

WELDING INSPECTION REPORT FOR PIPING															
Contractor Name										Format No					
Project		Nuclear Power Project								Report No					
Package										Date					
Work Order No										Drg No					
Client		M/s. NPCIL, Kudankulam								Ref. QAP No					
Name of the System						Welding Consumables		CB04X9H11M3/CB-08F2C		Ref. WP No					
Unit		KKNPP-I / II / III / IV						ЭА-400/10Т/ЮНИИ-13/45/55		WPS No					
Weld Joint Category						Argon Purity				QA Category					
Welding Process		GTAW/GTAW+SMAW				Argon Flow Rate				Type of Record					
Sl No	Joint No	Line No	Pipe Size (mm)	Block / Spppl No	IMIR Report No	Welder No	Alignment & Fitup Inspection		Weld Fitup Inspection		Weld Visual Inspection		NDT Inspection		
							L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	DPT Report No	RT Report No	UT Report No
1															
2															
3															
4															
5															
6															
7															
8															
9															
Above Joints are Accepted/Rejected															
L&T (QA)								NPCIL (QA)							

PIPELINE ERECTION / ALIGNMENT REPORT																
Contractor Name										Format No						
Project		Nuclear Power Project								Report No						
Package										Date						
Work Order No										Drg No						
Client		M/s. NPCIL, Kudankulam								Ref. WP No						
Name of the System										Type of Record						
Unit		KKNPP-I / II / III / IV								Material						
Sl No	Line No	Pipe Size			Identification		Quantity		Material Used (CS or SS)	Designation	Pipe Weight (kg)	Valve Weight (kg)	Support No	Elevation		Remarks
		Dia	Thick	Inch Dia	From Joint No	To Joint No	Mtrs / No	Inch Mtr						Required	Actual	
1																
2																
3																
4																
5																
6																
7																
8																
Above Joints are Accepted/Rejected																
L&T (MECH) NPCIL (MECH)																

HYDRO TEST SCHEME													
Contractor Name								Report No					
Project			Nuclear Power Project					Date					
Package								Drg No					
Work Order No								Test Scheme No					
Client			M/s. NPCIL, Kudankulam					Testing Medium					
Name of the System								Unit		KKNPP-I / II / III / IV			
SI No	Circuit No	Colour	Line No	Pipe Size (Dia & Thick)	Pipe Line Designation	Hydro test Pressure (Mpa)	Leak Search Pressure (Mpa)	SRV set Pressure (Mpa)	Holding Time (min)	L&T (MECH)	NPCIL (MECH)	Field Engg NPCIL	Remarks
1													
2													
3													
4													
5													
6													
7													
8													
Above Joints are Accepted/Rejacted													
L&T (MECH) NPCIL (MECH)													

LIST OF WELDED JOINTS WITH WIR											
Contractor							Report No				
Project		Nuclear Power Project					Date				
Package							Drg No				
Work Order No							Name of the System				
Client		M/s. NPCIL, Kudankulam					Unit		KKNPP-I / II / III / IV		
Sl No	Joint No	Line No	Pipe Size			WIR No	RT Inspection		Type of Joint	Sheet No	Remarks
			Dia mm	Thick mm	Inch Dia		XR No	RIR No			
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
L&T (MECH)NPCIL (MECH)											

SUPPORT ERECTION AND WELDING REPORT																																			
Contractor Name																								Format No											
Project				Nuclear Power Project																				Report No											
Package																								Date											
Work Order No																								Drg No											
Client				M/s. NPCIL, Kudankulam																				Ref. QAP No											
Name of the System												Welding Consumables				CB04X9H11M3/CB-								Ref. WP No											
Unit												KKNPP-I / II / III / IV												ЭА-400/10Т/ЮНИИ-13/45/55				QA Category							
Welding Process												GTAW/GTAW+SMAW												Weld Joint Category								Type of Record			
Sl No	Support			Anchor Fasteners					Depreservation		Location, Elevation asper Support Drg.		Application Graphite Powder		Tightness of Turnbuckles in Anger Rods		Status of Spring Hangers		Fitup				Weld Visual			Weld (DPT if Required)		Represe ravatio n		Ref. Piping Supp Fabrication Report					
	System	KKS Code	Weight	Size	Type	Q-Ty	Torque as in catalog	Actual Terque Applied	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	NPCIL (Mech)	L&T (Mech)	L&T (QA)	NPCIL (Mech)	NPCIL (QA)	L&T (Mech)	L&T (QA)	NPCIL (QA)	L&T (QA)	NPCIL (QA)	L&T (Mech)	NPCIL (Mech)						
1																																			
2																																			
3																																			
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			
Above Joints are Accepted/Rejected																																			
L&T (MECH) L&T (QA) NPCIL (MECH) NPCIL (QA)																																			

