

 		PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
		CLIENT	INDIAN OIL CORPORATION LIMITED		
MATERIAL MANAGEMENT AND WAREHOUSE	Project No. 080557C001	Document No. 080557C-000-QCP-0000-001		Rev. No. A	Page 1 of 3
<b>QUALITY CONTROL PLAN</b>  <b>MATERIAL MANAGEMENT AND WAREHOUSE</b>					





TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
RK 0018, RK 0019, RK 0025, RK 0027	MATERIAL RECEIPT REPORTS & IRREGULARITY / DAMAGE REPORTS
QC 08 – QC 09	FOR EACH SHIPPING
QC 04 & QC 05	FOR EACH ITEM
QC 22	LOGBOOK
LB F004	SUPPLY LOGBOOK

#### REFERENCE DOCUMENTS:

- 080557C-000-PP-805
  - 080557C-000-PP-807
  - 080557C-000-PP-804
  - 
  - DRAWINGS
- SITE CO-ORDINATION & COMMUNICATION PROCEDURE  
 JOB SPECIFICATION FOR MATERIAL RECEIVING,  
 INSPECTION, HANDLING, STORAGE& RESERVATION  
 STANDARD SPECIFICATION FOR POSITIVE  
 MATERIAL IDENTIFICATION AT CONSTRUCTION  
 SITES

#### LEGENDA



H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
P	=	PREPARATION
S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
!	=	WARNING (control of document revision status)

						
A	19/10/2019	ISSUED FOR INFROMATION	SMP	PKP	LA/ANJ	JMC
REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED

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MATERIAL MANAGEMENT AND WAREHOUSE	Project No. 080557C001	Document No. 080557C-000-QCP-0000-001	Rev. No. A	Page 2 of 3

### QUALITY CONTROL PLAN

#### MATERIAL MANAGEMENT AND WAREHOUSE



#### QUALITY CONTROL ACTIVITIES

Nr.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTRACT.	TECHNIP	
<b>A)</b>	<b>BEFORE MATERIAL ARRIVAL</b>				
A.1	ISSUE OF FORECAST MATERIAL LIST TO ENGINEERING IN CHARGE	By Contractor	P	R	(1)
A.2	EXPEDITING OF NEEDED MATERIAL ACCORDING TO CONSTRUCTION SCHEDULE	N.A.	WC	S	(1)
<b>B)</b>	<b>AT MATERIAL ARRIVAL</b>				
B.1	ISSUE OF A DAILY MATERIALS RECEIVING REPORT	RK 0019	P	R	
B.2	MATERIAL RECEIVING CHECKING	QC 08 & QC 09	WC	W / R	(2)
	- DOCUMENT VERIFICATION - DIMENSIONAL CHECK -SIZE, RATING, PRESSURE RAING, TYPE, ETC - SHIPPING DATA - MATERIAL IDENTIFICATION - GENERAL APPEARANCE				(5)
B.3	JOB-SITE RECEIVING REPORT	RK 0018	P	W/R	
B.4	IRREGULAR MATERIAL				
B.4.1	IRREGULAR MATERIAL SUPPLY REPORT	RK 0025	P	R	(2)
B.4.2	MATERIAL SEGREGATION	N.A.	WC	S	
B.4.3	IRREGULAR MATERIAL SUPPLY LOGBOOK	LB F004	P	R	(1)
B.4.4	NON-CONFORMITY REPORT ISSUED & RESOLUTION	NC FE	WC	R	(3)
B.5	PIPING MATERIAL TRACEABILITY	QC 22	WC	S	
B.6	WAREHOUSE DOCUMENTATION FILE	N.A.	P	R	
<b>C)</b>	<b>WAREHOUSING</b>				
C.1	INDOOR/OUTDOOR STORAGE SELECTION & RECOMMENDATION AS PER SPECIFICATION & APPROVED PROCEDURE	N.A.	P	R	
C.2	VENDOR STORAGE RECOMMENDATION	N.A.	WC	R	
C.3	ACCESSORIES DESCRIPTION & WAREHOUSE LOCATION	QC 05	WC	S	
C.4	ON-OFF VALVES WAREHOUSING	N.A.	WC	S	
<b>D)</b>	<b>MATERIALS PROTECTION / MAINTENANCE DURING STORAGE &amp; CONSTRUCTION</b>	QC 04	WC	S	(4)

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MATERIAL MANAGEMENT AND WAREHOUSE	Project No. 080557C001	Document No. 080557C-000-QCP-0000-001	Rev. No. A	Page 3 of 3

- NOTES:
- (1) AT CARE OF THE MATERIAL MANAGER
  - (2) CONTRACTOR SITE QC MANAGER OR DISCIPLINE SUPERVISOR AND OWNER INSPECTOR WILL BE CALLED FOR CRITICAL ITEMS ONLY
  - (3) AT CARE OF THE SITE QC MANAGER
  - (4) FIRST ON SITE PRESERVATION SHALL BE WITNESS INSPECTION FOR PMC AND OWNER.
  - (5) 10% DIMENSIONAL CHECKS OF EACH SIZE, PRESSURE RATING AND TYPE OF PIPE FITTINGS AT SITE BY THE CONSULTANT AND SURPRISE CHECKS BY THE OWNER

#### GENERAL NOTES

- 1 THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THE JOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



**OWNER:****LB F004****PROJ. No.:**

**REV. A**

SH. 1 OF 1

[illegible]



**OWNER:**

**RK 0018**

**REV. A**

SH. 1 OF 1

## DATE.....

**No.....**



[illegible]

VENDOR, ORDER, CARRIER, NUMBER OF DAMAGED PACKAGES, DETAILED DESCRIPTION OF DAMAGE AND PROVIDE PHOTOGRAPHIC DOCUMENTATION OF IT:

REVIEWED/ACKNOWLEDGED by (Name and Signature)

OWNER /PMC REPRESENTATIVE





 <b>TechnipFMC</b> 		<b>PROJECT:</b>		
		<b>OWNER:</b>		
<b>QUALITY CONTROL FORM</b>		<b>RK 0019</b>		
<b>SITE RECEIPT REPORT</b>		<b>PROJ. No.:</b>	<b>REV. A</b>	<b>SH. 1 OF 1</b>
<i>Shipping Agent</i>	<i>Date of materials reception</i>	<i>N° of RK0019</i>	<i>Report issue date</i>	<i>N. of Report</i>
<i>Vendor</i>		<i>Carrier</i>		
<i>Means of transport</i>	<i>Port</i>	<i>Shipping document</i>		
<i>Order</i>	<i>MR</i>	<i>Delivery</i>		<i>Vendor Documents</i>
		<i>Partial</i>	<i>Complete</i>	<i>Disptach bill</i>
<i>Date</i>		<input type="checkbox"/>	<input type="checkbox"/>	<i>Date</i>
<b>DESCRIPTION OF MATERIALS</b>		<b>MATERIALS QUANTITY</b>		
		<b>UNIT OF MEASURE</b>	<b>STATED ON DOCUMENTS</b>	<b>RECEIVED</b>
<i>Shipping contract ref.</i> <i>Parking fee for means of transport</i>				<i>Irregular Material supply report</i> N. _____  Date _____
Condition of materials received <input type="checkbox"/> Good <input type="checkbox"/> Damaged				
Quantity of materials received <input type="checkbox"/> Excess <input type="checkbox"/> Missing				
Quality Control Manufacturing Dossier present <input type="checkbox"/> Yes <input type="checkbox"/> No				
The following sentence applies to all people signing this document:  <i>I declare to have received the above materials in the aforementioned quantities, to have inspected same and found them in compliance with the Packing List and in good order.</i>  <hr/>				
<b>PREPARED BY (name and signature)</b>	<b>CHECKED BY (name and signature)</b>	<b>APPROVED BY (name and signature)</b>	<b>REVIEWED / ACKNOWLEDGED BY (name and signature)</b>	
<b>CONTRACTOR WAREHOUSE SUPERVISOR</b>	<b>CONTRACTOR MATERIAL MANAGER</b>	<b>CONTRACTOR SITE MANAGER</b>	<b>NAME :</b> <b>OWNER /PMC REPRESENTATIVE</b>	











 		PROJECT:			
		OWNER:			
QUALITY CONTROL FORM		RK 0027	PROJ. No.:	REV. A	SH. 1 OF 1
DAMAGE REPORT (MATERIAL / EQUIPMENT)			NUMBER _____		DATE _____
REF. FIELD WAREHOUSE IRREGULAR MATERIAL SUPPLY REPORT Nr. _____ ISSUED ON _____					
MR/ITEM _____					
DESCRIPTION OF DAMAGE _____ _____ _____ _____ _____					
PACKING LIST INCLUDED WITH SHIPMENT: YES _____ NO _____ PACKAGE BROKEN: YES _____ NO _____ DAMAGE WAS: Obvious _____ concealed _____ At Factory _____ During Transport _____ During Handling _____					
REQUIRED ACTIONS  DAMAGE CAN BE REPAIRED: YES _____ NO _____ Don't Know _____ Mfrs. Guarantee Affected: YES _____ NO _____ Don't Know _____ DAMAGE CAN BE REPAIRED BY FIELD: YES _____ NO _____ MAT'L REQUIRED FOR REPAIR: YES _____ NO _____ Est. Direct Costs for Repair: Mat'l _____ Labor _____ Replacement Mat'l to be Purchased by Field _____ H.O. _____ Repair must be made immediately to maintain const. schedule: YES _____ NO _____ If repair not urgent must be completed by (date): _____ Vendor contacted: YES _____ NO _____ Name _____ Location _____ If Yes, By Phone _____ Wire _____ Telex _____ Telefax _____ Letter _____ DO NOT PROCEED WITH REPAIRS UNTIL AUTHORIZED BY HEAD OFFICE _____ OTHER COMMENTS: _____ _____ _____ ATTACH TO THIS REPORT PHOTOGRAPHS OF DAMAGED MATERIALS _____					
PREPARED BY (Name and Signature)  CONTRACTOR DISCIPLINE SUPERVISOR		CHECKED BY (Name and Signature)  CONTRACTOR MATERIAL MANAGER		APPROVED BY (Name and Signature)  CONTRACTOR SITE MANAGER	
REVIEWED ? ACKNOWLEDGED BY (Name and Signature)  NAME : OWNER / PMC REPRESENTATIVE					





 		PROJECT:				
QUALITY CONTROL FORM		QC 04a		OWNER:		
<b>MATERIAL MAINTENANCE CARD</b> (INSPECTION RECORD – PAGE 1)		PROJ. No.:		REV. A	SH. 1 OF 2	
		INSPECTION REPORT - MMC				
GENERAL DATA						
ITEM	_____	TYPE	_____	_____		
MR	_____	MFR	_____	_____		
P.L.	_____	OPEN PACK	_____	_____		
LUBRICANTS						
LUBE PART	LUBRICANT		CHARGE/QUANTITY		REPLACE	
	TYPE	BRAND	1ST	BEFORE PRECOM.	INTERVAL	QUANTITY
ROUTINE INSPECTION LIST			INSPECTION TIME		REMARKS	
INSPECTORS	CONTRATOR	TECHNIP	OWNER			
NAME						
SIGNATURE						
DATE						





 		PROJECT:			
QUALITY CONTROL FORM      QC 04b		OWNER:			
<b>MATERIAL MAINTENANCE CARD</b> (INSPECTION RECORD – PAGE 2)		PROJ. No.:		REV. A	SH. 2 OF 2
		INSPECTION REPORT - MMC			
GENERAL DATA					
ITEM _____		TYPE _____			
POS	DESCRIPTION	MAINTENANCE INSPECTION ACTIVITY			REMARKS
		DATE	SUB- CONTRACTOR	CONTRACTOR DISCIPLINE SUPERVISOR	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					



 			PROJECT:		
QUALITY CONTROL FORM <b>QC 05</b>			OWNER:		
ITEM ACCESSORIES LIST (WAREHOUSING ACTIVITY)			PROJ. No.:		REV. A
			SH. 1 OF 1		
			IAL _____		
<b>GENERAL DATA</b>					
ITEM _____ TYPE _____ MR/MFR _____					
P.L. _____ OPEN PACKAGE DATE: _____ P.L. _____					
_____ OPEN PACKAGE DATE: _____ WAREHOUSE _____					
LOCATION _____					
POS.	DESCRIPTION	QUANTITY	POS.	DESCRIPTION	QUANTITY
1.			14.		
2.			15.		
3.			16.		
4.			17.		
5.			18.		
6.			19.		
7.			20.		
8.			21.		
9.			22.		
10.			23.		
11.			24.		
12.			25.		
13.			26.		
<b>INSPECTORS</b>		<b>CONTRATOR</b>		<b>TECHNIP</b>	
NAME					
SIGNATURE					
DATE					
				<b>OWNER</b>	



