checking of Sub-surface Defects:- Ultra Sonic NDT & Radiography (as required) • Checking of Dimensions:- Dimensions as per approved Drawing/ Tech. Spec.	We understand that there is choice to perform RT/ UT test for weld joint as per MQP hence we suggest to check the weld joint with ultrasonic test method as per drawing	1) Not accepted. However NDT of welds shall be carried out as per applicable Standard/Approved Drawings. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
12	QUALITY TEST SPECIFICATION (QTS)	2. Field Tests (Test to be performed at Site, as per applicability of scope of work) All field tests including tests during installation, pre-commissioning, commissioning and field acceptance tests shall be conducted by the Contractor, in the presence of representative of the Employer. Procedure to be adopted for conducting the operational, pre-commissioning, commissioning, performance and field acceptance tests shall be submitted well in advance, at least six (6) months before start of relevant testing, for approval of the Employer.	All tests define in Field Tests shall be reviewed by C&C team with respect to availability of measuring tools/ instruments.	Field Tests shall be carried out as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at Site as mentioned in QTS. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
13	Vol IV: Model Quality Assurance (MQAP) and Testing Specifications(	1 Model QAP for Generator (Stator Assembly) & Accessories Page 6/9 QAP Model for Stator winding bars 3 Final Inspection. iii)	This is not required and also not performed during manufacturing stage. IR before and after HV Test on the assembled winding shall be performed at site. Please confirm.	Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	QTS)	IR after HV Test		
14	Vol IV: Model Quality Assurance (MQAP) and Testing Specifications(QTS)	1 Model QAP for Generator (Stator Assembly) & Accessories Page 8/9 QAP Model for Generator-Air & Oil Coolers B Final Inspection. iii) Trial assembly of oil coolers(or dummy frame) in Upper and Lower Brackets	These trial assembly check to be performed at site. Only Air Water Coolers are in scope, Oil coolers test are not applicable, Dimensional check of the Stator coolers and stator frame shall be done based on verified/ approved drawing. Please confirm.	Please refer Amendment No.1.
15	Vol IV: Model Quality Assurance (MQAP) and Testing Specifications(QTS)	1 Model QAP for Generator (Stator Assembly) & Accessories Page 9/9 QAP Model for Generator-Instrument & other Devices 1 Instruments 2 Other items / devices	Test shall be performed only for instruments and device which are in scope of supply. Please accept.	Please refer Amendment No.1.
16	Vol IV: Model Quality Assurance (MQAP) and Testing Specifications(QTS)	QTS: 2.Shop Tests C) Stator winding bars II) Destructive Test (only one bar) Impulse Voltage Test	Impulse Voltage Test: This is type test of insulation process. A qualified insulation system will be used in the stator bars. Please confirm if Test Certificate of earlier executed test is acceptable.	Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification.
17	Vol IV: Model Quality Assurance (MQAP) and Testing Specifications(QTS)	QTS: 2.Field Tests (Test to be performed at site as per applicability of scope of work) Determination of the values for Xd, X'd, X''d, and Xq shall be derived on calculation based.	Required parameters shall be provided in Generator Data sheet.	Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
18	Vol IV: Model Quality	QTS: 2.Field Tests (Test to be performed at site as per	The shaft voltage measurement equipment is not in supply scope; it is	Not Accepted. However Shaft Voltage Measurement & bearing

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	Assurance (MQAP) and Testing Specifications(QTS)	applicability of scope of work) At least following tests shall be performed on the generator: - Shaft Voltage Measurement, -Overspeed test, noise and vibration measurement including balance of unit	requested to delete this test	currents shall be Measured/tested by the supplier as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at site as mentioned in QTS.
19	VOL-IV (Field Test @ Site)	Page 32 of 32 Total Harmonic Distortion (THD)	Measurement of the Total Harmonic Distortion (THD) and evaluation of waveform irregularities in accordance with IEC 60034 is not possible. The same may be deleted.	Field Tests shall be carried out as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at Site as mentioned in QTS. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
20	VOL-IV (Field Test @ Site)	Page 31 of 32 Field tests -Terminal test	Please clarify about terminal tests. Since this test is applicable for insulated bushings as per IS 60137. This test is not applicable for hydro generator. The same may be deleted.	Field Tests shall be carried out as per approved field tests Plan agreed between Contractor & Engineer-In-Charge at Site as mentioned in QTS. Hence Bidders are requested to adhere Model Quality Assurance Plan (MQAP)/Quality Testing Specification (QTS).
Volume –V Drawings				
1	Tender document: 1720772774 Informative technical data	Weight of complete stator assembly to be lifted by the crane 117 T (approx.) Weight of complete stator: 132000 kg	We understand that 117 T weight given in the data sheet is weight of stator wound complete. However, in the drawing of stator complete weight is mentioned as 132 T. So please check	The weight of complete stator is 132 T while Weight of stator core with frame is 117 T.

Sr. No.	Part/ Clause no.	Description / Existing Clause as per Bid Document	Queries of Prospective Bidders	NHPC Reply
	sheet of stator assembly Sr. no. 5 Page: 2 of 2 Volume-V: Drawings 1720703751 Stator complete drawing Page: 28 of 32		and confirm actual weight of OEM Stator wound.	
2	Volume–V Drawings Page 1 of 32	DRAWINGS	Please provide the following Drawings: 1.Frame Drawing 2. Air cooler Drawing 3.Cooling water piping 4.Stator sole plate arrgt 5. ARRGT. OF RADIAL JACK 6.Frame & Core Assy 7.Stator Bar Drawing	Available drawings attached

TECHNICAL DATA OF EXISTING GENERATOR AT URI POWER STATION		
1	Construction Type	Semi-Umbrella
(i)	Generator Type	Synchronous Generator with Salient Poles
(ii)	Direction of rotation (as viewed from top)	Clockwise from top
(iii)	Stator winding connection	Star
(iv)	Fly Wheel Effect of generator (GD ²)	3250 Tm ²
2	Generator Output (rated capacity & maximum)	136MVA at rated parameters & 150MVA
4	Generator efficiency at rated voltage, frequency & power factor (winding temperature corrected to 75°C)	
	at 75 % continuous rated output	98.14%
	at 85 % continuous rated output	98.27%
	at 100 % continuous rated output	98.40%
	at 110 % continuous rated output	98.42%
	Weighted average efficiency	98.35%
5	Generator Reactance	
	Direct axis Unsaturated Synchronous reactance(X _d)	1.10 pu
	Direct axis Unsaturated Transient reactance(X' _d)	0.28 pu
	Direct axis Unsaturated Sub-transient reactance(X'' _d)	0.2086 pu
	Quadrature axis Unsaturated Synchronous reactance(X _q)	0.7 pu
	Quadrature axis Unsaturated Transient reactance(X' _q)	
	Quadrature axis Unsaturated Sub-transient reactance(X'' _q)	0.278 pu
	Negative sequence reactance (X ₂)	0.24 pu
	Zero sequence reactance (X ₀)	0.1 pu
	Ratio of X'' _q to X'' _d	1.33
	Telephone harmonic factor as specified in IEC-34	Less than or equal to 1.5 %
	Steady state current under short circuit	4.66 KA
6	Time constants, Seconds	
	Direct axis transient open circuit time constant(T' _{do})	10 s
	Direct axis transient Short circuit time constant(T' _d)	2 s
	Direct axis, short-circuit transient time constant (T _a)	0.4 s
	Direct axis sub-transient short circuit T'' _d	0.1 s
7	Short Circuit Ratio	NOT LESS THAN 1.02 pu
8	Overload capacity	150MVA
9	Maximum output	150MVA
10	Voltage	13.8 KV,As per IEC 34-1(1983) standards
11	Frequency	50 Hz
12	Phase	3
13	Rated Current	5690 A
14	Max current	6276 A
15	Rated Power Factor	0.9 lagging
16	Class of Insulation	F
17	Max. permissible continuous field current	1545 Adc
18	No load excitation current	740 A
19	Rated excitation Voltage	
20	Rated synchronous speed	333.3 rpm
21	Design runaway speed	615 rpm
22	Max. peripheral speed at runaway speed	165.26 mtr/sec
23	Inertia constant	3.50 Ws/VA
24	Weight and name of heaviest part or assembly of the generator for transport	Stator Sector(38.6 T)
25	Weight of heaviest assembly or part of the generator lifted by the crane	182 T(rotor)
26	Weight of upper shaft	4580 Kg
27	Weight of lower shaft	14165 Kg
28	Rotor winding at 20 deg C	0.090 ohm
29	Stator winding per phase at 20 deg C	0.0024 ohm
30	Negative-sequence R ₂	0.072 pu
31	Generator air gap(minimum)	32
32	No of parallel paths	2
33	No of Poles	18
34	No of stator slots	216
35	Type of winding	Lap winding(multi-turn)diamond coil
36	Winding pitch	1-11
37	Insulation	MICAREX
Generator Losses		
38	Friction losses including ventilation loss	608.9 KW
39	Iron losses	351.1 KW
40	Constant losses	960 KW
41	Load losses	378.1 KW
42	Excitation losses	222.1 KW
43	Total losses at 110 %of rated o/p and 0.9 pf	1667.5 KW
44	Total losses at 100 %of rated o/p and 0.9 pf	1560.2 KW
45	Total losses at 85 %of rated o/p and 0.9 pf	1421.9 KW
46	Total losses at 75 %of rated o/p and 0.9 pf	1341.8 KW
Air Cooler Data		
47	No. of air coolers per machine	6
48	Cooling capacity	290 at rated load/319 kw at O/L
49	Flow rate of water	23 m3/hr for rated and O/L
50	Inlet water temperature	27 degree C
51	Outlet water temperature	37.9 degree C at rated load & 39 degree C at Overload
52	Volume flow rate of cooling air	70 m3/sec.
53	Pressure drop water side	24 Kpa

TECHNICAL DATA OF EXISTING GENERATOR AT URI POWER STATION		
54	Max. working water pressure	800 Kpa
55	Test pressure(water)	1000 Kpa
56	Material of tube	Cu:Ni (90 :10)
57	Material of tube fins	Al
58	Material of water chamber	Galv. Steel
59	Recommended value of water flow for air coolers	2300l/min
60	Recommended value of water flow for oil coolers in Thrust Bearing	600l/min
61	Recommended value of water flow for oil coolers in Upper Guide Bearing	75l/min
62	Stator winding temperature detectors	Yes
	Stator core temperature detectors	Yes
63	Continuous On-line air gap monitoring system	Nil
64	On-line Partial discharge monitoring system	Nil

TECHNICAL DATA SHEET OF OFFERED STATOR ASSEMBLY			
Sl. No.	Description	NHPC Requirement	Bidder's Confirmation/ seal/ Signature
GUARANTEED PARTICULARS			
1	Generator Stator winding Type	Roebel bar	Confirmed
2	Stator winding connection	Star	Confirmed
3	Generator Output (rated capacity)	136MVA at rated parameters	Confirmed
4	Generator Reactance		
(i)	Direct axis Unsaturated Synchronous reactance(Xd)	1.10 pu	Confirmed
5	Short Circuit Ratio	NOT LESS THAN 1.02 pu	Confirmed
6	Generator rated Output	136 MVA	Confirmed
7	Generator Maximum Output	150MVA	Confirmed
8	Voltage	13.8 KV +/-10%, As per IEC 34-1 standards	Confirmed
9	Frequency	50 Hz (-5)% to (+3) %	Confirmed
9	Phase	3	Confirmed
10	Rated Current	5690 A	Confirmed
11	Max current	6276 A	Confirmed
12	Rated Power Factor	0.9 lagging	Confirmed
13	Class of Insulation	F	Confirmed
14	Generator Losses		
(i)	Iron losses	351 KW (Max.)	Confirmed
(ii)	Stator copper loss at 75 Deg C at rated continuous output	271.1 KW (Max.)	Confirmed
15	Air Cooler Data		
(i)	Flow rate of water	Note more than 3000 LPM(total for all 6 coolers)	Confirmed
(ii)	Closed loop Potable Inlet water temperature	30 degree C	Confirmed
(iii)	Outlet water temperature	39 degree C at rated load & 40 degree C at Overload or better	Confirmed
(iv)	Material of tube	Cu:Ni (90 :10)	Confirmed
(vi)	Material of tube fins	Copper	Confirmed
(vi)	Material of water chamber	Galv. Steel or better	Confirmed
(vii)	Design Nominal Pressure	10 bar	Confirmed
16	Online Continuous On-line air gap monitoring system	Yes	Confirmed
17	On-line Partial discharge monitoring system	Yes	Confirmed
18	Maximum stator winding temperature rise (measured by RTD) above ambient air temperature (40 degree C) with the generator delivering maximum rated output (150MVA) continuously while operating at rated power factor over the range of 90% to 110% of rated voltage and 95% - 103% of rated voltage and 98% - 103% of rated frequency	80 degree C (Max)	Confirmed
19	Generator operation in Condenser mode as per existing capabilities	Yes	Confirmed
20	Applicable Design Standard	As per Tech. Spec.	Confirmed
21	Deviation factor of wave form , measured in % from line to line on open circuit at rated voltage and frequency	Not more than 5%	Confirmed
22	Total Harmonic distortion (THD)	Less than 5%	Confirmed
23	Generator stator capability to withstand maximum stresses during normal and abnormal condition as specified in Technical Specification	Yes	Confirmed
24	Generator stator short circuit withstand capability at generator terminal when operated at 150 MVA at rated power factor with +/-10% rated voltage	not less than 3 seconds	Confirmed
25	Generator capability to withstand occasional excess current equal to 1.5 times rated current.	Not less than 30 seconds each time	Confirmed
26	Generator stator assembly designed for runaway speed	Yes	Confirmed
27	Complete compliance of Technical specification	Yes	Confirmed
28	Complete compliance of attached Capability and Characteristic Curves in bid	Yes	Confirmed
29	Confirmation for terminals positions as per existing layout	Yes	Confirmed

TECHNICAL DATA SHEET OF OFFERED STATOR ASSEMBLY			
Sl. No.	Description	NHPC Requirement	Bidder's Confirmation/ seal/ Signature
INFORMATIVE PARAMETERS			
Sl. No.	Description	NHPC Requirement	Bidders to fill the data
1	Generator Reactance		
	Direct axis Unsaturated Transient reactance(X'd)	1.10 pu	
	Direct axis Unsaturated Sub-transient reactance(X''d)	0.28 pu	
	Quadrature axis Unsaturated Synchronous reactance(Xq)	0.2086 pu	
	Quadrature axis Unsaturated Transient reactance(X'q)	0.7 pu	
	Quadrature axis Unsaturated Sub-transient reactance(X''q)		
	Negative sequence reactance (X2)	0.278 pu	
	Zero sequence reactance (X0)	0.24 pu	
	Ratio of X''q to X''d	0.1 pu	
	Telephone harmonic factor as specified in IEC-34	1.33	
	Steady state current under short circuit	Less than or equal to 1.5 %	
2	Time constants, Seconds	4.66 KA	
	Direct axis transient open circuit time constant(T'do)	10 s	
	Direct axis transient Short circuit time constant(T'd)	2 s	
	Direct axis, short-circuit transient time constant (Ta)	0.4 s	
	Direct axis sub-transient short circuit T''d	0.1 s	
3	Clear space for movement between the outer body of the air coolers and the generator concrete barrels (Approx.)	800 mm	

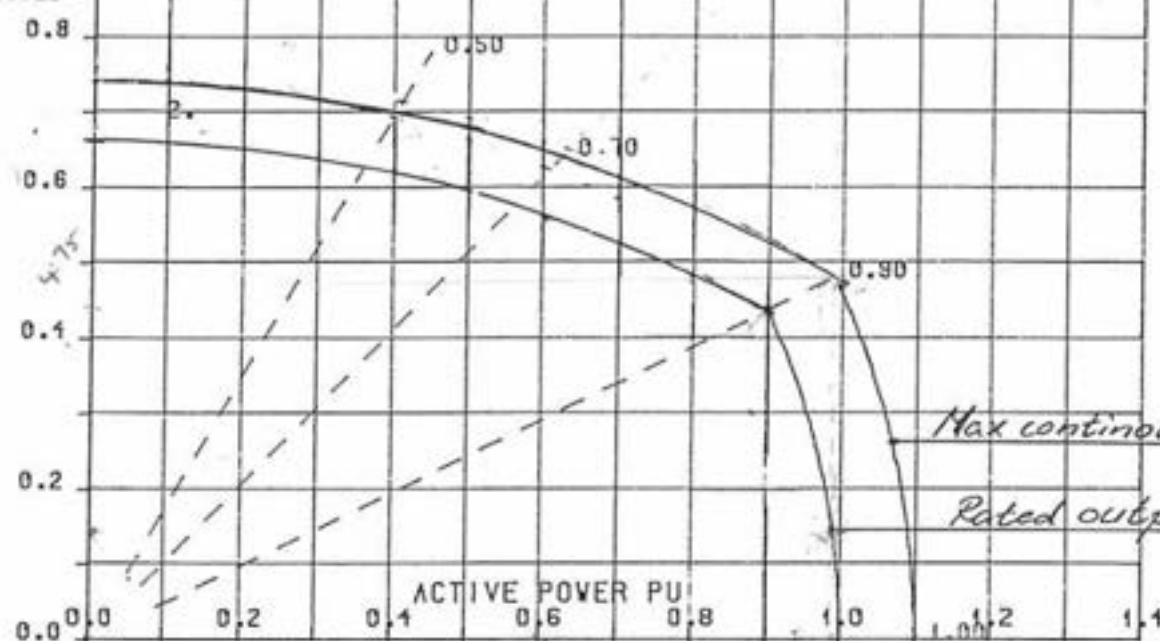
INFORMATION TO BE FILLED BY BIDDER DATA SHEET OF STATOR ASSEMBLY			
Sr No	Description	Existing Value	Data to be filled by Bidder
1	Inertia constant	3.50 Ws/VA	
2	Stator winding per phase at 20 deg C	0.0024 ohm	
3	Negative-sequence R2	0.072 pu	
4	Weight of the stator part of the generator for transport	Stator Sector (38.6T)	
5	Weight of complete stator assembly to be lifted by the crane	-	
6	Generator air gap	32	
7	Weight of upper shaft	4580 Kg	
8	Weight of lower shaft	14165 Kg	
9	No. of section in stator frame	3	
10	Rotor winding at 20 deg C	0.090 ohm	
11	Total Losses		
(i)	Total losses at 110 %of rated o/p and 0.9 pf	1667.5 KW	
(ii)	Total losses at 100 %of rated o/p and 0.9 pf	1560.2 KW	
(III)	Total losses at 85 %of rated o/p and 0.9 pf	1421.9 KW	
(iv)	Total losses at 75 %of rated o/p and 0.9 pf	1341.8 KW	
12	Air Cooler Data		
(i)	Max. working water pressure	800 Kpa	
(ii)	Volume flow rate of cooling air	70 m3/sec.	
13	Continuous On-line air gap monitoring system	Yes	
14	On-line Partial discharge monitoring system	Yes	

REACTIVE
POWER
P.U.

OUTPUT 1PU = 136000 KVA

1. STATOR HEATING LIMIT 3. PRACTICAL STABILITY LIMIT
2. ROTOR HEATING LIMIT 4. ZERO FIELD-CURRENT LIMIT

OVER-
EXCITED



UNDER-
EXCITED

GEN/GKE

URI

GGs 3660CV

GKE 30145-028

88- 10- 10

136000 KVA

0.90 PF

13800 V

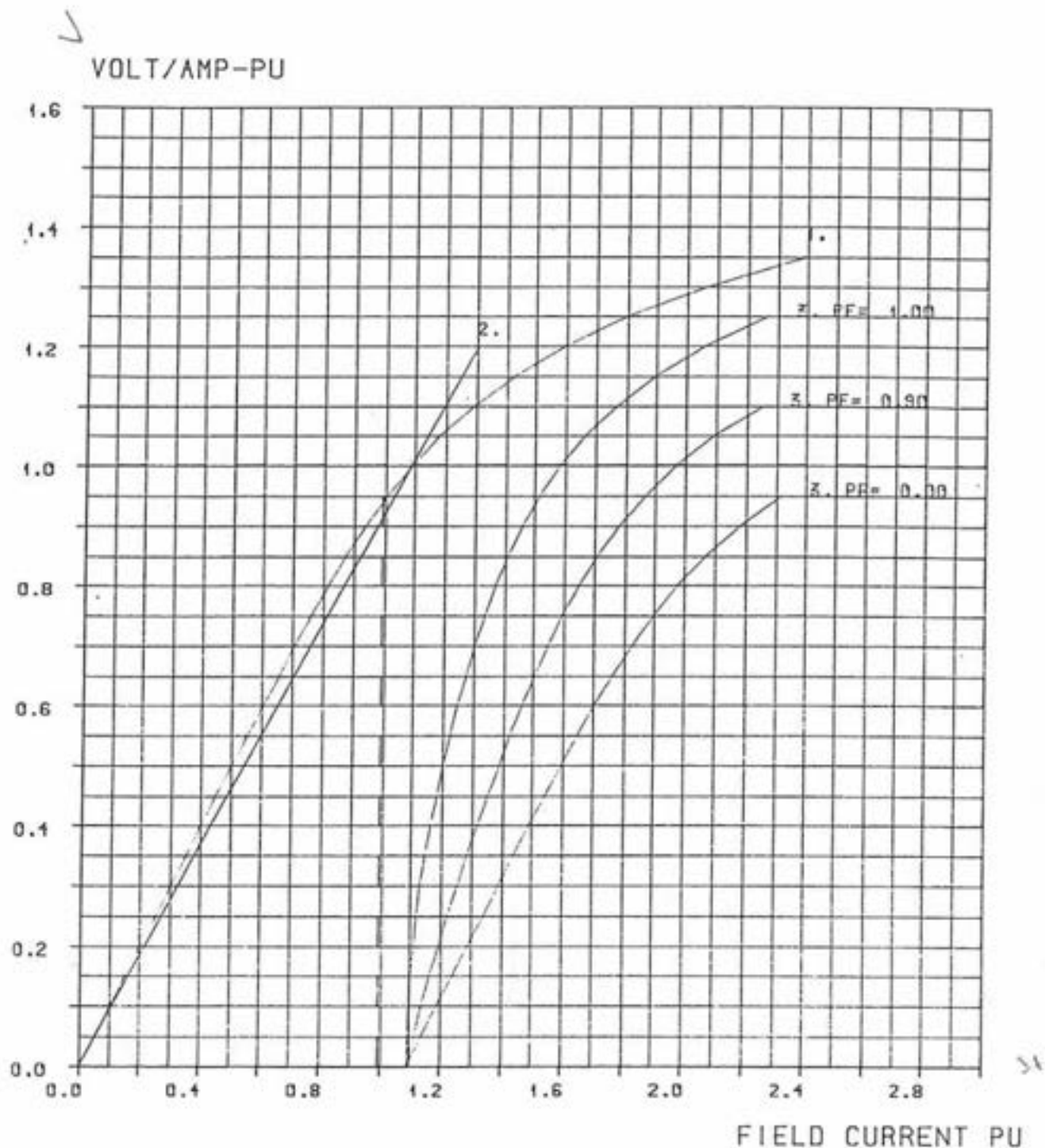
HMA 434 E 065

50 HZ

333.3 R/MIN

Rev 1 93-02-09 / JL

CAPABILITY DIAGRAM



1. OPEN -CIRCUIT SATURATION
2. SHORT-CIRCUIT SATURATION
3. LOAD SATURATION CURVE
AT RATED CURRENT

ARMATURE VOLTAGE 1PU = 13800 V
 ARMATURE CURRENT 1PU = 5690 A
 FIELD CURRENT 1PU = 721 A

GEN/GKE	URI	GGs 3660CV	GKE 30145-027
88- 10- 10	136000 KVA	0.90 PF	13800 V
	50 HZ	333.3 R/MIN	HMA 434 E 065
SATURATION CURVES			



POWER STATION DAILY GENERATION REPORT

22-Jul-2024

106H : URI PS

480 MW (4 x 120)



DGR Updated On:

CG Updated On:

Daily Log Closed On:

Report Generated On:

23-Jul-2024 01:51 AM

Proj Type: ROR										(1) Deviation Summary										Unit Overload Cap (MW): 122.40													
Sch Rev	Schedule Energy (MWh)				Tx (Ex-Bus)		Dev.		UI Amount (Rs.)				Vio Cnt	Rate (Rs/kWh)		Total UI																	
	Actual	Agc	Net		MWH		MWH		Normal		Additional	Vio. Penalt		Net UI		DSACP	Avg UI	Month Todate		FY Todate													
25	8,455.000	0.000	8,455.000		8,584.555		129.555		-49,641.01		-92,313.01	0.00		-141,954.02	2	0.0000	1.10	3,327.040		18,163,999													
Design Enrg (MU): 2587.00										(2) Generation Summary										Design Discharge(Cumecs): 2700.000													
Daily Gen (MU)				Monthly Gen. (MU)				Yearly Gen. (MU)				Dec Cap		Daily PAF (%)		Month PAF(%)		Yearly PAF (%)															
Target	Actual	Deemed		Target	Actual	Deemed		Target	Trgt ToDate	Actual	Deemed		MW	Target	Actual	Target	Actual	Target	Actual														
11.097	8.652561	0.000		344.000	185.269			3050.00	1285.131	902.812			430.00	99.00	90.67	99.00	82.88	89.00	78.45														
(3) Station Data													(4) Communication Status																				
Aux Consumption (kWh)			Aux Con %		Av load		MW		MVAR		Bus Volt (kV)		Freq (Hz)																				
Unit	Non-Unit	Total	Max	Act	MW	Max	Min	Max	Min	Max	Min	Max	Min	VSAT	INMAR	Fax	P&T	PLCC	Mobl	Intrnt	ERP												
24300.00	43262.80	67562.80	1.20	0.78	360.52	393.00	266.00	-4.00	-51.00	405.00	396.00	50.11	49.86	NotOK	NotOK	NotOK	OK	NA	OK	OK	OK												
MDDL (m): 1491.00 FRL (m): 1491.00										(5) Reservoir Data										TRTL(m): Rated Head (m) : 222.50										(6) Misc Data			
Avg Inflow (Cumecs)			Avg Spillage (Cumecs)				Water Utilised		Reservoir Level (m)				Intake		TRT/TRC		Silt Max (PPM)																
Total	Utilised	Env	Forced	Flushing	Net	Cubic Meter		Max	Min	00:00 Hr	24:00 Hr	Min (m)	Max (m)	Intake	M/c	Weather		Upload															
192.08	177.88	14.20	0.00	0.00	14.20	15,368,832.000		1491.29	1489.92	1491.01	1491.09	1489.92	1250.59	310	275	CLEAR		No															
(7) Unit Generation Summary																																	
Unit	Meter Data					Gen	Run Hr	Outage Hr (HH:MM:SS)			Availability	Loss	MW		MVAR		GVO %																
	Meter Code	CTPT	Today Rdg		Prev Rdg	Incrmt	MU	H:M:S	Planned	Forced	Misc	HH:MM:SS	MU	Max	Min	Max	Min	Max	Min														
10601	URI1-NP-1980B	940.90	2210567.10		2208010.20	2556.900	2.442887	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	103.0	92.0	-2.0	-14.0	73.0	66.0														
10602	URI1-NP-1981B	940.90	1703817.80		1701928.10	1889.700	1.805419	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	86.0	30.0	-1.0	-14.0	66.0	34.0														
10603	URI1-NP-1982B	940.90	1980896.50		1978700.00	2196.500	2.098487	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	101.0	16.0	3.0	-11.0	72.0	27.0														
10604	URI1-NR-4672B	940.90	1891084.10		1888670.70	2413.400	2.305768	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	106.0	40.0	-1.0	-13.0	77.0	41.0														
(8) Transmission Summary																																	
Tx Line		Transmission Line Name						Meter Code		CTPT	Export (MU)		Import (MU)		Net Tx (MU)																		
10680ACD31		URI PS-T001						URI1-NP-1519A		3818.18	4.703504		0.000000		4.703504																		
10680ACD32		URI PS-T002						URI1-NP-1600A		3818.18	4.705451		0.000000		4.705451																		
10680ACD33		URI PS-T003						URI1-NP-1841-A		5454.55	0.003655		-0.828055		-0.824400																		
(9) Outage Summary																																	
Unit ID		Outage Type	Outage HH:MM:SS	Restoration HH:MM:SS	Otg Period HH:MM:SS	Loss MU	Outage Reason																										
No Outage Reported																																	
(10) Unit Test Points																																	
Unit	Stator Max Temp			TB MaxTemp		TGB MaxTemp		UGB MaxTemp		LGB MaxTemp		Trf R# MaxTemp		Trf Y# MaxTemp		Trf B# MaxTemp		Max Vibration (Micron)															
	Current	Wndg	Hot Air	Pad	Oil	Pad	Oil	Pad	Oil	Pad	Oil	Wndg	Oil	Wndg	Oil	Wndg	Oil	TGB	LGB	UGB	TB AXL												
	A00	B00	B01	C00	C01	D00	D01	E00	E01	F00	F01	G00	G01	G02	G03	G04	G05	H00	H01	H02	H03												
10601	4357	90	68	80	55	61	62	74		70		68	56	70	57	70	57	0	0	0	0												
HH:MM	03:00	23:59	23:59	23:59	19:00	23:59	23:59	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59												
10602	3602	77	59	76	76	56	55	73		73		72	57	55	55	54	54	0	0	0	0												
HH:MM	17:00	17:00	23:59	23:59	01:00	23:59	01:00	23:59	01:00	01:00	01:00	23:59	01:00	23:59	01:00	23:59	01:00	23:59	23:59	23:59	23:59												
10603	4388	93	62	80	49	60	61	77		69		57	47	64	55	56	50	0	0	0	0												
HH:MM	08:00	12:00	14:00	23:59	21:00	23:59	21:00	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59												
10604	4533	95	65	78	48	58	54	71		73		66	53	70	58	62	48	0	0	0	0												
HH:MM	11:00	03:00	10:00	23:59	23:59	23:59	23:59	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59												
S1 :										(11) Shift Information										S3 :										S4 :			
Sft	Sft Incharge		Accepted By		Acpt On		Closed By		ClosedOn		Sft	Sft Incharge		Accepted By		Acpt On		Closed By		ClosedOn													
S1	Shaikh Safiul Ahmed		Shaikh Safiul Ahmed		22Jul-01:27		Shaikh Safiul Ahmed		22Jul-08:15		S3	Kesana Raveendra		Kesana Raveendra		22Jul-17:09		Kesana Raveendra		23Jul-00:57													
S2	Sunil Kumar Nishad		Sunil Kumar Nishad		22Jul-08:14		Sunil Kumar Nishad		22Jul-17:08		S4	Amit Kumar Srivastav		Amit Kumar Srivastav		23Jul-00:59																	
No.: NH/URI-IPH/Control Room/NH/UPS/PHO/DGR/22072024																						DGR Remarks : CCTV installed at Power House are working satisfactorily. Less generation due to rising of stator winding temperature of units & less Inflow. Block no. 41,42,58,59,60 took in FO due toSudden reductio											
Copy to:																																	
Executive Director Region-I, Jammu																																	
Shift In-Charge, GMC, Faridabad - Fax: 0129-2272413																																	
Internal Distribution, URI-I Power Station																																	
										Shift In-Charge				112446K																			
NRLDC, Control Room, New Delhi, ..Fax : 011-26852747										AMIT KUMAR SRIVASTAVA																							



Plant ID: 106H

URI PS
Hourly Log Report

Oprn Date: 22-Jul-2024



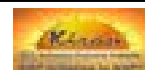
106HL001 Unit Generation Data																									
L001M001 Power Generation (MW)																						Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	102.00	102.00	102.00	102.00	102.00	92.00	102.00	103.00	103.00	103.00	103.00	103.00	100.00	101.00	100.00	101.00	101.00	100.00	98.00	103.00	103.00	103.00	103.00	103.00	
U002	45.00	45.00	30.00	30.00	40.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	86.00	80.00	85.00	85.00	85.00	85.00	85.00	85.00	
U003	99.00	95.00	95.00	95.00	95.00	92.00	98.00	98.00	98.00	98.00	100.00	100.00	95.00	98.00	101.00	40.00	16.00	40.00	101.00	92.00	92.00	92.00	92.00	92.00	
U004	103.00	100.00	100.00	100.00	100.00	92.00	105.00	106.00	106.00	105.00	105.00	105.00	101.00	103.00	41.00	40.00	101.00	105.00	106.00	94.00	94.00	92.00	98.00	98.00	
L001M002 Reactive Power (MVAR)																						Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	-13.00	-13.00	-13.00	-14.00	-13.00	-10.00	-3.00	-3.00	-4.00	-4.00	-3.00	-2.00	-5.00	-7.00	-9.00	-8.00	-5.00	-10.00	-13.00	-8.00	-6.00	-10.00	-11.00	-11.00	
U002	-10.00	-14.00	-14.00	-14.00	-14.00	-7.00	-1.00	-4.00	-3.00	-3.00	-3.00	-2.00	-5.00	-6.00	-7.00	-7.00	-5.00	-7.00	-10.00	-7.00	-5.00	-10.00	-9.00	-11.00	
U003	-10.00	-11.00	-10.00	-11.00	-10.00	-6.00	1.00	-1.00	-1.00	0.00	3.00	1.00	-3.00	-3.00	-4.00	-4.00	-2.00	-6.00	-7.00	-2.00	-3.00	-6.00	-8.00	-6.00	
U004	-13.00	-13.00	-13.00	-12.00	-11.00	-9.00	-2.00	-3.00	-3.00	-1.00	-1.00	-2.00	-6.00	-7.00	-9.00	-7.00	-5.00	-7.00	-10.00	-8.00	-7.00	-7.00	-8.00	-8.00	
L001M003 Generation Voltage (kV)																						Unit:		kV	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	
U002	13.70	13.70	13.70	13.80	13.80	13.70	13.70	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.70	13.70	13.80	13.80	13.70	13.70	13.80	13.70	13.70	13.70	
U003	13.60	13.60	13.60	13.60	13.70	13.70	13.60	13.70	13.70	13.70	13.60	13.60	13.60	13.60	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	
U004	13.60	13.60	13.60	13.70	13.70	13.70	13.60	13.70	13.60	13.60	13.60	13.60	13.60	13.60	13.80	13.80	13.70	13.80	13.80	13.80	13.70	13.70	13.70	13.70	
L001M008 Units Total Reactive Power (MVAR)																						Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
A001	-46.00	-51.00	-50.00	-51.00	-48.00	-32.00	-5.00	-11.00	-11.00	-8.00	-4.00	-5.00	-19.00	-23.00	-29.00	-26.00	-17.00	-30.00	-40.00	-25.00	-21.00	-33.00	-36.00	-36.00	
L001M009 Units Total Power Generation (MW)																						Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
A001	349.00	342.00	327.00	327.00	337.00	361.00	390.00	392.00	392.00	391.00	393.00	393.00	381.00	387.00	327.00	266.00	304.00	325.00	390.00	374.00	374.00	372.00	378.00	378.00	
106HL002 Unit Misc Data																									
L002M001 Stator Current (A)																						Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	4259.00	4263.00	4357.00	4277.00	4277.00	3851.00	4273.00	4294.00	4305.00	4305.00	4318.00	4320.00	4223.00	4230.00	4141.00	4242.00	4193.00	4200.00	4123.00	4320.00	4341.00	4310.00	4343.00	4287.00	
U002	2013.00	1934.00	1409.00	1324.00	1781.00	3558.00	3525.00	3567.00	3553.00	3488.00	3534.00	3546.00	3548.00	3488.00	3553.00	3570.00	3602.00	3398.00	3574.00	3555.00	3551.00	3541.00	3551.00	3586.00	
U003	4151.00	3905.00	3907.00	3900.00	3996.00	3734.00	4069.00	4388.00	4359.00	4139.00	4153.00	4230.00	4027.00	4076.00	4221.00	1638.00	663.00	1648.00	4216.00	3851.00	3820.00	3855.00	3813.00	3830.00	
U004	4284.00	4200.00	4214.00	4193.00	4242.00	3790.00	4301.00	4399.00	4416.00	4434.00	4533.00	4458.00	4277.00	4350.00	1723.00	1678.00	4219.00	4418.00	4463.00	3895.00	3863.00	3760.00	4179.00	4177.00	
L002M002 Excitor Current DC Amps.																						Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	943.00	941.00	949.00	938.00	947.00	918.00	1001.00	989.00	992.00	992.00	994.00	1001.00	973.00	969.00	968.00	974.00	973.00	958.00	932.00	973.00	996.00	966.00	963.00	956.00	
U002	754.00	753.00	726.00	730.00	748.00	889.00	919.00	913.00	901.00	911.00	924.00	916.00	899.00	903.00	893.00	899.00	906.00	879.00	876.00	901.00	908.00	892.00	880.00	880.00	
U003	969.00	958.00	957.00	947.00	951.00	951.00	1016.00	1003.00	998.00	1009.00	1037.00	1028.00	983.00	986.00	1003.00	823.00	800.00	816.00	983.00	986.00	973.00	948.00	945.00	945.00	
U004	1016.00	929.00	938.00	949.00	940.00	929.00	1009.00	1004.00	1008.00	1008.00	1041.00	1019.00	981.00	981.00	785.00	788.00	981.00	984.00	972.00	938.00	951.00	928.00	944.00	936.00	
L002M006 Guide Vane/Nozal Position																						Unit:		%	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	71.00	71.00	71.00	71.00	71.00	66.00	72.00	73.00	73.00	73.00	73.00	72.00	70.00	72.00	71.00	70.00	70.00	70.00	70.00	72.00	72.00	71.00	71.00	71.00	
U002	44.00	44.00	34.00	34.00	42.00	66.00	66.00	65.00	66.00	66.00	65.00	66.00	66.00	66.00	66.00	66.00	66.00	63.00	66.00	66.00	66.00	66.00	66.00	66.00	
U003	72.00	68.00	68.00	68.00	68.00	66.00	71.00	70.00	71.00	71.00	72.00	71.00	68.00	70.00	71.00	40.00	27.00	40.00	72.00	67.00	67.00	67.00	67.00	67.00	
U004	75.00	73.00	73.00	73.00	73.00	68.00	76.00	77.00	77.00	77.00	77.00	77.00	74.00	76.00	43.00	41.00	72.00	74.00	76.00	70.00	69.00	69.00	73.00	73.00	



Plant ID: 106H

URI PS
Hourly Log Report

Oprn Date: 22-Jul-2024



L002M008																								
Upper Guide Bearings: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M010																								
Lower Guide Bearing: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M012																								
Turbine Guide Bearing: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M019																								
Thrust Bearing-Axial Vibration (Z1)-(μ)																				Unit: Micron				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106HL003																								
Unit Temperature Data																								
L003M003																								
Stator Winding Temp. °C (RTD-1)																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	90.00	90.00	90.00	90.00	90.00	86.00	87.00	89.00	89.00	89.00	89.00	89.00	87.00	87.00	88.00	89.00	89.00	88.00	88.00	90.00	89.00	90.00	90.00	90.00
U002	44.00	65.00	60.00	58.00	59.00	69.00	73.00	73.00	74.00	74.00	73.00	74.00	75.00	75.00	76.00	77.00	77.00	75.00	75.00	75.00	76.00	76.00	76.00	76.00
U003	90.00	89.00	89.00	91.00	91.00	89.00	92.00	91.00	91.00	91.00	91.00	93.00	92.00	92.00	86.00	76.00	70.00	69.00	87.00	88.00	88.00	88.00	88.00	88.00
U004	95.00	95.00	95.00	92.00	92.00	89.00	92.00	94.00	94.00	94.00	93.00	94.00	94.00	94.00	74.00	73.00	86.00	84.00	94.00	90.00	88.00	88.00	89.00	90.00
L003M005																								
Stator Core Temp. °C: RTD-1																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	88.00	88.00	88.00	88.00	88.00	86.00	86.00	87.00	87.00	87.00	87.00	86.00	86.00	86.00	88.00	89.00	89.00	87.00	90.00	89.00	89.00	89.00	89.00	90.00
U002	65.00	67.00	64.00	63.00	64.00	70.00	71.00	72.00	72.00	72.00	71.00	72.00	73.00	73.00	74.00	74.00	74.00	74.00	73.00	74.00	74.00	75.00	75.00	75.00
U003	79.00	79.00	79.00	79.00	78.00	78.00	78.00	78.00	82.00	82.00	77.00	79.00	79.00	79.00	76.00	74.00	69.00	67.00	73.00	77.00	76.00	76.00	76.00	76.00
U004	84.00	84.00	84.00	83.00	82.00	80.00	81.00	82.00	82.00	82.00	81.00	81.00	81.00	81.00	72.00	71.00	77.00	81.00	83.00	81.00	79.00	79.00	80.00	80.00
L003M007																								
Cold Air Temp. °C																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	50.00	50.00	50.00	50.00	48.00	49.00	49.00	49.00	49.00
U002	67.00	38.00	37.00	36.00	36.00	36.00	37.00	38.00	38.00	38.00	38.00	39.00	39.00	39.00	40.00	38.00	40.00	38.00	37.00	39.00	40.00	40.00	40.00	40.00
U003	44.00	44.00	44.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	44.00	44.00	44.00	44.00	42.00	41.00	40.00	41.00	43.00	43.00	42.00	42.00	42.00
U004	44.00	44.00	44.00	43.00	43.00	43.00	42.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	44.00	42.00	42.00	43.00	43.00	43.00	43.00	43.00	42.00	42.00
L003M008																								
Hot Air Temp. °C																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	68.00	68.00	68.00	68.00	68.00	67.00	66.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	68.00	68.00	68.00	67.00	67.00	67.00	67.00	68.00
U002	38.00	56.00	53.00	52.00	52.00	57.00	56.00	56.00	57.00	57.00	57.00	57.00	58.00	58.00	59.00	59.00	59.00	59.00	57.00	58.00	59.00	59.00	59.00	59.00
U003	61.00	61.00	61.00	61.00	61.00	61.00	61.00	61.00	61.00	61.00	60.00	61.00	62.00	62.00	60.00	59.00	55.00	53.00	57.00	59.00	59.00	59.00	59.00	59.00
U004	65.00	65.00	65.00	65.00	65.00	64.00	64.00	64.00	65.00	65.00	64.00	64.00	64.00	64.00	62.00	60.00	60.00	63.00	64.00	64.00	63.00	63.00	63.00	63.00

DGR Updated On:

24-Jul-2024

106H : URI PS

Daily Log Closed On:

Report Generated On:

CG Updated On:

Proj Type: ROR

(1) Deviation Summary

Unit Overload Cap (MW): 122.40

Sch	Schedule Energy (MWh)			Tx (Ex-Bus)	Dev.	UI Amount (Rs.)				Vio	Rate (Rs/kWh)		Total UI	
Rev	Actual	Agc	Net	MWH	MWH	Normal	Additional	Vio. Penalt	Net UI	Cnt	DSACP	Avg UI	Month Todate	FY Todate
8	7,240.000	0.000	7,240.000	7,579.331	339.331	321,709.61	0.00	0.00	321,709.61	1	0.0000	0.91	4,152,278	18,989,237

Design Enrg (MU): 2587.00

(2) Generation Summary

Design Discharge(Cumecs): 2700.000

Daily Gen (MU)			Monthly Gen. (MU)			Yearly Gen. (MU)			Dec Cap	Daily PAF (%)		Month PAF(%)		Yearly PAF (%)		
Target	Actual	Deemed	Target	Actual	Deemed	Target	Trgt ToDate	Actual	Deemed	MW	Target	Actual	Target	Actual	Target	Actual
11.097	7.647612	0.000	344.000	201.503		3050.00	1307.324	919.046		362.50	99.00	76.44	99.00	82.93	89.00	78.54

(3) Station Data

(4) Communication Status

Aux Consumption (kWh)			Aux Con %		Av load	MW		MVAR		Bus Volt (kV)		Freq (Hz)									
Unit	Non-Unit	Total	Max	Act	MW	Max	Min	Max	Min	Max	Min	Max	Min	VSAT	INMAR	Fax	P&T	PLCC	Mobl	Intrnt	ERP
24600.00	38238.06	62838.06	1.20	0.82	318.65	391.00	299.00	7.00	-49.00	405.00	396.00	50.15	49.92	NotOK	NotOK	NotOK	OK	NA	OK	OK	OK

MDDL (m): 1491.00

FRL (m): 1491.00

(5) Reservoir Data

TRGL(m):

Rated Head (m) : 222.50

(6) Misc Data

Avg Inflow (Cumecs)		Avg Spillage (Cumecs)			Water Utilised		Reservoir Level (m)				Intake	TRT/TRC	Silt Max (PPM)				
Total	Utilised	Env	Forced	Flushing	Net	Cubic Meter		Max	Min	00:00 Hr	24:00 Hr	Min (m)	Max (m)	Intake	M/c	Weather	Upload
172.83	157.22	14.20	1.41	0.00	15.61	13,583,808.000		1491.29	1490.41	1491.28	1490.76	1490.41	1250.59	320	278	CLEAR	No

(7) Unit Generation Summary

Unit	Meter Data					Gen	Run Hr	Outage Hr (HH:MM:SS)			Availability	Loss	MW		MVAR		GVO %	
	Meter Code	CTPT	Today Rdg	Prev Rdg	Incrmt	MU	H:M:S	Planned	Forced	Misc	HH:MM:SS	MU	Max	Min	Max	Min	Max	Min
10601	URI1-NP-1980B	940.90	2215660.10	2213135.20	2524.900	2.413778	23:31:00	00:00:00	00:29:00	00:00:00	23:31:00	0.00	103.0	100.0	1.0	-14.0	72.0	69.0
10602	URI1-NP-1981B	940.90	1706323.60	1705909.80	413.800	0.395544	04:40:00	19:20:00	00:00:00	00:00:00	04:40:00	0.00	85.0	0.0	0.0	-17.0	66.0	0.0
10603	URI1-NP-1982B	940.90	1985185.10	1982722.50	2462.600	2.354160	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	103.0	90.0	5.0	-11.0	72.0	66.0
10604	URI1-NR-4672B	940.90	1896182.40	1893583.90	2598.500	2.484129	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	105.0	98.0	2.0	-14.0	76.0	72.0

(8) Transmission Summary

Tx Line	Transmission Line Name			Meter Code	CTPT	Export (MU)	Import (MU)	Net Tx (MU)
10680ACD31	URI PS-T001			URI1-NP-1519A	3818.18	4.245055	0.000000	4.245055
10680ACD32	URI PS-T002			URI1-NP-1600A	3818.18	4.248567	0.000000	4.248567
10680ACD33	URI PS-T003			URI1-NP-1841-A	5454.55	0.000000	-0.914291	-0.914291

(9) Outage Summary

Unit ID	Outage Type	Outage	Restoration	Otg Period	Loss	Outage Reason
		HH:MM:SS	HH:MM:SS	HH:MM:SS	MU	
10601	FO	17:16:00	17:45:00	00:29:00		Due to high temperature of TGB oil
10602	PO	03:00:00	22:20:00	19:20:00		For the inspection of stator winding

(10) Unit Test Points

Unit	Stator Max Temp			TB MaxTemp		TGB MaxTemp		UGB MaxTemp		LGB MaxTemp		Trf R# MaxTemp		Trf Y# MaxTemp		Trf B# MaxTemp		Max Vibration (Micron)			
	Current	Wndg	Hot Air	Pad	Oil	Pad	Oil	Pad	Oil	Pad	Oil	Wndg	Oil	Wndg	Oil	Wndg	Oil	TGB	LGB	UGB	TB AXL
10601	4380	90	68	82	56	62	62	76		72		70	57	72	58	70	58	0	0	0	0
HH:MM	13:00	15:00	22:00	23:59	23:59	17:00	17:00	23:59		23:59		17:00	17:00	17:00	23:59	17:00	17:00	23:59	23:59	23:59	23:59
10602	3659	77	59	76	76	57	56	73		73		72	57	55	55	54	54	0	0	0	0
HH:MM	23:59	03:00	02:00	23:59	01:00	23:59	01:00	03:00		01:00		01:00	01:00	03:00	01:00	03:00	01:00	23:59	23:59	23:59	23:59
10603	4284	95	64	82	49	60	60	78		71		60	50	67	58	58	51	0	0	0	0
HH:MM	23:00	21:00	21:00	23:59	23:59	23:59	23:59	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59
10604	4439	95	66	80	49	55	48	73		75		68	55	72	59	64	50	0	0	0	0
HH:MM	13:00	18:00	20:00	23:59	03:00	02:00	23:59	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59

S1 :

S2 :

(11) Shift Information

S3 :

S4 :

Sft	Sft Incharge	Accepted By	Acpt On	Closed By	ClosedOn	Sft	Sft Incharge	Accepted By	Acpt On	Closed By	ClosedOn
S1	Amit Kumar Srivastav	Amit Kumar Srivastav	24Jul-01:12	Amit Kumar Srivastav	24Jul-08:35	S3	Sunil Kumar Nishad	Sunil Kumar Nishad	24Jul-14:18	Sunil Kumar Nishad	24Jul-22:03
S2	Shaikh Safiul Ahmed	Shaikh Safiul Ahmed	24Jul-08:34	Shaikh Safiul Ahmed	24Jul-14:18	S4	Kesana Raveendra	Kesana Raveendra	24Jul-21:58		

No.: NH/URI-IPH/Control Room/NH/UPS/PHO/DGR/24072024

DGR Remarks : CCTV installed at Power House are working satisfactorily. Less generation due to rising of stator winding temperature of units & less Inflow.