RADIOGRAPHY INTERPRETATION REPORT										
Contractor Name						Format No				
Project			Nuclear Power Project			Report No				
Package						Date				
Work Order No						Drg No				
Client			M/s. NPCIL, Kudankulam			Ref. WP No				
Name of the System						Type of Record				
WIR No						Weld Category				
Unit			KKNPP-I / II / III / IV			QA Category				
Acceptance Criteria						Flim				
Exposure Time						Sensitivity				
Source to film distance						Density				
Source/ X-ray						Source Size				
Technique of Exposure						Activity				
Material						Focal Size				
SI No	Line No	Joint No	Pipe Size		Welder No	Film No	Joint Segments	Observation	Result	Remarks
			Dia	Thick						
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
Abbreviations:										
LF : Lack of Fusion			S : Slag			B/T : Burn Through				
LP : Lack of Penetration			C: Crack			EP : Excess Penetration				
C/P : Cluster Porosity			P/H : Pin Hole			RC : Root Cancavity				
LEVEL II (NDT AGENCY)			L&T (QC)			NPCIL (QA)				

ULTRASONIC TEST REPORT

Contractor Name		Format No	
Project	Nuclear Power Project	Report No	
Package		Date	
Work Order No		Drg No	
Client	M/s. NPCIL, Kudankulam	Ref. WP No	
Name of the System		Type of Record	
Activity		Weld Category	
Unit	KKNPP-I / II / III / IV	QA Category	

Equipment Used		Method	
Calibration Block		Reference Block	
Probe Used		Reference Block SI No	
Frequency		Machine Calibration Date	
Size		Material	

1. Gain Setting		Couplant	
2. Gain Setting for Scanning		Type of Joint	
3. Transfer Correction		Weld Thickness	
4. Range		Acceptance standrad	

SI No	Test Materials Particulars	Joint No	Remarks
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Result : Acceptable / Repair

LEVEL II (NDT AGENCY)

L&T (QC)

NPCIL (QA)

LIQUID PENETRANT TEST REPORT					
Contractor Name				Doc No	
Project		Nuclear Power Project		Ref. WP No	
Package				Report No	
Work Order No				Date	
Client		M/s. NPCIL, Kudankulam		Drg No	
Name of the System				Ref. WIR No	
Activity				Weld Category	
Unit		KKNPP-I / II / III / IV		QA Category	
KKS Code				Surface Condition	
Equioment / Syztem				Temperature	
Location / Room No				Dwell Time	
		Make	Batch No	Date of Manufacture	Date of Expiry
Cleaner					
Penetrant					
Developer					
Sl No	System	Line No (or) Support No	Joint No	Observation	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
LEVEL II (NDT AGENCY)		L&T (QC)		NPCIL (QA)	

INTEGRITY / LEAK TESTING REPORT					
Contractor Name		Report No			
Project		Format No			
Package		Doc No			
Work Order No		Date			
Client		Drg No			
Unit		Name of System			
1. Piping C.R.R.No & Circuit No :					
2. KKS Code :					
3. Impulse Tubing C.R.R.No & Circuit No :					
4. Equipment / System Category :					
5. Test Medium / Quality :					
6. Date of Testing :					
7. Test Scheme No :					
8. Deviations from Test Scheme (if Any) :					
9. a) Terminal Points (As per test Scheme) : YES / NO :					
b) Filling / Pressurization Point (As per test Scheme) : YES / NO :					
10. Pressure Gauges and Safety Relief Valve :					
Pressure Gauge / SRV	Equipment Sl. NO	Range	Least Count	Set Pressure	
Cleaner					
Penetrant					
Developer					
11. Rate of Pressurization Specified :			Actual :		
12. Test Observations :					
a) Integrity & Leak Search (Pressures and Temperature) :					
	Test Temperature	Test Pressure (Mpa)	Holding Time (Hours)	Leak Search Pressure (Mpa)	Pressure Drop
Specified					
Actual					
b) Number of Times the System is Subjected to integrity Test Pressure :					
c) Leak Search Results (attach list) :					
d) List of Inaccessible Joints / Area (attach list if Any) :					
13. Rate of De-Pressurization Specified :			Actual :		
14. Post Cleaning :					
15. Remarks :					
i) Portion Remain Untested :					
W.R.T.Circuit :					
ii) Test Experience :					