 		PROJECT:	
		OWNER:	
QUALITY CONTROL FORM	QC 08	PROJ. No.:	REV. A
MATERIAL RECEIVING CHECKLIST			SH. 1 OF 1
DESCRIPTION			
P.LIST _____		JRR _____	
<b>01. SHIPPING DATA:</b> <ul style="list-style-type: none"> <li>COMPONENTS/LOOSE COMPONENTS QUANTITY/DESCRIPTION MATCH WITH P.O./M.R. <input type="checkbox"/></li> <li>PACKAGES /LOOSE COMPONENTS PHYSICAL ASSESSMENT OF QUANTITY/DESCRIPTION MATCH WITH PACKING LIST <input type="checkbox"/></li> <li>SPECIAL WAREHOUSING AND HANDLING INSTRUCTIONS ARE ATTACHED <input type="checkbox"/></li> </ul>			
<b>02. DOCUMENTS VERIFICATION:</b> <ul style="list-style-type: none"> <li>REVIEW AND ENDORSEMENT W.R.T IRN / MTC / TC / LAB TESTS REPORTS <input type="checkbox"/></li> <li>TC VERIFICATION W.R.T IRN / SPEC. / QAP, ETC., <input type="checkbox"/></li> <li>CHECK FOR VENDOR / SOURCE APPROVAL <input type="checkbox"/></li> <li>REVIEW OF FIELD TEST REPORTS / TEST REPORTS IF APPLICABLE <input type="checkbox"/></li> <li>ENDORSEMENT ON IMIR <input type="checkbox"/></li> </ul>			
<b>03. MATERIAL IDENTIFICATION:</b> <ul style="list-style-type: none"> <li>SAMPLING FOR FIELD TESTS / TESTS FROM APPROVED LABORATORIES, IF APPLICABLE <input type="checkbox"/></li> <li>COMPONENTS/LOOSE COMPONENTS ARE PROPERLY IDENTIFIED/ STAMPED /TAGGED <input type="checkbox"/></li> <li>EQUIPMENT/MACHINERY ACCESSORIES/INTERNALS ARE PROPERLY IDENTIFIED <input type="checkbox"/></li> <li>HEAT / BATCH / TAG NO. MENTIONED ON THE MATERAILS <input type="checkbox"/></li> <li>PIPING: RATING/SIZE/ CODE <input type="checkbox"/></li> <li>PIPING: COLOUR CODE APPLIED <input type="checkbox"/></li> <li>MOTORS/TRANSFORMER PANEL: PROPERLY TAGGED <input type="checkbox"/></li> <li>SITE IDENTIFICATION MARK ON MATERIAL <input type="checkbox"/></li> <li>CORRECTION OF M.C.T. W.R.T. HEAT NOS. / BATCH NO. / LOT NO. <input type="checkbox"/></li> </ul>			
<b>04. GENERAL &amp; APPEARANCE:</b> <ul style="list-style-type: none"> <li>SHIPPING PROTECTION/PACKAGE INTEGRITY <input type="checkbox"/></li> <li>VISUAL INSPECTION &amp; CERTIFICATION FOR PHYSICAL DAMAGE OR CONTAMINATION <input type="checkbox"/></li> <li>MACHINED SURFACES ARE NOT DAMAGED AND ARE PROPERLY COATED <input type="checkbox"/></li> <li>FLANGE FACES ARE NOT DAMAGED AND ARE PROPERLY COATED <input type="checkbox"/></li> <li>INERT GAS PURGED EQUIPMENT - PRESSURE IS STILL APPLIED <input type="checkbox"/></li> <li>DESSICANTS ARE LOST OR DAMAGED <input type="checkbox"/></li> <li>WET PROOF CONDITION <input type="checkbox"/></li> <li>PLUG/CAPS ARE IN PLACE <input type="checkbox"/></li> <li>EXTERNAL PAINTING: SCRATCHES OR RUSTED AREA <input type="checkbox"/></li> <li>LUBRICATED EQUIPMENTS: CHECK LUBRICANT AND LEVEL <input type="checkbox"/></li> <li>ROTARY MACHINED: TAPPED OPENINGS IN STUFFING BOXES AND GLAND PLATES ARE SEALED <input type="checkbox"/></li> <li>FILLER MATERIAL: PACKAGE INTEGRITY <input type="checkbox"/></li> <li>PAINTING: EXPIRING DATE <input type="checkbox"/></li> <li>SPECIAL REQUIREMENT IF ANY <input type="checkbox"/></li> </ul>			
<b>NOTE:</b> This checklist is only for warehouse-keeper reference. Discipline Supervisor and QC Inspector shall inspect the material according to MR/Drawings & Job Specifications.			









[illegible]



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<b>QCP-PRE-COMMISSIONING &amp; COMMISSIONING</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1300-051	<b>Rev. No.</b> A	Page 1 of 3

**PRECOMMISSIONING/COMMISSIONING – QUALITY CONTROL  
PLAN**





**PIPING**

QC REPORT CODE	DESCRIPTION	NOTES
QCR 1300.P51	LINES CLEANING	
QCR 1300.P52	LINES SPECIAL CLEANING	
QCR 1300.P53	REINSTATEMENT	
QCR 1300.P54	DRYING	
QCR 1300.P55	GROSS LEAK TEST	
QCR 1300.P56	BLINDS INSTALLATION	
QCR 1300.P57	LOCK OPEN /CAR SEALS INSTALLATION	
QCR 1300.P58	SPRING SUPPORTS COLD SETTING	
QCR 1300.P59	FLOW ELEMENTS AND RESTRICTION ORIFICES INSTALLATION	
QCR 1300.P60	PRESSURE SAFETY VALVES INSTALLATION	
QCR 1300.P61	TEMPORARY STRAINERS INSTALLATION	
QCR 1300.P62	BOLT TORQUING/TENSIONING CHECK REPORT	(1)
QCR 1300.C51	PURGING	
QCR 1300.C52	TIGHTNESS TEST	
QCR 1300.C53	SPRING SUPPORTS HOT SETTING	
W12	MISCELLANEA - INSPECTION REPORT	

(1): Single certificate for each item

**GENERAL NOTES**



- THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THEJOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.

A	21/10/2019	ISSUED FOR INFORMATION	 <small>Santosh Paul 2019.10.21 17:58:21 +05'30'</small>	 <b>Signed By</b>	 <b>Approved By</b>	 <b>Authorized By</b>
			<b>SMP</b>	<b>PKP</b>	<b>LA/ANJ</b>	<b>JMC</b>
<b>REV.</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>PREPARED</b>	<b>CHECKED</b>	<b>APPROVED</b>	<b>AUTHORIZED</b>

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## PRECOMMISSIONING/COMMISSIONING – QUALITY CONTROL PLAN



### PIPING

S.No	CHECK AND TEST DESCRIPTION	QCR CODE	ACTION		NOTES
			CONTRACTOR	TECHNIP	
<b>A</b>	<b>CLEANING</b>				
1	LINES CLEANING	1300.P51	WC	W	
2	LINES SPECIAL CLEANING	1300.P52	WC	H/W	(1)
3	REINSTATEMENT	1300.P53	WC	W/R	
4	DRYING	1300.P54	WC	W/R	
5	GROSS LEAK TEST	1300.P55	WC	H/W	
<b>B</b>	<b>BLINDS INSTALLATION</b>	1300.P56	WC	W/R	
<b>C</b>	<b>LOCK CLOSE/CAR SEALS INSTALLATION</b>	1300.P57	WC	W/R	(2)
<b>D</b>	<b>SPRING SUPPORTS COLD SETTING</b>	1300.P58	WC	W/R	
<b>E</b>	<b>FLOW ELEMENTS AND RESTRICTION ORIFICES INSTALLATION</b>	1300.P59	WC	W/R	
<b>F</b>	<b>PRESSURE SAFETY VALVES INSTALLATION</b>	1300.P60	WC	W/R	
<b>G</b>	<b>TEMPORARY STRAINERS INSTALLATION</b>	1300.P61	WC	W/R	
<b>H</b>	<b>BOLT TORQUING/TENSIONING CHECK REPORT</b>	1300.P62	WC	W/R	
<b>I</b>	<b>PURGING</b>	1300.C51	WC	W/R	
<b>J</b>	<b>TIGHTNESS TEST</b>	1300.C52	WC	W	

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S.NO	CHECK AND TEST DESCRIPTION	QCR CODE	CONTRACTOR	TECHNIP	NOTES.
K	SPRING SUPPORTS HOT SETTING	1300.C53	WC	W/R	
L	MISCELLANEA - INSPECTION REPORT	W12			(3)

(1): The relevant result summary will be attached according to the cleaning method performed.

(2): To be performed during pre-commissioning or commissioning phase

(3) Split of site inspection responsibilities depends from the type of the inspection performed and the Contract requirements

#### SITE INSPECTION EXTENT LEGENDA

H = HOLD (Stop Work for Inspection - RFI required)  
 W = WITNESS (RFI required)  
 S = SURVEILLANCE (NO RFI)  
 R = REVIEW of QC REPORTS  
 N.A. = NOT APPLICABLE  
 A = DOCUMENT APPROVAL  
 WC = 100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.



 	PROJECT:			
	COMPANY:			
QUALITY CONTROL REPORT	1300.P51	PROJ. No.:	REV. 0	SH. _1_ OF _1_
		CONTRACTOR:		

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**LINES CLEANING**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>			
Cleaning method	W : WATER FLUSHING		S : STEAM BLOWING		M : MECHANICAL		
	A : AIR BLOWING		H : HYDROJETTING		CLEANING		
					O :		
LINE No.	P&ID No.	CLEANING METHOD	REMARKS	DATE	WITNESSING		
					CONTRACTOR	TECHNIP	OWNER

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	PROJ. No.:      REV. 0      SH. _1_ OF ____ CONTRACTOR:

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**LINES SPECIAL CLEANING**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>				
Cleaning method		<b>D : DEGREASING</b> <b>C : CHEMICAL CLEANING</b>		<b>L : LUBE OIL FLUSHING</b> <b>O :</b>				
LINE No.	P&ID No.	CLEANING METHOD	REMARKS	DATE	WITNESSING			
					CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P52A	PROJ. No.:	REV. 0 SH. ____ OF ____
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**DEGREASING RESULT SUMMARY**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>				
<b>SPECIAL CLEANING CIRCUIT DESCRIPTION:</b> _____ <b>SPECIAL CLEANING PROCEDURE:</b> _____								
<b>DEGREASING FINAL RESULT</b>								
DATE	TIME	TEMP (°C)	pH	ALKALINITY	PHOSPHATE (%)	OIL & GREASE (ppm)	TSS (ppm)	REMARKS

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	1300.P52B
PROJ. No.:      REV. 0      SH. ____ OF ____	
CONTRACTOR:	

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**ACID CLEANING RESULT SUMMARY**

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>					
SPECIAL CLEANING CIRCUIT DESCRIPTION: _____ SPECIAL CLEANING PROCEDURE: _____							
<b>ACID CLEANING FINAL RESULT</b>							
DATE	TIME	TEMP (°C)	pH	CITRIC ACID (%)	IRON (ppm)	CORROSION RATE (mpy)	REMARKS

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	1300.P52C PROJ. No.:      REV. 0      SH. ____ OF ____ CONTRACTOR:


**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**PASSIVATION RESULT SUMMARY**

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>		
SPECIAL CLEANING CIRCUIT DESCRIPTION: _____ SPECIAL CLEANING PROCEDURE: _____				
<b>PASSIVATION FINAL RESULT</b>				
DATE	TIME	TEMP (°C)	pH	REMARKS

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT :		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P52D	PROJ. No.:	REV. 0 SH. ____ OF ____
		CONTRACTOR:	

**PRECOMMISSIONING – QUALITY CONTROL REPORT**

***PIPING***


**LUBE OIL FLUSHING RESULT SUMMARY**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>			
<b>SPECIAL CLEANING CIRCUIT DESCRIPTION:</b> _____ <b>SPECIAL CLEANING PROCEDURE:</b> _____							
<b>LUBE OIL FLUSHING FINAL RESULT</b>							
DATE	TIME	FLOWRATE (lpm)	TEMP (°C)	PIPE SIZE AND SCHEDULE	PARTICLE COUNT	ACCEPTED Y / N	REMARKS

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P53	PROJ. No.:	REV. 0 SH. ____ OF ____
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**REINSTATEMENT**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>			
LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT      1300.P54	PROJ. No.:      REV. 0      SH. _1_ OF _2_
	CONTRACTOR:



<p align="center"> <b>PRECOMMISSIONING – QUALITY CONTROL REPORT</b>  <b>PIPING</b>  <b>DRYING</b> </p>
--

MC PACKAGE:		UNIT:		SYSTEM:			
LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P54	PROJ. No.:	REV. 0 SH. <u>2</u> OF <u>2</u>
		CONTRACTOR:	

**PRECOMMISSIONING – QUALITY CONTROL REPORT**

***PIPING***

**DRYING RESULT SUMMARY**

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>
DRIED CIRCUIT DESCRIPTION: _____ DRYING PROCEDURE: _____		
DRYING FLUID:	<input type="checkbox"/> AIR <input type="checkbox"/> NITROGEN <input type="checkbox"/> OTHER _____	
DRYING CONDITION:	DRYING GAS PRESSURE _____ Kg/cm <sup>2</sup> g DRYING GAS TEMPERATURE _____ °C DRYING PERIOD _____ Hours	
<b>DRYING FINAL RESULT:</b>		
<b>SAMPLE POINT NUMBER</b>		
<input type="checkbox"/> <b>VISIBLE FREE WATER (Y/N)</b>		
<input type="checkbox"/> <b>MOISTURE (ppm)</b>		
<input type="checkbox"/> <b>DEW POINT (°C)</b>		

**NOTE:**

<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>
<b>NAME</b>			
<b>SIGNATURE</b>			
<b>DATE</b>			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P55	PROJ. No.:	REV. 0 SH. _1_ OF _2_
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**GROSS LEAK TEST**

<i>MC PACKAGE:</i>		<i>UNIT:</i>		<i>SYSTEM:</i>			
LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	1300.P55 PROJ. No.:      REV. 0      SH. <u>2</u> OF <u>2</u> CONTRACTOR:

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
***PIPING***  
**GROSS LEAK TEST RESULT SUMMARY**

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>
TEST CIRCUIT DESCRIPTION: _____ TEST PROCEDURE: _____		
TESTING FLUID:	<input type="checkbox"/> AIR <input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER <input type="checkbox"/> OTHER _____	
TESTING CONDITION:	CIRCUIT NORMAL OPERATING PRESSURE _____ Kg/cm <sup>2</sup> g LEAK TEST PRESSURE _____ Kg/cm <sup>2</sup> g TEST DURATION _____ Hours PRESSURE DROP _____ Kg/cm <sup>2</sup>	

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P56	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**BLINDS INSTALLATION**

