

# ANNEXURE -IV

## QUALITY ASSURANCE PLAN (MODEL)

PROJECT : MANGDECHHU HE PROJECT, BHUTAN  
 CLIENT: MANGDECHHU HYDROELECTRIC PROJECT AUTHORITY,  
 NAME OF VENDOR NAME & ADDRESS:  
 EQUIPMENT : GROUNDING SYSTEM NIT/P.O. REFERENCE :

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SI. NO.	ITEM / COMPONENTS	NATURE OF CHECKS	QUANTUM OF CHECKS	REFERENCE DOCUMENTS / ACCEPTANCE NORMS	RECORD FORMAT	INSP. AGENCY		REMARKS
						Perform	Verify	
1	a) Raw Material Rods/Wires Physical Properties	Physical	10% Sample	As per Tech. Specn. / IS: 613: IS: 8130	TC	3/2	1	TC
	b) Chemical Composition & Purity	Chemical	-do-	-do-	TC	3/2	1	TC
	c) Dimension	Measurement	-do-	-do-	TC	3/2	1	TC
2	In Process							
2.1	Wire Drawing and Annealing							
	a) Physical Properties	Physical	100% Spool	As per Tech. Specification / IS: 8130	Log book	3/2	2	RR
	b) Finish & Dimension	Visual & Meas.	A: start & end	-do-	Log book	3/2	2	RR
	c) Per sulphate Test (for Tinned Cond.)	Chemical	1/Type	-do-	Log book	3/2	2	RR
2.2	Stranding of Wires							
	a) Number of Wires	Counting	Sample	As per Tech. Specification / IS: 8130	Log book	3/2	2	RR
	b) Surface finish	Visual	-do-	-do-	Log book	3/2	2	RR
	c) Dimension	Measurement	-do-	-do-	Log book	3/2	2	RR
	d) Resistance	Electrical	100%	-do-	Log book	3/2	2	RR
3	Final Inspection							
	a) Surface finish	Visual	100% Drum	As per Tech. Specification / IS: 8130	TC	3/2	1	TC
	b) Dimension & Length	Measurement	-do-	-do-	TC	3/2	1	TC
	c) Conductor Resistance	Electrical	-do-	-do-	TC	3/2	1	TC

Note: a. In 'Inspection Agency' column figure 1, 2, or 3 to be filled, 1- will indicate 'MHPA', 2- will indicate 'supplier' & 3- will indicate 'sub-supplier'.  
 b. In 'Remarks' column following abbreviations shall be used - RR-Review of Records, T.C. - Test Certificate Submission & CHP - Customer Hold Point.  
 c. Test certificates shall be submitted at the time of final inspection.

Signature  
MHPA ( Client)

Signature  
NHPC ( Consultant)

Signature & Seal  
Vendor

**QUALITY ASSURANCE PLAN (MODEL)**

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						Perform	Verify			
4	Packing on Drums i) Dimension of Members of Drums & Construction ii) Rust Prevention of Hard Ware	Visual Measurement Visual	100% 100% 100%	Tech. Specn. / Relevant IS code As per Tech. Specn. / IS:10418 As per Tech. Specn. / IS:2629, IS:2633	Log book Log book Log book	3/2 3/2 3/2	- - -	2 2 2	RR RR RR	
5	Field Tests i) Physical Verification ii) Continuity Test iii) Measurement of Earthing Resistance of individual loops.	Visual Electrical Electrical	100% 100% 100%	As per Tech. Specn. As per Tech. Specn. / Relevant IS code As per Tech. Specn. / Relevant IS code	JIR JIR JIR	3/2 3/2 3/2	1 1 1	- - -	CHP* CHP* CHP*	* To be witness by MHPA Site Engineer.

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