

CORRIGENDUM-1 Dated: 14.06.2022

NIT NO. KHPS/C&P/2022-23/455 dated 14.06.2022

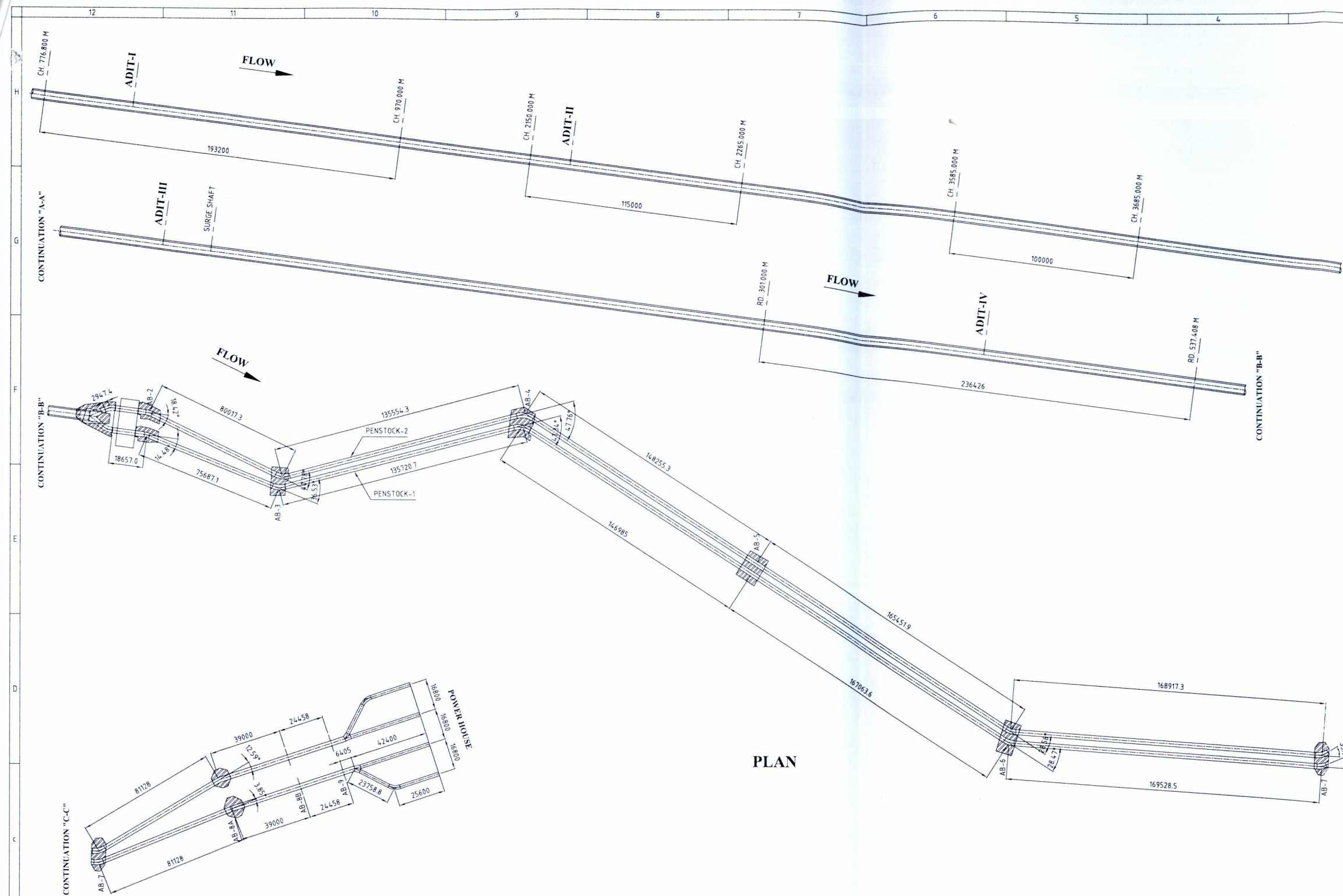
For

SS Cladding of the existing Steel Liner in the HPT and Bifurcations of Umrong Water Conductor System under Reconstruction, Renovation and Modernization of Kopili Hydro Power Station (4X 50 MW), Dist-Dima Hasao Assam

Necessary Drawings are attached herewith as Annexure-I.