<i>MC PACKAGE:</i>		<i>UNIT:</i>		<i>SYSTEM:</i>					
TAG No.	LINE No.	P&ID No.	POSITION (O/C)	REMARKS	DATE	WITNESSING			
						CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P57	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**LOCK OPEN /CLOSE //CAR SEALS INSTALLATION**

<b>MC PACKAGE:</b>		<b>UNIT:</b>		<b>SYSTEM:</b>					
TAG No.	LINE No.	P&ID No.	POSITION (O/C)	REMARKS	DATE	WITNESSING			
						CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT :		
	COMPANY:		
QUALITY CONTROL REPORT <span style="float: right;">1300.P58</span>	PROJ. No.:	REV. 0	SH. _1_ OF _1_
	CONTRACTOR:		

## PRECOMMISSIONING – QUALITY CONTROL REPORT

## PIPING



## SPRING SUPPORTS COLD SETTING

[illegible]

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT :		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P59	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**FLOW ELEMENTS AND RESTRICTION ORIFICES INSTALLATION**

<b>MC PACKAGE:</b>			<b>UNIT:</b>		<b>SYSTEM:</b>			
TAG No.	LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
					CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P60	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**PRESSURE SAFETY VALVES INSTALLATION**

<i>MC PACKAGE:</i>		<i>UNIT:</i>		<i>SYSTEM:</i>			
TAG No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P61	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	



**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
***PIPING***  
**TEMPORARY STRAINERS INSTALLATION**

<i>MC PACKAGE:</i>		<i>UNIT:</i>			<i>SYSTEM:</i>			
REFERENCE No.	LINE No.	P&ID No.	MESH SIZE	DATE	WITNESSING			
					CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.P62	PROJ. No.:	REV. 0 SH. _1_ OF _1_
		CONTRACTOR:	

**PRECOMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**BOLT TORQUING/TENSIONING CHECK REPORT**

SYSTEM NUMBER:				FLANGED JOINT NUMBER:			
AREA:				TARGET TORQUE/TENSION VALUE (Nm):			
ISO No.:				LINE:			
Torque/Tension Tool Type:				Pump/Gauge Serial Number:			
Torque/Tension Tool Serial No's:				Pump Pressure Target (bar):			
Coverage (number of tensioners/number of bolts):							
Flange Material	YES	NO	Joint Size (inch)	YES	NO		
Bolt Material:	YES	NO	Joint Rating:	YES	NO		
Bolt Dia (inch):	YES	NO	Gasket Type:	YES	NO		
Bolt Qty:	YES	NO	Lubricated Bolt	YES	NO		
Torquing/Tensioning Values (Nm)							
<u>Torque/Tension</u> 30%	<u>Pump Pressure</u> applied (bar)	<u>Done</u>	<u>Torque/Tension</u> 60%	<u>Pump Pressure</u> applied (bar)	<u>Done</u>	<u>Torque/Tension</u> 100%	<u>Pump Pressure</u> applied (bar)
		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>
Is the gasket outer ring visual check acceptable?			YES	NO			

NOTE:

ID No. Performer:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			





PROJECT:

COMPANY:

QUALITY CONTROL REPORT

1300.C51

PROJ. No.: REV. 0 SH. \_1\_ OF \_2\_

CONTRACTOR:

## COMMISSIONING – QUALITY CONTROL REPORT

**PIPING**

**PURGING**

**MC PACKAGE:**

**UNIT:**

**SYSTEM:**

LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

**NOTE:**

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			





PROJECT:

COMPANY:

QUALITY CONTROL REPORT

1300.C51

PROJ. No.: REV. 0 SH. \_2\_ OF \_2\_

CONTRACTOR:



**COMMISSIONING – QUALITY CONTROL REPORT*****PIPING*****PURGING RESULT SUMMARY**

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>								
<b>PURGED CIRCUIT DESCRIPTION:</b> _____										
<b>PURGING PROCEDURE:</b> _____										
<b>PURGING FLUID:</b>	<input type="checkbox"/> STEAM <input type="checkbox"/> NITROGEN <input type="checkbox"/> OTHER									
<b>PURGING CONDITION:</b>	<input type="checkbox"/> PURGE OUT DURATION _____ Hours <input type="checkbox"/> CONTINUOUS PURGING DURATION _____ Hours <input type="checkbox"/> PRESSURE CYCLES No. ____ PRESSURE _____ Kg/cm <sup>2</sup> g									
<b>PURGING FINAL RESULT:</b>										
<b>SAMPLE POINT NUMBER</b>										
<b>RESIDUAL O<sub>2</sub> CONTENT (%)</b>										

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:		
	COMPANY:		
QUALITY CONTROL REPORT	1300.C52	PROJ. No.:	REV. 0 SH. _1_ OF _2_
		CONTRACTOR:	



**COMMISSIONING – QUALITY CONTROL REPORT**  
**PIPING**  
**TIGHTNESS TEST**

MC PACKAGE:		UNIT:		SYSTEM:			
LINE No.	P&ID No.	REMARKS	DATE	WITNESSING			
				CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	1300.C52
PROJ. No.:      REV. 0      SH. <u>2</u> OF <u>2</u>	
CONTRACTOR:	

<p align="center"><b>COMMISSIONING – QUALITY CONTROL REPORT</b></p> <p align="center"><b><i>PIPING</i></b></p> <p align="center"><b>TIGHTNESS TEST RESULT SUMMARY</b></p>
---

<b>MC PACKAGE:</b>	<b>UNIT:</b>	<b>SYSTEM:</b>
TEST CIRCUIT DESCRIPTION: _____		
TEST PROCEDURE: _____		
TESTING FLUID:	<input type="checkbox"/> AIR <input type="checkbox"/> NITROGEN <input type="checkbox"/> WATER <input type="checkbox"/> OTHER _____	
TESTING CONDITION:	CIRCUIT NORMAL OPERATING PRESSURE _____ Kg/cm <sup>2</sup> g TIGHTNESS TEST PRESSURE _____ Kg/cm <sup>2</sup> g TEST DURATION _____ Hours PRESSURE DROP _____ Kg/cm <sup>2</sup>	

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT	1300.C53 PROJ. No.:      REV. 0      SH. _1_ OF _1_ CONTRACTOR:

<p align="center"> <b>COMMISSIONING – QUALITY CONTROL REPORT</b>  <b>PIPING</b>  <b>SPRING SUPPORTS HOT SETTING</b> </p>
--

MC PACKAGE:		UNIT:		SYSTEM:					
TAG No.	LINE No.	P&ID No.	HOT SET OK (Y/N)	REMARKS	DATE	WITNESSING			
						CONTRACTOR	TECHNIP	OWNER	THIRD PARTY

NOTE:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			



 	PROJECT:
	COMPANY:
QUALITY CONTROL REPORT <b>W 12</b>	PROJ. No.:      REV. 0      SH. _1_ OF _1_
	CONTRACTOR:

INSPECTION REPORT			
1. PURPOSE OF INSPECTION _____			
QCP _____	CHECK STEP _____	AREA _____	
2. ITEM IDENTIFICATION	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
3. TYPE OF INSPECTION _____	TEST EXAMINATION CHECK		
4. INSPECTION RESULT: CONFORMING			
NOT CONFORMING			
WITH REMARKS			

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			







 <b>TechnipFMC</b>		 IndianOil	<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks</b>	
				<b>IOCL Paradip Refinery</b>	
			<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>	
<b>QCP-PIPING PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1310-001		<b>Rev. No.</b> A	Page 1 of 4

## QUALITY CONTROL PLAN

### PIPING PREFABRICATION

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
W 31A – W 31B – QC 13	SUMMARY
QC 15	SINGLE REPORT PER EACH SHIPPING RELEASE
W 10 – W 50	SINGLE REPORT PER EACH ISOMETRIC
W 01 – W 02 – W03 – W04 – W 24 – QC 21	SINGLE REPORT PER EACH EXAMINATION

#### REFERENCE DOCUMENTS:



- 080557C-PP-805 Site Coordination & Communication Procedure.
- 080557C-PP-814 Welding Specification for Fabrication of Piping
- 080557C-PP-807 Material Receiving, Handling & Storage procedure
- 080557C-PP-804 Positive Material Identification at Site
  
- QCP 1399.02 Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)
- QCP 1399.01 Welders Management
- 080557C-000-JSC-1300-001 Standard Specification for Fabrication and Erection of Piping
- 080557C-000-JSD-2300-001 Specification for Painting
- 080557C-000-JSD-2200-001 Job Specification for Hot Insulation of Vessels, Piping and Equipment
- 080557C-000-JSD-2200-002 Job Specification for Cold Insulation of Vessels, Piping and Equipment
- 080557C-PP-820 Standard specification for inspection, flushing and testing of piping systems.
- 080557C-PP-821 Equipment Construction specification for Welder Management
  
- Drawings

A	21.10.2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	JMC	
REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED	

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 		PROJECT	Standby SRU & Additional Tanks	
		CLIENT	IOCL Paradip Refinery	
QCP-PIPING PREFABRICATION		Project No. 080557C001	Document No. 080557C-000-QCP-1310-001	Rev. No. A
				Page 2 of 4

#### LEGENDA

H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
RFI	=	REQUEST FOR INSPECTION
!	=	WARNING (control of document revision status)



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>		
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>		
<b>QCP-PIPING PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1310-001		<b>Rev. No.</b> A	Page 3 of 4

S.No.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
<b>B)</b>	<b>BEFORE PREFABRICATION</b>				
B.1	INCOMING MATERIAL		WC	W/S	
B.2	SHOP APPROVAL	N.A.	WC	R	
B.3	WELDERS MANAGEMENT	Use QCP 1399.01			(2)
B.4	WELDING, NDT/ PMI/PWHT/HT MANAGEMENT	Use QCP 1399.02			(2)
B.5	MATERIALS APPROVAL	W 12/A	WC	A	(1)
B.6	ISOMETRIC SPOOLING	W 50	WC	R	
B.7	MATERIAL RELEASED AND CONSERVATION STATUS	W 50	WC	W/R	
<b>C)</b>	<b>PREFABRICATION</b>				
C.1	PIPES SECTIONING & MATERIAL MARKING / STAMP TRANSFERING	W 50	WC	S	
C.2	ASSEMBLY & TACK WELDS(FIT UP)	W 50	WC	S	
C.3	WELDING	W 10 – W 50	WC	S	
C.4	GRINDING OF ORIFICE FLANGES ROOT WELDS	W 31A – W 50	WC	S	
C.5	PNEUMATIC TEST FOR REINFORCING PADS	W 31B – W 50	WC	W	
C.6	MATERIAL TRACEABILITY	W 10 – W 50	WC	R	
C.7	DIMENSIONAL CHECK	QC 13 – W 50	WC	R/S	
C.8	NDE / PMI / PWHT / HT EXECUTION & TRACEABILITY				
C.8.1	WELDING DAILY PROGRESS & VISUAL EXAMINATION	W24 - W50	WC	R	
C.8.2	PMI EXECUTION (where required)	QC21 - W50	WC	W/R	
C.8.3	PWHT CHART RECORDS (where required)	W 50	WC	R	



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1310-001	<b>Rev. No.</b> A	Page 4 of 4

S.No.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
C.8.4	HARDNESS TEST EXECUT. (where required)	W 50	WC	W/R	
C.8.5	LIQUID PENETRANT EXAM. (where required)	W03 - W50	WC	W/R	
C.8.6	MAGNETIC PARTIC. EXAM. (where required)	W04 - W50	WC	W/R	
C.8.7	RAD. EXAM. FILM REVIEW (where required)	W01 - W50	WC	R	
C.8.8	ULTRASONIC EXAM. (where required)	W02 – W50	WC	W	
C.8.9	NDE / PMI / PWHT / HT TRACEABILITY	W 10 – W 50	WC	R	
C.9	SHOTBLAST & PAINTING (IF REQUESTED TO PIPING PREFABRICATOR ONLY)				(2)
C.10	SPOOLS IDENTIFICATION AND SHIPPING RELEASE	QC 15 – W 50	WC	R/S	
C.11	FINAL DOCUMENTATION REVIEW	W 50			



NOTES: (1) A COPY OF THE DOCUMENT WILL BE DELIVERED TO COMPANY FOR INFORMATION.

(2) FORMS, INSPECTIONS AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP.