Conv to:

Executive Director Region-I, Jammu

Shift In-Charge, GMC, Faridabad - Fax: 0129-2272413

Internal Distribution. URI-I Power Station

Shift In-Charge 104287X KESANA RAVEENDRA

NRLDC. Control Room. New Delhi. ..Fax : 011-26852747



Monthly Generation Report

24-Jul-2024



IMS: IMS/O&M/F01/Rev03/21.09.2021

106H : URI PS

Print Date: 25-Jul-2024 1:40 am

106H Generation Details																			
Dt	Generation (MU)		Av.Ld	DC	PAF (%)		Schedule (MWh)			Tx (MWh)		UI (Rs.)				Aux. Cons. (kWh)			
	Target	Dly Gen	MW	MW	Target	Act	LDC Schd	Agc	Net Schd	Ex Bus	Dev	Normal	Add	Viol	Net	Unit	Nonuni	Net	(%)
Net	266.324	201.503121	349.83	393.30	99.00	82.93	193381.25	0.00	193381.25	199894.65	6513.40	6003987	-283910	555195	4164881	598200	1007516	1605716	0.80
01	11.097	8.208393	342.02	375.00	99.00	79.07	8055.00	0.00	8055.00	8141.20	86.20	95955	-11792	-18193	65970	25900	41042	66942	0.82
02	11.097	8.116191	338.17	375.00	99.00	79.07	7946.25	0.00	7946.25	8048.91	102.66	103377	-9857	0	93520	25800	40581	66381	0.82
03	11.097	7.907457	329.48	350.00	99.00	73.80	7760.00	0.00	7760.00	7841.98	81.98	78376	0	0	78376	25800	39537	65337	0.83
04	11.097	8.052538	335.52	370.00	99.00	78.02	7732.50	0.00	7732.50	7987.01	254.51	244082	-2656	0	241427	26400	40263	66663	0.83
05	11.097	8.249803	343.74	370.00	99.00	78.02	7830.00	0.00	7830.00	8184.15	354.15	338570	0	0	338570	27000	41249	68249	0.83
06	11.097	8.242307	343.43	370.00	99.00	78.02	7890.00	0.00	7890.00	8174.74	284.74	272270	-164	0	272105	26100	41212	67312	0.82
07	11.097	8.230692	342.95	375.00	99.00	79.07	7845.00	0.00	7845.00	8164.93	319.93	305849	0	0	305849	24300	41153	65453	0.80
08	11.097	8.310904	346.29	380.00	99.00	80.13	7947.50	0.00	7947.50	8243.68	296.18	288050	-7436	0	280614	25400	41555	66955	0.81
09	11.097	8.412915	350.54	375.00	99.00	79.07	7950.00	0.00	7950.00	8344.03	394.03	376688	0	0	376688	26500	42065	68565	0.81
10	11.097	8.378572	349.11	383.33	99.00	80.83	8080.00	0.00	8080.00	8310.70	230.70	220873	-964	0	219910	25800	41893	67693	0.81
11	11.097	8.436120	351.51	383.33	99.00	80.83	8080.00	0.00	8080.00	8369.08	289.08	276364	0	0	276364	24600	42181	66781	0.79
12	11.097	8.408387	350.35	380.00	99.00	80.13	8070.00	0.00	8070.00	8342.21	272.21	260232	0	0	260232	24100	42042	66142	0.79
13	11.097	7.418117	309.09	385.00	99.00	81.18	7240.00	0.00	7240.00	7351.52	111.52	133083	-37735	-93457	1891	24600	37091	61691	0.83
14	11.097	8.345798	347.74	380.00	99.00	80.13	8070.00	0.00	8070.00	8279.10	209.10	199900	0	0	199900	24600	41729	66329	0.79
15	11.097	8.193268	341.39	385.00	99.00	81.18	7745.00	0.00	7745.00	8125.04	380.04	278734	0	0	278734	25600	40966	66566	0.81
16	11.097	7.502697	312.61	425.00	99.00	89.62	7155.00	0.00	7155.00	7442.13	287.13	145411	0	0	145411	23000	37513	60513	0.81
17	11.097	9.408553	392.02	430.00	99.00	90.67	9015.00	0.00	9015.00	9347.81	332.81	318165	0	0	318165	24100	47043	71143	0.76
18	11.097	8.474844	353.12	430.00	99.00	90.67	8010.00	0.00	8010.00	8408.07	398.07	294977	-8417	0	286560	24100	42374	66474	0.78
19	11.097	9.378993	390.79	435.00	99.00	91.73	9150.00	0.00	9150.00	9308.12	158.12	278540	-154882	302930	-1179272	23700	46895	70595	0.75
20	11.097	9.515265	396.47	430.00	99.00	90.67	8965.00	0.00	8965.00	9444.76	479.76	446296	0	0	446296	22800	47576	70376	0.74
21	11.097	9.424803	392.70	430.00	99.00	90.67	8982.50	0.00	8982.50	9353.37	370.87	348550	-46250	40615	161685	24100	47124	71224	0.76
22	11.097	8.652561	360.52	430.00	99.00	90.67	8455.00	0.00	8455.00	8584.55	129.55	82895	-920	0	81976	24300	43263	67563	0.78
23	11.097	8.586333	357.76	430.00	99.00	90.67	8167.50	0.00	8167.50	8518.21	350.71	295040	-2838	0	292202	25000	42932	67932	0.79
24	11.097	7.647612	318.65	362.50	99.00	76.44	7240.00	0.00	7240.00	7579.33	339.33	321710	0	0	321710	24600	38238	62838	0.82

106H Reservoir Details																			
Dt	Inflow		Water Utilised		Avg Spillage (Cumecs)			Net Spillage	Reservoir Level (m)				Intake Lvl (m)		Trt/Trc Lvl (m)		Silt (ppm)		
	Cumecs	m ³	Cumecs	m ³	Env	Forced	Flushing	m ³	Min	Max	00:00Hr	24:00Hr	Min	Max	Min	Max	Intake	M/c	
Net	279.690	579965184.000	172.597	357896448.000	14.20	92.894	0.000	222069384.0	1489.55	1491.42	1491.42	1491.42	1489.55	1491.42	1250.59	1250.59	340	310	
01	345.530	29853792.000	168.750	14580000.000	14.20	162.583	0.000	15274080.00	1490.84	1491.15	1490.93	1491.00	1490.84	1491.15	1250.59	1250.59	340	310	
02	344.820	29792448.000	166.850	14415840.000	14.20	163.771	0.000	15376680.00	1490.83	1491.24	1491.00	1491.06	1490.83	1491.24	1250.59	1250.59	340	310	
03	342.320	29576448.000	162.560	14045184.000	14.20	165.563	0.000	15531480.00	1490.89	1491.09	1491.06	1490.95	1490.89	1491.09	1250.59	1250.59	338	308	
04	334.820	28928448.000	165.540	14302656.000	14.20	155.083	0.000	14626080.00	1490.84	1491.27	1490.95	1490.96	1490.84	1491.27	1250.59	1250.59	330	298	
05	336.380	29063232.000	169.600	14653440.000	14.20	152.575	0.000	14409360.00	1490.92	1491.10	1490.96	1490.98	1490.92	1491.10	1250.59	1250.59	330	296	
06	335.740	29007936.000	169.440	14639616.000	14.20	152.104	0.000	14368680.00	1490.90	1491.06	1490.98	1490.99	1490.90	1491.06	1250.59	1250.59	328	294	
07	344.190	29738016.000	169.200	14618880.000	14.20	160.792	0.000	15119280.00	1490.92	1491.20	1490.99	1490.95	1490.92	1491.20	1250.59	1250.59	328	296	
08	347.880	30056832.000	170.850	14761440.000	14.20	162.833	0.000	15295680.00	1490.67	1491.26	1490.95	1490.98	1490.67	1491.26	1250.59	1250.59	328	296	
09	330.920	28591488.000	172.950	14942880.000	14.20	143.773	0.000	13648824.00	1490.37	1491.30	1490.98	1491.22	1490.37	1491.30	1250.59	1250.59	323	292	
10	333.700	28831680.000	172.250	14882400.000	14.20	147.250	0.000	13949280.00	1490.79	1491.29	1491.22	1491.01	1490.79	1491.29	1250.59	1250.59	323	292	
11	319.990	27647136.000	173.430	14984352.000	14.20	132.358	0.000	12662640.00	1490.03	1491.27	1491.01	1490.95	1490.03	1491.27	1250.59	1250.59	326	292	
12	299.730	25896672.000	172.860	14935104.000	14.20	112.667	0.000	10961280.00	1490.88	1491.14	1490.95	1491.05	1490.88	1491.14	1250.59	1250.59	324	290	
13	276.620	23899968.000	152.500	13176000.000	14.20	109.917	0.000	10723680.00	1490.92	1491.17	1491.05	1491.04	1490.92	1491.17	1250.59	1250.59	324	290	
14	263.210	22741344.000	171.570	14823648.000	14.20	77.438	0.000	7917480.00	1490.95	1491.20	1491.04	1491.04	1490.95	1491.20	1250.59	1250.59	0	0	
15	253.490	21901536.000	168.440	14553216.000	14.20	70.854	0.000	7348680.00	1490.90	1491.23	1491.04	1491.00	1490.90	1491.23	1250.59	1250.59	0	0	
16	256.320	22146048.000	154.240	13326336.000	14.20	87.879	0.000	8819640.00	1490.93	1491.28	1491.00	1490.94	1490.93	1491.28	1250.59	1250.59	326	294	
17	239.000	20649600.000	193.420	16711488.000	14.20	31.375	0.000	3937680.00	1490.70	1491.30	1490.94	1491.05	1490.70	1491.30	1250.59	1250.59	325	296	
18	222.100	19189440.000	174.220	15052608.000	14.20	33.683	0.000	4137120.00	1490.90	1491.10	1491.05	1490.96	1490.90	1491.10	1250.59	1250.59	326	293	
19	212.390	18350496.000	192.650	16644960.000	14.20	5.542	0.000	1705680.00	1489.55	1491.42	1490.96	1491.42	1489.55	1491.42	1250.59	1250.59	322	290	
20	209.820	18128448.000	195.620	16901568.000	14.20	0.000	0.000	1226880.00	1490.86	1491.30	1491.42	1491.30	1490.86	1491.30	1250.59	1250.59	320	288	
21	207.960	17967744.000	193.760	16740864.000	14.20	0.000	0.000	1226880.00	1490.51	1491.28	1491.30	1491.01	1490.51	1491.28	1250.59	1250.59	320	280	
22	192.080	16595712.000	177.880	15368832.000	14.20	0.000	0.000	1226880.00	1489.92	1491.29	1491.01	1491.09	1489.92	1491.29	1250.59	1250.59	310	275	
23	190.720	16478208.000	176.520	15251328.000	14.20	0.000	0.000	1226880.00	1490.40	1491.30	1491.09	1491.28	1490.40	1491.30	1250.59	1250.59	310	275	
24	172.830	14932512.000	157.220	13583808.000	14.20	1.408	0.000	1348560.00	1490.41	1491.29	1491.28	1490.76	1490.41	1491.29	1250.59	1250.59	320	278	



Plant ID: 106H

URI PS

Oprn Date: 24-Jul-2024



IMS: MS/O&M/F05/Rev02/21.09.2021

Provisional UI Calculation

Time ID	Block	Peaking	Freq	Avl Cap	Actual LDC Schedule		Fras1 Agc1	Fras2 Agc2	Fras3 Agc3	Net Agc	Net Schedule	Transmission (Ex-Bus)		Deviation		Normal UI Rate	Provisional UI Calculation				Inj. Type	Outage		
																	UI Amount (Rs)					FO	Sch	Amplifier
			Hz	MW	MW	MWh	MW	MW	MW	MWh	MWh	MWh	MW	MWh	MW		Amount1 (<=10%)	Amount2 (10-15%)	Amount3 (>15%)	Total				
Total						7240.0				0.00	7240.00	7579.33		339.33			321709.7	0.0	0.0	321709.7				
A0015	1	Y	50.02	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	94.451	377.80	4.45	17.80	1000.00	4255.07	0.00	0.00	4255.07	0	0	1	N
A0030	2	Y	50.02	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	93.131	372.52	3.13	12.52	1000.00	2993.15	0.00	0.00	2993.15	0	0	1	N
A0045	3	Y	49.98	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	83.624	334.49	-6.38	-25.51	1000.00	-6095.80	0.00	0.00	-6095.80	U	0	1	N
A0100	4	Y	49.98	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	95.596	382.39	5.60	22.39	1000.00	5350.12	0.00	0.00	5350.12	0	0	1	N
A0115	5	Y	50.00	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	95.864	383.45	5.86	23.45	1000.00	5605.64	0.00	0.00	5605.64	0	0	1	N
A0130	6	Y	50.00	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	96.262	385.05	6.26	25.05	1000.00	5986.30	0.00	0.00	5986.30	0	0	1	N
A0145	7	Y	49.96	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	93.944	375.77	3.94	15.77	1000.00	3770.12	0.00	0.00	3770.12	0	0	1	N
A0200	8	Y	49.98	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	88.184	352.73	-1.82	-7.27	1000.00	-1736.44	0.00	0.00	-1736.44	U	0	1	N
A0215	9	Y	50.00	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	94.495	377.98	4.49	17.98	720.06	4296.79	0.00	0.00	4296.79	0	0	1	N
A0230	10	Y	50.00	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	85.598	342.39	-4.40	-17.61	487.02	-4208.14	0.00	0.00	-4208.14	U	0	1	N
A0245	11	N	50.02	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	95.575	382.30	5.57	22.30	437.67	5329.27	0.00	0.00	5329.27	0	0	1	N
A0300	12	N	50.00	360.00	360.00	90.000	0.00	0.00	0.00	0.000	90.000	96.360	385.44	6.36	25.44	430.97	6080.16	0.00	0.00	6080.16	0	0	1	N
A0315	13	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.884	315.53	6.38	25.53	445.07	6102.76	0.00	0.00	6102.76	0	0	1	N
A0330	14	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.435	305.74	3.93	15.74	435.89	3761.43	0.00	0.00	3761.43	0	0	1	N
A0345	15	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.413	305.65	3.91	15.65	421.02	3740.57	0.00	0.00	3740.57	0	0	1	N
A0400	16	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.418	305.67	3.92	15.67	394.94	3745.78	0.00	0.00	3745.78	0	0	1	N
A0415	17	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.811	307.24	4.31	17.24	445.08	4121.23	0.00	0.00	4121.23	0	0	1	N
A0430	18	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.445	305.78	3.95	15.78	449.93	3771.85	0.00	0.00	3771.85	0	0	1	N
A0445	19	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.402	305.61	3.90	15.61	449.92	3730.14	0.00	0.00	3730.14	0	0	1	N
A0500	20	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.445	305.78	3.95	15.78	449.93	3771.85	0.00	0.00	3771.85	0	0	1	N
A0515	21	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.522	306.09	4.02	16.09	344.07	3844.86	0.00	0.00	3844.86	0	0	1	N
A0530	22	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.298	305.19	3.80	15.19	366.01	3631.06	0.00	0.00	3631.06	0	0	1	N
A0545	23	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	75.982	303.93	3.48	13.93	405.05	3328.62	0.00	0.00	3328.62	0	0	1	N
A0600	24	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.211	304.84	3.71	14.84	487.04	3547.63	0.00	0.00	3547.63	0	0	1	N
A0615	25	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.369	305.48	3.87	15.48	619.93	3698.85	0.00	0.00	3698.85	0	0	1	N
A0630	26	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.593	306.37	4.09	16.37	750.03	3912.65	0.00	0.00	3912.65	0	0	1	N
A0645	27	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.882	307.53	4.38	17.53	750.03	4189.02	0.00	0.00	4189.02	0	0	1	N
A0700	28	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.773	307.09	4.27	17.09	672.04	4084.73	0.00	0.00	4084.73	0	0	1	N
A0715	29	N	50.04	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.871	307.48	4.37	17.48	449.95	4178.59	0.00	0.00	4178.59	0	0	1	N
A0730	30	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.893	307.57	4.39	17.57	430.93	4199.45	0.00	0.00	4199.45	0	0	1	N
A0745	31	N	50.04	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.751	307.00	4.25	17.00	377.73	4063.87	0.00	0.00	4063.87	0	0	1	N
A0800	32	N	50.06	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.653	306.61	4.15	16.61	356.96	3970.01	0.00	0.00	3970.01	0	0	1	N
A0815	33	N	50.04	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.024	308.09	4.52	18.09	338.45	4324.60	0.00	0.00	4324.60	0	0	1	N
A0830	34	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.713	306.85	4.21	16.85	337.38	4027.37	0.00	0.00	4027.37	0	0	1	N
A0845	35	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.860	307.44	4.36	17.44	338.43	4168.16	0.00	0.00	4168.16	0	0	1	N
A0900	36	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.729	306.92	4.23	16.92	338.61	4043.01	0.00	0.00	4043.01	0	0	1	N
A0915	37	N	49.94	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.909	307.64	4.41	17.64	324.79	4215.09	0.00	0.00	4215.09	0	0	1	N
A0930	38	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.876	307.51	4.38	17.51	324.71	4183.80	0.00	0.00	4183.80	0	0	1	N
A0945	39	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.909	307.64	4.41	17.64	320.10	4215.09	0.00	0.00	4215.09	0	0	1	N
A1000	40	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.844	307.37	4.34	17.37	306.46	4152.52	0.00	0.00	4152.52	0	0	1	N
A1015	41	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.538	306.15	4.04	16.15	294.10	3860.50	0.00	0.00</					



Plant ID: 106H

URI PS

Oprn Date: 24-Jul-2024



IMS: MS/O&M/F05/Rev02/21.09.2021

Provisional UI Calculation

Time ID	Block	Peaking	Freq	Avl Cap	Actual LDC Schedule		Fras1 Agc1	Fras2 Agc2	Fras3 Agc3	Net Agc	Net Schedule	Transmission (Ex-Bus)		Deviation		Provisional UI Calculation				Inj. Type	Outage			
																Normal UI Rate	UI Amount (Rs)				FO	Sch	Applied	
			Hz	MW	MW	MWh	MW	MW	MW	MWh	MWh	MWh	MW	MWh	MW		P/kWh	Amount1 (<=10%)	Amount2 (10-15%)					Amount3 (>15%)
A1445	59	N	49.94	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.653	306.61	4.15	16.61	306.45	3970.01	0.00	0.00	3970.01	G	0	1	N
A1500	60	N	49.90	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.073	308.29	4.57	18.29	324.77	4371.53	0.00	0.00	4371.53	G	0	1	N
A1515	61	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.969	307.88	4.47	17.88	337.37	4272.45	0.00	0.00	4272.45	G	0	1	N
A1530	62	N	50.04	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.598	306.39	4.10	16.39	338.64	3917.86	0.00	0.00	3917.86	G	0	1	N
A1545	63	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.407	305.63	3.91	15.63	396.74	3735.35	0.00	0.00	3735.35	G	0	1	N
A1600	64	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.053	304.21	3.55	14.21	377.76	3396.41	0.00	0.00	3396.41	G	0	1	N
A1615	65	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	75.273	301.09	2.77	11.09	353.05	2650.73	0.00	0.00	2650.73	G	0	1	N
A1630	66	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	76.696	306.79	4.20	16.79	353.07	4011.72	0.00	0.00	4011.72	G	0	1	N
A1645	67	N	49.94	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.362	309.45	4.86	19.45	354.35	4647.90	0.00	0.00	4647.90	G	0	1	N
A1700	68	N	49.92	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.782	311.13	5.28	21.13	349.99	5049.42	0.00	0.00	5049.42	G	0	1	N
A1715	69	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.038	312.15	5.54	22.15	350.02	5294.50	0.00	0.00	5294.50	G	0	1	N
A1730	70	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	60.147	240.59	-12.35	-49.41	344.05	-11809.21	0.00	0.00	-11809.21	U	1	0	Y
A1745	71	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	52.396	209.59	-20.10	-80.41	344.01	-19219.08	0.00	0.00	-19219.08	U	1	0	Y
A1800	72	N	49.90	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	70.440	281.76	-2.06	-8.24	280.08	-1969.36	0.00	0.00	-1969.36	U	0	1	N
A1815	73	N	49.92	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.518	314.07	6.02	24.07	366.10	5753.38	0.00	0.00	5753.38	G	0	1	N
A1830	74	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.507	314.03	6.01	24.03	390.09	5742.95	0.00	0.00	5742.95	G	0	1	N
A1845	75	N	49.94	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.289	313.16	5.79	23.16	446.10	5534.37	0.00	0.00	5534.37	G	0	1	N
A1900	76	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.618	310.47	5.12	20.47	475.09	4892.98	0.00	0.00	4892.98	G	0	1	N
A1915	77	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.185	312.74	5.69	22.74	1000.00	5435.29	0.00	0.00	5435.29	G	0	1	N
A1930	78	N	49.96	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.913	311.65	5.41	21.65	1000.00	5174.57	0.00	0.00	5174.57	G	0	1	N
A1945	79	N	49.98	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.989	311.96	5.49	21.96	1000.00	5247.57	0.00	0.00	5247.57	G	0	1	N
A2000	80	N	49.92	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	78.065	312.26	5.57	22.26	1000.00	5320.57	0.00	0.00	5320.57	G	0	1	N
A2015	81	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.220	308.88	4.72	18.88	1000.00	4512.32	0.00	0.00	4512.32	G	0	1	N
A2030	82	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.133	308.53	4.63	18.53	1000.00	4428.89	0.00	0.00	4428.89	G	0	1	N
A2045	83	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.373	309.49	4.87	19.49	1000.00	4658.33	0.00	0.00	4658.33	G	0	1	N
A2100	84	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.405	309.62	4.91	19.62	1000.00	4689.61	0.00	0.00	4689.61	G	0	1	N
A2115	85	N	50.02	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.564	310.25	5.06	20.25	1000.00	4840.84	0.00	0.00	4840.84	G	0	1	N
A2130	86	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.187	308.75	4.69	18.75	1000.00	4481.03	0.00	0.00	4481.03	G	0	1	N
A2145	87	N	50.00	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.122	308.49	4.62	18.49	1000.00	4418.46	0.00	0.00	4418.46	G	0	1	N
A2200	88	N	50.04	290.00	290.00	72.500	0.00	0.00	0.00	0.000	72.500	77.062	308.25	4.56	18.25	1000.00	4361.10	0.00	0.00	4361.10	G	0	1	N
A2215	89	N	50.02	335.00	335.00	83.750	0.00	0.00	0.00	0.000	83.750	76.844	307.37	-6.91	-27.63	1000.00	-6602.48	0.00	0.00	-6602.48	U	0	1	N
A2230	90	N	50.02	335.00	335.00	83.750	0.00	0.00	0.00	0.000	83.750	82.724	330.89	-1.03	-4.11	1000.00	-981.20	0.00	0.00	-981.20	U	0	1	N
A2245	91	Y	50.04	375.00	375.00	93.750	0.00	0.00	0.00	0.000	93.750	98.160	392.64	4.41	17.64	1000.00	4215.96	0.00	0.00	4215.96	G	0	1	N
A2300	92	Y	50.04	375.00	375.00	93.750	0.00	0.00	0.00	0.000	93.750	98.542	394.17	4.79	19.17	1000.00	4580.98	0.00	0.00	4580.98	G	0	1	N
A2315	93	N	50.04	320.00	320.00	80.000	0.00	0.00	0.00	0.000	80.000	87.218	348.87	7.22	28.87	1000.00	6900.58	0.00	0.00	6900.58	G	0	1	N
A2330	94	N	50.04	320.00	320.00	80.000	0.00	0.00	0.00	0.000	80.000	82.909	331.64	2.91	11.64	1000.00	2781.09	0.00	0.00	2781.09	G	0	1	N
A2345	95	N	50.04	320.00	320.00	80.000	0.00	0.00	0.00	0.000	80.000	82.838	331.35	2.84	11.35	1000.00	2713.30	0.00	0.00	2713.30	G	0	1	N
A2400	96	N	50.04	320.00	320.00	80.000	0.00	0.00	0.00	0.000	80.000	83.149	332.60	3.15	12.60	1000.00	3010.53	0.00	0.00	3010.53	G	0	1	N
Total						7240.0				0.00	7240.00	7579.33		339.33			321709.7	0.0	0.0	321709.7				



Plant ID: 106H

URI PS

Oprn Date: 24-Jul-2024



SHIFT HANDOVER REPORT

IMS: MS/O&M/F02/Rev02/21.09.2021

106H2024OP072454

106HH001

Unit Auxiliaries

S.N.	Handover Parameter	HO Status	Handover Remarks
1	UT01: Unit Auxiliary Transformers (UAT) Status	OK	
2	UT02: Unit Auxiliary Transformers (UAT) Status	OK	
3	UT03: Unit Auxiliary Transformers (UAT) Status	OK	
4	UT04: Unit Auxiliary Transformers (UAT) Status	OK	

106HH003

Communication & Weather Status

S.N.	Handover Parameter	HO Status	Handover Remarks
1	A001: Internet: Status	OK	
2	A001: Telephone: Status	OK	
3	A001: ERP: Status	OK	
4	A001: Fax: Status	NotOK	
5	A001: VSAT: Status	NotOK	
6	A001: INMARSAT: Status	NotOK	
7	A001: Mobile: Status	OK	
8	A001: Weather:Status	OK	CLEAR
9	A001: DGR Remarks	OK	CCTV installed at Power House are working satisfactorily. Less generation due to rising of stator winding temperature of units & less Inflow.