All Other terms & conditions of the BID Document of NIT shall remain unchanged.

Sd/-
GM (C), C&P
KHPS, NEEPCO Ltd.
Umrongso, Dima Hasao, , Assam



Material	Base Metal : ASTM-A-537 Cl. 2 + 3 mm SS clad steel
Reference Drg. No.	NEEPCO/KHEP/KOP/19

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS.
2. THE MAXIMUM WIDTH OF THE PLATE CONSIDERED IS 2470 MM.
3. ALL LONGITUDINAL JOINT / CIRCUMFERENTIAL JOINT WELDS SHALL BE FULL DEPTH BUTT WELDS AS PER IS: 2825.
4. LOW HYDROGEN ELECTRODES TO BE USED FOR WELDING AS PER APPROVED WPS.
5. WELDING ELECTRODE SHALL BE USED OF REPUTED MAKE LIKE ESAB, D&H, ADOR.
6. LONGITUDINAL JOINTS BETWEEN ADJACENT FERRULES SHALL BE STAGGERED BY AT LEAST 15°.
7. NON DESTRUCTIVE TESTING:-

I) SHOP WELDING:-

- a) ALL THE SHOP LONGITUDINAL WELDS SHALL BE SUBJECTED TO 100% RADIOGRAPHY.
- b) ALL THE CIRCUMFERENTIAL WELDS SHALL BE SUBJECTED TO 100% SPOT RADIOGRAPHY IN ADDITION TO THIS 100 MM OF CIRCUMFERENTIAL JOINTS ON EITHER SIDE OF LONGITUDINAL JOINT SHALL ALSO BE TESTED RADIOGRAPHICALLY.
- c) ALL THE CIRCUMFERENTIAL WELD OF WHERE EVER NOT SPOT RADIOGRAPHED SHALL BE SUBJECTED TO 100% ULTRASONIC EXAMINATION.

II) FIELD WELDING:-

- a) ALL FIELD WELDS, WHEREVER NOT SPOT RADIOGRAPHED OR SUCH JOINTS WHICH ARE DIFFICULT TO BE RADIOGRAPHED OR IN-ACCESSIBLE TO RADIOGRAPHIC EXAMINATION SHALL BE SUBJECTED TO 100% ULTRASONIC EXAMINATION.
- b) FIELD BUTT JOINTS OF PENSTOCK, MANHOLES, EXPANSION JOINTS ETC., SHALL BE SUBJECTED TO 100% ULTRASONIC EXAMINATION.
- c) ALL THE CIRCUMFERENTIAL WELD OF SURFACE PENSTOCK SHALL BE SUBJECTED TO 100% RADIOGRAPHIC EXAMINATION AS PER FGAP.

8. CORROSION PROTECTION:-

I) OUTER SURFACE OF PENSTOCK,

- a) SURFACE PREPARATION : DRY BLAST CLEAN ACCORDING TO ISO- 8501-1 OR SAND BLASTING (SA 2 1/2 OF SWEDISH STANDARD)
- b) PRIME COAT : 2 X INORGANIC ZINC RICH PRIMER DRY FILM THICKNESS: NOWHERE LESS THAN 0.050 ± 5 MM.
- c) INTERMEDIATE COAT: 1 X SOLVENT LESS EPOXY IT SHOULD BE HIGH SOLIDS +75% DRY FILM THICKNESS: NOWHERE LESS THAN 0.150 MM.
- d) FINISHING COAT : 1 X SOLVENT LESS EPOXY IT SHOULD BE HIGH SOLIDS +75% DRY FILM THICKNESS: NOWHERE LESS THAN 0.150 MM.
- e) TOTAL FINISH COAT NOT LESS THAN 0.350 MM.