#### GENERAL NOTES

- THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THE JOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN-CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



 					PROJECT:					
					COMPANY:					
QUALITY CONTROL FORM <b>QC 13</b>					PROJ. No.:		QCF REV. A		SH. ___ OF ___	
<b>PREFABRICATION DIMENSIONAL CHECK REPORT</b>					CONTRACTOR:				<b>QC 13 N° _____</b>	
N°	REFERENCE DRAWING				SPOOL		DIMENSIONAL CHECK		NOTES	
	ISOMETRIC	SH.	REV.	AREA	N°	TOTAL N° x ISO	ACCEP.	EXTRA LENGTH (Y / N)		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
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26										
27										
28										
REMARKS:										
<b>INSPECTORS</b>		<b>CONTRACTOR</b>			<b>PMC</b>			<b>OWNER</b>		
NAME										
SIGNATURE										
DATE										



<b>TechnipFMC</b> <b>IndianOil</b>					PROJECT:				
					COMPANY:				
QUALITY CONTROL FORM <b>QC 15</b>					PROJ. No.:	QCF REV. A	SH. ___ OF ___		
<b>SPOOLS SHIPPING RELEASE</b>					CONTRACTOR:			QC 15 N° ____	
N°	REFERENCE DRAWING				SPOOLS EXPEDITING DATA				NOTES
	ISOMETRIC	SH	REV.	AREA	TO BE SHIPPED NR. (1)	MISSING NR. (2)	COMPLETE SHIPMENT	PARTIAL SHIPMENT	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
SHIPPING:    AUTHORIZED <input type="checkbox"/>					REMARKS:				
NOTE (1) = IDENTIFIED SPOOLS TO BE SHIPPED NOTE (2) = IDENTIFIED MISSING SPOOLS									
<b>INSPECTORS</b>		<b>CONTRACTOR</b>			<b>PMC</b>			<b>OWNER</b>	
NAME									
SIGNATURE									
DATE									









COMPANY:

SH. 2 OF       

## QC 21 N° \_\_\_\_\_

[illegible]

**TEST RESULT:**

ACCEPTABLE	<input type="checkbox"/>
NOT ACCEPTABLE	<input type="checkbox"/>

REMARKS:

## INSPECTORS

**CONTRACTOR**

**PMC**



**OWNER**

NAME

**SIGNATURE**

DATE \_\_\_\_\_



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM (NDE-01) <b>W 01</b>		PROJ. No.:	QCF REV. A	SH. 1 OF 2
<b>RADIOGRAPHIC TEST REPORT (REQUIREMENTS)</b>		CONTRACTOR:		<b>W 01 N°</b> _____
APPLICABLE CODES/SPEC'S • ASME V ART 2 <input type="checkbox"/> • <input type="checkbox"/>		ACCEPTANCE CRITERIA • <input type="checkbox"/> • <input type="checkbox"/>		
FIELD OF APPLICATION		MATERIAL	SURFACE FINISH	
• PIPING <input type="checkbox"/> • TANKS/ SILOS <input type="checkbox"/> • EQUIPMENT <input type="checkbox"/>	• WELDING <input type="checkbox"/> • RAW MATERIAL <input type="checkbox"/> • <input type="checkbox"/>	• C.S/LOW ALLOY <input type="checkbox"/> • S.S/NI ALLOY <input type="checkbox"/> • TI <input type="checkbox"/>	• BEFORE PWHT <input type="checkbox"/> • AFTER PWHT <input type="checkbox"/> • AFTER HYDR. TEST <input type="checkbox"/>	
SOURCE		FILMS	PENETRAMEters	
• X-RAY <input type="checkbox"/> • γ-RAY: • Ir 192 <input type="checkbox"/> • Co. 60 <input type="checkbox"/>	• TYPE _____ • BRAND _____ • SINGLE SPOT <input type="checkbox"/> • 360° EMISSION <input type="checkbox"/> KV _____	• TYPE _____ • BRAND _____ • 10 X 48 <input type="checkbox"/> 10 X 24 <input type="checkbox"/> • SINGLE <input type="checkbox"/> • DOUBLE <input type="checkbox"/>	• DIN <input type="checkbox"/> • ASME <input type="checkbox"/> • TYPE _____ • QUANTITY _____ • SOURCE SIDE <input type="checkbox"/> FILM SIDE <input type="checkbox"/>	
SENSITIVITY	DENSITY	UNSHARPNESS	PARAMETERS	
• DIN _____ % • ASME _____ • SINGLE WALL <input type="checkbox"/> • DOUBLE WALL <input type="checkbox"/>	• REQUIRED _____ • RANGE _____ • SINGLE FILM <input type="checkbox"/> • DOUBLE FILM <input type="checkbox"/>	• GEOM UNSHARP _____ MAX • FOCAL SPOT _____ • MINIMUM FOCUS/ FILM DIST.	VOLTAGE _____KV MIN.EXPOSURE _____ MAX MIN DEVELOP TIME _____MIN DEVELOP TEMP _____°C	
EXPOSURE ARRANGMENT	TECHNIQUE	REMARKS:		
• SOURCE INSIDE <input type="checkbox"/> OUTSIDE <input type="checkbox"/>  • FILM INSIDE <input type="checkbox"/> OUTSIDE <input type="checkbox"/>	• WALL SINGLE <input type="checkbox"/> DOUBLE <input type="checkbox"/>  • IMAGE SINGLE <input type="checkbox"/> DOUBLE <input type="checkbox"/>			
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>	
NAME				
SIGNATURE				
DATE				





COMPANY:



SH. 2 OF 2

## W 01 N° \_\_\_\_\_



CM = CUT TO MODIFY

[illegible]



 		PROJECT:	
		COMPANY:	
QUALITY CONTROL FORM (NDE-02) <b>W 02</b>		PROJ. No.:	QCF REV. A
<b>ULTRASONIC TEST REPORT</b>		CONTRACTOR:	<b>W 02 N°</b> _____
APPLICABLE CODES/SPEC'S • ASME V ART 4 <input type="checkbox"/> • <input type="checkbox"/>		ACCEPTANCE CRITERIA • <input type="checkbox"/> • <input type="checkbox"/>	
FIELD OF APPLICATION			
• PIPING <input type="checkbox"/> • TANKS/ SILOS <input type="checkbox"/> • EQUIPMENT <input type="checkbox"/>	• BEVEL <input type="checkbox"/> • 1 <sup>ST</sup> PASS <input type="checkbox"/> • BACK GOUGING <input type="checkbox"/>	• FINAL PASS <input type="checkbox"/> • OVERLAY <input type="checkbox"/> • RAW MATERIAL <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>
MATERIAL		INSPECTION STAGE	
• C.S. <input type="checkbox"/> • TI <input type="checkbox"/> • S.S. <input type="checkbox"/>	• LOW ALLOY <input type="checkbox"/> • HASTELLOY <input type="checkbox"/> • <input type="checkbox"/>	• BEFORE PWHT <input type="checkbox"/> • AFTER PWHT <input type="checkbox"/> • AFTER HYD. TEST <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>
SURFACE CONDITION			
• AS WELDED <input type="checkbox"/> • AS GROUND <input type="checkbox"/> • AS ROLLED <input type="checkbox"/> • AS CAST <input type="checkbox"/>	• BRUSHED <input type="checkbox"/> • AS FORGED <input type="checkbox"/> • AS MACHINED <input type="checkbox"/> • AS BENT <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>	TEMPERATURE _____ STEP _____
INSPECTION METHOD			
• STRAIGHT BEAM <input type="checkbox"/> • ANGLE BEAM SEARCH UNIT <input type="checkbox"/> • SINGLE TRANSDUCER <input type="checkbox"/> • LONGITUDINAL WAVES <input type="checkbox"/>	• TRANSVERSE WAVES <input type="checkbox"/> • TANDEM METHOD <input type="checkbox"/> • SEARCH UNIT (TR) DUAL TRANSDUCER <input type="checkbox"/> • <input type="checkbox"/>	• BACK REFLECTION mm _____ <input type="checkbox"/> • SIDE DRILLED HOLE mm _____ Ø mm _____ <input type="checkbox"/> • FLAT BOTTOM HOLE mm _____ Ø mm _____ <input type="checkbox"/> • <input type="checkbox"/>	
COUPLANT			
• OIL <input type="checkbox"/>	• TYLOSE PASTE <input type="checkbox"/>	• WATER <input type="checkbox"/>	
REF. CALIBRATION EQUIPMENT BLOCKS METHOD		SCANNING DIRECTION & RESULTS	
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>
NAME			
SIGNATURE			
DATE			



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM (NDE-03) <b>W 03</b>		PROJ. No.:	QCF REV. A	SH. 1 OF 2
<b>LIQUID PENETRANT TEST REPORT (REQUIREMENTS)</b>		CONTRACTOR:		<b>W 03 N°</b> _____
APPLICABLE CODES/SPEC'S • ASME V ART 6 <input type="checkbox"/> • <input type="checkbox"/>		ACCEPTANCE CRITERIA • <input type="checkbox"/> • <input type="checkbox"/>		
FIELD OF APPLICATION				
• PIPING <input type="checkbox"/> • TANKS/ SILOS <input type="checkbox"/> • EQUIPMENT <input type="checkbox"/>	• BEVEL <input type="checkbox"/> • 1 <sup>ST</sup> PASS <input type="checkbox"/> • BACK GOUGING <input type="checkbox"/>	• FINAL PASS <input type="checkbox"/> • OVERLAY <input type="checkbox"/> • RAW MATERIAL <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>	
MATERIAL		INSPECTION STAGE		
• C.S. <input type="checkbox"/> • TI <input type="checkbox"/> • S.S. <input type="checkbox"/>	• LOW ALLOY <input type="checkbox"/> • HASTELLOY <input type="checkbox"/> • <input type="checkbox"/>	• BEFORE PWHT <input type="checkbox"/> • AFTER PWHT <input type="checkbox"/> • AFTER HYD. TEST <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>	
INSPECTION METHOD				
TYPE	PENETRANT	DEVELOPPER	LIGHTING	
• COLOUR CONTRAST <input type="checkbox"/> • FLUORESCENT <input type="checkbox"/>	• WATER WASHABLE <input type="checkbox"/> • POST EMUL. <input type="checkbox"/> • SOLVENT <input type="checkbox"/> • TYPE <input type="checkbox"/> • BRAND _____	• DRY <input type="checkbox"/> • WET <input type="checkbox"/> • BRAND _____	NATURAL <input type="checkbox"/> ARTIFICIAL <input type="checkbox"/> ULTRAVIOLET <input type="checkbox"/>	
PRECLEANING	REMOVABLE	CLEANER	TIME	
• GRINDING <input type="checkbox"/> • MACHINING <input type="checkbox"/> • SOLVENT <input type="checkbox"/>	• BRUSH <input type="checkbox"/> • SPRAY. <input type="checkbox"/>	• TYPE <input type="checkbox"/> • CLOTHS <input type="checkbox"/> • BRUSHY <input type="checkbox"/>	PENETRATION _____ DEVELOPPING _____ MAX READING _____	
PRECLEANING	REMOVABLE			
• WATER <input type="checkbox"/> • ALCOHOL <input type="checkbox"/>	• DIPPING <input type="checkbox"/> • SPRAY. <input type="checkbox"/>	• SPRAY <input type="checkbox"/> • BRAND _____		
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>	
NAME				
SIGNATURE				
DATE				





PROJECT:

COMPANY:

## QUALITY CONTROL FORM (NDE-03)

**W 03**

PROJ. No.:

QCF REV. A

SH. 2 OF 2

# LIQUID PENETRANT TEST REPORT

CONTRACTOR:

W 03 N° \_\_\_\_\_

- ☐ WATER WASHABLE
 ☐ POST EMULSIFYING  
☐ SOLVENT REMOVABLE
 ☐ .....

[illegible]



		PROJECT:	
		COMPANY:	
QUALITY CONTROL FORM (NDE-04) <b>W 04</b>		PROJ. No.:	QCF REV. A
<b>MAGNETIC PARTICLE TEST REPORT</b>		CONTRACTOR:	<b>W 04 N°</b> _____
APPLICABLE CODES/SPEC'S • ASME V ART 7 <input type="checkbox"/> • OTHER <input type="checkbox"/>		ACCEPTANCE CRITERIA • <input type="checkbox"/> • <input type="checkbox"/>	
<b>FIELD OF APPLICATION</b>			
• PIPING <input type="checkbox"/> • TANKS/SILOS <input type="checkbox"/> • EQUIPMENT <input type="checkbox"/>	• BEVEL <input type="checkbox"/> • 1ST PASS <input type="checkbox"/> • BACK GOUGING <input type="checkbox"/>	• FINAL PASS <input type="checkbox"/> • OVERLAY <input type="checkbox"/> • RAW MATERIAL <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>
<b>MATERIAL</b>		<b>INSPECTION STAGE</b>	
• C.S. <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>	• LOW ALLOY <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>	• BEFORE PWHT <input type="checkbox"/> • AFTER PWHT <input type="checkbox"/> • AFTER HYD. TEST <input type="checkbox"/>	• <input type="checkbox"/> • <input type="checkbox"/> • <input type="checkbox"/>
<b>INSPECTION METHOD</b>			
<b>MAGNETIZATION</b>	<b>PARTICLE</b>	<b>COLOUR</b>	<b>SUSPENSION</b>
• PRODS CONTACTS Cu <input type="checkbox"/> Sb <input type="checkbox"/> MAX DIST. _____	• DRY <input type="checkbox"/> • WET <input type="checkbox"/> • BRAND _____	• GRAY <input type="checkbox"/> • FLUORESCENT <input type="checkbox"/> • <input type="checkbox"/>	• OIL <input type="checkbox"/> • WATER <input type="checkbox"/>
	<b>CURRENT TYPE</b>	<b>LIGHTING</b>	<b>METHOD</b>
• YOKE FIXED LEGS <input type="checkbox"/> ARTICULAT.LEGS <input type="checkbox"/> MAX DIST. _____	• HALF WAVE RECTIFIED <input type="checkbox"/> • ALTERNATING <input type="checkbox"/>	• NATURAL <input type="checkbox"/> • ARTIFICIAL <input type="checkbox"/> • ULTRAVIOLET <input type="checkbox"/>	• CONTINUOUS <input type="checkbox"/> • RESIDUAL <input type="checkbox"/> • PULSES <input type="checkbox"/>
	<b>AMPERAGE FIELD</b>	<b>DEMAGNETIZATION</b>	<b>PRECLEANING</b>
• COIL <input type="checkbox"/> BRAND _____	AMP _____ FIELD _____	YES <input type="checkbox"/> NO <input type="checkbox"/> RESIDUAL	• BRUSHING <input type="checkbox"/> • <input type="checkbox"/>
REMARKS:			
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>
NAME			
SIGNATURE			
DATE			





PROJECT:

COMPANY:

## QUALITY CONTROL FORM (NDE-04)

W 04

PROJ. No.:

QCF REV. A

SH. 2 OF 2

# MAGNETIC PARTICLE TEST REPORT

CONTRACTOR:

W 04 N° \_\_\_\_\_

☐

PRODS

☐☐ POWDER

9

DRY

☐

WET



FLUORESCENT

[illegible]





COMPANY:

**W 10**

SH. OF



**W 10 N° (SEE ISO N° )**

PMI Y ☐ N ☐

(1) **B** = BUTTWELD; **S** = SOCKET WELD; **EW** = EXTERNAL WELD  
(2) **P** = PREBRICATION; **E** = ERECTION  
(3) **A** = ACCEPTED; **R** = TO BE REPAIRED; **C** = TO BE CUT; **CM** = CUT TO MODIFY