URI PS
Daily Log Report



24-Jul-2024

Seq	Plt Unit ID	Log Prm ID	Log Parameter Name	Today's Val	Previous Val	Incr. Val	Energy Mwh	Meter Code	Mtr CTPT	CTPT Factor
1	106HU001	L012M001	Unit: Daily Meter Reading:(Gen Side)	2215660.100	2213135.200	2524.900	2375.678	URI1-NP-1980B	940.900	0.941
2	106HU001	L012M015	Unit: Daily Gen Meter Correction (MWh)	38.100						
3	106HU002	L012M001	Unit: Daily Meter Reading:(Gen Side)	1706323.600	1705909.800	413.800	389.344	URI1-NP-1981B	940.900	0.941
4	106HU002	L012M015	Unit: Daily Gen Meter Correction (MWh)	6.200						
5	106HU003	L012M001	Unit: Daily Meter Reading:(Gen Side)	1985185.100	1982722.500	2462.600	2317.060	URI1-NP-1982B	940.900	0.941
6	106HU003	L012M015	Unit: Daily Gen Meter Correction (MWh)	37.100						
7	106HU004	L012M001	Unit: Daily Meter Reading:(Gen Side)	1896182.400	1893583.900	2598.500	2444.929	URI1-NR-4672B	940.900	0.941
8	106HU004	L012M015	Unit: Daily Gen Meter Correction (MWh)	39.200						
9	106HUT01	L012M023	UAT: Daily Aux. Cons (in KWH)	17200.000	25000.000	-7800.000	-7800.000		0.000	1.000
10	106HUT02	L012M023	UAT: Daily Aux. Cons (in KWH)	0.000	0.000	0.000	0.000		0.000	1.000
11	106HUT03	L012M023	UAT: Daily Aux. Cons (in KWH)	7400.000	0.000	7400.000	7400.000		0.000	1.000
12	106HUT04	L012M023	UAT: Daily Aux. Cons (in KWH)	0.000	0.000	0.000	0.000		0.000	1.000
13	106HT001	L012M002	Tx Line: Daily SEM Reading-Export	346714.800	345602.600	1112.200	4246.582	URI1-NP-1519A	3818.182	3.818
14	106HT002	L012M002	Tx Line: Daily SEM Reading-Export	241393.600	240280.400	1113.200	4250.400	URI1-NP-1600A	3818.182	3.818
15	106HT003	L012M002	Tx Line: Daily SEM Reading-Export	9354.000	9521.600	-167.600	-914.182	URI1-NP-1841-A	5454.545	5.455
16	106HD001	L012M008	Avg Inflow at Dam (Cumecs)	172.830						
17	106HD001	L012M009	Avg Water Utilised (Cumec)	157.220						
18	106HD001	L012M010	Avg Mandatory Spillage (Cumec)	14.200						
19	106HD001	L012M014	Avg Spillage (Cumec)	1.408						
99	106HA001	L012M024	DSACP Rate (Rs/MWh)	0.000	0.000	0.000	0.000		0.000	1.000



Plant ID: 106H

URI PS
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106HL001																								Unit Generation Data																					
L001M001																								Power Generation (MW)																		Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	103.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	101.00	100.00	100.00																					
U002	85.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00																					
U003	90.00	92.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.00	99.00	99.00	102.00	101.00	103.00	102.00	102.00	103.00	103.00	90.00																					
U004	100.00	100.00	100.00	102.00	102.00	102.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	105.00	105.00	98.00	104.00	104.00	103.00	103.00	103.00	103.00	103.00	103.00																					
L001M002																								Reactive Power (MVAR)																		Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	-9.00	-14.00	-14.00	-14.00	-14.00	-5.00	-4.00	-7.00	-3.00	1.00	0.00	0.00	-4.00	-6.00	-3.00	-9.00	-9.00	0.00	0.00	1.00	0.00	-1.00	0.00	-1.00																					
U002	-9.00	-11.00	-13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-17.00	-15.00																					
U003	-7.00	-7.00	-10.00	-11.00	-10.00	-2.00	0.00	-3.00	1.00	3.00	5.00	5.00	0.00	-2.00	1.00	-6.00	-5.00	-8.00	-9.00	-6.00	-6.00	-9.00	-9.00	-9.00																					
U004	-12.00	-11.00	-12.00	-14.00	-14.00	-5.00	-3.00	-6.00	-2.00	1.00	1.00	2.00	-3.00	-5.00	-5.00	-7.00	-8.00	-11.00	-12.00	-11.00	-9.00	-13.00	-13.00	-12.00																					
L001M003																								Generation Voltage (kV)																		Unit:		kV	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.90	13.90	13.90	13.90	13.80	13.80	13.80																					
U002	13.70	13.70	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.80	13.80																					
U003	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.70	13.70	13.70	13.70	13.70	13.60	13.80	13.80	13.80																					
U004	13.70	13.70	13.70	13.70	13.80	13.70	13.70	13.70	13.70	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.70	13.80	13.80	13.80																					
L001M008																								Units Total Reactive Power (MVAR)																		Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
A001	-37.00	-43.00	-49.00	-39.00	-38.00	-12.00	-7.00	-16.00	-4.00	5.00	6.00	7.00	-7.00	-13.00	-7.00	-22.00	-22.00	-19.00	-21.00	-16.00	-15.00	-23.00	-39.00	-37.00																					
L001M009																								Units Total Power Generation (MW)																		Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
A001	377.00	379.00	387.00	304.00	304.00	304.00	306.00	306.00	306.00	306.00	306.00	306.00	307.00	306.00	306.00	299.00	308.00	307.00	308.00	307.00	307.00	307.00	391.00	378.00																					
106HL002																								Unit Misc Data																					
L002M001																								Stator Current (A)																		Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	4345.00	4312.00	4296.00	4275.00	4282.00	4245.00	4282.00	4245.00	4275.00	4275.00	4275.00	4254.00	4380.00	4270.00	4301.00	4230.00	4291.00	4275.00	4261.00	4247.00	4167.00	4151.00	4155.00	4144.00																					
U002	3551.00	3586.00	3621.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3619.00	3659.00																						
U003	4038.00	4038.00	4153.00	4212.00	4165.00	4165.00	4179.00	4219.00	4144.00	4155.00	4165.00	4089.00	4092.00	4036.00	4050.00	4069.00	4219.00	4221.00	4230.00	4200.00	4259.00	4284.00	4284.00	3710.00																					
U004	4193.00	4242.00	4167.00	4341.00	4352.00	4315.00	4395.00	4402.00	4348.00	4390.00	4366.00	4355.00	4439.00	4434.00	4420.00	4092.00	4373.00	4392.00	4308.00	4333.00	4343.00	4348.00	4348.00	4317.00																					
L002M002																								Excitor Current DC Amps.																		Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	991.00	941.00	935.00	939.00	938.00	985.00	982.00	966.00	1001.00	1011.00	1013.00	1012.00	994.00	979.00	996.00	962.00	962.00	1027.00	1033.00	1019.00	1023.00	1021.00	1023.00	1009.00																					
U002	880.00	880.00	868.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	853.00	851.00																						
U003	961.00	961.00	967.00	969.00	972.00	1011.00	1021.00	1006.00	1022.00	1041.00	1040.00	1023.00	1021.00	1004.00	1011.00	979.00	1003.00	993.00	988.00	987.00	1001.00	984.00	984.00	926.00																					
U004	949.00	940.00	938.00	951.00	956.00	989.00	1001.00	992.00	1012.00	1026.00	1024.00	1015.00	1011.00	1004.00	998.00	954.00	978.00	969.00	951.00	956.00	964.00	952.00	952.00	950.00																					
L002M006																								Guide Vane/Nozal Position																		Unit:		%	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00																					
U001	71.00	71.00	72.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	69.00	69.00	70.00	71.00																					
U002	66.00	66.00	66.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.00	66.00																					
U003	69.00	69.00	72.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	68.00	69.00	69.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	66.00																					
U004	73.00	73.00	74.00	74.00	73.00	73.00	74.00	74.00	74.00	74.00	74.00	74.00	75.00	75.00	75.00	72.00	75.00	75.00	74.00	74.00	74.00	74.00	74.00	76.00																					



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L010M003				TRT Level (M)																	Unit: m			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59	1250.59
L010M004				Inflow at Dam (Cumec)																	Unit: Cumec			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001	200.21	201.20	205.15	164.19	164.19	164.19	165.18	165.18	165.18	165.18	165.18	165.18	165.67	165.18	183.18	161.73	166.17	165.67	166.17	165.67	181.47	165.67	207.12	200.71
L010M005				Avg Spillage (Cumec)																	Unit: Cumec			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	15.80	0.00	0.00	0.00
L010M006				Silt (At DAM Intake) (PPM)																	Unit: ppm			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001																								320.00
L010M007				Silt (At Turbine) (PPM)																	Unit: ppm			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001																								278.00
L010M008				Avg Mandatory Spillage (Cumec)																	Unit: Cumec			
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
D001	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20	14.20



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106HL001 Unit Generation Data																								
L001M001 Power Generation (MW)																							Unit:	MW
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	103.00	102.00	102.00	102.00	102.00	102.00	102.00	102.00	101.00	100.00	100.00	
U002	85.00	85.00	85.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.00	85.00	
U003	90.00	92.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.00	99.00	99.00	102.00	101.00	103.00	102.00	103.00	103.00	90.00	
U004	100.00	100.00	100.00	102.00	102.00	102.00	104.00	104.00	104.00	104.00	104.00	104.00	104.00	105.00	105.00	98.00	104.00	104.00	103.00	103.00	103.00	103.00	103.00	
L001M002 Reactive Power (MVAR)																							Unit:	MVAR
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	-9.00	-14.00	-14.00	-14.00	-14.00	-5.00	-4.00	-7.00	-3.00	1.00	0.00	0.00	-4.00	-6.00	-3.00	-9.00	-9.00	0.00	0.00	1.00	0.00	-1.00	0.00	-1.00
U002	-9.00	-11.00	-13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-17.00	-15.00	
U003	-7.00	-7.00	-10.00	-11.00	-10.00	-2.00	0.00	-3.00	1.00	3.00	5.00	5.00	0.00	-2.00	1.00	-6.00	-5.00	-8.00	-9.00	-6.00	-6.00	-9.00	-9.00	-9.00
U004	-12.00	-11.00	-12.00	-14.00	-14.00	-5.00	-3.00	-6.00	-2.00	1.00	1.00	2.00	-3.00	-5.00	-5.00	-7.00	-8.00	-11.00	-12.00	-11.00	-9.00	-13.00	-13.00	-12.00
L001M003 Generation Voltage (kV)																							Unit:	kV
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.90	13.90	13.90	13.90	13.80	13.80	13.80
U002	13.70	13.70	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.80	13.80	
U003	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.70	13.70	13.70	13.70	13.70	13.60	13.80	13.80	13.80
U004	13.70	13.70	13.70	13.70	13.80	13.70	13.70	13.70	13.70	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.60	13.70	13.80	13.80	13.80
L001M008 Units Total Reactive Power (MVAR)																							Unit:	MVAR
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
A001	-37.00	-43.00	-49.00	-39.00	-38.00	-12.00	-7.00	-16.00	-4.00	5.00	6.00	7.00	-7.00	-13.00	-7.00	-22.00	-22.00	-19.00	-21.00	-16.00	-15.00	-23.00	-39.00	-37.00
L001M009 Units Total Power Generation (MW)																							Unit:	MW
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
A001	377.00	379.00	387.00	304.00	304.00	304.00	306.00	306.00	306.00	306.00	306.00	306.00	307.00	306.00	306.00	299.00	308.00	307.00	308.00	307.00	307.00	307.00	391.00	378.00
106HL002 Unit Misc Data																								
L002M001 Stator Current (A)																							Unit:	A
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	4345.00	4312.00	4296.00	4275.00	4282.00	4245.00	4282.00	4245.00	4275.00	4275.00	4275.00	4254.00	4380.00	4270.00	4301.00	4230.00	4291.00	4275.00	4261.00	4247.00	4167.00	4151.00	4155.00	4144.00
U002	3551.00	3586.00	3621.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3619.00	3659.00	
U003	4038.00	4038.00	4153.00	4212.00	4165.00	4165.00	4179.00	4219.00	4144.00	4155.00	4165.00	4089.00	4092.00	4036.00	4050.00	4069.00	4219.00	4221.00	4230.00	4200.00	4259.00	4284.00	4284.00	3710.00
U004	4193.00	4242.00	4167.00	4341.00	4352.00	4315.00	4395.00	4402.00	4348.00	4390.00	4366.00	4355.00	4439.00	4434.00	4420.00	4092.00	4373.00	4392.00	4308.00	4333.00	4343.00	4348.00	4348.00	4317.00
L002M002 Excitor Current DC Amps.																							Unit:	A
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	991.00	941.00	935.00	939.00	938.00	985.00	982.00	966.00	1001.00	1011.00	1013.00	1012.00	994.00	979.00	996.00	962.00	962.00	1027.00	1033.00	1019.00	1023.00	1021.00	1023.00	1009.00
U002	880.00	880.00	868.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	853.00	851.00	
U003	961.00	961.00	967.00	969.00	972.00	1011.00	1021.00	1006.00	1022.00	1041.00	1040.00	1023.00	1021.00	1004.00	1011.00	979.00	1003.00	993.00	988.00	987.00	1001.00	984.00	984.00	926.00
U004	949.00	940.00	938.00	951.00	956.00	989.00	1001.00	992.00	1012.00	1026.00	1024.00	1015.00	1011.00	1004.00	998.00	954.00	978.00	969.00	951.00	956.00	964.00	952.00	952.00	950.00
L002M006 Guide Vane/Nozal Position																							Unit:	%
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	71.00	71.00	72.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	69.00	69.00	70.00	71.00
U002	66.00	66.00	66.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.00	66.00	
U003	69.00	69.00	72.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	68.00	69.00	69.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	66.00
U004	73.00	73.00	74.00	74.00	73.00	73.00	74.00	74.00	74.00	74.00	74.00	74.00	75.00	75.00	75.00	72.00	75.00	75.00	74.00	74.00	74.00	74.00	74.00	76.00

POWER STATION DAILY GENERATION REPORT

23-Jul-2024

106H : URI PS

480 MW (4 x 120)

Daily Log Closed On:

Report Generated On:

24-Jul-2024 01:05 AM

DGR Updated On:

CG Updated On:

Proj Type: ROR										(1) Deviation Summary										Unit Overload Cap (MW): 122.40									
Sch	Schedule Energy (MWh)				Tx (Ex-Bus)		Dev.		UI Amount (Rs.)				Vio	Rate (Rs/kWh)		Total UI													
Rev	Actual	Agc	Net	MWH	MWH	Normal	Additional	Vio. Penalt	Net UI	Cnt	DSACP	Avg UI	Month Todate	FY Todate															
22	8,167.500	0.000	8,167.500	8,518.211	350.711	292,201.78	-2,838.04	0.00	292,201.78	4	0.0000	0.49	3,724,150	18,561,109															
Design Enrg (MU): 2587.00										(2) Generation Summary										Design Discharge(Cumecs): 2700.000									
Daily Gen (MU)			Monthly Gen. (MU)			Yearly Gen. (MU)				Dec Cap	Daily PAF (%)		Month PAF(%)		Yearly PAF (%)														
Target	Actual	Deemed	Target	Actual	Deemed	Target	Trgt ToDate	Actual	Deemed	MW	Target	Actual	Target	Actual	Target	Actual													
11.097	8.586333	0.000	344.000	193.856		3050.00	1296.228	911.398		430.00	99.00	90.67	99.00	83.21	89.00	78.56													
(3) Station Data										(4) Communication Status																			
Aux Consumption (kWh)			Aux Con %		Av load	MW		MVAR		Bus Volt (kV)		Freq (Hz)																	
Unit	Non-Unit	Total	Max	Act	MW	Max	Min	Max	Min	Max	Min	Max	Min	VSAT	INMAR	Fax	P&T	PLCC	Mobl	Intrnt	ERP								
25000.00	42931.67	67931.67	1.20	0.79	357.76	398.00	283.00	-11.00	-59.00	405.00	398.00	50.12	49.92	NotOK	NotOK	NotOK	OK	NA	OK	OK	OK								
MDDL (m): 1491.00					FRL (m): 1491.00					(5) Reservoir Data					TRTL(m):					Rated Head (m) : 222.50					(6) Misc Data				
Avg Inflow (Cumecs)			Avg Spillage (Cumecs)			Water Utilised		Reservoir Level (m)				Intake	TRT/TRC	Silt Max (PPM)															
Total	Utilised	Env	Forced	Flushing	Net	Cubic Meter		Max	Min	00:00 Hr	24:00 Hr	Min (m)	Max (m)	Intake	M/c	Weather	Upload												
190.72	176.52	14.20	0.00	0.00	14.20	15,251,328.000		1491.30	1490.40	1491.09	1491.28	1490.40	1250.59	310	275	CLEAR	No												
(7) Unit Generation Summary																													
Unit	Meter Data					Gen	Run Hr	Outage Hr (HH:MM:SS)			Availability	Loss	MW		MVAR		GVO %												
	Meter Code	CTPT	Today Rdg	Prev Rdg	Incrmt	MU	H:M:S	Planned	Forced	Misc	HH:MM:SS	MU	Max	Min	Max	Min	Max	Min											
10601	URI1-NP-1980B	940.90	2213135.20	2210567.10	2568.100	2.453925	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	104.0	99.0	-4.0	-16.0	73.0	69.0											
10602	URI1-NP-1981B	940.90	1705909.80	1703817.80	2092.000	1.998963	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	85.0	40.0	-2.0	-16.0	66.0	41.0											
10603	URI1-NP-1982B	940.90	1982722.50	1980896.50	1826.000	1.744783	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	103.0	39.0	0.0	-13.0	72.0	41.0											
10604	URI1-NR-4672B	940.90	1893583.90	1891084.10	2499.800	2.388662	24:00:00	00:00:00	00:00:00	00:00:00	24:00:00	0.00	106.0	40.0	-3.0	-14.0	76.0	42.0											
(8) Transmission Summary																													
Tx Line		Transmission Line Name						Meter Code		CTPT	Export (MU)		Import (MU)		Net Tx (MU)														
10680ACD31		URI PS-T001						URI1-NP-1519A		3818.18	4.721335		0.000000		4.721335														
10680ACD32		URI PS-T002						URI1-NP-1600A		3818.18	4.720495		0.000000		4.720495														
10680ACD33		URI PS-T003						URI1-NP-1841-A		5454.55	0.004036		-0.927655		-0.923618														
(9) Outage Summary																													
Unit ID		Outage Type	Outage HH:MM:SS	Restoration HH:MM:SS	Otg Period HH:MM:SS	Loss MU	Outage Reason																						
No Outage Reported																													
(10) Unit Test Points																													
Unit	Stator Max Temp			TB MaxTemp		TGB MaxTemp		UGB MaxTemp		LGB MaxTemp		Trf R# MaxTemp		Trf Y# MaxTemp		Trf B# MaxTemp		Max Vibration (Micron)											
	Current	Wndg	Hot Air	Pad	Oil	Pad	Oil	Pad	Oil	Pad	Oil	Wndg	Oil	Wndg	Oil	Wndg	Oil	TGB	LGB	UGB	TB AXL								
	A00	B00	B01	C00	C01	D00	D01	E00	E01	F00	F01	G00	G01	G02	G03	G04	G05	H00	H01	H02	H03								
10601	4380	90	68	80	55	61	62	75		71		69	57	71	57	70	58	0	0	0	0								
HH:MM	12:00	23:59	23:59	23:59	23:59	23:59	08:00	23:59		23:59		08:00	08:00	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59								
10602	3659	77	59	78	76	56	56	73		73		72	57	55	56	55	54	0	0	0	0								
HH:MM	13:00	23:59	23:59	23:59	01:00	08:00	01:00	23:59		01:00	01:00	23:59	23:59	23:59	23:59	01:00	23:59	23:59	23:59	23:59	23:59								
10603	4291	90	60	82	49	60	60	77		71		57	47	64	55	56	50	0	0	0	0								
HH:MM	19:00	13:00	13:00	23:59	23:59	23:00	23:00	23:59		23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59								
10604	4430	95	66	80	49	55	48	72		75		67	54	71	58	62	48	0	0	0	0								
HH:MM	19:00	19:00	19:00	23:59	23:59	03:00	23:59	23:59		23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59	23:59								
(11) Shift Information																													
S1 :	S2 :										S3 :										S4 :								
Sft	Sft Incharge		Accepted By		Acpt On		Closed By		ClosedOn		Sft	Sft Incharge		Accepted By		Acpt On		Closed By		ClosedOn									
S1	Amit Kumar Srivastav		Amit Kumar Srivastav		23Jul-02:04		Amit Kumar Srivastav		23Jul-08:08		S3	Kesana Raveendra		Kesana Raveendra		23Jul-20:18		Kesana Raveendra		23Jul-21:36									
S2	Sunil Kumar Nishad		Sunil Kumar Nishad		23Jul-08:08		Sunil Kumar Nishad		23Jul-20:23		S4	Amit Kumar Srivastav		Amit Kumar Srivastav		23Jul-21:39													
No.: NH/URI-I/PH/Control Room/NH/UPS/PHO/DGR/23072024																													
DGR Remarks : CCTV installed at Power House are working satisfactorily. Less generation due to rising of stator winding temperature of units & less Inflow.																													
Copy to:																													
Executive Director Region-I, Jammu																													
Shift In-Charge, GMC, Faridabad - Fax: 0129-2272413																													
Internal Distribution, URI-I Power Station																													
Shift In-Charge										112446K																			
NRLDC, Control Room, New Delhi, ..Fax : 011-26852747										AMIT KUMAR SRIVASTAVA																			