9. ALIGNMENT AND TOLERANCE SHALL BE DONE AS PER CL. 6.6 OF IS : 2825.

10. IN THE CASE OF CLADDED STEEL, WELDING BASE METAL IS MADE FIRST AS A RULE, FOLLOWED BY WELDING THE CLADDING MATERIAL.

11. THE SS CLADDED THICKNESS OF 3 MM SHALL BE WELDED WITH SS 309 ELECTRODE.

NORTH EASTERN ELECTRIC POWER CORPORATION	
APPROVAL REF:	DATED: / /
CHECKED	VERIFIED
RECOMMENDED:	APPROVED

FOR TENDER ONLY

2	PRAKASH	Y B REDDY	S.V.S.S.RAJU	28.04.2021	Revised as per the "E-mail" Dt: 14.04.2021
1	PRAKASH	Y B REDDY	S.V.S.S.RAJU	07.04.2021	Revised as per the "E-mail" Dt: 25.02.2021
0	PRAKASH	Y. B. REDDY	S.V.S.S.RAJU	02.02.2021	FIRST SUBMISSION
Rev	By	Chkd	Approved	Date	Description

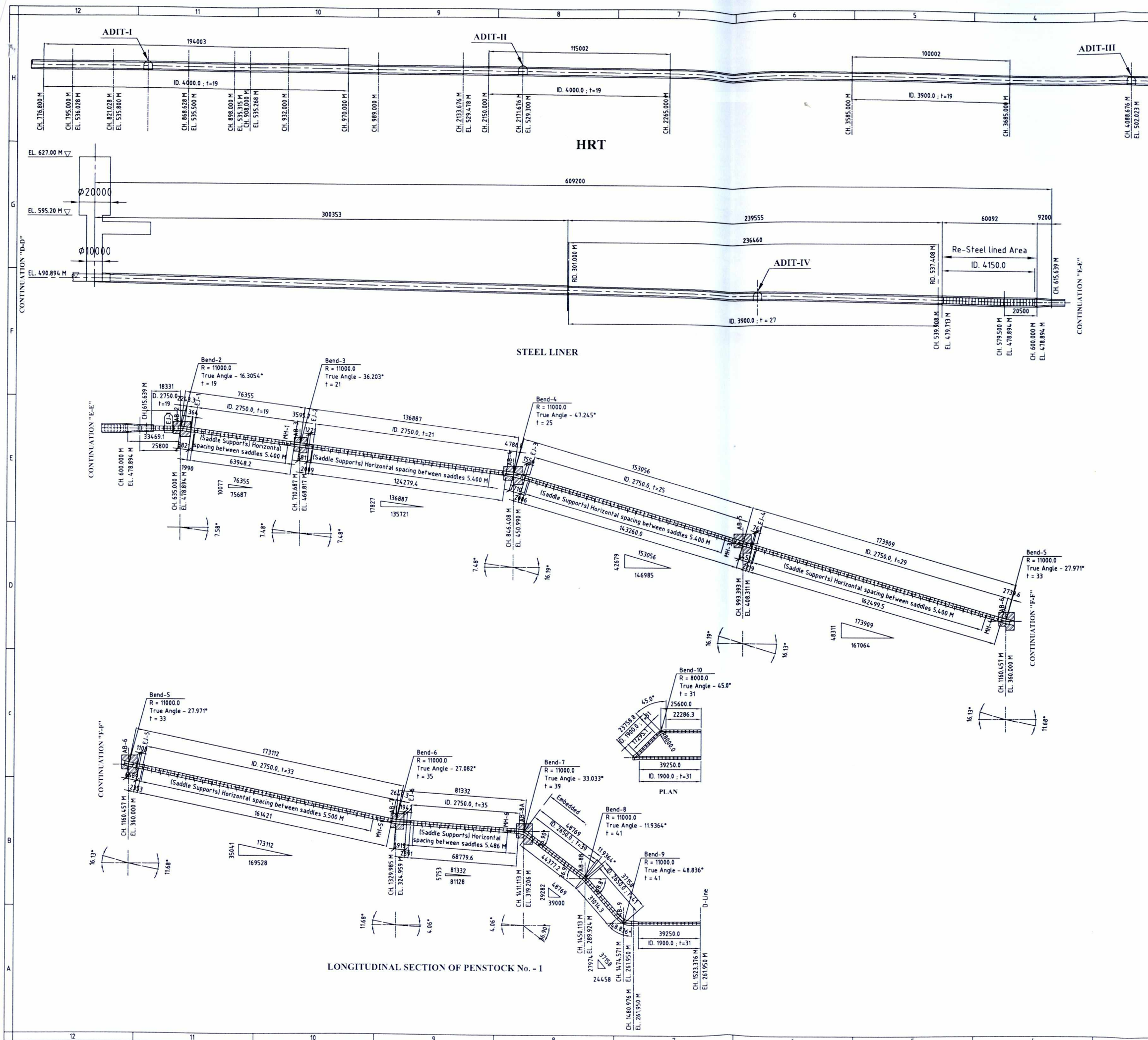
KOPILI HYDRO ELECTRIC PROJECT
(275 MW)
UMRONGSO, DIMA HASAO DISTRICT, ASSAM,
NORTH EASTERN ELECTRIC POWER CORPORATION
(A GOVERNMENT OF INDIA ENTERPRISE)
MINIRATNA, Category-I PSU