JOINTS			BASE MATERIAL TRACEABILITY				PMI	WELDER IDENTIF.	WPS N°	CONTROL AND EVALUATION CERTIFICATION										
N°	Type (1)	P/E (2)	HEAT NUMBER	MANUFACTURER	IDENT CODE	SHORT DESCR.	REPORT N°			VISUAL (3)	RADIOGRAPHIC / ULTRASONIC TEST			PT / MT			PMI	PWHT	HT	
									RTR / UTR	(3)	REP	PTR / MTR	(3)	REP	REPORT N°	REPORT N°	REPORT N°			
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
INSPECTORS			CONTRACTOR			PMC			OWNER											
PHASE			PREFA.		ERECT.		PREFA.		ERECT.		PREFA.			ERECT.			PREFA.		ERECT.	
NAME																				
SIGNATURE																				
DATE																				



 		PROJECT:	
		COMPANY:	
QUALITY CONTROL FORM <b>W 12/A</b>		PROJ. No.:	QCF REV. A
<b>CONSTRUCTION MATERIALS APPROVAL</b>		CONTRACTOR:	<b>W 12/A N°</b> _____
CIVIL <input type="checkbox"/>	PIPING <input type="checkbox"/>	MACHINERY <input type="checkbox"/>	INSULATION <input type="checkbox"/>
BLDG. <input type="checkbox"/>	MECHANIC. <input type="checkbox"/>	ELECTRICAL <input type="checkbox"/>	STEEL STR. <input type="checkbox"/>
NDT <input type="checkbox"/>	SUPPORT PRF. <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
1. MATERIALS			
2. SUPPLIER			
3. PURPOSE			
4. ATTACHMENT DATA			
5. TYPE OF TEST PERFORMED			
6. TEST STANDARD UTILIZED			
REMARKS:			
RESULT:		ACCEPTED <input type="checkbox"/>	NOT ACCEPTED <input type="checkbox"/>
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>
NAME			
SIGNATURE			
DATE			





COMPANY:

PROJ. No.:	QCF REV. A	SH. __ OF __
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CONTRACTOR: **W 24 N°** \_\_\_\_\_

DATE: PREPARED BY:

[illegible]



NOTES:  
(1) B=Buttweld      S=Socket Weld      EW=External Weld  
(2) A=ACCEPTED      R=TO BE REPAIRED

<b><i>INSPECTORS</i></b>	<b><i>CONTRACTOR</i></b>	<b><i>PMC</i></b>	<b><i>OWNER</i></b>
NAME			
SIGNATURE			
DATE			



[illegible]



 		PROJECT:																																																																																																													
		COMPANY:																																																																																																													
QUALITY CONTROL FORM <b>W 31B</b>		PROJ. No.:	QCF REV. A																																																																																																												
<b>REINFORCING PADS PNEUMATIC TEST REPORT</b>		CONTRACTOR:	SH. ____ OF ____ <b>W 31B N° ____</b>																																																																																																												
<b>REINFORCING PADS – PNEUMATIC TEST</b>																																																																																																															
TEST MEDIUM _____		TEST PRESSURE _____ barg																																																																																																													
<table border="1"> <thead> <tr> <th colspan="3">REFERENCE</th> <th rowspan="2">REINFORCING PAD IDENTIFICATION</th> <th rowspan="2">NOTES</th> </tr> <tr> <th>LINE / ISO N°</th> <th>SH.</th> <th>REV.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>			REFERENCE			REINFORCING PAD IDENTIFICATION	NOTES	LINE / ISO N°	SH.	REV.																																																																																																					
REFERENCE			REINFORCING PAD IDENTIFICATION	NOTES																																																																																																											
LINE / ISO N°	SH.	REV.																																																																																																													
TEST RESULT:                      ACCEPTED <input type="checkbox"/>																																																																																																															
REMARKS:																																																																																																															
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SIGNATURE																																																																																																															
DATE																																																																																																															



<b>TechnipFMC</b> <b>IndianOil</b>		PROJECT:					
		COMPANY:					
<b>QUALITY CONTROL FORM</b> <span style="float: right;"><b>W 50</b></span>		PROJ. No.:	QCF REV. A	SH. ___ OF ___			
<b>PIPING PREFABRICATION SUMMARY REPORT</b>		CONTRACTOR:		W 50 N° _____			
ISOMETRIC/DRAWING N° _____ SH. _____ OF _____ REV. _____ AREA _____ SYSTEM _____							
INSPECTIONS (REF. TO QCP 1310.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
B.6	ISOMETRIC SPOOLING	<input type="checkbox"/>	<input type="checkbox"/>				
B.7	MATERIAL RELEASED AND CONSERVATION STATUS	<input type="checkbox"/>	<input type="checkbox"/>				
C.1	PIPES SECTIONING & MATERIAL MARKING / STAMP TRANSFERING	<input type="checkbox"/>	<input type="checkbox"/>				
C.2	ASSEMBLY & TACK WELDS	<input type="checkbox"/>	<input type="checkbox"/>				
C.3	WELDING	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
C.4	GRINDING OF ORIFICE FLANGES ROOT WELD	<input type="checkbox"/>	<input type="checkbox"/>	W 31A (**)			
C.5	PNEUMATIC TEST FOR REINFORCING PADS	<input type="checkbox"/>	<input type="checkbox"/>	W 31B (**)			
C.6	MATERIAL TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
C.7	DIMENSIONAL CHECK	<input type="checkbox"/>	<input type="checkbox"/>	QC 13 (**)			
C.8.1	WELDING DAILY PROGRESS & VISUAL EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 24 (**)			
C.8.2	PMI EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	QC 21 (**)			
C.8.3	PWHT CHART RECORDS	<input type="checkbox"/>	<input type="checkbox"/>	Subcontractor Report (**)			
C.8.4	HARDNESS TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	Subcontractor Report (**)			
C.8.5	LIQUID PENETRANT EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 03 (**)			
C.8.6	MAGNETIC PARTICLE EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 04 (**)			
C.8.7	RADIOGRAPHIC EXAM. FILM REVIEW	<input type="checkbox"/>	<input type="checkbox"/>	W 01 (**)			
C.8.8	ULTRASONIC EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 02 (**)			
C.8.9	NDE / PMI / PWHT / HT TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
C.10	SPOOLS IDENTIFICATION AND SHIPPING RELEASE	<input type="checkbox"/>	<input type="checkbox"/>	QC 15 (**)			
NOTES: (*) W 10 HAS THE SAME N° OF THE ISOMETRIC (**) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : W31A N° _____ W31B N° _____ QC13 N° _____ W24 N° _____ QC21 N° _____ W03 N° _____ W04 N° _____ W01 N° _____ W02 N° _____ QC15 N° _____ PWHT Subcontractor Report N° _____ HT Subcontractor Report N° _____							
C.11) FINAL DOC. REVIEW	<b>INSPECTORS</b>		<b>CONTRACTOR</b>		<b>PMC</b>		<b>OWNER</b>
	NAME						
	SIGNATURE						
	DATE						






 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING ERECTION (ABOVE & UNDERGROUND)	Project No. 080557C001	Document No. 080557C-000-QCP-1320-001	Rev. No. A	Page 1 of 6
<b>QUALITY CONTROL PLAN</b>  <b>PIPING ERECTION (ABOVE &amp; UNDERGROUND)</b>				

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
W 10 - W 16 - W 51AG – W 51UG – V 01 - VE 01	SINGLE REPORT PER EACH ISOMETRIC
W 13 – MC 01 - W 14B - IC 01 - W 51T – LU 01 – PL 10	SINGLE REPORT PER EACH TESTING CIRCUIT
W 31B - W 31C - W 18 – RT 01 – BT 01 – BCS 01 – SS 01	SUMMARY
W 01 – W02 - W03 – W04 – W 24 – QC 21 – BTC 01	SINGLE REPORT PER EACH EXAMINATION

#### REFERENCE DOCUMENTS:



- 080557C-000-PP-805
  - 080557C-000-PP-807
  - 080557C-000-PP-804
  - 
  - QCP 1399.02
  - 080557C-000-JSC-1300-001
  - 080557C-000-JSD-2300-001
  - 080557C-000-JSD-2200-001
  - 080557C-000-JSD-2200-002
  - 0805579C-000-PP-820
  - DRAWINGS
- Site Coordination & Communication Procedure.  
Material Receiving, Handling & Storage procedure  
Specification for Positive Material Identification at Construcion site
- Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)  
Standard Specification for Fabrication and Erection of Piping  
Specification for Surface Preparation and Protective Coating  
Job Specification for Hot Insulation of Vessels, Piping and Equipment  
Job Specification for Cold Insulation of Vessels, Piping and Equipment  
Standard specification for inspection, flushing and testing of piping systems.

				 Digitally signed by Samit Paul 2019.10.21 17:58:57 +05'30'	 Digitally signed by Atkappan I 2019.11.06 16:56:24 +05'30'	 Digitally signed by Morischristopher Jesumarian 2019.11.06 22:25:51 +05'30'
A	19/10/2019	ISSUED FOR INFROMATION	SMP	PKP	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED

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 <b>TechnipFMC</b>  IndianOil	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING ERECTION (ABOVE &amp; UNDERGROUND)</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1320-001	<b>Rev. No.</b> A	Page 2 of 6

#### LEGENDA



H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
S	=	SURVEILLANCE (No RFI)
P	=	PREPARATION
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
RFI	=	REQUEST FOR INSPECTION
!	=	WARNING (control of document revision status)



 		PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
		CLIENT	INDIAN OIL CORPORATION LIMITED		
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S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
A.3	CONTRACTOR METHOD STATEMENTS (IF REQUIRED)	N.A.	P	R	
<b>B)</b>	<b>BEFORE ERECTION</b>				
B.1	WELDERS MANAGEMENT	Use QCP 1399.01			(2)
B.2	WELDING, NDE/PMI/PWHT/HT MANAGEMENT	Use QCP 1399.02			(2)
B.3	MATERIALS APPROVAL	W 12/A	WC	R	(1) (3)
<b>C)</b>	<b>EXCAVATION &amp; BACKFILLING (FOR UNDERGROUND PIPING)</b>	QCP 1440.01 (Civil Work)			(2)
<b>D)</b>	<b>ERECTION (PER ISO)</b>				
D.1	PREASSEMBLY	W 10 / W 51 xy	WC	R/S	(4) (5)
D.2	DELIVERED MATERIAL READY AT SITE (MATERIALS & SPOOLS IDENTIFICATION AND CONSERVATION STATUS)	W 51 xy	WC	R/S	(5)
D.3	PIPE / SPOOL INTERNAL CLEANING	IC 01 / W 51 xy	WC	W/R	(5)
D.4	PIPE / SPOOL ERECTION AND ALIGNMENT (inclusive pipe identification transfer if required)	W 51 xy	WC	R/S	(5)
D.5	PIPE / SPOOL TACK WELDS (if any)- FIT UP	W 51 xy	WC	S	(5)
D.6	GAP CONTROL FOR SOCKET WELDS (if any)	W24 / W51 AG	WC	S	
D.7	WELDING	W 10 / W 51 xy	WC	S	(5)
D.8	ORIFICE FLANGES AND VENTURI INSTALLATION	W 31C / W 51 xy	WC	S	(5)
D.9	PNEUMATIC TEST FOR REINFORCING PADS	W 31B / W 51 xy	WC	W/R	(5)
D.10	MATERIAL FULL TRACEABILITY (AS APPLICABLE)	W 10 / W 51 xy	WC	S	(5)
D.11	RT JOINT SELECTION REQUEST	RT 01 / W 51xy	WC	R	(5)
D.12	NDE / PMI / PWHT / HT EXECUTION & TRACEABILITY				
D.12.1	WELDING DAILY PROGRESS & VISUAL EXAMINATION	W24 / W51 xy	WC	R	(5)
D.12.2	PMI EXECUTION (where required)	QC21/ W51 xy	WC	W/R	(5)
D.12.3	PWHT CHART RECORDS (where required)	W51 xy	WC	R	(5)
D.12.4	HARDNESS TEST EXECUT. (where required)	W51 xy	WC	W/R	(5)
D.12.5	LIQUID PENETRANT EXAM. (where required)	W03 / W51 xy	WC	W/R	(5)
D.12.6	MAGNETIC PARTIC. EXAM. (where required)	W04 / W51 xy	WC	W/R	(5)