CALIBRATION REPORT FOR PRESSURE GAUGE

Contractor Name		Report / MR No	
Project	Nuclear Power Project	Date	
Package		Amp. Temp.	
Work Order No		R.H (30% to 80%)	
Client	M/s. NPCIL, Kudankulam	Drg No	
Unit	KKNPP-I / II / III / IV	Name of System	

1.1. Details of Gauge :

TAG NO / KKS CODE		Accuracy (%)	
SI No		Cal. Date	
Model No		Test Medium	
Contract Item No		Process Connection	
Least Count		Cal. Procedure	
Cal. Range			

1.2. Details of Pressure Gauge Accessories :

SI No	Description

1.3. Details of Master Equipment Used :

SI No	Description	Inst. SI. No	Make Model	Range	Accuracy	Cal. Reference	Cal. Due. Date

1.4. Calibration Data Table :

SI No	Input in Dial Reading	Input Kg/Cm2	Ref. Gauge Reading in Kg/Cm2	As Found					As Left				
				Inc	Dec	Error		Hysteresis	Inc	Dec	Error		Hysteresis
						Inc	Dec				Inc	Dec	
1													
2													
3													
4													
5													
6													

1.5. Result :

Description	0.381	Permissible (%)	1	Max. % Hysteresis	0.48
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Details of Adjustments : Zero : Nil Span : Nil

Inference : Instrument Accepted

Calibrated by

Verified by

Calibration Engineer

Calibration in Charge

LIST OF SUPPORTS / VALVE WITH ERECTION REPORT NO.						
Contractor Name				Package		
Project		Nuclear Power Project		Work Order No		
Client		M/s. NPCIL, Kudankulam		Date		
Name of the System				Drg No		
Unit		KKNPP-I / II / III / IV		Loop No		
SI No	ISO Sheet No	Support / Valve No	Support / Valve Type	Support / Valve Weight kg	Support / Valve Erection Report No	Remarks (Loop No)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
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17						
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24						
25						
26						
27						
28						
29						
30						
L&T (MECH)			NPCIL (MECH)			

SUPPORTS MODIFICATION REPORT

Contractor Name		Report No	
Project	Nuclear Power Project	Package	
Client	M/s. NPCIL, Kudankulam	Work Order No	
Name of the System		Date	
Drg No		Ref. W/R No	
Unit	KKNPP-I / II / III / IV	Type of Report	

SI No	Building	System / WD No	Support KKS Code	Details of Category	Support Sheet No	ISO Sheet No
1						

Any Other Reasons for Modification	
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Details of Category :

Description of Sketch :

L&T (MECH)

NPCIL (MECH)

Distribution : 1. L&T Site (Piping Execution), 2. L&T Document Cell, 3. NPCIL (Mech)

MATERIAL ACCOUNTING STATEMENT																														
SL NO	SOQR ITEM NO	MATERIAL CODE	MATERIAL (CS / SS)	DESCRIPTION	SIZE	ITEM NO	BOX NO	CIV NO	CIV DATE	CIV CONTROL NO	CIV CONTROL DATE	UOM AS PER SOQR	CIV UOM	CIV Q-ty	(MAIS) ISSUED QTY			ERECTED QTY			RETURN QTY			CCV NO	CCV DATE	CCV CONTR OL NO	CCV CONTROL DATE	WASTGAE		REMARKS
															Mtr	KGs	Nos	Mtr	KGs	Nos	Mtr	KGs	Nos					Max. invisible wastage 2% (Non Returnable)	Max. Permissible wastage 4% (Returnable)	
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
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16																														
17																														
18																														
19																														
20																														
21																														
22																														
23																														
24																														
25																														