PES ENGINEERS PVT LTD.
HYDERBAD

Drawing Title:
**PLAN OF HRT, STEEL LINER AND PENSTOCK
NO - 1 & 2**

Prepared by : K S S PRAKASH	Date: 28.01.2021
Checked by : Y. B. REDDY	Date: 30.01.2021
Approved by : S.V.S.S.RAJU	Date: 02.02.2021
Subcontractor Drawing No. PES-KHEP/225-GA-03	Revision: 2

Drawing Scale : 1:1000 Sh./No. of Sh: 1 of 3



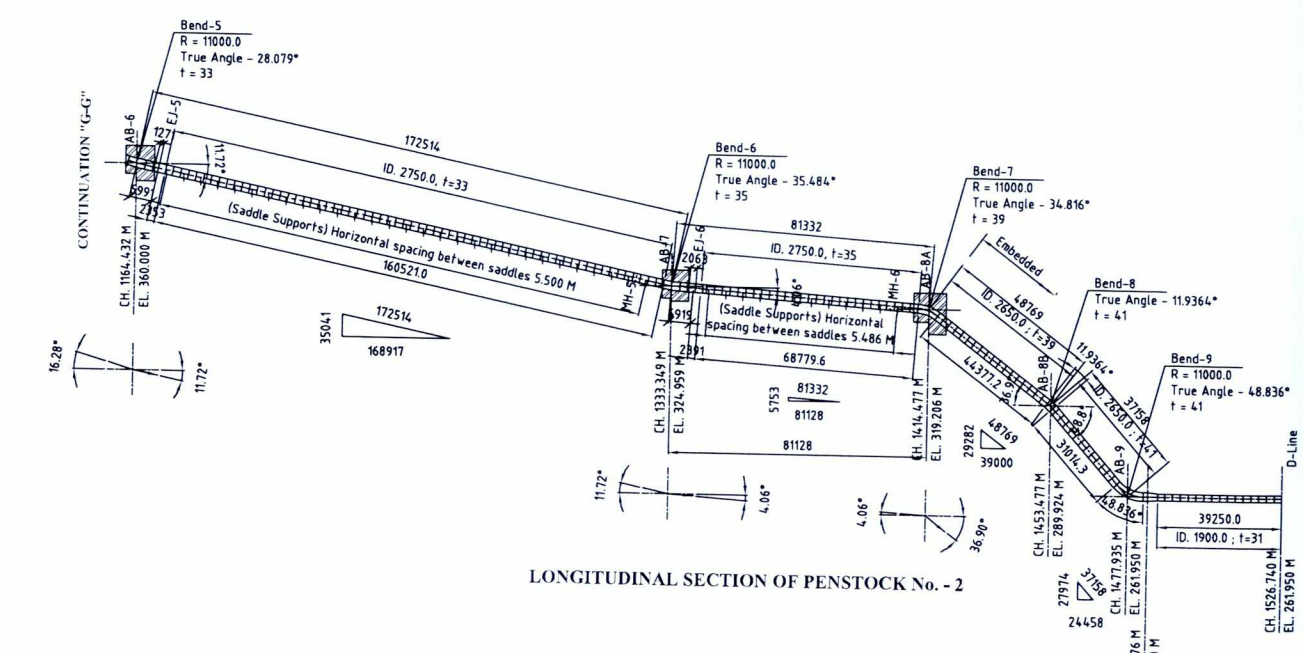
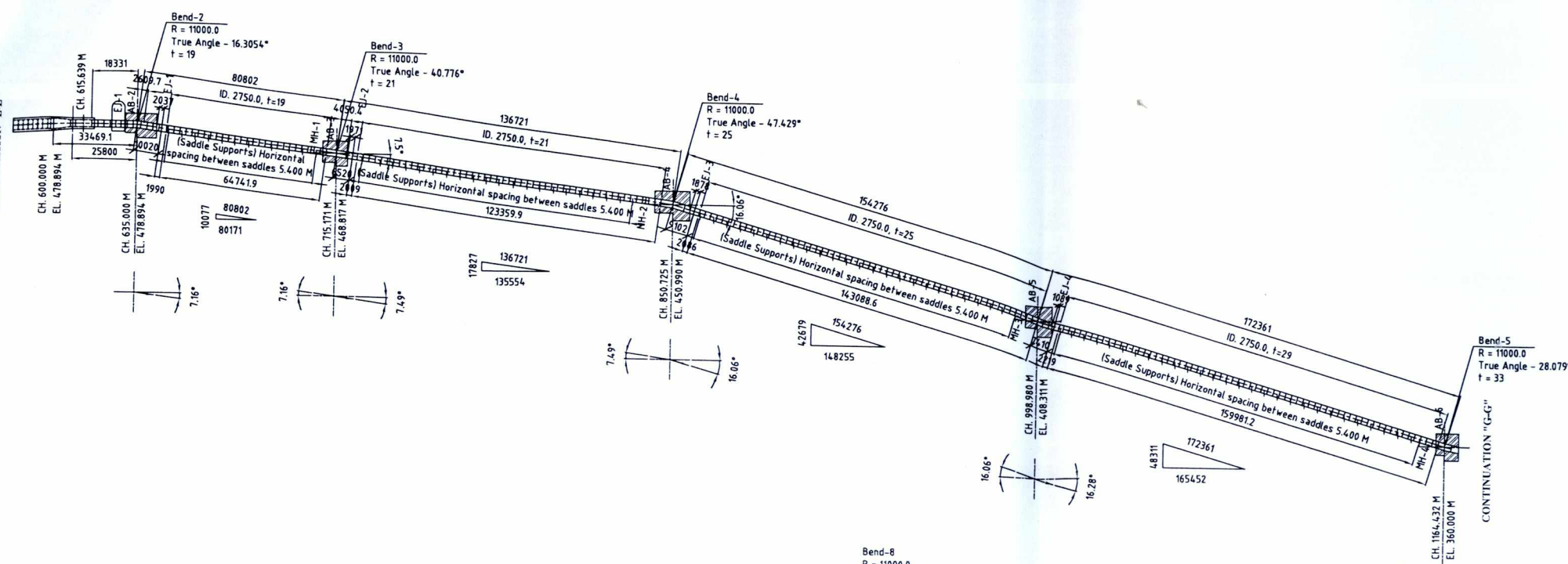
- NOTES:
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 5. WELDING ELECTRODE SHALL BE USED OF REPUTED MAKE LIKE ESAB, D&H, ADOR.
 6. LONGITUDINAL JOINTS BETWEEN ADJACENT FERRULES SHALL BE STAGGERED BY AT LEAST 15'.
 7. NON DESTRUCTIVE TESTING:-
 8. SHOP WELDING:-
 9. ALL THE SHOP LONGITUDINAL WELDS SHALL BE SUBJECTED TO 100% RADIOGRAPHY.