 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
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S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
D.12.7	RAD. EXAM. FILM REVIEW (where required)	W01 / W51 xy	WC	R	(5)
D.12.8	ULTRASONIC EXAMINATION (where required)	W02 / W51 xy	WC	W/R	(5)
D.12.9	NDE / PMI / PWHT / HT TRACEABILITY	W 10 / W 51 xy	WC	R	(5)
D.13	JOINT REPAIR EXECUTION (if any)	W 10 / W 51 xy	WC	S	(5)
D.14	REPAIRS RAD. FILM REVIEW (if any)	W 01 or equivalent	WC	R	(5)
D.15	JOINT CUT OUT FOR MODIFICATION (if any)	W 10 / W 51 xy	WC	W/R	(5) (6)
D.16	PIPING SUPPORT INSTALLATION	W 51 xy	WC	R/S	(5)
D.17	VALVE INSTALLATION	V 01 / W 51 xy	WC	R/S	(5) (7)
D.18	FLANGE FACES INSPECTION	W 51 xy	WC	R/S	(5)
D.19	FLANGES PARALLELISM / ALIGNMENT & GASKET INSTALLATION	BT 01 / W 51 xy	WC	R/S	(5)
D.20	TORQUE WRENCHES CALIBRATION	W 51 xy	WC	R	(5)
D.21	JOINT BOLTS TIGHTENING EXECUTION	BTC 01 / W 51 xy	WC	W/R	(5)
D.22	SLOPE CHECK	SS 01 / W 51 xy	WC	W/R	(5)
D.23	PRESSURE TEST (ONLY FOR UNDERGROUND PIPING)	W 51T / W 51 UG	WC	W	(8)
D.24	HOLIDAY TEST AFTER PRESSURE TEST (ONLY FOR UNDERGROUND PIPING)	W 18 / W 51 UG	WC	W/R	
D.25	FINAL DOCUMENTATION REVIEW	W 51 xy			(5)
E)	<b>PRESSURE TEST PREPARATION / EXECUTION (PER TESTING CIRCUIT)</b>				
E.1	TEST PACK CREATION	W 51 T	P	R	
E.2	MECHANICAL CLEARANCE	MC 01 / W 51T	WC	W/R	
E.3	PUNCH LIST BEFORE PRESSURE TEST	PL 10 / W51T	WC	W	
E.4	NDE VERIFICATION (Check of relative QCF W10 issued for ISO's)	W10 / W 51T	WC	R	
E.5	PUNCH "A" CLEARANCE AND RELEASE FOR TEST	PL 10 / W 51T	WC	W/R	
E.6	INTERNAL CLEANLINESS VERIFICATION (Check of relative QCF IC01 issued for spools/ISO)	W 51T	WC	W/R	
E.7	BLIND FLANGES INSTALLATION	BCS 01 / W 51T	WC	W/R	
E.8	BOLT TORQUING REPORT	BTC 01 / W 51T	WC	R	
E.9	PRESSURE TEST EXECUTION	W13 / W 51T	WC	W	
E.10	WATER DRY-OUT EXECUTION	LU 01 / W 51T	WC	W	
E.11	BLIND FLANGES REMOVAL	BCS 01 / W 51T	W	W/R	
E.12	WORK ACCEPTANCE OF "PUNCH LIST AFTER PRESSURE TEST" (LINE REINSTATEMENT)	PL 10 / W 51T	WC	W/R	
F)	<b>MODIFICATION AFTER HYDROTEST (IF ANY)</b>	W 16	WC	W/R	
G)	<b>CONTROL &amp; SAFETY VALVE AND IN-LINE</b>				

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	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING ERECTION (ABOVE & UNDERGROUND)	Project No. 080557C001	Document No. 080557C-000-QCP-1320-001	Rev. No. A	Page 5 of 6


S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
	INSTRUMENTS ERECTION				
G.1	MATERIAL AVAILABLE AT SITE	VE 01	WC	W/R	
G.2	CHECK REPORT OF VISUAL INSPECTION / CALIBRATION	VE 01	WC	W/R	
G.3	VALVE/INSTRUMENT INSTALLATION	VE 01	WC	W/R	
G.4	VALVE/INSTRUMENT DISMANTLING (AS APPLICABLE)	VE 01	WC	W/R	
G.5	FINAL DOCUMENTATION REVIEW	VE 01			

- NOTES:
- (1) A COPY OF THE DOCUMENT WILL BE DELIVERED TO OWNER FOR INFORMATION.
  - (2) FORMS, INSPECTION AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP.
  - (3) MATERIAL APPROVAL WILL BE EXECUTED ONLY FOR MATERIAL SUPPLIED BY CONTRACTOR.
  - (4) VALID ONLY FOR PIPERACK ISOs.
  - (5) THE W51 XY FORM REFERS TO W51 AG & W51 UG AND MUST BE APPLIED AS:  
W51 AG: FOR ABOVE GROUND PIPING ERECTION  
W51 UG: FOR UNDERGROUND PIPING ERECTION.
  - (6) RFI SHALL BE ISSUED FOR INFORMATION/TRACKING PURPOSE ONLY.
  - (7) FOR CHECK VALVE ONLY.
  - (8) STEP VALID ONLY FOR UG PIPING, BECAUSE A DEDICATED SUB-WORK CLASS EXISTS FOR AG PIPING.

#### GENERAL NOTES

- 1 THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THEJOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



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### PRESSURE TEST PACKAGE

For each piping pressure test circuit CONTRACTOR shall prepare one “test package” collecting at least the following documents:

QCF W 13	: Piping Pressure Test Report - when test circuits shall be splitted in two or more subtest circuits a progressive letter (a, b, c...) shall be added to subtest circuit numbering.
Pressure test gages calibration	: Copy of applicable test gage calibration
QCF PL 10	: Punch list before and after pressure test. All outstanding activities shall be cleared and countersigned by PMC before test.
QCF MC 01	: Mechanical clearance for hydrotest
QCF W 10	: NDE / PWHT / HT / PMI and material Traceability Summary per each isometric
QCF BTC 01	Bolt torqueing check report
Isometrics	: As built isometrics with identified welds, as per W 10, and blind flanges positioning & Numbering
P&ID	: With identified & marked up circuit and blind flanges positioning & Numbering

Each pressure test package shall have a Front-Page with the following information:

- Test Pressure Circuit N°;
- Progressive Test Package N°;
- List of Lines / ISOs;
- List of collected documents

### GENERAL NOTES

- 1) All the other reports (shop prefabrication reports included) will be filed per ISO in different files.
- 2) The test packages will be filed per “System”.
- 3) If any welding activity is necessary to apply at one or more circuit's isometrics after pressure test, these will be authorized by PMC and recorded with W 16 Form.  
W 16 Form filled and countersigned by PMC will be included into the test package.





COMPANY:

**BCS 01**

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

CONTRACTOR:

BCS 01 N° \_\_\_\_\_

[illegible]

NOTES:

<i><b>INSPECTORS</b></i>	<i><b>CONTRACTOR</b></i>	<i><b>TECHNIP</b></i>	<i><b>OWNER</b></i>	
NAME				
SIGNATURE				
DATE				





PROJECT:

COMPANY:

QUALITY CONTROL FORM

BT 01

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**FLANGES PARALLELISM / ALIGNMENT & STUD BOLTS TIGHTENING**

CONTRACTOR:

BT 01 N° \_\_\_\_

EQUIPMENT ID NUMBER:

EQUIPMENT DESCRIPTION:

EQPT CODE

SYSTEM ID.



LAYOUT DRAWING NUMBER:

REV N° :

PURCHASE ORDER NUMBER:

ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>A</b>	<b>General Information:</b> Line Class: _____ Pipe Wall Thickness/Pipe Sch.: _____ Fluid Service: _____ Service Temperature: _____			
A1	Pressure rating of mating flanges conforms with the line specification noted in piping.		<input type="checkbox"/>	<input type="checkbox"/>
A2	The flange facing, particularly the seating area, is clean and no damage (such as scratches) in excess.		<input type="checkbox"/>	<input type="checkbox"/>
A3	The gasket contact areas of the flanges are not coated (to ensure proper contact surface for sealing purpose).		<input type="checkbox"/>	<input type="checkbox"/>
<b>B</b>	<b>Flange alignment (pipe to pipe) tolerances</b>			
B1	Rotation of flanges, measured as the offset between elevations of bolt holes on opposite sides of a flange centerline, shall not exceed $\pm 2.4$ mm		<input type="checkbox"/>	<input type="checkbox"/>
B2	The tilt of a flange measured at the periphery across any diameter shall not exceed 1.6 mm from the square position.		<input type="checkbox"/>	<input type="checkbox"/>
<b>C</b>	<b>Alignment for flanges over 3-inch NPS connected to machinery/equipment is within the following tolerances</b>			
C1	Vertical bolt hole offset: $\pm 2.4$ mm		<input type="checkbox"/>	<input type="checkbox"/>
C2	Horizontal bolt hole offset: $\pm 2.4$ mm		<input type="checkbox"/>	<input type="checkbox"/>
C3	Rotational offset: $\pm 2.4$ mm		<input type="checkbox"/>	<input type="checkbox"/>
C4	Flange face tilt across diameter: 0.025mm per 25 mm (0.001 inch per inch) of flange outside diameter up to a maximum of 0.672 mm (0.030 inch), and 0.254mm (0.010 inch) for all flanges with an outside diameter less than 10 inches.		<input type="checkbox"/>	<input type="checkbox"/>
C5	Flange face separation: gasket thickness $\pm 1.6$ mm		<input type="checkbox"/>	<input type="checkbox"/>
C6	Combination of vertical, horizontal and rotational offset: $\pm 3.2$ mm		<input type="checkbox"/>	<input type="checkbox"/>
<b>D</b>	<b>Alignment of Flange Joints with spectacle plate is within the following tolerances</b>			
D1	Vertical bolt hole offset: $\pm (2.4 \text{ mm} + 30\%) = \pm 3.12\text{mm}$		<input type="checkbox"/>	<input type="checkbox"/>
D2	Horizontal bolt hole offset: $\pm (2.4 \text{ mm} + 30\%) = \pm 3.12\text{mm}$		<input type="checkbox"/>	<input type="checkbox"/>
D3	Rotational offset: $\pm (2.4 \text{ mm} + 30\%) = \pm 3.12\text{mm}$		<input type="checkbox"/>	<input type="checkbox"/>
D4	Combination of vertical, horizontal and rotational offset: $\pm 3.2$ mm		<input type="checkbox"/>	<input type="checkbox"/>
<b>E</b>	<b>Gasket Verification</b>			
E1	Gasket type was verified to be compatible with the flange facing		<input type="checkbox"/>	<input type="checkbox"/>
E2	Gaskets are free from any damage particularly in the seating element. (NOTE: Ensure that spiral wound gaskets are stored flat especially for large sizes, 24 inches and larger.)		<input type="checkbox"/>	<input type="checkbox"/>



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>BT 01</b>		PROJ. No.:	QCF REV. A	SH. 2 OF 2
<b>FLANGES PARALLELISM / ALIGNMENT &amp; STUD BOLTS TIGHTENING</b>		CONTRACTOR:		BT 01 N° _____
ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
E3	PIKOTEK gaskets, or approved equal, with isolating sleeves and washers are used for isolating dissimilar metal flanged joints (i.e. electrical isolation), and insulating joints for cathodic protection.		<input type="checkbox"/>	<input type="checkbox"/>
E4	Not more than one gasket is used between mating surfaces of flanges.		<input type="checkbox"/>	<input type="checkbox"/>
E5	The ring gaskets have the following identification: a. manufacturer's name or identification trademark. b. gasket number prefixed by the letters R,RX,or BX followed by the gasket material identification. c. The gasket is marked with an ASME B 16.20 designation.		<input type="checkbox"/>	<input type="checkbox"/>
E6	The dimension of the ring-joint gasket indicated by letter designation (R, RX, or BX) stamped on the ring gasket was verified to conform with the flange size and flange standard where it will be used.		<input type="checkbox"/>	<input type="checkbox"/>
E7	The identification markings on the spiral wound gaskets (flange size (NPS), pressure class and the appropriate flange standard (ASME B16.5 or ASME B16.47) were verified to conform with the flange size and flange standard and as specified in the IFC Drawing.		<input type="checkbox"/>	<input type="checkbox"/>
E8	The spiral wound gasket has the filler flush with the metal windings, not below the metal windings. (ASME B16.20, Para. 3.2.2)		<input type="checkbox"/>	<input type="checkbox"/>
E9	All spiral-wound gaskets are furnished with a centering ring.		<input type="checkbox"/>	<input type="checkbox"/>
E10	Inner rings are provided on all spiral-wound gaskets having PTFE (polytetra-fluoroethylene)filler material.		<input type="checkbox"/>	<input type="checkbox"/>
E11	Spiral Wound gasket for use in operating temperatures below minus 45°C has guide rings made of type 304 stainless steel material.		<input type="checkbox"/>	<input type="checkbox"/>
E12	Components of spiral wound gasket (filler, inner and outer rings) are verified to conform with the gasket material		<input type="checkbox"/>	<input type="checkbox"/>
E13	Spiral-wound gaskets are marked with a color code.		<input type="checkbox"/>	<input type="checkbox"/>
<b>F</b>	<b>Bolting</b>			
F1	Bolts and nuts have no physical damage to shanks or threads.		<input type="checkbox"/>	<input type="checkbox"/>
F2	Stud bolts and nuts have identification markings and verified to be suitable to the service temperature		<input type="checkbox"/>	<input type="checkbox"/>
F3	Bolt and nut materials are verified to conform with the approved material.		<input type="checkbox"/>	<input type="checkbox"/>
F4	Bolt Length: Bolts extend completely through their nuts (full thread engagement.). (NOTE: Thread engagement is adequate if the lack of complete engagement is not more than one thread. ) (ASME B31.3, Para. 335.2.3)		<input type="checkbox"/>	<input type="checkbox"/>
F5	Method of bolt tightening was reviewed and approved by COMPANY		<input type="checkbox"/>	<input type="checkbox"/>
REMARKS:				
<b>INSPECTORS</b>		<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>
NAME				
SIGNATURE				
DATE				



PROJECT:

QUALITY CONTROL FORM

BTC 01

COMPANY:

# BOLT TORQUING CHECK REPORT

PROJ. N°:

QCF REV. A

SH. 1 OF 1

CONTRACTOR:

BTC 01 N° \_\_\_\_\_

SUB-SYSTEM NUMBER
FLANGED JOINT NUMBER
AREA - LINE
TARGET TORQUE VALUE (Nm)

Torque Tool Type:

Pump/Gauge Serial Number:

Torque Tool Serial No's:

Pump Pressure Target (bar)

Flange Material:

YES

NO

Joint Size (inch):

YES

NO

Bolt Material:

YES

NO

Joint Rating:

YES

NO

Bolt Dia (inch):

YES

NO

Gasket Type:

Spiral wound

YES

NO

Bolt Qty:

YES

NO

Lubricated Bolt

YES

NO

Is the gasket outer ring visual check acceptable?