Plant ID: 106H

URI PS
Hourly Log Report

Oprn Date: 23-Jul-2024



106HL001				Unit Generation Data																					
L001M001				Power Generation (MW)																		Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	103.00	103.00	103.00	103.00	103.00	103.00	102.00	102.00	102.00	102.00	99.00	103.00	103.00	103.00	103.00	103.00	103.00	102.00	104.00	102.00	102.00	102.00	102.00	102.00	
U002	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	40.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	
U003	40.00	92.00	40.00	40.00	92.00	95.00	100.00	100.00	101.00	101.00	96.00	100.00	101.00	39.00	40.00	40.00	40.00	40.00	103.00	93.00	90.00	92.00	95.00	90.00	
U004	100.00	100.00	100.00	100.00	100.00	100.00	105.00	105.00	105.00	105.00	97.00	40.00	105.00	105.00	105.00	105.00	105.00	104.00	106.00	93.00	91.00	93.00	91.00	90.00	
L001M002				Reactive Power (MVAR)																		Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	-11.00	-11.00	-11.00	-16.00	-14.00	-11.00	-9.00	-8.00	-8.00	-6.00	-4.00	-4.00	-5.00	-4.00	-6.00	-8.00	-5.00	-10.00	-10.00	-9.00	-5.00	-10.00	-9.00	-14.00	
U002	-9.00	-11.00	-13.00	-16.00	-14.00	-11.00	-7.00	-9.00	-9.00	-6.00	-3.00	-5.00	-5.00	-2.00	-5.00	-8.00	-7.00	-6.00	-11.00	-8.00	-3.00	-5.00	-8.00	-7.00	
U003	-11.00	-6.00	-12.00	-13.00	-11.00	-7.00	-4.00	-6.00	-5.00	-2.00	-1.00	0.00	-3.00	-1.00	-3.00	-5.00	-4.00	-7.00	-5.00	-5.00	-11.00	-7.00	-5.00		
U004	-12.00	-11.00	-6.00	-14.00	-13.00	-11.00	-6.00	-10.00	-7.00	-4.00	-5.00	-5.00	-4.00	-4.00	-3.00	-6.00	-6.00	-8.00	-9.00	-8.00	-5.00	-8.00	-5.00	-8.00	
L001M003				Generation Voltage (kV)																		Unit:		kV	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	
U002	13.70	13.70	13.70	13.70	13.70	13.80	13.80	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.80	13.70	13.70	13.80	13.80	13.80	13.80	13.80	13.70	13.70	
U003	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	13.80	
U004	13.70	13.70	13.60	13.80	13.80	13.80	13.80	13.70	13.70	13.70	13.70	13.70	13.70	13.70	13.80	13.70	13.70	13.80	13.80	13.80	13.80	13.80	13.80	13.80	
L001M008				Units Total Reactive Power (MVAR)																		Unit:		MVAR	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
A001	-43.00	-39.00	-42.00	-59.00	-52.00	-40.00	-26.00	-33.00	-29.00	-18.00	-13.00	-14.00	-17.00	-11.00	-17.00	-27.00	-22.00	-31.00	-35.00	-30.00	-18.00	-34.00	-29.00	-34.00	
L001M009				Units Total Power Generation (MW)																		Unit:		MW	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
A001	328.00	380.00	328.00	328.00	380.00	383.00	392.00	392.00	393.00	393.00	377.00	283.00	394.00	332.00	333.00	333.00	333.00	331.00	398.00	373.00	368.00	372.00	373.00	367.00	
106HL002				Unit Misc Data																					
L002M001				Stator Current (A)																		Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	4343.00	4287.00	4359.00	4355.00	4303.00	4294.00	4254.00	4284.00	4277.00	4246.00	4167.00	4380.00	4355.00	4277.00	4303.00	4336.00	4334.00	4334.00	4350.00	4277.00	4284.00	4334.00	4345.00	4312.00	
U002	3551.00	3586.00	3621.00	3612.00	3539.00	3545.00	3579.00	3530.00	3523.00	3525.00	3602.00	1671.00	3659.00	3621.00	3612.00	3633.00	3546.00	3626.00	3525.00	3551.00	3546.00	3612.00	3633.00	3546.00	
U003	1741.00	3830.00	1744.00	1791.00	3837.00	4038.00	4205.00	4212.00	4141.00	4188.00	3959.00	4130.00	4216.00	1637.00	1669.00	1657.00	1666.00	1666.00	4291.00	3853.00	3545.00	3837.00	4038.00	3545.00	
U004	4193.00	4242.00	4277.00	4261.00	4261.00	4245.00	4399.00	4390.00	4362.00	4369.00	4029.00	1683.00	4376.00	4359.00	4385.00	4397.00	4376.00	4378.00	4430.00	3855.00	3844.00	3855.00	3844.00	3855.00	
L002M002				Excitor Current DC Amps.																		Unit:		A	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	963.00	956.00	936.00	934.00	937.00	952.00	969.00	961.00	979.00	985.00	979.00	998.00	986.00	986.00	984.00	969.00	985.00	971.00	963.00	963.00	991.00	985.00	991.00	941.00	
U002	880.00	880.00	868.00	876.00	860.00	874.00	889.00	878.00	891.00	907.00	899.00	806.00	897.00	913.00	914.00	891.00	898.00	904.00	881.00	890.00	916.00	914.00	891.00	876.00	
U003	791.00	945.00	783.00	775.00	923.00	961.00	1004.00	993.00	998.00	1015.00	984.00	1021.00	1013.00	845.00	829.00	823.00	821.00	813.00	997.00	970.00	946.00	923.00	961.00	971.00	
U004	949.00	940.00	981.00	933.00	934.00	949.00	986.00	978.00	979.00	1001.00	953.00	814.00	993.00	1001.00	994.00	987.00	984.00	978.00	975.00	930.00	953.00	930.00	953.00	930.00	
L002M006				Guide Vane/Nozal Position																		Unit:		%	
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	
U001	71.00	71.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	70.00	71.00	71.00	71.00	71.00	71.00	71.00	71.00	73.00	71.00	69.00	71.00	71.00	71.00	
U002	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	41.00	65.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	64.00	66.00	66.00	66.00	
U003	42.00	67.00	41.00	41.00	67.00	69.00	71.00	71.00	71.00	72.00	68.00	70.00	71.00	41.00	41.00	41.00	41.00	41.00	72.00	67.00	68.00	67.00	69.00	68.00	
U004	73.00	73.00	74.00	73.00	74.00	74.00	76.00	76.00	76.00	76.00	71.00	42.00	74.00	75.00	75.00	75.00	75.00	75.00	76.00	70.00	68.00	70.00	68.00	70.00	



Plant ID: 106H

URI PS
Hourly Log Report

Oprn Date: 23-Jul-2024



L002M008																								
Upper Guide Bearings: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M010																								
Lower Guide Bearing: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M012																								
Turbine Guide Bearing: X-Axis (Shaft) Vibration (μ)																				Unit: μ				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L002M019																								
Thrust Bearing-Axial Vibration (Z1)-(μ)																				Unit: Micron				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106HL003																								
Unit Temperature Data																								
L003M003																								
Stator Winding Temp. °C (RTD-1)																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	90.00	90.00	90.00	90.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	89.00	90.00	89.00	90.00	90.00	89.00	90.00	90.00	90.00
U002	66.00	76.00	77.00	76.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	65.00	65.00	74.00	75.00	77.00	77.00	75.00	77.00	77.00	75.00	75.00	77.00	77.00
U003	72.00	88.00	70.00	71.00	82.00	82.00	89.00	90.00	90.00	90.00	90.00	90.00	90.00	76.00	72.00	71.00	70.00	59.00	86.00	87.00	87.00	82.00	82.00	87.00
U004	92.00	92.00	94.00	91.00	91.00	91.00	93.00	93.00	93.00	93.00	92.00	74.00	74.00	93.00	87.00	94.00	94.00	90.00	95.00	90.00	89.00	90.00	89.00	90.00
L003M005																								
Stator Core Temp. °C: RTD-1																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	89.00	90.00	90.00	90.00	90.00	89.00	88.00	89.00	89.00	89.00	89.00	89.00	89.00	86.00	88.00	89.00	89.00	88.00	90.00	89.00	88.00	90.00	90.00	90.00
U002	76.00	75.00	75.00	75.00	75.00	74.00	74.00	74.00	74.00	74.00	74.00	67.00	67.00	72.00	74.00	75.00	75.00	75.00	75.00	75.00	74.00	74.00	75.00	75.00
U003	69.00	76.00	70.00	69.00	71.00	71.00	75.00	76.00	77.00	77.00	77.00	77.00	77.00	73.00	69.00	68.00	68.00	67.00	71.00	75.00	75.00	71.00	71.00	75.00
U004	83.00	82.00	81.00	82.00	82.00	82.00	82.00	82.00	82.00	82.00	81.00	73.00	73.00	82.00	83.00	84.00	84.00	85.00	85.00	82.00	81.00	82.00	81.00	82.00
L003M007																								
Cold Air Temp. °C																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	49.00	49.00	49.00	49.00	49.00	49.00	48.00	49.00	49.00	49.00	50.00	50.00	50.00	50.00	50.00	48.00	48.00	50.00	50.00	48.00	50.00	50.00	50.00	50.00
U002	75.00	40.00	38.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	39.00	40.00	40.00	40.00	40.00	40.00	40.00	39.00	40.00	40.00	40.00
U003	42.00	42.00	42.00	39.00	40.00	40.00	41.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	40.00	40.00	40.00	40.00	41.00	42.00	42.00	40.00	40.00	42.00
U004	43.00	43.00	43.00	42.00	42.00	42.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00	44.00	44.00	45.00	45.00	45.00	45.00	44.00	44.00	44.00	44.00	44.00
L003M008																								
Hot Air Temp. °C																				Unit: °C				
Unit	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
U001	67.00	68.00	68.00	67.00	67.00	67.00	66.00	67.00	67.00	67.00	67.00	67.00	67.00	67.00	68.00	67.00	67.00	68.00	67.00	67.00	68.00	68.00	68.00	68.00
U002	40.00	59.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	58.00	57.00	57.00	57.00	58.00	59.00	59.00	59.00	59.00	59.00	59.00	58.00	59.00	59.00
U003	59.00	59.00	56.00	55.00	55.00	55.00	58.00	59.00	60.00	60.00	60.00	60.00	60.00	57.00	55.00	54.00	54.00	54.00	56.00	59.00	59.00	55.00	55.00	59.00
U004	65.00	65.00	64.00	64.00	64.00	64.00	64.00	64.00	65.00	65.00	65.00	62.00	62.00	64.00	65.00	66.00	66.00	66.00	66.00	65.00	65.00	65.00	65.00	65.00

Supplementary doc. kind	Identity	Item
Assembly Drawing	XD 307 005-CGA	901

Item	Qty	Des	Art. no	Type	Qty	Name	Rem
1	1		6931 0021-AL			Verktygsskåp (standard) Tool cabinet	
5	1		2183 690-3			Spärrblock (3 ton) Ratchet block	
7	1		XD 307 110-CGA			Av- och påpressningsdon Pressing on tackle	
10	1		XD 307 051-CGA			Lyftdon för rotor Hoisting device	
18	2		1051 701-871			Uppriktningsskena Bar for alignment	
19	8		2121 2015-601	Steel 8.8	M16x70	Sexkantsskruv Hexagon bolt	
21	4		1314 1169-684	2 1312-00	T=20;200x250	Plåt av stål Plate	
22	6		XD 307 115-CGA			Plåttilläggningslinjal Girder	
23	12		4299 0135-8			Fäste för pl.linjal Support for girder	
24	24		2121 2016-599	Steel 8.8 Fe/Zn 8c	M16x60	Sexkantsskruv Hexagon bolt	
25	24		2151 2062-185	Steel Fe/Zn 8c	17x30x3	Rundbricka Plain washer	
27	1		XD 307 092-CGA			Lyft och vänddon Hoist and turning device	
28	1		XD 307 136-CGA			Utdragningsdon för kil Dismantling device	
29	1		XD 307 140-CGA			Indikeringsdon Indicating device	

Cut from XD 300 100-CGA
§ 6 (1),
Type des. GGS 3660 CV
Trade name URI H.E.P.
Customer NHPC, INDIA

Orderbunden detaljlista
Avlastning och montage
Erection arrangement

Reservat för customer
=GK-A02.07

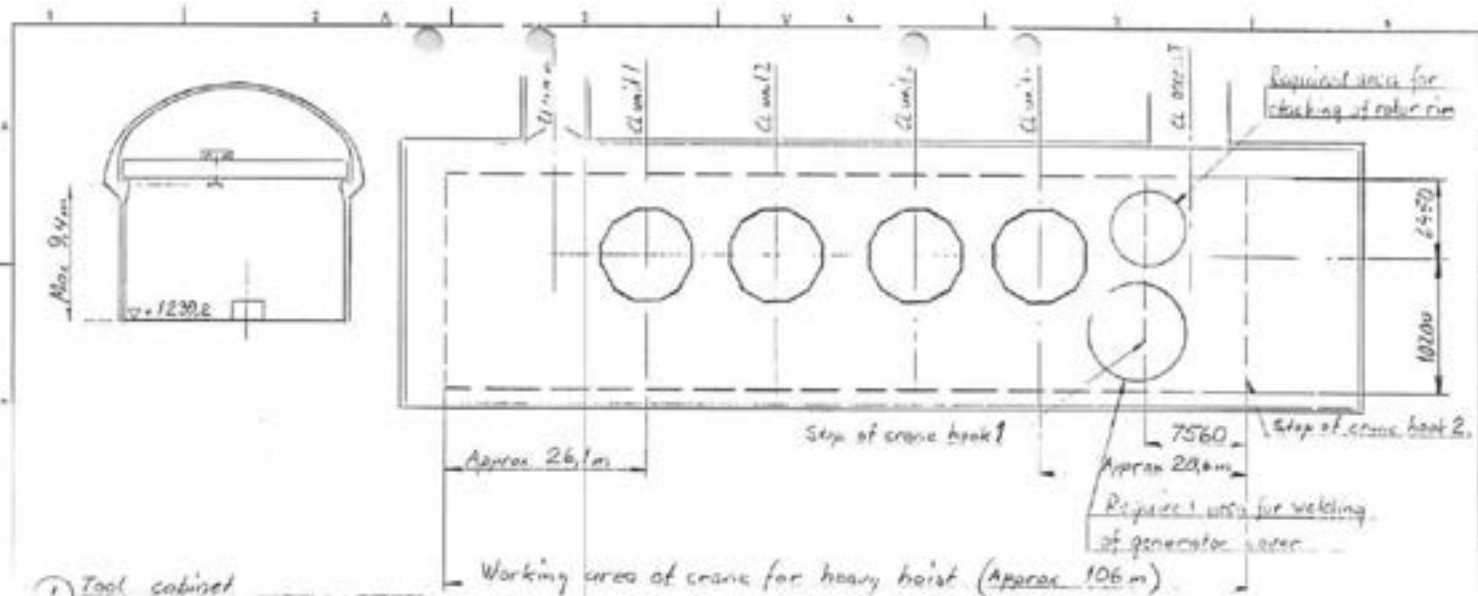
Issued	Lang	Sheet
L 9849.1007	sv	1
XD 307 000-CGA	Rev ind Cont	3 2

Item	Qty	Des	Art.no	Type	Date	Name	Rem
30	4		4299 852-P			Montagepall Erection post	
31	14		4299 852-U			Montagepall Erection post	
32	4		2183 664-P		24 ton	Schackel Shackle	
34	4		2183 665-T		M24; 3 ton	Schackel med länkskruv Shackle with eyebolt	
35	4		2183 665-Y		M42; 7,5 ton	Schackel med länkskruv Shackle with eyebolt	
36	2		2183 666-L		M80x6; 37 ton	Schackel med länkskruv Shackle with eyebolt	
37	1		2184 8572-10		M72x6; 24 ton	Länkskruv Eyebolt	
41	2		2182 695-11	20 ton	D=60; L=14m	Rundsling (Polyester) Round loop	
42	3		2182 695-3	3 ton	D=25; L=7m	Rundsling (Polyester) Round loop	
43	1		2182 695-7	8 ton	D=40; L=3m	Rundsling (Polyester) Round loop	
44	2		2182 695-7	8 ton	D=40; L=16m	Rundsling (Polyester) Round loop	
47	N1		1031 701-188	(M56)	L= 1000	Hölländringsbult Stud	2
För rotteringen							
51	4		2126 2012-134	Steel 8	M42	Sexkantsmutter Hexagon nut	
52	8		2121 2016-537	Steel 8.8 Fe/Zn 8c	M12x90	Sexkantskruv Hexagon bolt	
53	12		2121 2015-729	Steel 8.8	M24x120	Sexkantskruv Hexagon bolt	

Orderbunden detaljlista
Avlastning och montage
Erection arrangement

Reserved for customer
#GX-A02.07

Issued	Long	Sheet
L 9849.1007	SV	2
X0 307 000-COA	Rev ind	Com
	3	3

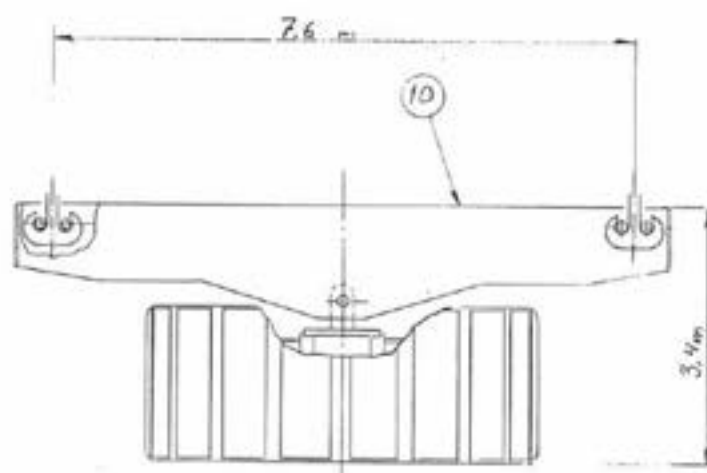


- 1) Tool cabinet
- 22) Girder
- 23) Support for girder
- 24) Maxagon bolt
- 25) Washer
- 28) Dismantling device
- 54) Transport frame

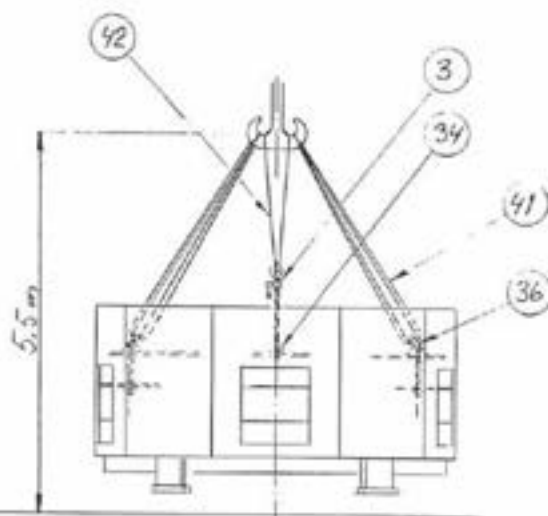
Group Specification: KO 307 000-66A

URI H.E.P. = G# - AG2.07

REFLECTION ARRANGEMENT UR1	1
WASTING ON MONTAGE 4 9869 1007 XO 307 005-LGA	2



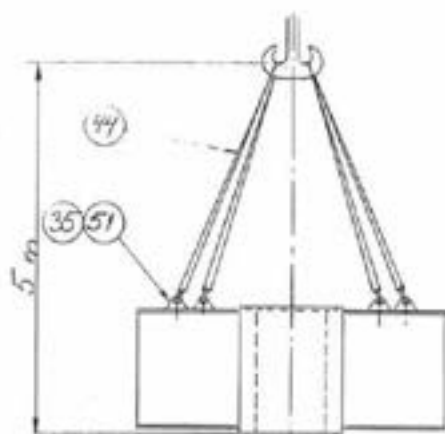
Hoisting of rotor complete
Weight 122 tons incl hoisting beam



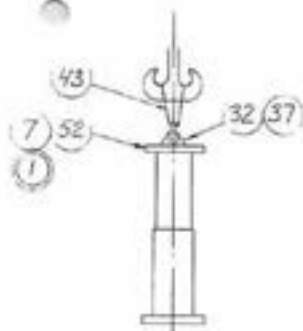
Hoisting of 1/3 stator Weight 44 tons

URI H.E.P. = G# - AG2.07

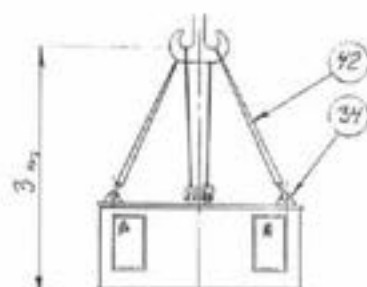
Dimensions	Name of item	Note
Section (Fig.)		
ERECTION ARRANGEMENT	URI	
AVLASTNING OCH MONTAGE		
L 9869.1007		2
X0 307 005-CGA		3



