

Inspection and Test Plan for Insulator

No.	Inspection and Test Plan	Reference Document	Acceptance Criteria	Verifying Document	Activity By			Remark
					Manuf.	TPI	Client	
1	Pre-Inspection Meeting	Spec.	Spec.	MOM	H	H	H	-
Before Manufacturing								
2	DWG, Design, Calculation Document	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	DWG, Calculation book	H	R	A	-
3	Insulator Dry Lighting Impulse Withstand Voltage Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
4	Insulator Wet Switching Impulse Withstand Voltage Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
5	Insulator Wet Power Frequency Withstand Voltage Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
6	Insulator Verification of the Locking System Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
7	Insulator Verification of Dimension Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
8	Insulator Temperature Cycle Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	

9	Insulator Electromechanical Failing Load Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
10	Insulator Mechanical Failing Load Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
11	Insulator Thermal Shock Test	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
12	Insulator Puncture Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
13	Insulator Porosity Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
14	Insulator Galvanizing Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
Materials								
15	Raw Material Inspection	ASTM	ASTM	Original Material Certificates	H	H	-	-
16	Review of Certificates	ASTM	ASTM	Certificates	H	H	-	-
17	Material Identification	ASTM	ASTM	Report	H	H	-	
During Fabrication								

18	Fabrication Inspection	DWG	DWG	Report	H	SW	-	
19	Checking of Outline and Interface Dimension	DWG	DWG	Report	H	SW	-	
20	Insulator Dry Lighting Impulse Withstand Voltage Test Procedure	Procedure	Procedure	Report	H	H	-	
21	Insulator Wet Switching Impulse withstand Voltage Test Procedure	Procedure	Procedure	Report	H	H	-	
22	Insulator Wet Power Frequency Withstand Voltage Test Procedure	Procedure	Procedure	Report	H	H	-	
23	Insulator Verification of the Locking System Procedure	Procedure	Procedure	Report	H	H	-	
24	Insulator Verification of Dimension Procedure	Procedure	Procedure	Report	H	H	-	
25	Insulator Temperature Cycle Test Procedure	Procedure	Procedure	Report	H	H	-	
26	Insulator Electromechanical Failing Load Test Procedure	Procedure	Procedure	Report	H	H	-	
27	Insulator Mechanical Failing Load Test Procedure	Procedure	Procedure	Report	H	H	-	

28	Insulator Thermal Shock Test	Procedure	Procedure	Report	H	H	-	
29	Insulator Puncture Test Procedure	Procedure	Procedure	Report	H	H	-	
30	Insulator Porosity Test Procedure	Procedure	Procedure	Report	H	H	-	
31	Insulator Galvanizing Test Procedure	Procedure	Procedure	Report	H	H	-	
Final Inspection								
32	Final Visual & Dimensional Check	DWG	DWG	Report	H	H	-	-
33	Check of Final Book	-	Spec.	DWG/ P.O	H	R	-	
Documentation								
34	Inspection Reports	Spec./DWG	Spec./DWG	Report	H	R	-	-
35	NCR	Spec./DWG	Spec./DWG	Report	H	R	-	-
36	Review Final Data Report	Spec./DWG	Spec./DWG	Report	H	R	-	-
Packing								
37	Preservation and Packing	Spec.	Spec.	Report	H	H	-	-
38	Marking	Spec.	Spec.	Report	H	H	-	-
39	Loading Inspection	Spec.	Spec.	Report	H	H	-	-
40	Shipping Document Control	Procedure	Spec.	Packing List	H	H	-	-

Abbreviations:

H: Hold Point = Hold on the production till TPI Inspector performs inspection and supervise the required test

W: Witness Point = Manufacture shall notify client and TPI Inspector but there is no hold on the production;
Client can waive this inspection based on his discretion and informs TPI Inspector accordingly.

R: Document Review = Review means Review document, which includes of material test certificates, WPS, PQR, NDT Procedures and etc.

A: Approval

SW: Spot Witness = for items with spot witness manufacture shall notify TPI inspector as fulfilling the monitoring;
For example one random visit for whole UT tests or one or two visits for whole surface preparation works for painting.

MOM: Minute of Meeting

P.O: Purchase Order

for more information review following articles:

<http://www.inspection-for-industry.com/third-party-inspection-for-insulator.html>

<http://www.inspection-for-industry.com/inspection-and-test-plan-for-insulator.html>