YES

NO

## Torquing Values (Nm)

<u>Torque 30%</u>	<i>Pump Pressure applied (bar)</i>	<i>Done</i>	<u>Torque 60 %</u>	<i>Pump Pressure applied (bar)</i>	<i>Done</i>	<u>Torque 100%</u>	<i>Pump Pressure applied (bar)</i>	<i>Done</i>
		<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>

Remarks:

ID N° Performer \_\_\_\_\_

The underline values shall be prefilled by contractor

INSPECTORS

CONTRACTOR

TECHNIP

OWNER

NAME

SIGNATURE

DATE





TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM

IC 01

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**PIPING / EQUIPMENT INTERNAL CLEANING  
INSPECTION**

CONTRACTOR:

IC 01 N° \_\_\_\_\_

EQUIPMENT ID N° \_\_\_\_\_

EQUIPMENT DESCRIPTION

P&ID / LINE / ISO N° \_\_\_\_\_

SH. N°

TEST SYSTEM No. \_\_\_\_\_

LOCATION \_\_\_\_\_

**SYSTEM DESCRIPTION:**

Service Fluid: \_\_\_\_\_

**Internal Cleanliness Report for On-plot Piping & Equipment**

<b>Method of Internal Cleaning</b>	
<b>Limits of Internal Cleaning</b> (state partial or full and terminating ends)	
<b>Type of Debris</b> (sand, mill scale, electrodes, animals, etc.)	

**REMARKS:**

**INSPECTORS**

**CONTRACTOR**

**TECHNIP**

**OWNER**

NAME

SIGNATURE

DATE





PROJECT:

COMPANY:

QUALITY CONTROL FORM

LU 01

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**LAY-UP INSPECTION**

CONTRACTOR:

LU 01 N° \_\_\_\_\_

EQUIPMENT ID NUMBER:

EQUIPMENT DESCRIPTION:

EQPT CODE

SYSTEM ID.



LAYOUT DRAWING NUMBER:

REV N° :



PURCHASE ORDER NUMBER:

ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>A</b>	<b>Wet Lay-Up</b>			
A1	A minimum residual oxygen scavenger concentration of 20 ppm in the water and a maximum oxygen concentration of 10 ppb throughout the system including the dead legs (Note: Analyze water sample(s) for residual levels of oxygen scavenger at the location most remote from the oxygen scavenger inlet).		<input type="checkbox"/>	<input type="checkbox"/>
A2	Once minimum residuals are verified, the system is kept tightly closed to prevent air entry.		<input type="checkbox"/>	<input type="checkbox"/>
A3	The system is maintained under positive pressure between 210 to 350 kPa (30 to 50 psig) using nitrogen, a sweet hydrocarbon gas, or hydraulic pressure of the treated water.		<input type="checkbox"/>	<input type="checkbox"/>
A4	Thermal relief is installed for systems that are to be laid up with hydraulic pressure.		<input type="checkbox"/>	<input type="checkbox"/>
A5	If the design pressure is lower than 350 kPa (50 psig), the pressure shall be adjusted accordingly.		<input type="checkbox"/>	<input type="checkbox"/>
A6	Gauges with a scale range not exceeding three times the target pressure are used to monitor the positive pressure in the system during lay-up.		<input type="checkbox"/>	<input type="checkbox"/>
A7	If a leak occurs or air enters the system, lay-up process is repeated after completing repairs.		<input type="checkbox"/>	<input type="checkbox"/>
<b>B</b>	<b>Dry Lay-Up</b>			
B1	Water from the system is drained and complete removal of water is performed either by sweeping, mopping or scraping.		<input type="checkbox"/>	<input type="checkbox"/>
B2	If sea water was used for testing pipeline, remove salt deposits by scraping with slugs of water containing less than 4500 ppm total dissolved solids.		<input type="checkbox"/>	<input type="checkbox"/>
B3	The system is dried immediately to a dew point of -1 °C or less at all exit points, by blowing dry air or nitrogen through the system.		<input type="checkbox"/>	<input type="checkbox"/>
B4	After blowing, the system is shut in with a positive pressure for not less than 12 hours to allow any remaining moisture to come to equilibrium with the dry air.		<input type="checkbox"/>	<input type="checkbox"/>
B5	After the shut-in period of 12 hours, the exit dew points measured are at below -1 °C.		<input type="checkbox"/>	<input type="checkbox"/>
B6	When the required dew point is reached at -1 °C after shut-in period, pressurize the system to the final lay-up pressure with dry air or nitrogen having a dew point lower than -1 °C. Shut in the system, maintain and monitor the positive pressure of at least 30 psig, but not exceeding the design pressure during the lay-up period using pressure gauges.		<input type="checkbox"/>	<input type="checkbox"/>
<b>C</b>	<b>Inert gas Lay-Up</b>			
C1	Upon completion of a successful final hydrostatic test, the test water is displaced with nitrogen or sweet gas until no water drains out of the system.		<input type="checkbox"/>	<input type="checkbox"/>
C2	After water is drained, shut in the system under positive pressure using nitrogen or sweet hydrocarbon gas until commissioning and start-up.		<input type="checkbox"/>	<input type="checkbox"/>





 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>LU 01</b>		PROJ. No.:	QCF REV. A	SH. 2 OF 2
<b>LAY-UP INSPECTION</b>		CONTRACTOR:		<b>LU 01 N°</b> _____
ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>D</b>	<b>Ambient Lay-Up</b>			
D1	Ambient Lay-up is used only if the following conditions exists: 1) drains are available at all low points to ensure complete removal of water; 2) the corrosion allowable has been provided; 3) the pitting can be tolerated; 4) particulate rust can be tolerated.		<input type="checkbox"/>	<input type="checkbox"/>
D2	After removal of all visible water by sweeping, mopping and/or scraping, close the system to prevent the entry of sand or rainwater.		<input type="checkbox"/>	<input type="checkbox"/>
D3	Install a vacuum breaker unless it is demonstrated that the system will not collapse under vacuum.		<input type="checkbox"/>	<input type="checkbox"/>
<b>E</b>	<b>Vapor – Phase Corrosion Inhibitors (VCI) &amp; Other Lay-Up Methode</b>			
E1	Use of vapour phase corrosion inhibit or other Lay-up are accepted with prior approval by Company.		<input type="checkbox"/>	<input type="checkbox"/>
<b>F</b>	<b>Stainless Steel Equipment</b>			
F1	At the end of the Lay-up, commissioning and start-up the stainless steel equipment within 14 days.		<input type="checkbox"/>	<input type="checkbox"/>
<b>Remarks:</b>				
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>	
NAME				
SIGNATURE				
DATE				





 		PROJECT:					
		COMPANY:					
QUALITY CONTROL FORM MC 01		PROJ. No.:		QCF REV. A		SH. 1 OF 3	
MECHANICAL CLEARANCE FOR PRESSURE TESTING		CONTRACTOR:			MC 01		
ISOMETRIC / DRAWING N° _____ SH. ___ OF _____ REV. ____ _____ AREA _____ SYSTEM N° _____							
INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONT.	TECHNIP.	OWNER
<b>1 Installation checked as per Isometric</b>							
a	Configuration : Route, elevation, clearance for thermal expansion /insulation	<input type="checkbox"/>	<input type="checkbox"/>				
b	Branch : Location , angle , orientation , type , RF Pad etc.	<input type="checkbox"/>	<input type="checkbox"/>				
c	Steam Trap : Direction	<input type="checkbox"/>	<input type="checkbox"/>				
<b>2 Installation checked as per GAD</b>							
a	Configuration : Route, clearance for thermal expansion / insulation	<input type="checkbox"/>	<input type="checkbox"/>				
<b>3 Installation checked as per P &amp; ID</b>		<input type="checkbox"/>	<input type="checkbox"/>				
<b>4 Completed Isometric for</b>							
a	Joint Numbering ( Shop & Field Welds )	<input type="checkbox"/>	<input type="checkbox"/>				
b	Spool Numbering	<input type="checkbox"/>	<input type="checkbox"/>				
c	As built routing & dimensions	<input type="checkbox"/>	<input type="checkbox"/>				
<b>5 Valves ( Check Rating , Gaskets, Flow Direction, Sheet No , Tag No, Spindle Direction , Locks, Damage etc. )</b>							
a	Gate Valves	<input type="checkbox"/>	<input type="checkbox"/>				
b	Globe Valves	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check Valves	<input type="checkbox"/>	<input type="checkbox"/>				
d	Control Valves Tag Nos	<input type="checkbox"/>	<input type="checkbox"/>				
e	Safety Valves Tag Nos	<input type="checkbox"/>	<input type="checkbox"/>				
f	Any other Valves ( Ball & Plug )	<input type="checkbox"/>	<input type="checkbox"/>				
<b>6 Strainers : Check for flow direction &amp; element</b>		<input type="checkbox"/>	<input type="checkbox"/>				
<b>7 Flanged Joint Details</b>							
a	Total Nos	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check for Size	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check for Rating	<input type="checkbox"/>	<input type="checkbox"/>				
d	Check for Alignment	<input type="checkbox"/>	<input type="checkbox"/>				
e	Check for correct studs & nuts dia , Length Material, uniform protrusion of Studs , Anti corrosive compound :	<input type="checkbox"/>	<input type="checkbox"/>				
f	Check for correct gasket ( type, size, specification, thickness etc )	<input type="checkbox"/>	<input type="checkbox"/>				
g	Torque values used for tightening ( If require )	<input type="checkbox"/>	<input type="checkbox"/>				



 		PROJECT:					
		COMPANY:					
QUALITY CONTROL FORM MC 01		PROJ. No.:		QCF REV. A		SH. 2 OF 3	
MECHANICAL CLEARANCE FOR PRESSURE TESTING		CONTRACTOR:				MC 01	
INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONT.	TECHNIP	OWNER
8 Seal welding of screwed connection ( If require )		<input type="checkbox"/>	<input type="checkbox"/>				
9 Orifice Flanges							
a	Check for Tag No tapping orientation , tap valve, Jack screw, straight run length of upstream & downstream	<input type="checkbox"/>	<input type="checkbox"/>				
1 Reinforcement pad as per Piping Class		<input type="checkbox"/>	<input type="checkbox"/>				
1 Location of gauges : Check for accessibility		<input type="checkbox"/>	<input type="checkbox"/>				
1 Check slope ( when applicable )		<input type="checkbox"/>	<input type="checkbox"/>				
1 Supports Details							
i) Guides, Cross guide , Trunion etc							
a	Check for correct type, material & dimensions	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check welding	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check for vent hole on pads	<input type="checkbox"/>	<input type="checkbox"/>				
d	Check offset for thermal expansion	<input type="checkbox"/>	<input type="checkbox"/>				
e	Check clearance for guide	<input type="checkbox"/>	<input type="checkbox"/>				
f	Check U bolt for slide supports	<input type="checkbox"/>	<input type="checkbox"/>				
ii) Spring Supports							
a	Verify Tag No and check details as per Data Sheet / Spring Set	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check for locking arrangement and any damage during transits etc.	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check for completeness of installation as per Drg including welding of mounting cleat / bracket	<input type="checkbox"/>	<input type="checkbox"/>				
d	Check for locking during installation	<input type="checkbox"/>	<input type="checkbox"/>				
Bracket Supports & Inserts with Anchor Fasteners							
a	Check members dimensions and materials	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check welding	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check bolting	<input type="checkbox"/>	<input type="checkbox"/>				
d	Check for appearance / damage	<input type="checkbox"/>	<input type="checkbox"/>				
1 Vents / Drains Details							
a	Vents / Drains as per Drg and provision of additional high point vents and / or low point drains ( If require )	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check as per Drawings	<input type="checkbox"/>	<input type="checkbox"/>				
c	Orientation of valve handles	<input type="checkbox"/>	<input type="checkbox"/>				
d	Clearance for hose	<input type="checkbox"/>	<input type="checkbox"/>				
15 Earthing's							
a	Check for location	<input type="checkbox"/>	<input type="checkbox"/>				
b	Check for dimension of lug welding	<input type="checkbox"/>	<input type="checkbox"/>				



 		PROJECT:					
		COMPANY:					
QUALITY CONTROL FORM MC 01		PROJ. No.:		QCF REV. A		SH. 3 OF 3	
<b>MECHANICAL CLEARANCE FOR PRESSURE TESTING</b>		CONTRACTOR:				<b>MC 01</b>	
<b>16</b>	<b>Check for Removal / Blinding off</b>						
a	Control , safety and check valves	<input type="checkbox"/>	<input type="checkbox"/>				
b	In line instruments	<input type="checkbox"/>	<input type="checkbox"/>				
c	Rupture Discs	<input type="checkbox"/>	<input type="checkbox"/>				
d	Equipment Nozzles	<input type="checkbox"/>	<input type="checkbox"/>				
e	Others	<input type="checkbox"/>	<input type="checkbox"/>				
<b>17</b>	<b>Supports and weld / flanged / screwed connections free from insulation of other coverage</b>	<input type="checkbox"/>	<input type="checkbox"/>				
<b>18</b>	<b>Expansion Bellows Details</b>						
<b>i)</b>	<b>Check for prior to installations</b>						
a	Physical damages	<input type="checkbox"/>	<input type="checkbox"/>				
b	Transits locks are interact	<input type="checkbox"/>	<input type="checkbox"/>				
c	Dimensions as per drawings	<input type="checkbox"/>	<input type="checkbox"/>				
<b>ii)</b>	<b>Check during installation</b>						
a	Parallelity of mating flanges	<input type="checkbox"/>	<input type="checkbox"/>				
b	Face to face dimension of mating flanges	<input type="checkbox"/>	<input type="checkbox"/>				
c	Concentricity of mating flanges	<input type="checkbox"/>	<input type="checkbox"/>				
d	No stress on expansion bellows	<input type="checkbox"/>	<input type="checkbox"/>				
e	Record	<input type="checkbox"/>	<input type="checkbox"/>				
<b>iii)</b>	<b>Isolation during pressure test</b>						
a	Bellows manufacturer recommendations on isolation bellows during pressure test to be followed	<input type="checkbox"/>	<input type="checkbox"/>				
b	If recommended expansion bellow to be dropped during pressure test	<input type="checkbox"/>	<input type="checkbox"/>				
<b>19</b>	<b>System completion</b>						
a	Tie in Joints	<input type="checkbox"/>	<input type="checkbox"/>				
b	Scrutiny of test packs for system testing	<input type="checkbox"/>	<input type="checkbox"/>				
c	System testing	<input type="checkbox"/>	<input type="checkbox"/>				
d	Review Test and Inspection documents	<input type="checkbox"/>	<input type="checkbox"/>				
<b>20</b>	<b>Other general checks</b>						
a	Physical walks through carried out	<input type="checkbox"/>	<input type="checkbox"/>				
b	Removal of unwanted construction supports	<input type="checkbox"/>	<input type="checkbox"/>				
c	Check that all pressure connections are installed correctly	<input type="checkbox"/>	<input type="checkbox"/>				
<b>INSPECTORS</b>		<b>CONTRACTOR</b>		<b>TECHNIP</b>		<b>OWNER</b>	
NAME							
SIGNATURE							
DATE							