Summary Statement for SOQR Item No-					
CIV UOM	CIV Total Received	Total Erected	Total Returned	SOQR UOM	SOQR Erected
Mtr					
Kgs					
Nos					

Summary Statement for SOQR Item No-					
CIV UOM	CIV Total Received	Total Erected	Total Returned	SOQR UOM	SOQR Erected
Mtr					
Kgs					
Nos					

XXXX (Supervisor)
Work Order No-XXXXXX

XXXX (Site-in-Charge)
Work Order No-XXXXXX

NPCIL (MECH)
Site Supervisor

NPCIL (MECH)
Engineer-in-Charge

ERECTION COMPLETION CHECK LIST REPORT

Contractor Name		Document No	
Project	Nuclear Power Project	Report No	
Package		Date	
Work Order No		Drg No	
Client	M/s. NPCIL, Kudankulam	Ref. WP No	
Name of the System		Type of Record	
Activity		Weld Category	
Unit	KKNPP-I / II / III / IV	QA Category	

Name of the Equipment		Safety / Seismic Category	
Location / Room No		Building	

SI No	Particulars	Checked by			Remarks
		L&T (Mech)	L&T (QA)	NPCIL (Mech)	
1	Approved Drg/spec. For installation and foundation layout (Availability) by L&T				
2	Checking of Foundation location				
3	Modification of Foundation or equipment supports				
4	Transportation and shipment arrangement from store to erection site				
5	Adequacy of lifting arrangement and Testing of Tools and Tackles				
6	Clearance for EP and bottom surface of equipment. (cleanliness)				
7	Orientation and Elevation of Terminal points on the installed equipment				
8	Installation foundation fasteners and Torquing as per the requirement				
9	Availability of WPS. PQR, INFO and electrodes. Fit-up clearance.				
10	Welding completion				
11	Tack weld if any				
12	Preservation (painting)				
13	Completion of Installation with Date				
14	Final survey & Alignment checks				
15	Any Other Deviation or points pertaining to the installed equipment				

L&T (MECH)

L&T (QA)

NPCIL (MECH)

INSTALLATION REPORT FOR LYING OF GI CONDUIT

Contractor Name				Report No		
Project	Nuclear Power Project			Format No		
Work Order No				Date		
Client	M/s. NPCIL, Kudankulam			Elevation		
Qualified Manpower Code				Name of the System		
Unit	KKNPP-I / II / III / IV			Building		
Package		Drawing No. with Rev. no.				
SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Marking of Routes					
2	Type & Size of conduit					
3	Distance between Spacers					
4	Bending Radius of Conduit					
5	Fixing of Saddles					
6	Tightness of joints					
7	Touch up Galvanizing paint on exposed threaded joints / threads					
8	Location given for Sensors					

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

INSTALLATION REPORT FOR LAYING CONTROL CABLES

Contractor Name		Report No	
Project	Nuclear Power Project	Format No	
Work Order No		Date	
Client	M/s. NPCIL, Kudankulam	Elevation	
Qualified Manpower Code		Name of the System	
Unit	KKNPP-I / II / III / IV	Building	
Package		Drawing No. with Rev. no.	

SI No	DESCRIPTION	QAP(002) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Type & Size of Cable	1.1					
2	I.R. value before laying	1.2					
3	Marking of Routes	3.1					
4	Clamping Interval & Tightness of Clamps	4.1					
5	Bending Radius	4.2					
6	Physical damage check	4.3					
7	Cable Continuity	4.4					
8	I.R. value after laying	4.5					

ECIL EXECUTION
(signature with
stamp)

ECIL – QA
(signature
with stamp)

NPCIL – E & I
(signature with
stamp)

NPCIL QA
(signature with
stamp)

INSTALLATION REPORT FOR PANEL ERECTION OF PANELS, JUNCTION BOXES, CABINETS & ISS

Contractor Name		Report No	
Project	Nuclear Power Project	Format No	
Work Order No		Date	
Client	M/s. NPCIL, Kudankulam	Elevation	
Qualified Manpower Code		Name of the System	
Unit	KKNPP-I / II / III / IV	Building	
Package		Drawing No. with Rev. no.	

SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Welding machines ,Welding Electrodes/ Fasteners						
2	Panel identification & location marking						
3	Cleanliness of EP						
4	Alignment						
5	Welding and touch up painting						
6	Rigidity of fixing using fasteners(Tightening Torque)						

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

INSTALLATION REPORT FOR FIXING OF ANCHOR FASTENER

Contractor Name				Report No		
Project	Nuclear Power Project			Format No		
Work Order No				Date		
Client	M/s. NPCIL, Kudankulam			Elevation		
Qualified Manpower Code				Name of the System		
Unit	KKNPP-I / II / III / IV			Building		
Package		Drawing No. with Rev. no.				
SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Type & Size of Anchor fastener					
2	Marking of Drill Holes					
3	Drilling & cleaning					
4	Distance between Anchor & Edge Distance					
5	Perpendicularity of Anchor fastener					
6	Rigidity of Anchor fastener					

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

REPORT FORMAT FOR INSTALLATION OF FIRE ALARM DETECTORS

Contractor Name				Report No		
Project	Nuclear Power Project			Format No		
Work Order No				Date		
Client	M/s. NPCIL, Kudankulam			Elevation		
Qualified Manpower Code				Name of the System		
Unit	KKNPP-I / II / III / IV			Building		
Package		Drawing No. with Rev. no.				
SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Model and Type of detector					
2	Location Marking for Detectors					
3	Fixing of Detectors					
4	Identification of detectors					
5	Wiring					
	Termination (torque)					
6	Cable bending radius					

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

FABRICATION REPORT

Contractor Name				Report No		
Project	Nuclear Power Project			Format No		
Work Order No				Date		
Client	M/s. NPCIL, Kudankulam			Elevation		
Qualified Manpower Code				Name of the System		
Unit	KKNPP-I / II / III / IV			Building		
Package		Drawing No. with Rev. no.				
SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Materials					
2	Fit up					
3	Welding					
4	NDT test					
5	Surface preparation & Painting					

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

INSTALLATION REPORT FOR GLANDING & TERMINATION

Contractor Name		Report No	
Project	Nuclear Power Project	Format No	
Work Order No		Date	
Client	M/s. NPCIL, Kudankulam	Elevation	
Qualified Manpower Code		Name of the System	
Unit	KKNPP-I / II / III / IV	Building	
Package		Drawing No. with Rev. no.	

SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Glanding						
2	Wiring						
3	Identification						
4	Dressing and bunching						
5	Cable bending radius						
6	Termination (torque)						

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

INSTALLATION REPORT FOR FIELD INSTRUMENTS

Contractor Name				Report No		
Project	Nuclear Power Project			Format No		
Work Order No				Date		
Client	M/s. NPCIL, Kudankulam			Elevation		
Qualified Manpower Code				Name of the System		
Unit	KKNPP-I / II / III / IV			Building		
Package		Drawing No. with Rev. no.				
SI No	DESCRIPTION	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Location of Instrument					
2	Fixing of Support Structure					
3	Fixing of instrument					
4	Alignment					
5	Check for flow direction					
6	Tightening torque	Required / Observed				
7	Tagging of instrument					
8	Preservation & Protection after Installation					

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

FORMAT FOR INSTALLATION REPORT OF DOOR SWITCH, WALL MOUNTED DEVICES/ UNITS etc,

Contractor Name				Report No			
Project	Nuclear Power Project			Format No			
Work Order No				Date			
Client	M/s. NPCIL, Kudankulam			Elevation			
Qualified Manpower Code				Name of the System			
Unit	KKNPP-I / II / III / IV			Building			
Package		Drawing No. with Rev. no.					
SI No	DESCRIPTION	QAP Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Location Marking & Identification	3.1					
2	Type & Size of Anchor Fastener	3.2					
3	Edge Distance	3.4					
4	Perpendicularity of Anchor	3.5					
5	Tightening torque	3.6					
6	Stripping of wire	3.7.1					
7	Identification of wires	3.7.2					
8	Wire connection at their designated terminal.	3.7.3					
9	Termination Torque	3.7.4					
10	Bunching of spare wires.	3.7.5					