 10. ALL THE CIRCUMFERENTIAL WELDS SHALL BE SUBJECTED TO 10% SPOT RADIOGRAPHY IN ADDITION TO THIS 100 MM OF CIRCUMFERENTIAL JOINTS ON EITHER SIDE OF LONGITUDINAL JOINT SHALL ALSO BE TESTED RADIOGRAPHICALLY.
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 16. CORROSION PROTECTION:-
 17. OUTER SURFACE OF PENSTOCK,
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 19. PRIME COAT: 2 X INORGANIC ZINC RICH PRIMER DRY FILM THICKNESS: NOWHERE LESS THAN 0.050 ± 5 MM.
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 21. FINISHING COAT: 1 X SOLVENT LESS EPOXY IT SHOULD BE HIGH SOLIDS -75% DRY FILM THICKNESS: NOWHERE LESS THAN 0.150 MM.
 22. TOTAL FINISH COAT NOT LESS THAN 0.350 MM.
 23. ALIGNMENT AND TOLERANCE SHALL BE DONE AS PER CL. 6.6 OF IS : 2825.
 24. IN THE CASE OF CLADDED STEEL, WELDING BASE METAL IS MADE FIRST AS A RULE, FOLLOWED BY WELDING THE CLADDING MATERIAL.
 25. THE SS CLADDED THICKNESS OF 3 MM SHALL BE WELDED WITH SS 309 ELECTRODE.