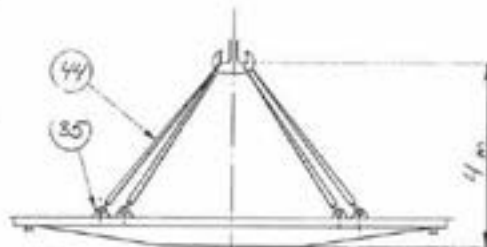
Hoisting of rotor spider
Weight 10 tons



Hoisting of upper shaft
Weight 5 tons



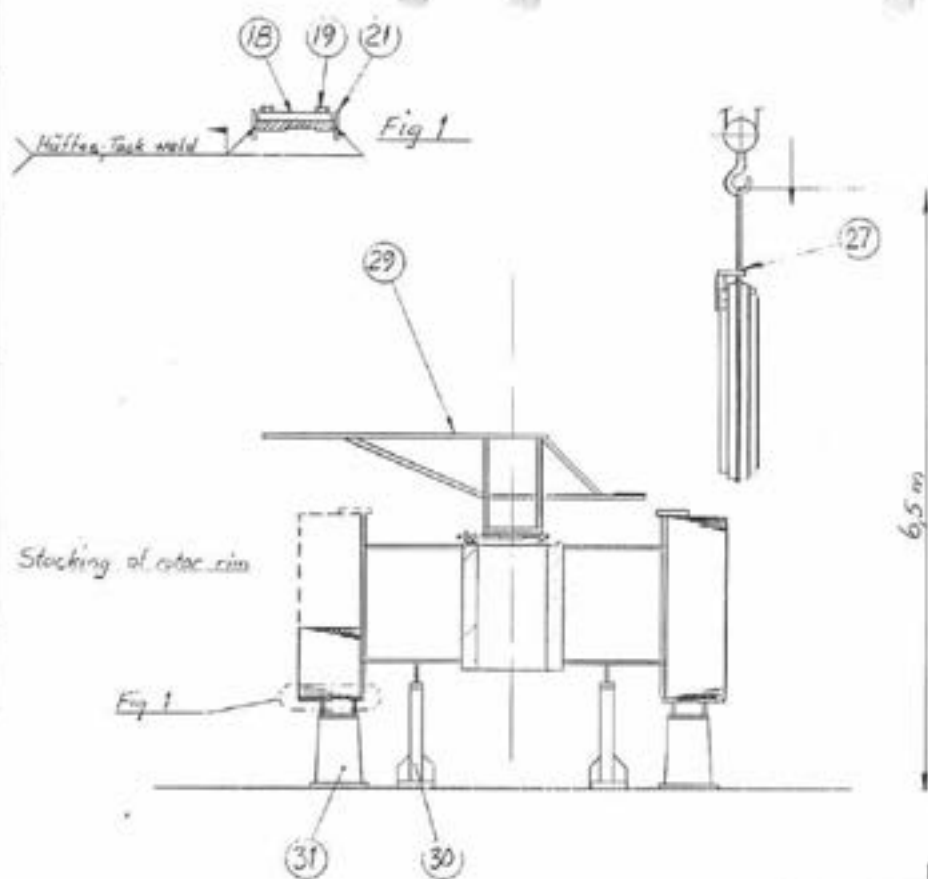
Hoisting of machine top
Weight 1 ton



Hoisting of generator cover
Weight 14 tons

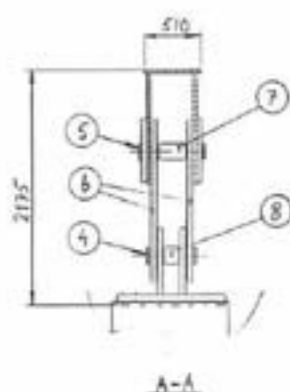
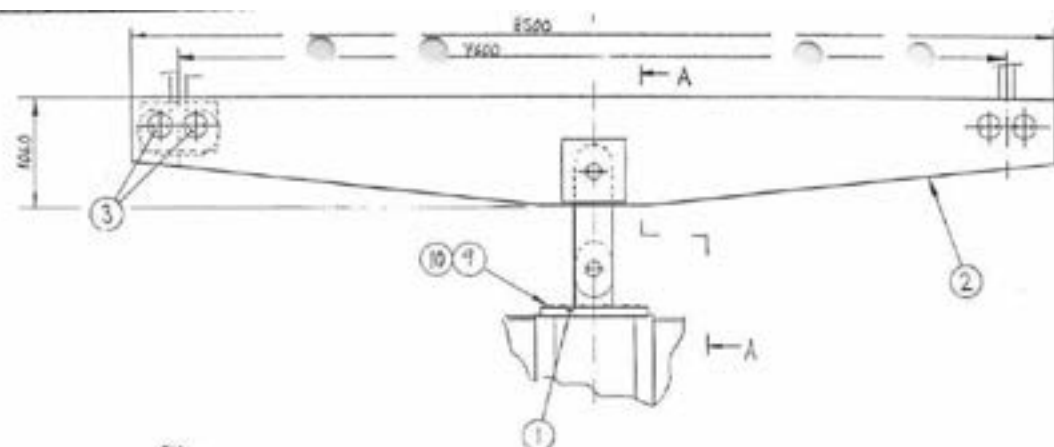
URI H.E.P. = G# - AG2.07

Section	URI	0
SECTION ARRANGEMENT		
AVLÄSTNING OCH MONTAGE		
L 9869, 1007		5
XO 307 005-C6A		6



URI H.E.P. = G# - AG2.07

SECTION ARRANGEMENT	URI
AVLÄSTNING OCH MONTAGE	
L9869.1007	6
XO 307 005-CGA	-



URI H.E.P. = G8-AG207

Max load: 185 lbs

Max fast:

Net weight: 7820 kg

Painting

QTY	ITEM NO.	DESCRIPTION	UNIT	REMARKS
12	10	307 001-205	SKT	3x 1/2 x 1/2
12	9	307 005-181	CHL 2.3	730x70
1	8			Drill hole 1/2"
1	7	306 013-04	2 2172-03	Drill hole 1/2"
2	6	XO 307 077-C6A		WAS
1	5	XO 307 079-C6A		WAS
1	4	XO 307 078-C6A		WAS
1	3	XO 307 079-C6A		WAS
1	2	XO 307 076-C6A		WAS
1	1	XO 307 075-C6A		WAS

Material: Steel, 40

Finish: Zinc

Part of: 1007

304106 SERVICE FOR ROTOR

1771207 FOR ROTOR

17847, 1007

XO 307 077-C6A

1. Grundplatta för stator
Sole plate for stator

Vertikal kraft normal: Vertical force normal:	F1= 220 kN
Vertikal kraft vid jordbävning: Vertical force at earthquake:	F1= 260 kN
Radiell kraft: Radial force:	F2= +/- 45 kN 1)
Tangentiell kraft normal: Tangential force normal:	F3= + 190 kN
Tangentiell kraft vid kortslutning: Tangential force at short circuit:	F3= +/- 1200 kN

2. Grundplatta för nedre armkors
Sole plate for lower bracket

Vertikal kraft normal: Vertical force normal:	F4= 660 kN
Vertikal kraft rusning: Vertical force run-away:	F4= 865 kN
Vertikal kraft jordbävning: Vertical force earthquake:	F4= 1010 kN
Radiell kraft normal: Radial force normal:	F5= - 850 kN 1) + 235 kN
Radial kraft rusning: Radial force run-away:	F5= - 930 kN 1) + 315 kN
Radiell kraft jordbävning: Radial force earthquake:	F5= - 1055 kN 1) + 435 kN
Tangentiell kraft bromsning: Tangential force braking:	F6= + 15 kN

- 1) - är radiellt utåt, + är radiellt inåt
- means radially outwards, + means radially inwards

Issued

L 9869.1007
XO 303 001-CGA

3. Grundplatta för radialstöd stator
Sole plate for radial support stator

Radiell kraft normal:
Radial force normal:

F7 = +/- 50 kN 1)

4. Grundplatta för generatorlock
Sole plate for generator cover

Vertikal kraft normal:
Vertical force normal:

F8 = 60 kN

Radiell kraft normal:
Radial force normal:

F9 = +/- 15 kN 1)

Tangentiell kraft normal:
Tangential force normal:

F10 = +/- 15 kN

Tangentiell kraft rusning:
Tangential force run-away:

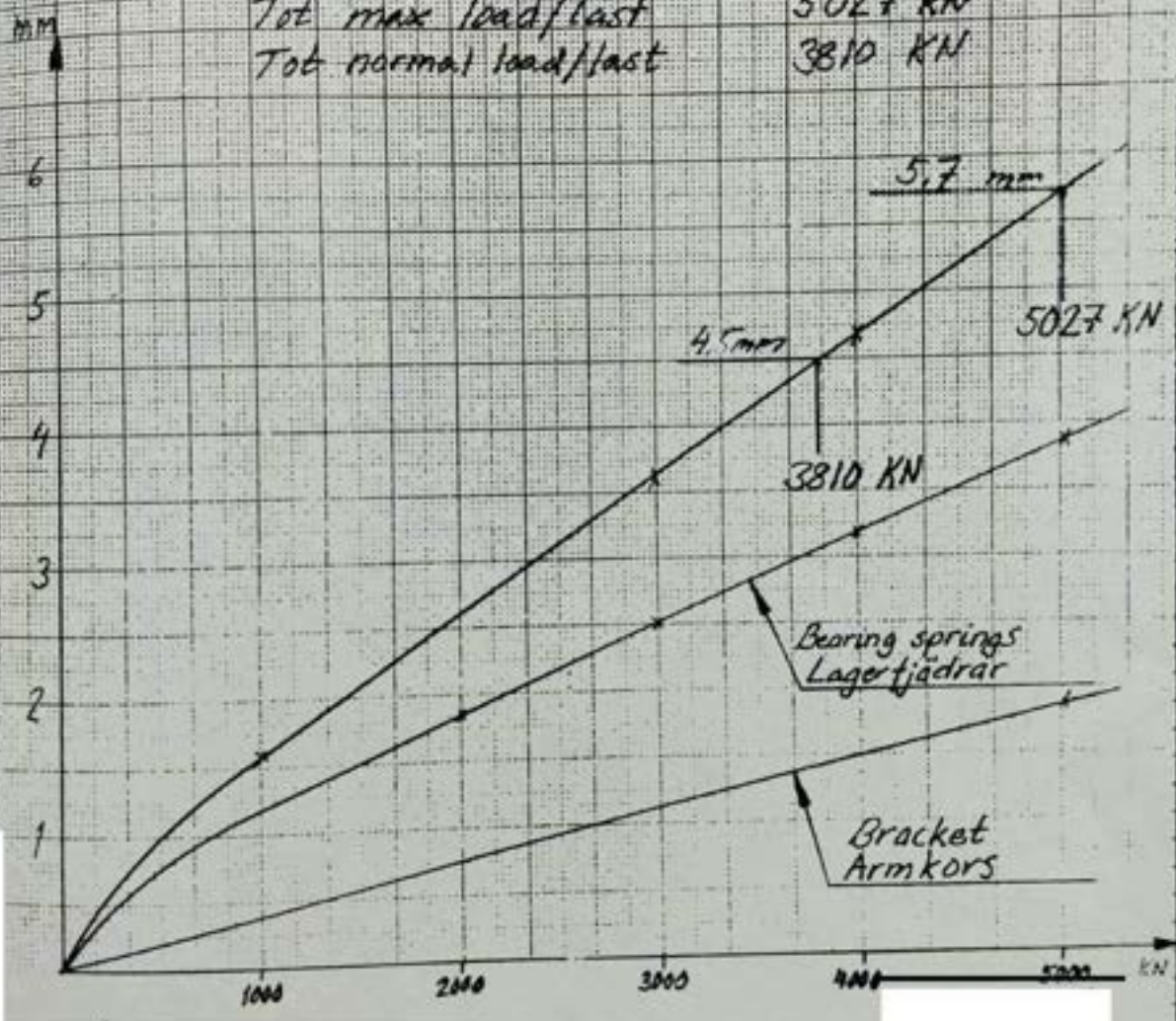
F10 = +/- 35 kN

Tangentiell kraft jordbävning:
Tangential force earthquake:

F10 = +/- 100 kN

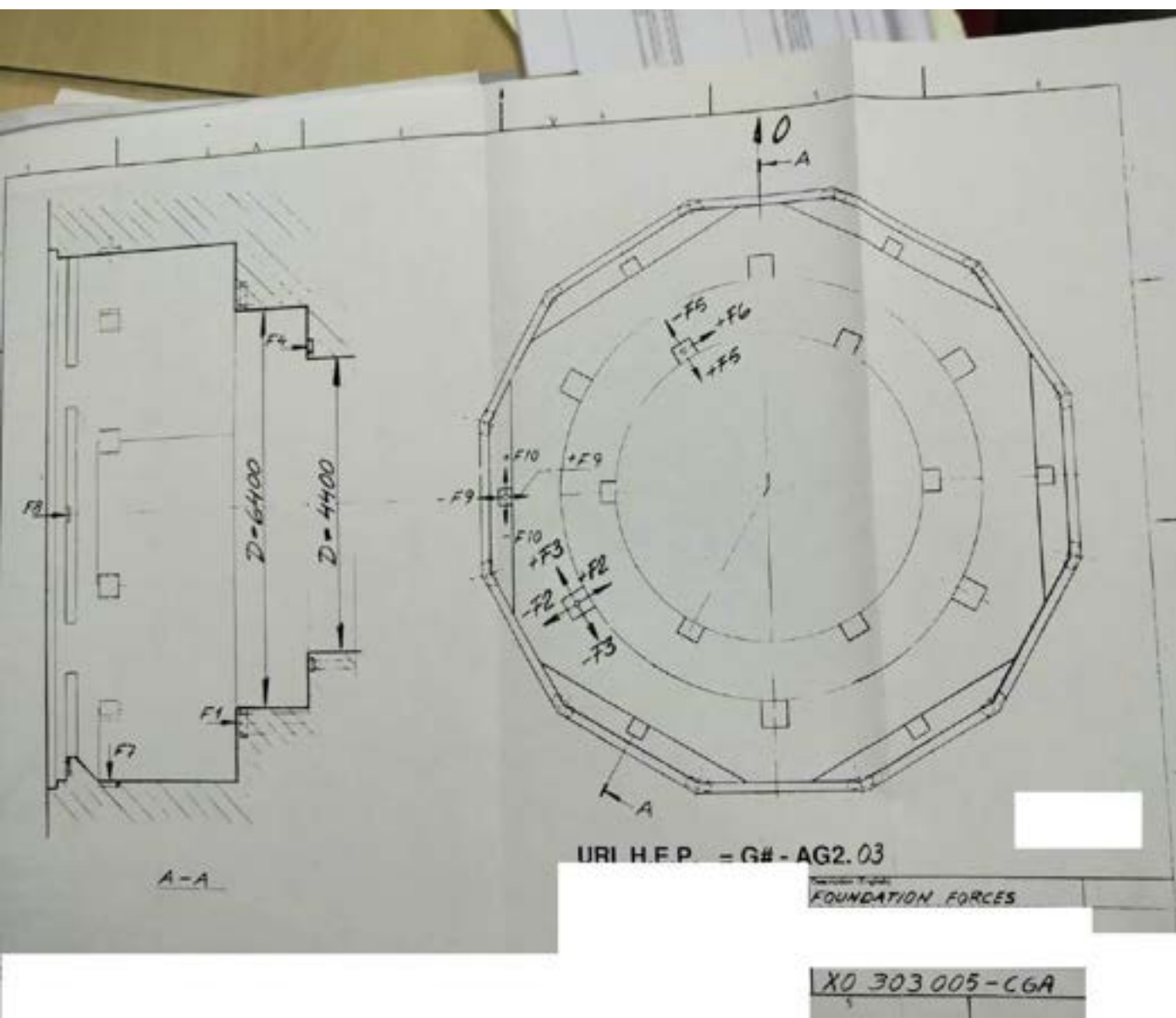
1) - är radiellt utåt, + är radiellt inåt
- means radially outwards, + means radially inwards

Rotating parts turbine	327 KN
Turbinens roterande delar	
Hydraulic thrust full load	1442 KN
Normal vattenlast	
Hydraulic thrust runaway	2659 KN
Max vattenlast	
Rotating parts generator	2041 KN
Generators roterande delar	
Tot max load/last	5027 KN
Tot normal load/last	3810 KN



Title: Wisk
 Description: (English)
Deflection diagram

XO 303 002 - CGA



DATA OF GENERATOR OF URI POWER STATION

1 Generator

Generator rated voltage	13.8 KV
Voltage range	As per IEC 34-1(1983) standards
Rated stator current	5690 A
Max current	6276 A
Generator rated frequency	50 Hz
Rated power factor	0.9 Lag
Generator continuous rating at rated frequency ,voltage and 0.9 power factor (lag)	136 MVA
Maximum output	150 MVA
No. of phases	3 phases
No. of poles	18 poles
Moment of inertia GR^2	781000 Kgm ²
Inertia constant	3.50 Ws/VA
Fly wheel effect from generator	3250 T m ²

2 Generator speeds

Rated synchronous speed	333.3 rpm
Design runaway speed	615 rpm
Max, peripheral speed at runaway speed	165.26 mtr/sec

3 Generator Losses

Friction losses	760 KW
Iron losses	410 KW
Constant losses	1170 KW
Load losses	570 KW
Excitation losses	250 KW
Total losses at 110 %of rated o/p and 0.9 pf	1667.5 KW
Total losses at 100 %of rated o/p and 0.9 pf	1560.2 KW
Total losses at 85 %of rated o/p and 0.9 pf	1421.9 KW
Total losses at 75 %of rated o/p and 0.9 pf	1341.8 KW

4 Efficiency of Generator at different loads

Generator efficiency at rated voltage, frequency and power factor	
at 110 % continuous rated output	98.42%
at 100 % continuous rated output	98.40%
at 85 % continuous rated output	98.27%
at 75 % continuous rated output	98.14%
Weighted average efficiency	98.35%

5 Temperatures

Stator winding, measured by RTD	70 °C
Field winding, measured by resistance	80 °C
Thrust bearing pad, measured by embedded temperature detector	80 °C
Guide bearing segments, measured by embedded temperature detector	80 °C
Stator winding insulation	F class
Field winding insulation	F class

6 Electrical characteristics

Generator short-circuit ratio	1.02 pu
Generator synchronous reactance	
direct axis(xd)	1.10 pu
quadrature axis(xq)	0.7 pu
Generator transient reactance:	
direct axis(x'd)	0.28 pu
Generator subtransient reactance:	
direct axis(x''d)	0.2086 pu
quadrature axis(x''q)	0.278 pu
Ratio of X''q to X''d	1.33
Steady state current under short circuit	4.66 KA
Initial transient current	8768 A
Initial sub-transient current	1470 A
Telephone harmonic factor as specified in IEC-34	Less than or equal to 1.5 %

Generator negative phase sequence reactance X2	0.24 pu
Generator zero phase sequence reactance X0	0.10 pu
Ratings of field winding at nominal operating conditions of generator	
Field current	740 A
Field voltage	89 Vdc
Max. permissible continuous field current	1545 Adc
Resistances:	
Stator winding per phase at 20 deg C	0.0024 ohm
Rotor winding at 20 deg C	0.090 ohm
Negative-sequence R_2	0.072 pu

7 **Generator time constants**

Direct axis, open circuit transient time constant (T'do)	10 sec
Direct axis, short-circuit transient time constant (Ta)	0.4 sec
Direct axis transient short circuit T'd	2 sec
Direct axis sub-transient short circuit T''d	0.1 sec

8 **Weights**

Load from generator rotating parts	2041000 N
Load from turbine rotating parts	327000 N
Hydraulic load	1442000 N
Weight of heaviest assembly or part of the generator lifted by the crane	182 T(rotor)
Weight and name of heaviest part or assembly of the generator for transport	Stator Sector(38.6 T)
Weight of rotor complete	182000 Kg
Weight of the spider	9600 kgs.
Weight of upper shaft	4580 Kg
Weight of lower shaft	14165 Kg
Weight of Generator rotating parts including shafts	200745 Kg

9 Stator Winding Details

No of slot in the stator	216
No. of conductors per slot	2
Type of winding	Lap winding(multi-turn)diamond coil
No of pole	18
No of slots per pole per phase	4
Winding pitch	1-11
Average length of one coil	6434 mm
Nos of parallel path	2
Insulation	MICAREX
Recommended minimum value of Polarisation index	2

10 Stator

No. of stator segments	3
Weight of stator core with frame	116000 kgs
Laminated core weight	85100 kgs
Slot dimension	26.5 x152 mm
No. of segments along circumference	18
No. of slots per segment	12
Total no. of slots	216 slots

11 Stator Air Coolers

Manufacturer	Coiltech
No. of coolers per machine	6 nos
Cooling capacity	290 at rated load/319 kw at O/L
Flow rate of water	23 m ³ /hr for rated and O/L
Inlet water temprature	27° C
Outlet water temperature	37.9 °C at rated load & 39 °C at Overload
Inlet air temperature	62.9 °C at rated,67 C at O/L
Outlet air temperature	40 °C at rated,41.4 C at O/L
Volume flow rate of cooling air	70 m ³ /sec.
Pressure drop water side	24 Kpa
Max. working water pressure	800 Kpa
Test pressure(water)	1000 Kpa
Material of tube	Cu:Ni (90 :10)
Material of tube fins	Al
Material of water chamber	Galv. Steel

12 Rotor

Type of rotor	Laminated floating rim
OD of rotor	5136 mm
Class of insulation of field winding	F-class (Nomex impregnated with epoxy resin)
Diameter of collector ring	1400mm
Type of collector ring brushes	Solid radial
Material of brushes	Grade EG OR
No. of brushes on collector ring	52 nos. (26-upper & 26- lower)
Minimum Current density in a brush	8 A/cm ²
No. of poles	18 poles
No. of turns per pole	35.5 turns
Recommended minimum value for insulation	1 Mega ohms.
Weight of complete rotor	182000 kgs
Fly wheel effect of rotor	784000 Kg m ²

13 Dimensions

Diameter of stator frame	6400 mm
Generator stator bore, diameter	5200 mm
Generator effective core length	1800 mm
Diameter of rotor	5136 mm
No. of coupling holes	16
Type of coupling holes	Circular
Air gap between rotor and stator	32 mm
Material of shaft	Steel Forged
Diameter outside(Nominal)	600 mm
Length of upper shaft	2570+/-3mm
Length of lower shaft	4015+/-3 mm
Dia of coupling flange	1355 mm
Number of sections into which the generator stator is divided (for transportation)	3

						Supplementary doc. kind	Identity	Item
						Assembly Drawing	XD 336 010-CGA	901
						Technical Provisions	4420 4744-X	902
						Inspection and Test Plan	XD 304 361-CGA	903
Item	Qty	Des	Art.no	Type	Date	Name	Open document	Rem
1	1		XD 334 002-CGA			Generatorlock		
2	12		XD 336 069-CGA			Generator cover		
3	12		1051 701-919			Förankringskena		
4	6		1051 701-920			Anchor bar		
501	6					Plugg		
502	NI		1234 0016-614	1 3401-614	20 liter	Plug		
503	90					Plug		
504	50					Plug		
505	12		1324 1010-372	2 1312-00	50X15;L=200	T-list		1)
506	12		1324 1010-372	2 1312-00	50X15;L=185	T-moulding		2)
507	12		1324 1070-146	2 1312-00	15X3;L=200	Gumilin		3)
508	12		2159 080-A			Rubber adhesive		4)
						Cellplast		
						Cellular plastic		
						Perforerad plåt		
						Perforated plate		
						Plattstång av stål		
						Flat bar of steel		
						Plattstång av stål		
						Flat bar of steel		
						Plattstång av stål		
						Flat bar of steel		
						Fällning		
						Spacer wedges		
						Sammansättningsritning	XD 336 010-CGA	

Cut from XD 300 100-CGA
 § 1-13 (1),
 Type des. GOS 3660 CV
 Trade name URI H.E.P.
 Customer NHPC, INDIA

Orderbunden detaljlista	Reserved for customer
Generatorlock komplett	=GX-A02.36
Generator cover complete	Issued

Lang Sheet

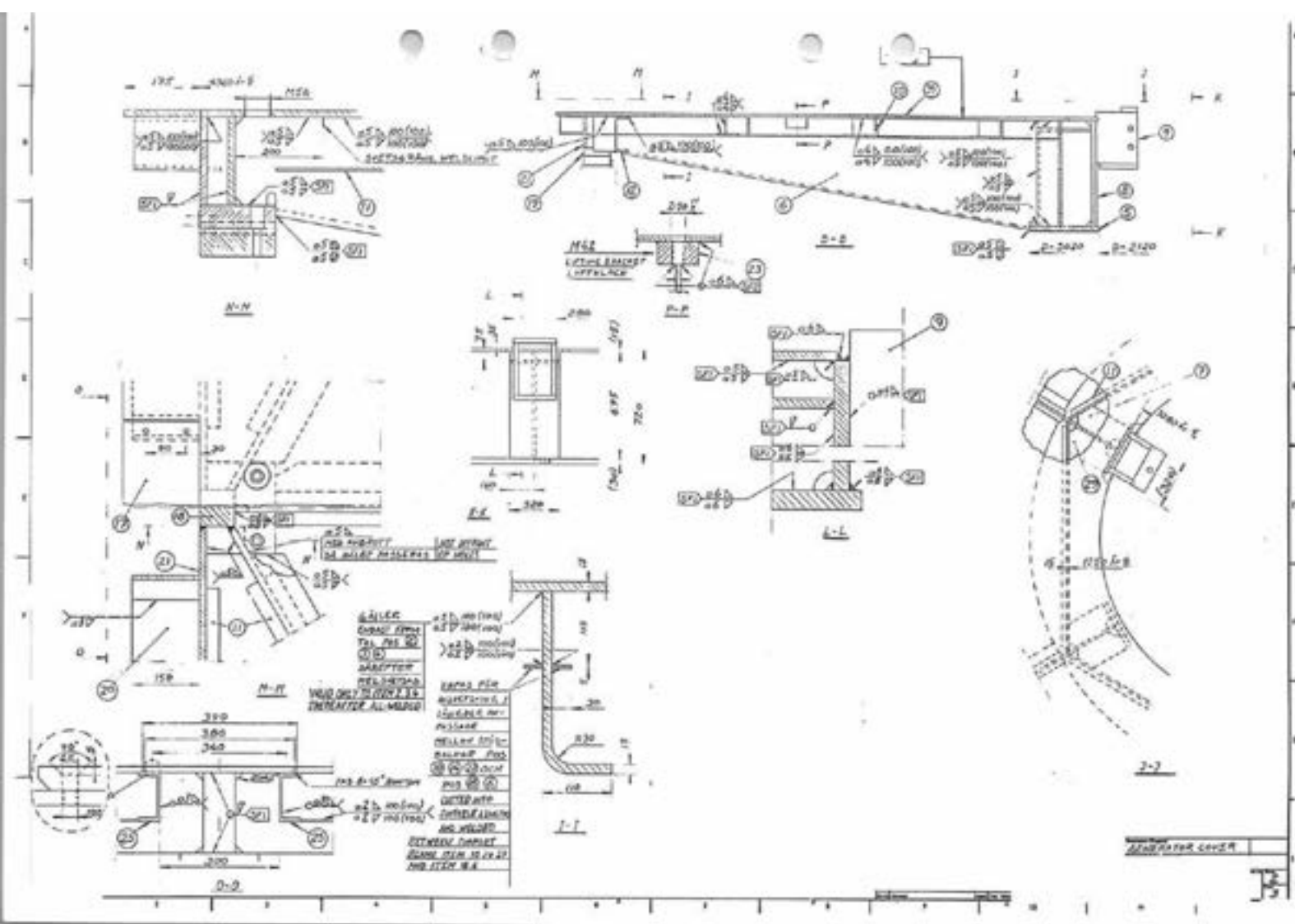
1) Suppl./Lev. Trelleborg gummifabriks AB.
Art.nr. 1456000. (Svart T-list av SPR-gummi.
B=100,T=70,L=6000)