ECIL EXECUTION
(signature with stamp)

ECIL – QA
(signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

INSTALLATION REPORT FORMAT FOR QA2 CATEGORY PANELS

Contractor Name				Report No			
Project		Nuclear Power Project		Format No			
Work Order No				Date			
Client		M/s. NPCIL, Kudankulam		Elevation			
Qualified Manpower Code				Name of the			
Unit		KKNPP-I / II / III / IV		Building			
Package				Drawing No. with Rev. no.			

SI No	DESCRIPTION	ACCEPTANCE NORM QAP Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Welding Electrodes/ Fasteners	Test Certificate/ Certificate of Compliance						
2	Panel identification & location marking	As per Equipment Layout/ Installation Drawing as in Annexure-I						
3	Installation by welding:							
3.1	Fit up & Alignment	Fit up gap $\leq 1.5\text{mm}$, Alignment: $\pm 2.5\text{mm/m}$, Front face/ mosaic elements symmetrically matched in the same plane						
3.2	Welding	Process: SMAW, E 7018						
		Electrode Baking : 1 Hr.at 250°C						
		Cleaning: Fusion faces free from moisture, oil, paint, and heavy scale.						
3.2.1	- visual	Free from porosity, cracks, spatter, slag, blow holes, craters, pin holes, under cuts, over laps, un-uniform beading						
3.2.2	- measurement	As per Equipment Installation Drawing						
3.2.3	- PT	Max. 4nos of Rounded						
3.3	Touch up painting	No discontinuity, no peel off at Weld area and Heat affected Zone painted.						
4	Installation by bolting:							
4.1	Alignment	Alignment: verticality $\leq \pm 2.5\text{mm/m}$, Front face/ mosaic elements symmetrically matched in the same plane						
4.2	Tightening Torque	As per Equipment Installation Drawing/ Standard Engineering practice						M12: 40 To 50 Nm M14: 55 to 65 Nm
5	Protective Earthing,	Grounding resistance $\leq 0.1\Omega$						
6	Assembly & installation of loose parts/ accessories	As per manufacturer manual						
7	Measuring instruments/ equipments used: - Resistance meter - Torque wrench - Welding Machine - Baking Oven	Validity of test report/certificate						

ECIL EXECUTION
(signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA (signature with stamp)

FORMAT FOR OFC TERMINATION REPORT

Contractor Name						Report No		
Project	Nuclear Power Project					Format No		
Work Order No						Date		
Client	M/s. NPCIL, Kudankulam					Elevation		
Qualified Manpower Code						Name of the System		
Unit	KKNPP-I / II / III / IV					Building		
Package		Drawing No. with Rev. no.						
SI No	DESCRIPTION	QAP (027) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Glanding	3.1 – 3.3						
2	Fiber Preparation	4.1 – 4.3						
3	Splicing	5.1 – 5.2						
4	Routing inside LIU	5.3						
5	Mounting & Earthing	6						
6	Interconnection between LIU and Equipment terminal point	7						
7	Fiber Loss Test	8						

ECIL EXECUTION
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ECIL – QA
(signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

REPORT FORMAT FOR GLANDING & TERMINATION IN QA2 CATEGORY PANELS

Contractor Name				Report No			
Project	Nuclear Power Project			Format No			
Work Order No				Date			
Client	M/s. NPCIL, Kudankulam			Elevation			
Qualified Manpower Code				Name of the System			
Unit	KKNPP-I / II / III / IV			Building			
Package		Drawing No. with Rev. no.					
SI No	DESCRIPTION	QAP (018) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Glanding	3					
2	Cable Identification tag	4.1					
3	Dressing and bunching	4.2, 4.3					
4	Ferrule identification	6.1					
5	Termination	6.2 to 6.7					
6	Drain Wire termination	7					

ECIL EXECUTION
(signature with stamp)

ECIL – QA
(signature with stamp)

NPCIL – E & I
(signature with stamp)