NORTH EASTERN ELECTRIC POWER CORPORATION	
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CHECKED: _____	VERIFIED: _____
RECOMMENDED: _____	APPROVED: _____

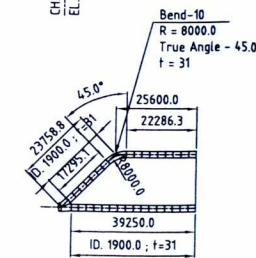
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0	PRAKASH	Y. B. REDDY	S.V.S.S.RAJU	02.02.2021	FIRST SUBMISSION
Rev	By	Chkd	Approved	Date	Description
KOPILI HYDRO ELECTRIC PROJECT (275 MW) UMRONGSO, DIMA HASAO DISTRICT, ASSAM, NORTH EASTERN ELECTRIC POWER CORPORATION (A GOVERNMENT OF INDIA ENTERPRISE) MINIRATNA, Category-I PSU					
PES ENGINEERS PVT LTD. HYDERBAD					
Drawing Title: LONGITUDINAL SECTION OF HRT, STEEL LINER AND PENSTOCK NO - 1					
Prepared by: K S S S PRAKASH				Date: 28.01.2021	
Checked by: Y. B. REDDY				Date: 30.01.2021	
Approved by: S.V.S.S.RAJU				Date: 02.02.2021	
Subcontractor Drawing No. PES-KHEP/225-GA-03				Revision: 2	
Drawing Scale: 1:1000				Sh./No. of Sh: 2 of 3	

Ref. Drg. No.: PES-KHEP/225-GA-01, Sh: 2 of 3
CONTINUATION "E-E"



LONGITUDINAL SECTION OF PENSTOCK No. -2



PLAN

CONTINUATION "A-A"

Material: Base Metal: ASTM-A-537 Cl. 2 + 3 mm SS cladded steel

Reference Drg. No.: NEPCO/KHEP/KOP/19

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NORTH EASTERN ELECTRIC POWER CORPORATION

APPROVAL REF: _____ DATED: _____

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Rev By Chkd Approved Date Description

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NORTH EASTERN ELECTRIC POWER CORPORATION
(A GOVERNMENT OF INDIA ENTERPRISE)
MINIRATNA, Category-I PSU

PES ENGINEERS PVT LTD.
HYDERBAD

Drawing Title:
LONGITUDINAL SECTION OF PENSTOCK NO - 2

Prepared by: K S S PRAKASH	Date: 28.01.2021
Checked by: Y. B. REDDY	Date: 30.01.2021
Approved by: S.V.S.S.RAJU	Date: 02.02.2021
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