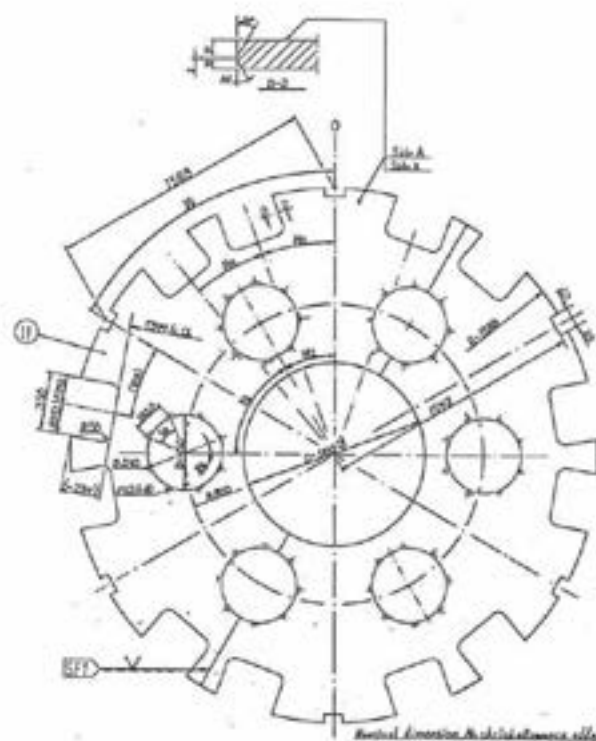
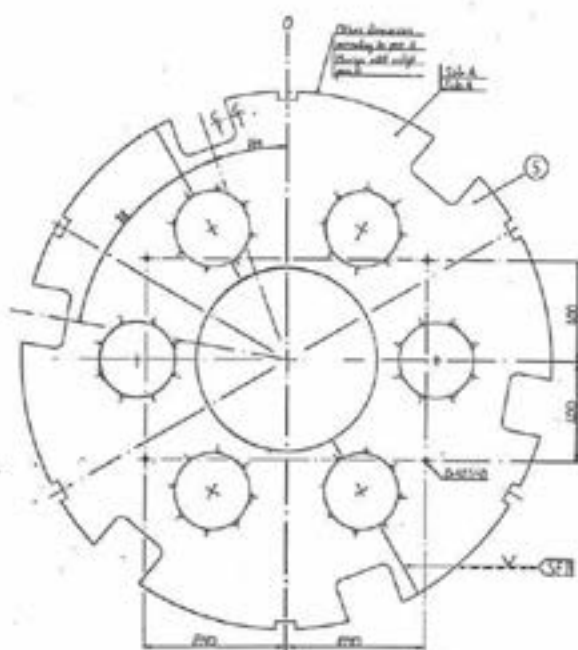
2) Material is listed in XO 300 553-COA
Material är beordrad på XO 300 553-COA
Bonding acc. to 2094 0101-6
Metodbest. för limning enl. 2094 0101-6

3) Suppl./Lev. Neste, Norrtälje.
Art.nr. ST1-120060100

4) Suppl./Lev. Tibner
Art.nr. 63606

Reserved for customer		
=GK-A02.36		
Issued	Lang	Sheet
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L 9869.1007	Rev ind	Cont
XO 336 000-COA	1	-



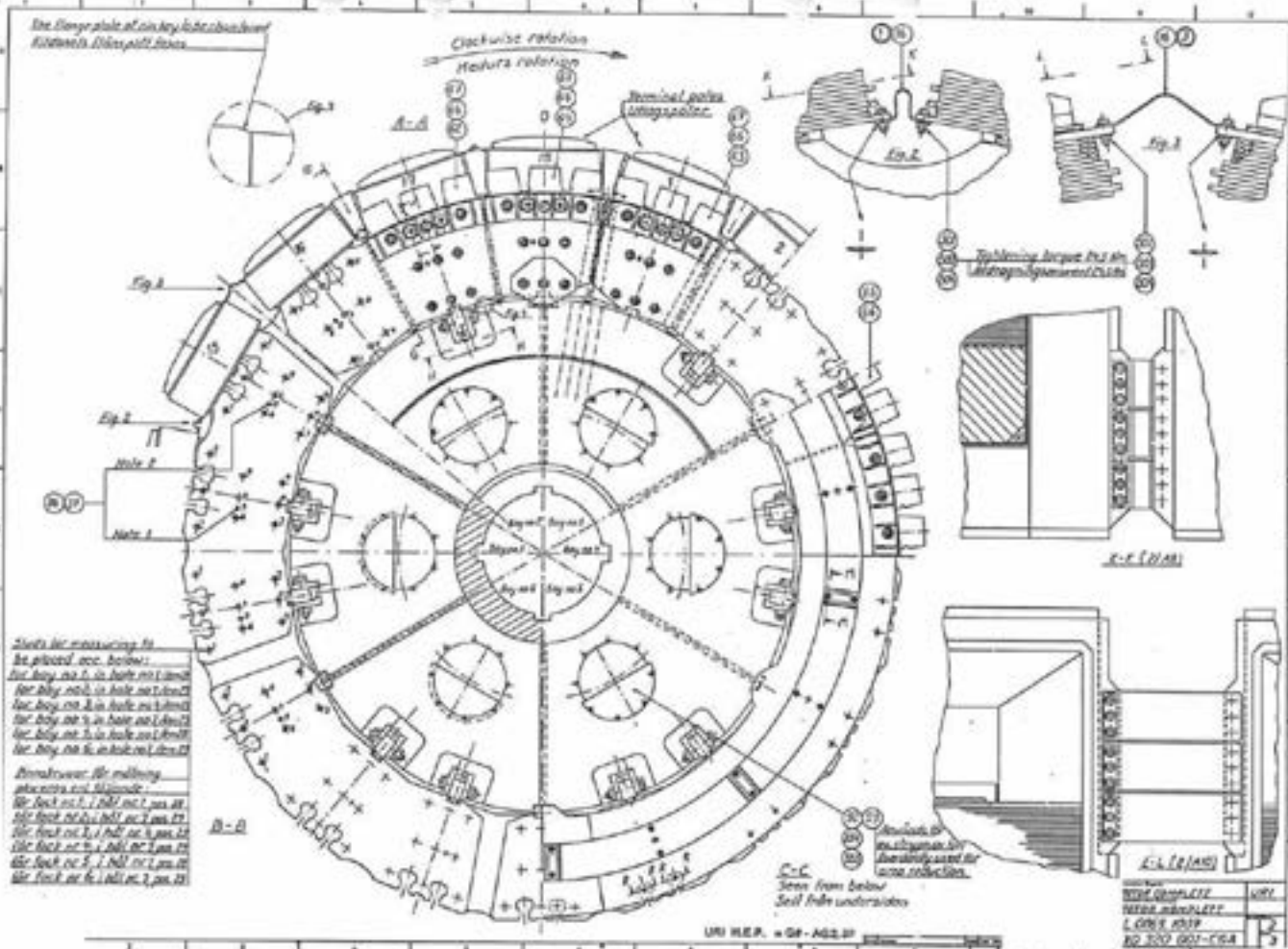


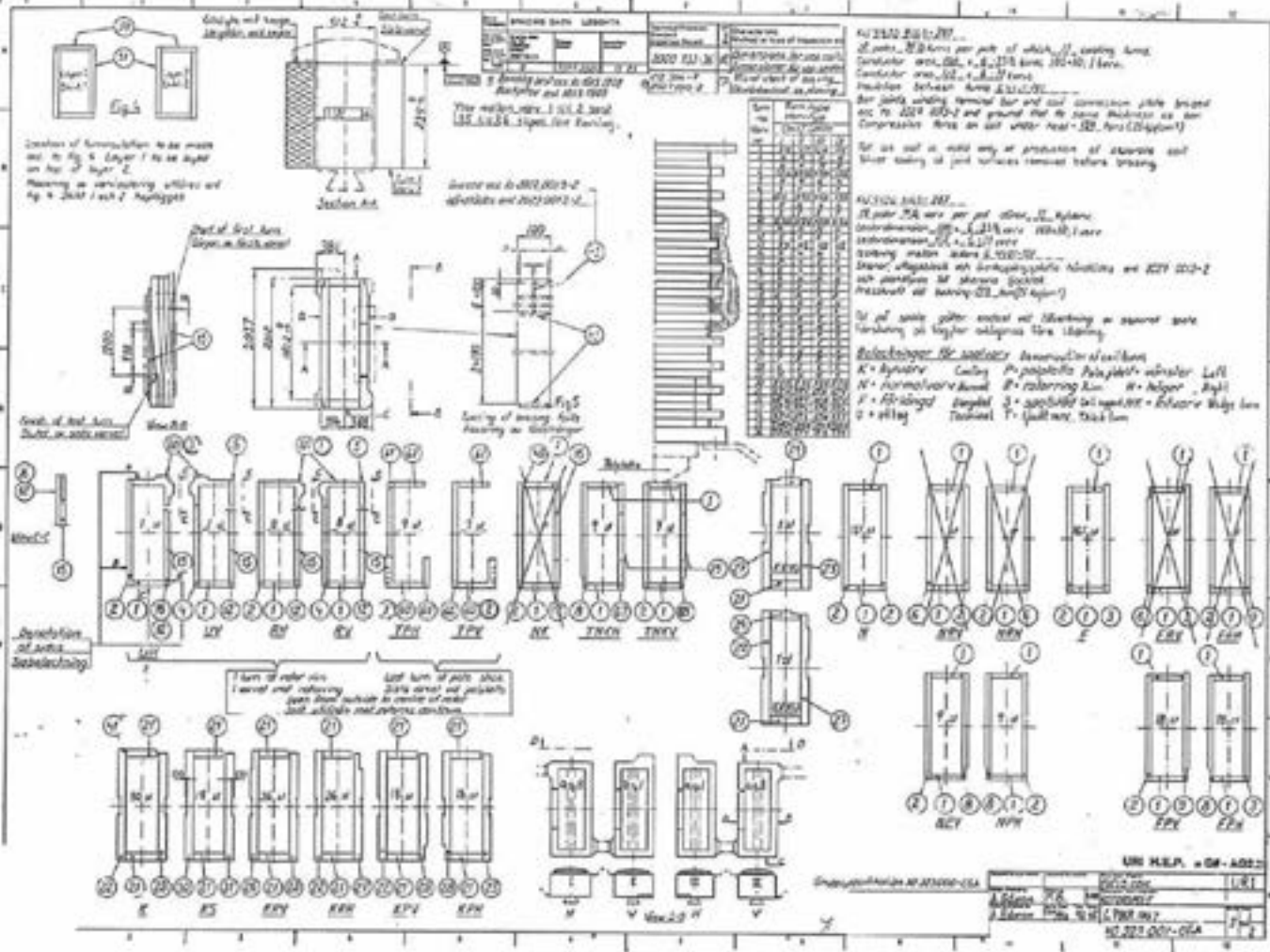
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 New title added. Symbols for parts added.

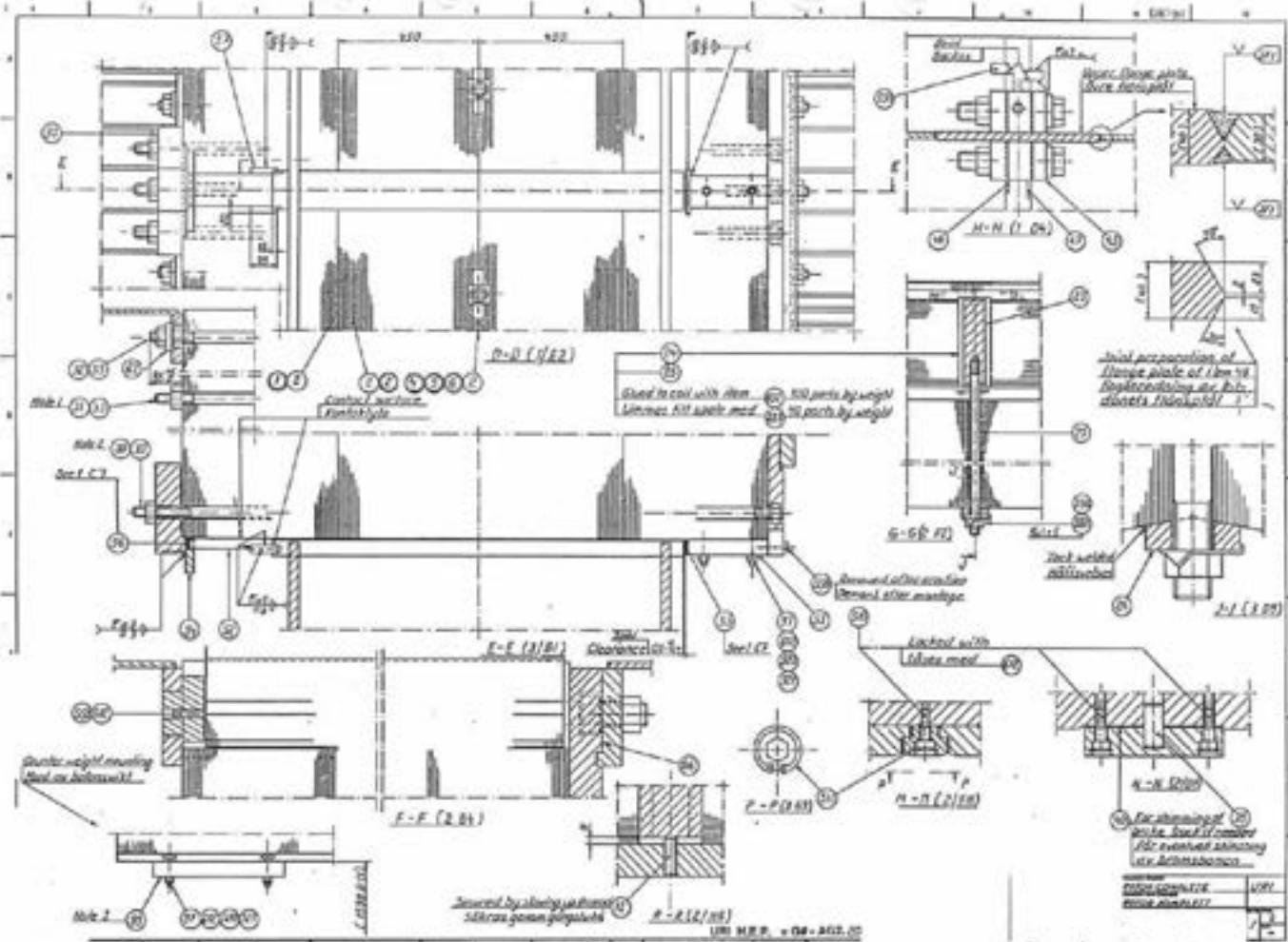
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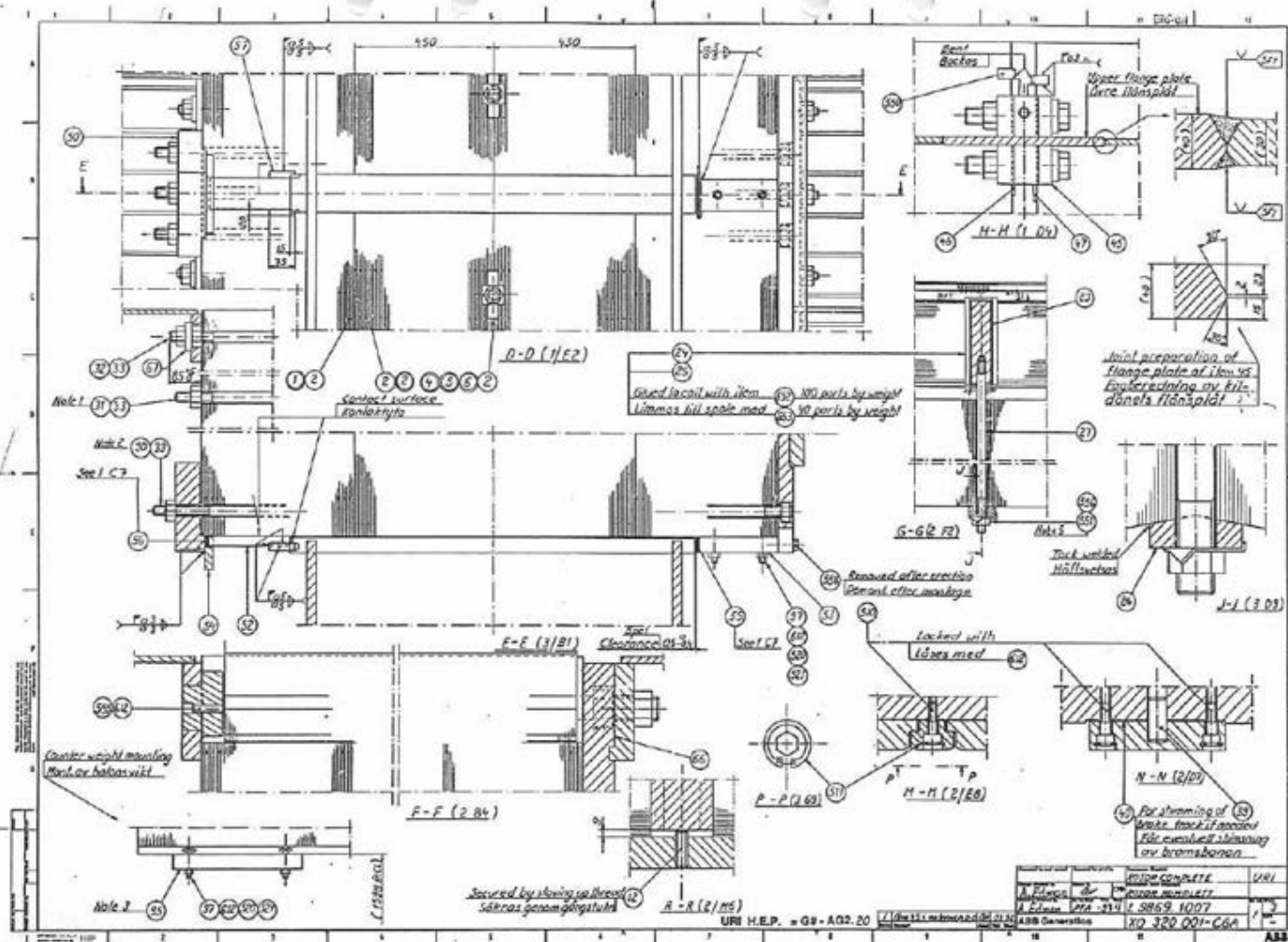
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1991
 1/11

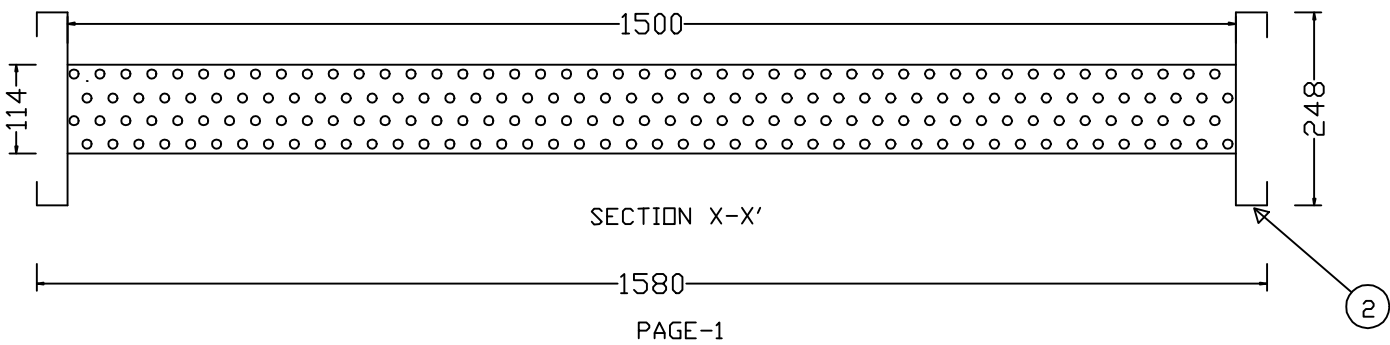
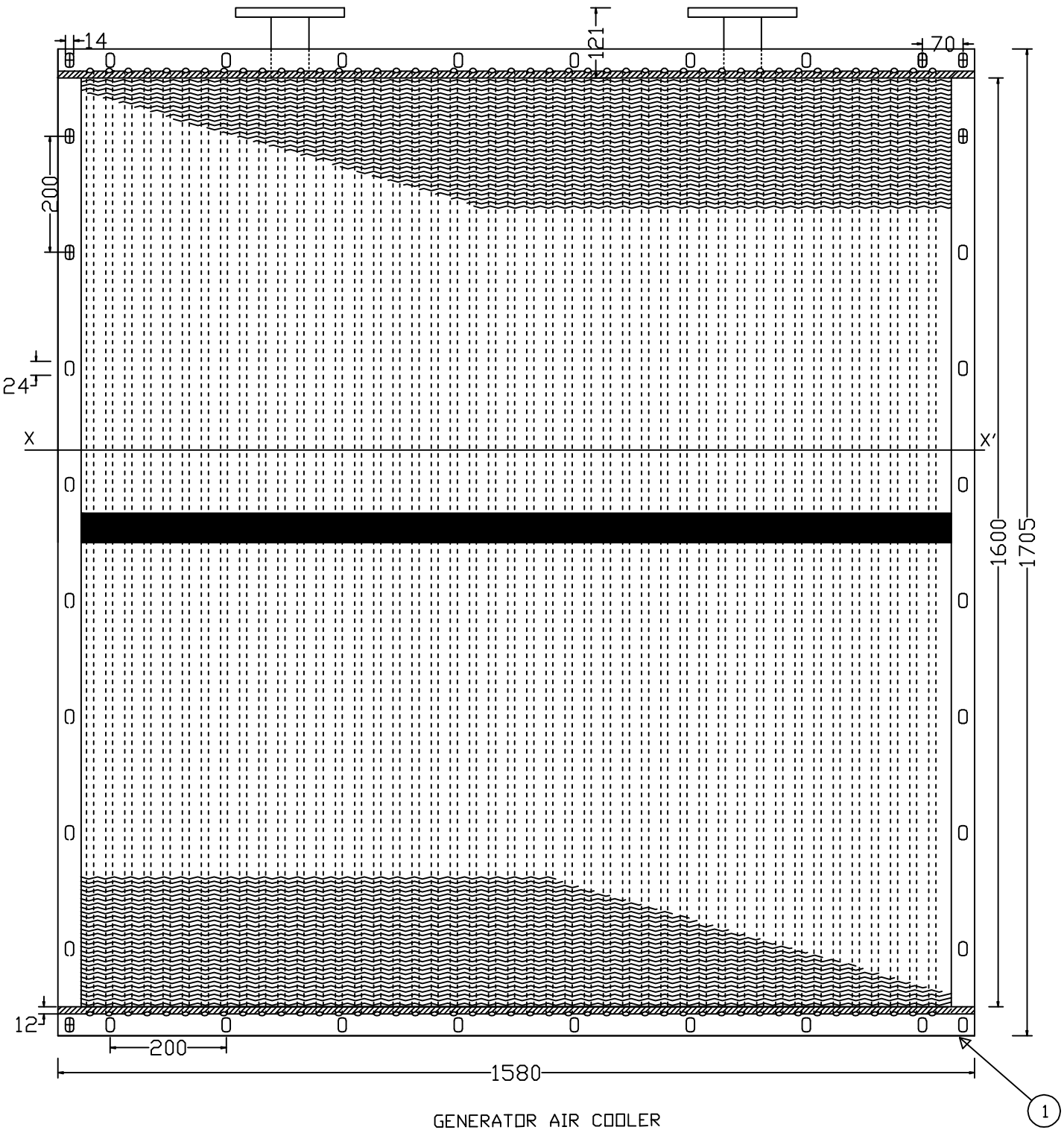