NPCIL QA
(signature with stamp)

SOLDERING TERMINATION REPORT FOR CPS EE CONNECTORS

Contractor Name				Report No			
Project	Nuclear Power Project			Format No			
Work Order No				Date			
Client	M/s. NPCIL, Kudankulam			Elevation			
Qualified Manpower Code				Name of the System			
Unit	KKNPP-I / II / III / IV			Building			
Package		Drawing No. with Rev. no.					
SI No	DESCRIPTION	QAP (019) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	REMARKS
1	Identification	3					
2	Crimping	4.2					
3	Soldering	5.1					
4	Stress relieving arrangement	5.2					
5	Continuity & I.R.	5.3, 5.4					
6	Ingress Protection	5.5					

ECIL EXECUTION
(signature with
stamp)

ECIL – QA
(signature
with stamp)

NPCIL – E & I
(signature with
stamp)

NPCIL QA
(signature with
stamp)

INSTALLATION REPORT FOR NFME SENSORS

Contractor Name		Report No	
Project	Nuclear Power Project	Format No	
Work Order No		Date	
Client	M/s. NPCIL, Kudankulam	Elevation	
Qualified Manpower Code		Name of the System	
Unit	KKNPP-I / II / III / IV	Building	
Package		Drawing No. with Rev. no.	

SI No	DESCRIPTION	QAP (020) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Sensor Inspection Report	Availability						
2	Sensor identification w.r.t. channel	As per Layout/ Installation Drawing						
3	Assembly of cable lines into the flange	As per ECIL/KKNPP-1&2/WP/032						
4	Installation	As per ECIL/KKNPP-1&2/WP/032						
5	Flange tightening torque	As per ECIL/KKNPP-1&2/WP/032						
6	Bending radius of coiling	As per ECIL/KKNPP-1&2/WP/032						
7	Plugging of connectors	As per ECIL/KKNPP-1&2/WP/032						

ECIL EXECUTION (signature with stamp)

ECIL – QA (signature with stamp)

NPCIL – E & I (signature with stamp)

**NPCIL QA
(signature with stamp)**

FORMAT FOR HCS FOC TERMINATION REPORT

Contractor Name				Report No				
Project		Nuclear Power Project		Format No				
Work Order No				Date				
Client		M/s. NPCIL, Kudankulam		Elevation				
Qualified Manpower Code				Name of the System				
Unit		KKNPP-I / II / III / IV		Building				
Package			Drawing No. with Rev. no.					
Sl No	DESCRIPTION	QAP (021) Clause	OBSERVATION	ECIL (EXCN)	ECIL (QA)	NPCIL (E&I)	NPCIL (QA)	REMARKS
1	Cable Identification	3.1						
2	Fiber Preparation	3.2						
3	Cleaving	3.3						
4	Fiber attenuation	3.4						
5	Bending radius	3.5						
6	Termination at optical port	3.6						

**ECIL EXECUTION (signature
with stamp)**

**ECIL – QA (signature with
stamp)**

**NPCIL – E & I (signature
with stamp)**

**NPCIL QA
(signature with
stamp)**

INSPECTION RECORD FOR ERECTION OF LINER PLATES (FLOOR / WALL)												
Contractor Name							Report No					
Project		Kudankulam Nuclear Power Project					Date					
Work Order No							Name of the System					
Client		M/s. NPCIL, Kudankulam					Building / Room No					
Area of Application							Drawing No. with Rev. no.					
Unit		KKNPP-I / II / III / IV					Package					
SI No	Plate / Joint No.	Location (As Per Drawing)	Fit-Up	Final Weld (Visual)		VBT		DPT		Final Dimensional Check		Remarks
		HCC	HCC-QA	HCC-QA	NPCIL-QA	HCC-QA	NPCIL-QA	HCC-QA	NPCIL-QA	HCC-QA	NPCIL	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

HCC (MECH)

HCC (QA)

NPCIL (MECH)

NPCIL (QA)