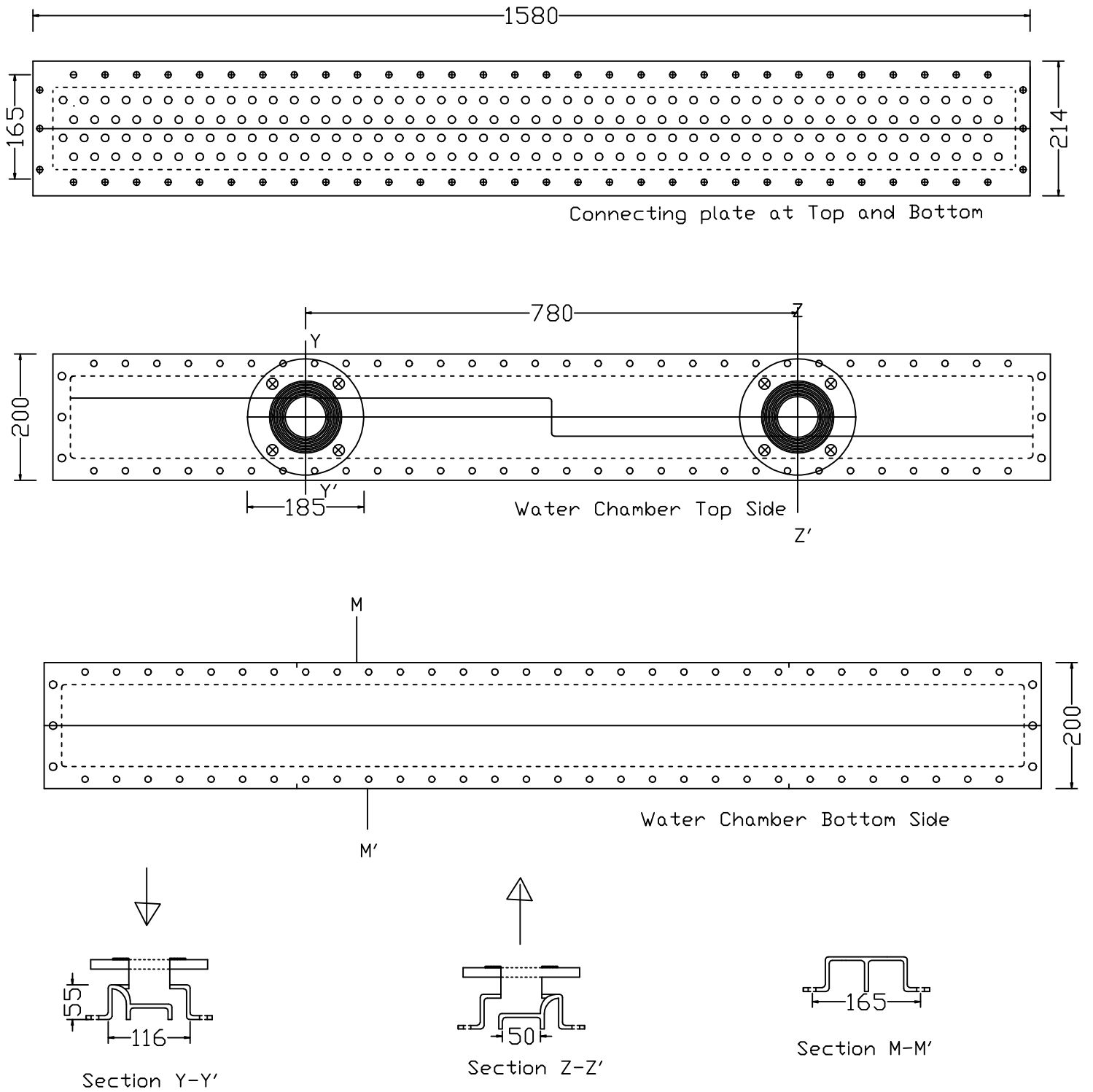






TECHNICAL PARTICULARS OF STATOR AIR COOLER			
Type QLKD-160-150-4-1-4-21-1-3			
Sl.No	Parameters	At Rated Load	At Over Load
1	Cooling Capacity	290KW	319 kW
2	Liquid flow through Cooling Tubes	Fresh Water	
3	Flow rate of water	23 m ³ /hr	23 m ³ /hr
4	Inlet Air Temp	62.9 °C	67°C
5	Outlet Air Temp	40 °C	41.4C
6	Inlet Water Temp	27 °C	27 °C
7	Outlet Water Temp	37.9 °C	39 °C
8	Pressure drop in water side	24 Kpa	
9	Pressure drop in air side	310 Kpa	
10	Max.Working Pressure water side	800 Kpa	
11	Test Pressure water side	1000 Kpa	
12	Contamination Factor	10%	
13	Assembly	Vertical	
14	Dimension	As per drawing	
15	Tubes Details		
a	Material	Cu Ni/90-10(Seamless)	
b	Diameter of pipes	12 mm	
c	Thickness	≥1mm	
d	No of Water Pass	4(four)	
e	Total nos of tubes	45X4=180	
16	Fin Details		
a	Material	Copper	
b	Shape	Wave	
c	Thickness	0.1 mm	
d	Diamension of fin	1500mmX114mm	
e	Fin tightness	15 fin per inches	
17	Water chamber		
a	Material	Gavanised steel	
b	Dimension	As per Drawing	
c	Connection	DN65	
18	Other Accesaries		
	Item Description	Materials	Quantity
a	Connection Plate (Tube Plate)	Cupper	2 Nos
b	Item no 2 of drawing	Galvanised steel of Thickness 2mm	2 Nos
c	53X53mm angle drilled on both face as per Item no-1 of Drawing	Galvanised steel of Thickness 3mm	4 Nos
d	Allen key bolt 12mmX50mm	Galvanised steel	66X2=132 nos
e	Drain plug/Vent plug	As per manufacturer Standard	2X2=4 nos
F	Lifting Arrangement	Robust Lifting arrangement to carry Cooler Load with D-Cycle	
G	Gasket	Nitrile Rubber	



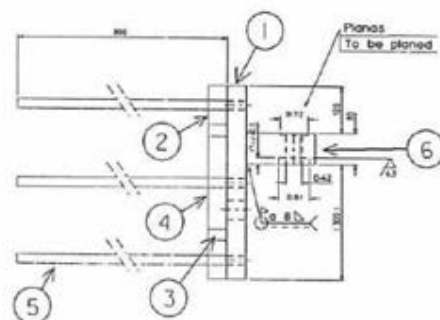
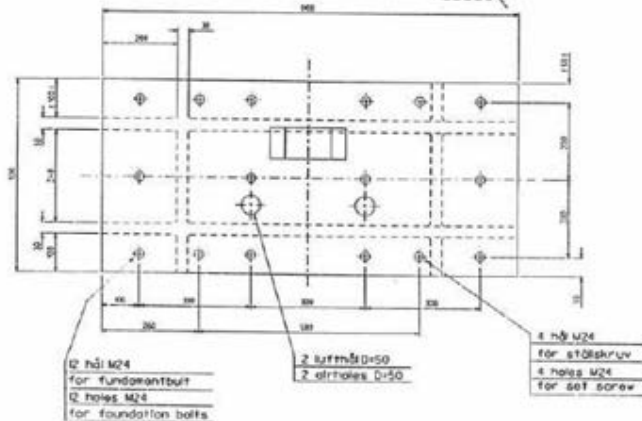
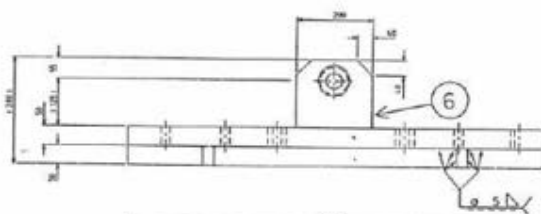


Detalj 6, passas och svetsas mot plattan efter ingjutning
 Detail 6, to be fitted and welded to plate after refilling

Name of item	Quantity	Item no.	Location	Description	Material	Material type	Name of item	Weight
plate	1	1		134 859-835	1x50x500x100	2 132-00	platta	
bar	4	2		1324 800-308	50x30 x L=1000	2 132-00	stäng	
bar	2	3		1324 800-308	50x30 x L=1000	2 132-00	stäng	
bar	2	4		1324 800-308	50x30 x L=1000	2 132-00	stäng	
found. bolt	12	5		4264 231-5	M24 L=850		fundament bolt	
base	1	6		134 859-535	1x80 x 200x200	2 132-00	klack	
set screw	4	7		202632-2	M 24 x L=200		stiftskruva	

Nettovikt
 Net weight 320 kg

Målas ej
 Not to be painted



URI H.E.P. = G# - AG2. 61

Description (English)
 SOLE PLATE FOR BRACKET
 Description (svenska)
 GRUNDPLATTA FÖR ARMKORS

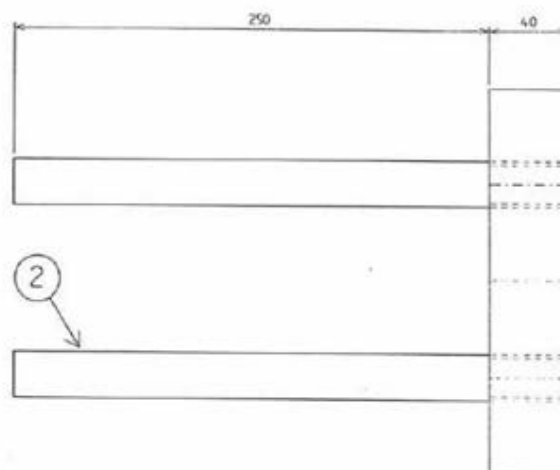
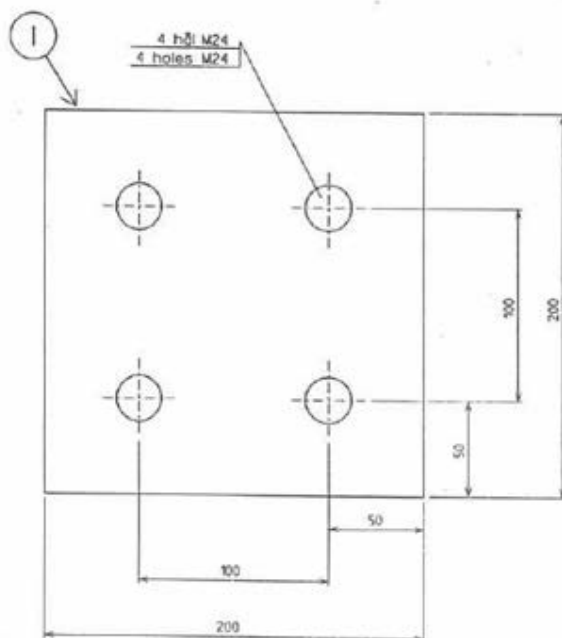
4264 231-P

No. of sheets
 1
 of
 1

Name of Item	Quantity	Item No.	Location	Designation	Dimensions	Material type	Name of Item	Weight
plate	1	1		1314 859-834	T=40; 200x200	2 1312-00	platta	
foundation bolt	4	2		4264 235-10	M24 ±L=290		fundament bolt	

Nettovikt
Net weight 17 kg

Målas ej
Not to be painted



URI H.E.P. = G# - AG2. 61

description English	
SOLE PLATE	
description from language	
GRUNDFLATTA	
4264 232-Y	Rev. 1
	date

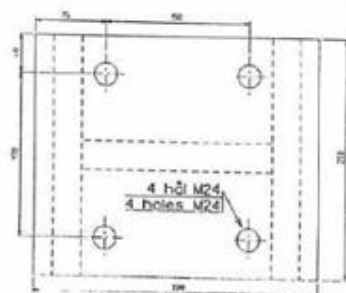
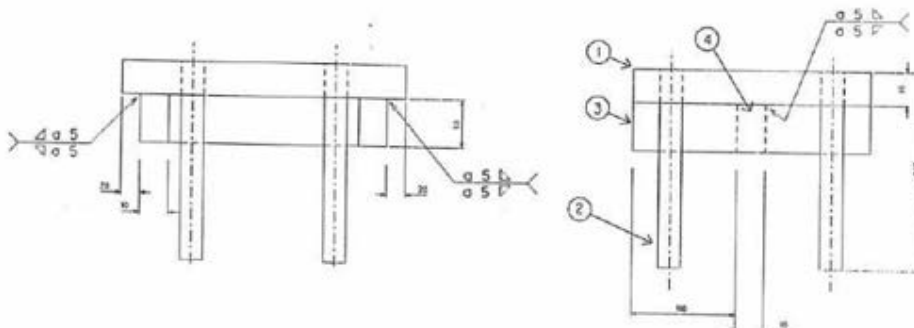
Rev. 1	Rev. 1	Appr. Year	Week
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A

Item No.	Quantity	Item No.	Location	Designation	Dimensions	Material type	Name of Item	Weight
plate	1	1		1314 869-833	T=35; 250x300	2 1312-00	platta	
foundation bolt	4	2		4264 235-8	M24 L=205		fundament bolt	
flat bar	2	3		1324 1010-381	50x30 L=250	2 1312-00	platta	
flat bar	1	4		1324 1010-381	50x30 L=200	2 1312-00	platta	

Nettovikt
Net weight: 33 kg
Målas ej
Not to be painted

SVETSDATA WELDING DATA			
Welding class for steel	Electrode group	Electrode group	Welding position
Welding class for Cu and Al	Electrode group		
WC	2	Filler metal Tilbehørsmetall	Inspection Kontroll

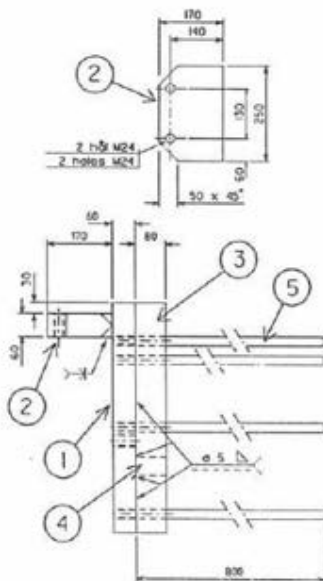


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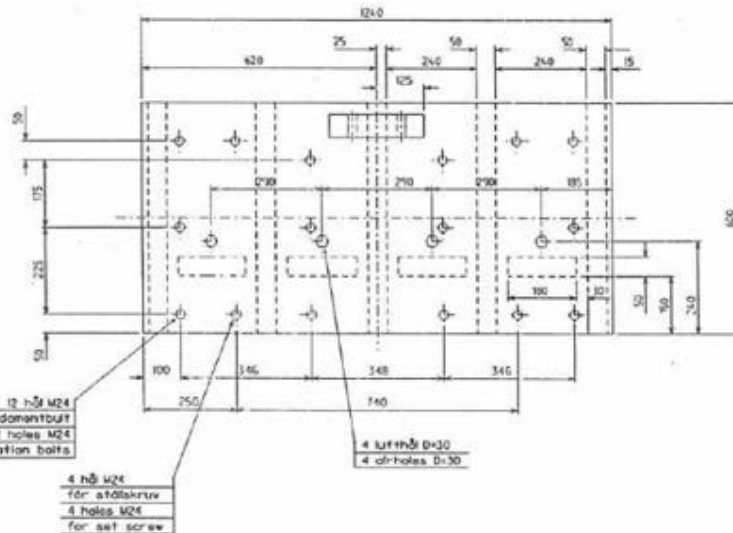
Description English		No. 101	Sheet 1
SOLE PLATE			
Description svensk		No. 101	Sheet 1
GRUNDPLATTA			
4264 267-D		No. 101	Sheet 1

1	2	3	4	5
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Note of item	Quantity	Item No	Location	Designation	Dimensions	Material, type	Name of item	Weight
plate	1	1	A2	1314 169-694	T=60; 600 x 1240	2 1312-00	platta	
base	1	2	A1, A2	1314 169-694	T=60; 170 x 250	2 1312-00	klack	
bar	5	3	A3	1324 1010-539	80 x 50 ± L=600	2 1311-00	skena	
bar	4	4	A3	1324 1010-539	80 x 50 ± L=80	2 1311-00	skena	
found. bolt	12	5	B2	4264 235-5			fundament bolt	
set screw	4	6		2121 0321-2	M 24 ± L=200		stiftskruv	



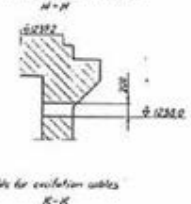
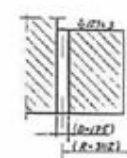
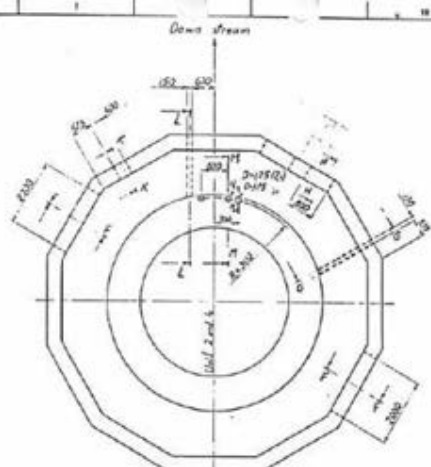
Nettovikt
Net weight 490 kg
Målas ej
Not to be painted



URI H.E.P. = G# - AG2. 61

Description English
SOLE PLATE FOR STATOR

Sheet
1
of 1



DISPOSITION: RELEASED

Item	Qty	Des	Art.no	Type	Data	Name	Open document	Rem
27	8		1373 1010-151	2 1312-00	UNP120 120X55;L=609	U-stång av stål Steel channels		
28	1		1853 9190-701		6 9201-802X50X3;L=53m	Täjp, tätningsslist Sealing strip		
29	6		1314 1169-679	2 1312-00	T=15	Plåt av stål Sheet of steel		
30	2		1373 1010-151	2 1312-00	UNP120 120X55;L=1200	U-stång av stål Steel channels		
31	8		1324 1010-655	2 1312-00	120X6;L=547	Plattstång av stål Flat bar of steel		
32	4		1324 1010-655	2 1312-00	120X6;L=1168	Plattstång av stål Flat bar of steel		
33	92		2121 2711-495	SKRF	M10X30 FZB	Krysskrav förs Cr. cap. count. h. screw		
34	1		1314 1169-679	2 1312-00	T=15	Plåt av stål Sheet of steel		
35	2		1324 1010-521	2 1312-00	80X12;L=160	Plattstång av stål Flat bar of steel		

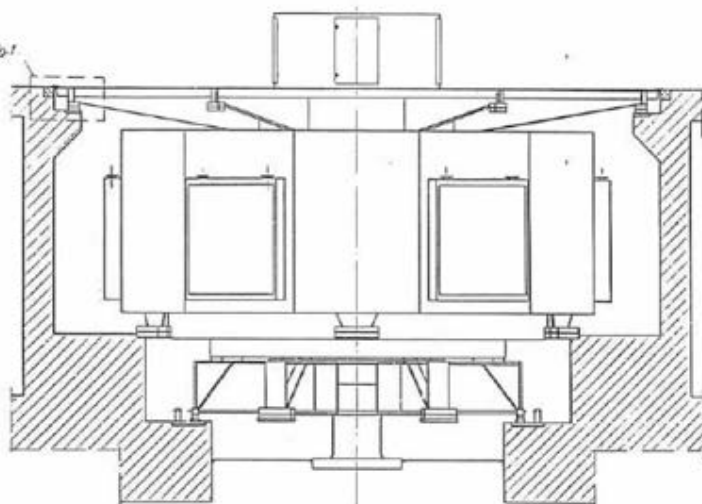
Orderbunden detaljlista
Generatorlock
Generator cover

Reserved for customer
=0X-A02.34

Issued

Leap	Sheet
AV	3
Rev and	Cont

Fig. 1

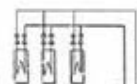


X-X

This screw shall be connected
after final adjustment of
the generator, cover.

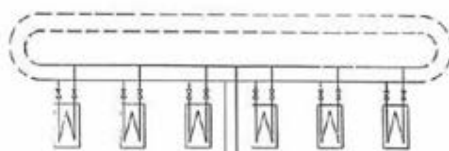


Fig. 2

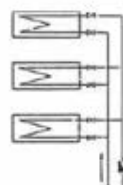


Flow indicator

Oil coolers for upper guide bearing



Air coolers



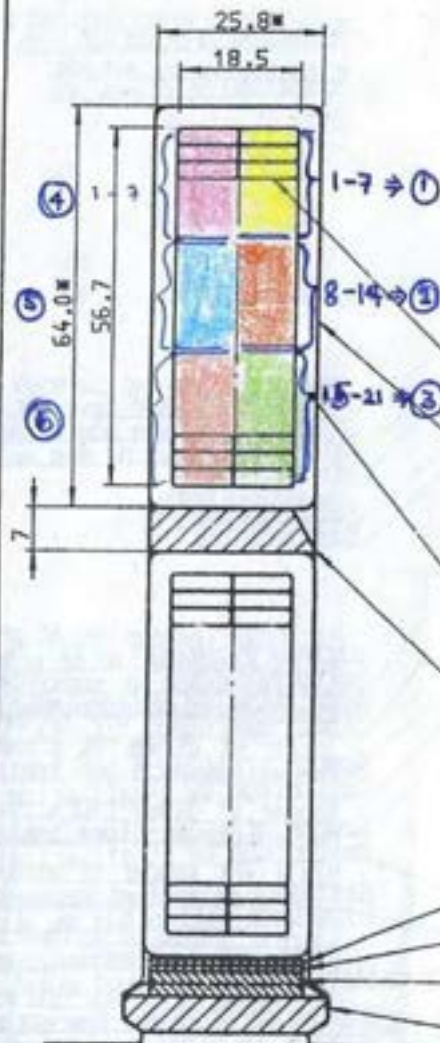
Oil coolers for thrust and guide bearing

URI N.E.P. - G# - AG2.03

REVISION: DRAWING

Conductor: 2 x 21 strands (9.00 x 2.43)

Ledare: 2 x 21 parter (9.00 x 2.43)



* Corona protection included

* Inklusive glimskydd

Conductor strand covered with glass-fibre yarn and epoxy-type resin
Ledarepart isolerad med epoxyhartsimp. glasfiber garn

Roundpacking
Rundpackning

MICAREX[®] insulation of preimpregnated mica tape
Spårisolering av epoxyhartsimpregnerad glasglimmerband, MICAREX[®]

Spacer of glass-fibre laminate
Mellanlägg av glasfiberlaminat

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Resilient spacer of glass-fibre
Fjädrande mellanlägg av glasfiber

Counter wedge of molded glass-fibre
Kontrakil av pressad glasfiber

Slot wedge of glass-fibre laminate
Spårkil av glasfiberlaminat

Customer
NHPC, INDIA

Trade name
URI H.E.P.

in (English)

Cross section of winding

Description (own language)

Snitt av lindning

L 9869.1007

XO 313 340-CGA

Lang	Sheet
1	1
Revind	Cont
1	-