INSPECTION RECORD FOR PAINTING OF DUCTS / EP's																
Contractor Name									Report No							
Project		Kudankulam Nuclear Power Project							Date							
Work Order No									Name of the System							
Client		M/s. NPCIL, Kudankulam							Building							
Structure Identification:									Drawing No. with Rev. no.							
Unit		KKNPP-I / II / III / IV							Package							
SL NO	VENTILATION DUCT NO.	SAND / GRIT BLASTED AREA (VISUAL CHECK) - SA 2-1/2 GRADE.			PRIMER APPLICATION (AS APPLICABLE) (DFT MIN. MICRONS)				EPOXY COAT APPLICATION CHECK (AS APPLICABLE)				FINAL COAT AND THICKNESS CHECK (DFT MIN. MICRONS)			
		HCC	HCC-QA	NPCIL	COMP TIME	HCC	HCC-QA	NPCIL	COMP TIME	HCC	HCC-QA	NPCIL	COMP TIME	HCC	HCC-QA	NPCIL - QA
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

DOC.NO: HCC F 15 17 37, REV.NO: 2, DATE OF REV: 10-05-06

Page 1 of 1

- Sand / Grit blasting equipment check (Hopper, Compressor, Nozzle, Hose etc:-)
- Hard dry sand size as per specifications (0.8 to 2mm) - OK / Not OK / Grit Size & Spec. (0.6mm to 1.6mm)
- Painting material as per specs.(Primer - Zinc Anode 304 - Composition of Ethyl Silicate & Zinc dust)
Subsequent coats - Protectomastic Dark Grey - Composition of Modified Epoxy Base with Special Catalyst (1:1)

OK / Not OK
OK / Not OK
OK / Not OK
OK / Not OK

HCC

HCC-QA

NPCIL

NPCIL-QA

CONCRETE POST-POUR INSPECTION REPORT

Contractor Name		Report No	
Project	Nuclear Power Project	Format No	
Work Order No		Date of Inspection	
Client	M/s. NPCIL, Kudankulam	Ref.Pre-Pour Report No.	
Location of the Structure		Name of the System	
Unit	KKNPP-I / II / III / IV	Building	
Package		Drawing No. with Rev. no.	

SI No.	Description of Activity	HCC		NPCIL	Remarks
		Site Engineer	QA Engineer		
1	Check for Application of Surface retarder for green cutting of concrete				
2	Cured by covering with Wet Hessian bags / Sprinkling water / application of Curing compound				
3	Checked for Stripping of Formwork/Supports etc. after specified duration of Stripping time				
4	Checked for Position of Embedment Parts				
5	Post Concrete Survey, if necessary, carried out				
6	Checked for presence of any surface Defects i.e., minor/major cracks, voids, segregation of aggregate etc. if any				
7	Repaired and Finished all surface Defects by specifications / approved methods				
8	Structure or part of Structure is alright and allowed for subsequent activity / backfilling around the structure				

HCC Site Engineer		HCC QA Engineer		NPCIL	
Name:		Name:		Name:	
Sign:		Sign:		Sign:	
Date:		Date:		Date:	

EMBEDDED PARTS / STRUCTURAL STEEL FABRICATION REPORT

Contractor Name		Report No	
Project	Nuclear Power Project	Date	
Work Order No		Name of the System	
Client	M/s. NPCIL, Kudankulam	Building	
Structure Identification:		Drawing No. with Rev. no.	
Unit	KKNPP-I / II / III / IV	Package	

Sr. No.	EP Identification	Description	Thick (mm)	Dia (mm)	Quantity		Length (m)	Total Length (m)	Wt./mtr or Wt./No. (MT)	Total Weight (MT)
					Set	Nos.				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

HCC ENGINEER				NPCIL ENGINEER			
Name :				Name :			
Sign :				Sign :			
Date :				Date :			

EMBEDDED PARTS / STRUCTURAL STEEL ERECTION REPORT				
Contractor Name			Report No	
Project		Nuclear Power Project	Date	
Work Order No			Name of the System	
Client		M/s. NPCIL, Kudankulam	Building	
Structure Identification:			Drawing No. with Rev. no.	
Unit		KKNPP-I / II / III / IV	Package	
Sr. No.	EP Identification	Description	Name of Fragment / Location	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
HCC ENGINEER			NPCIL ENGINEER	
Name :			Name :	
Sign :			Sign :	
Date :			Date :	