PROJECT:

COMPANY:

QUALITY CONTROL FORM

PL 10

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

PUNCH LIST

CONTRACTOR:

PL 10 N° \_\_\_\_\_

TEST PACK N° \_\_\_\_\_

SYSTEM N° \_\_\_\_\_

ITEMS TO BE CHECKED	N.A.	YES	ITEMS TO BE CHECKED	N.A.	YES	ITEMS TO BE CHECKED	N.A.	YES
WELDING COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>	RADIOGRAPHY / ULTRASONIC (W10)	<input type="checkbox"/>	<input type="checkbox"/>	PMI (W10)	<input type="checkbox"/>	<input type="checkbox"/>
PT / MT (W10)	<input type="checkbox"/>	<input type="checkbox"/>	PWHT / HT (W10)	<input type="checkbox"/>	<input type="checkbox"/>	MATERIALS TRACEABILITY (W10)	<input type="checkbox"/>	<input type="checkbox"/>
THK CHECK BY UT	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Item N°	Drawing / Line N°	Description	Category (1)	Discipline (2)	Issued by	Cleare d by	Verified (CONTRACTOR)		Verified (TECHNIP)		Verified (OWNER)	
							Name	Date	Name	Date	Name	Date

## NOTES:

1) Category A: To be resolved before hydrotest B: To be resolved after hydrotest

2) Discipline P: Piping M: Mechanical I: Instrument PA: Painting C: Civil O: Other

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			





PROJECT:

COMPANY:

QUALITY CONTROL FORM

QC 21

PROJ. No.:

QCF REV. A

SH. 1 OF\_\_

## POSITIVE MATERIAL IDENTIFICATION REPORT

CONTRACTOR:

QC 21 N° \_\_\_\_\_

PMI CARRIED OUT:

SHOP

☐

FIELD

☐

BEFORE INSTALLATION

☐

AFTER INSTALLATION

☐

EQUIPMENT:

ITEM DESCRIPTION

PIPING COMPONENT:

SUPPLIER:

MR/PO:

REV:

LINE/DRAWING Nr:

PIPING SUPPORT:

FILLER METAL:

Ø

AWS:

ALLOY ELEMENTS TO BE CHECKED:

PMI EQUIPMENT:

ANALYTICAL LABORATORY METHODS:

CALIBRATION:

YES

☐

NO

☐

SAMPLING:

10%

☐

100%

☐

\_\_\_%

☐

ITEM TO BE TESTED	IDENT CODE	ALLOY ELEMENTS														DATE & INITIALS
		Cr	Ni	Mo	Cb/ Nb	Ti	V	Cu	Al	C	Co	W	FE			

TEST RESULT:

ACCEPTABLE

☐

NOT ACCEPTABLE

☐

REMARKS:

INSPECTORS

CONTRACTOR

TECHNIP

OWNER

NAME

SIGNATURE

DATE



[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM

RT 01

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

## RADIOGRAPHY (RT) JOINT SELECTION REQUEST

CONTRACTOR:

RT 01 N° \_\_\_\_

AREA \_\_\_\_\_

UNIT \_\_\_\_\_

No.	Drawing / ISO No.	Piping class	Material	Joint No.	Joint Type	Size	Sch.	Thick	Welder	Welding Process	Request Date	Prod. Joint No.	Reshot remarks	Penalty	Request / Remarks

NOTES:

INSPECTORS

CONTRACTOR

TECHNIP

OWNER

NAME

SIGNATURE

DATE





PROJECT:

COMPANY:

QUALITY CONTROL FORM

SS 01

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

**SLOPE SURVEY  
REPORT**

CONTRACTOR:

SS 01 N° \_\_\_\_

AREA \_\_\_\_\_

UNIT \_\_\_\_\_

SYSTEM \_\_\_\_\_

No.	Drawing / Line No.	Check Point	Elevation / Coordinates		Remarks
			Drawing	Actual	

NOTES:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER	
NAME				
SIGNATURE				
DATE				





PROJECT:

COMPANY:

QUALITY CONTROL FORM

V 01

PROJ. No.:

QCF REV. A

SH. 1 OF 3

**VALVE INSTALLATION INSPECTION**

CONTRACTOR:

V 01 N° \_\_\_\_\_

EQUIPMENT ID NUMBER:

EQUIPMENT DESCRIPTION:

EQPT CODE

SYSTEM ID.



LAYOUT DRAWING NUMBER:

REV N° :

PURCHASE ORDER NUMBER:

ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>A</b>	<b>Gate Valve</b>			
A1	Inside-screw-rising-stem (ISRS) and non-rising-stem (NRS) valves NPS 2 inch and smaller shall not be used in hydrocarbon services.		<input type="checkbox"/>	<input type="checkbox"/>
A2	A gate valve used as isolation valves in flare system piping shall be installed with the stem in or below the horizontal position.		<input type="checkbox"/>	<input type="checkbox"/>
<b>B</b>	<b>Butterfly Valves</b>			
B1	Concentric butterfly valves, such as the API STD 609 Category A type (typically with internal rubber linings), are permitted only in nonhydrocarbon applications.		<input type="checkbox"/>	<input type="checkbox"/>
B2	The use of high performance butterfly valves in hydrocarbon service shall be limited to a maximum rating of Class 900.		<input type="checkbox"/>	<input type="checkbox"/>
B3	Butterfly Valves in hydrocarbon services are designed in accordance with API STD 609 Category B valves with offset-seat type construction.		<input type="checkbox"/>	<input type="checkbox"/>
B4	Butterfly Valves in hydrocarbon services are qualified fire-safe to either API SPEC 6FA, API STD 607, or BS EN ISO 10947		<input type="checkbox"/>	<input type="checkbox"/>
B5	The body of butterfly valve are of the lug-type design with tapped bolt holes, unless the (double) flanged type has been specified. Use of the wafer-type body is not permitted.		<input type="checkbox"/>	<input type="checkbox"/>
B6	Butterfly Valves are installed in the "preferred" direction indicated on the valve.		<input type="checkbox"/>	<input type="checkbox"/>
<b>C</b>	<b>Globe Valve</b>			
C1	Globe valve installed in the preferred direction of flow as indicated on the valve body	Best Practice	<input type="checkbox"/>	<input type="checkbox"/>
<b>D</b>	<b>Plug Valve</b>			
D1	Flanged plug valves in hydrocarbon service are of the inverted lubricated pressure balanced design.		<input type="checkbox"/>	<input type="checkbox"/>
D2	A plug position indicator is installed on the plug valves		<input type="checkbox"/>	<input type="checkbox"/>
D3	Manual bleed to atmosphere with automatic thermal relief to upstream piping are installed.		<input type="checkbox"/>	<input type="checkbox"/>
D4	Manual bleed to atmosphere with automatic thermal relief to upstream piping are installed.		<input type="checkbox"/>	<input type="checkbox"/>



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>V 01</b>		PROJ. No.:	QCF REV. A	SH. 2 OF 3
<b>VALVE INSTALLATION INSPECTION</b>		CONTRACTOR:		<b>V 01 N°</b> _____
ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>E</b>	<b>CHECK VALVE</b>			
E1	Straight-thru union body check valves shall be used only in portions of piping systems where pipe unions are permissible.		<input type="checkbox"/>	<input type="checkbox"/>
E2	Dual and single plate wafer check and swing check valves are not used in reciprocating pump and compressor suction and discharge services or similar pulsating services.		<input type="checkbox"/>	<input type="checkbox"/>
<b>E3</b>	A non-slam internal-spring-assisted type check valve are installed at the discharge of pumps and compressors, where un-acceptable level of slamming is anticipated.		<input type="checkbox"/>	<input type="checkbox"/>
E4	For all sizes NPS 4 inch and above, a turbulence-free minimum distance of 5 pipe diameters upstream and 2 pipe diameters downstream of every check valve shall be maintained. No pipe fittings such as elbows, reducers, tees, etc., or flow restricting devices such as orifices, control valves, etc., shall be installed in these zones. (NOTE: Exempted are check valves in intermittent service and valves in skid-mounted systems are exempt from these requirements.)		<input type="checkbox"/>	<input type="checkbox"/>
E5	Check valves in sizes NPS 3 inch and above are not installed in vertical lines, unless specifically approved by PMC / Owner. (NOTE: Valves in skid-mounted systems are exempt from this requirement.)		<input type="checkbox"/>	<input type="checkbox"/>
E6	Wafer-type check valves are not permitted in any hydrocarbon service.		<input type="checkbox"/>	<input type="checkbox"/>
<b>F</b>	<b>CONTROL VALVE</b>			
F1	Control valves shall not be used as emergency shutdown (ESD) valves (ZVs), nor as emergency isolation valves (EIVs)		<input type="checkbox"/>	<input type="checkbox"/>
F2	Handwheel is provided on control valves when local manual control is required by the Proponent. Handwheel installations shall meet the following requirements: a) Neutral position shall be clearly indicated. b) Handwheel mechanism shall not add friction to the actuator. c) Handwheel shall not be used as travel stops. d) Handwheel shall be fully accessible for operation.		<input type="checkbox"/>	<input type="checkbox"/>
F3	Volume tank is provided for the pneumatic actuator and conforms with the following: a. designed to a maximum pressure of 930 kPag (135 psig) at 82°C. b. manufactured in accordance with ASME VIII D1 (stamped UM) requirements, or equivalent. c. Volume tanks shall have a minimum capacity for one complete stroke operation of the control valve at the minimum available instrument air pressure of 415 kPag (60 psig).		<input type="checkbox"/>	<input type="checkbox"/>
F4	The Control valve is installed in the direction of flow casted or steelstamped on the valve body.		<input type="checkbox"/>	<input type="checkbox"/>
F5	Control valves are installed in horizontal lines.		<input type="checkbox"/>	<input type="checkbox"/>
F6	Control valves and their actuating systems are mounted such that all adjustments are accessible (and all indicators/gauges are readable) from grade, permanent platform, walkway or fixed ladder.		<input type="checkbox"/>	<input type="checkbox"/>
F7	Access space for lifting equipment shall be provided for valve and actuator assemblies weighing over 50 kg.		<input type="checkbox"/>	<input type="checkbox"/>



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>V 01</b>		PROJ. No.:	QCF REV. A	SH. 3 OF 3
<b>VALVE INSTALLATION INSPECTION</b>		CONTRACTOR:		<b>V 01 N°</b> _____
ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
F8	<p>Block and bypass valves shall be provided as standard for each control valve installation, except for the following conditions :</p> <ul style="list-style-type: none"> <li>• identical pieces of equipment installed in parallel enabling on-line maintenance of any one control valve at any one time.</li> <li>• identical process systems installed in parallel with one process system used for spare or redundant capacity.</li> <li>• process or equipment which is only intermittently operated in association with a continuous process (e.g., during start-up, regeneration, etc.)</li> <li>• non-critical equipment which may be shut down without affecting the operation of the main process</li> <li>• applications where, for safety reasons, a block and bypass valves arrangement is not desirable (e.g., to reduce leakage sources of hazardous fluids, such as hydrogen, phenol, hydrofluoric acid, etc.)</li> <li>• applications where, for safety reasons, manual operation by means of the bypass valve is not desirable (e.g., anti-surge control, turbine speed control, fuel control to boilers and process heaters, etc.)</li> <li>• applications, for which the proponent specifically does not require block and bypass valves to be installed</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>
F9	The piping around control valves are self-supporting or shall be permanently supported so that when the control valve is removed, the lines will remain in place without the need for temporary supports.		<input type="checkbox"/>	<input type="checkbox"/>
F10	The bypass valve are manually operable and have a correct trim and control characteristic and have a capacity at least equal to the required Cv of the control valve, but not greater than twice the selected Cv of the control valve.		<input type="checkbox"/>	<input type="checkbox"/>
F11	Block valves shall generally be the same size as the line size and shall be full capacity type valves.		<input type="checkbox"/>	<input type="checkbox"/>
F12	Drain valves are installed, (unless otherwise specified by the porponent) on the bottom of each spool piece or reducer between the control valve and the block valves.		<input type="checkbox"/>	<input type="checkbox"/>
F13	Control valve installations without block and bypass valves are provided with a drain valve on each side of the control valve		<input type="checkbox"/>	<input type="checkbox"/>
F14	The size of drain valve are not less than ¾" .		<input type="checkbox"/>	<input type="checkbox"/>
F15	Protective shields, to prevent injury to personnel, shall be installed on valves handling dangerous or flammable liquids		<input type="checkbox"/>	<input type="checkbox"/>
<b>G</b>	<b>FLARE SYSTEM</b>			
G1	Isolation valves in flare system piping are gate, ball, high performance butterfly or plug valves.		<input type="checkbox"/>	<input type="checkbox"/>
G2	A gate valve in this service are installed with the stem in or below the horizontal position.		<input type="checkbox"/>	<input type="checkbox"/>
<b>H</b>	<b>VALVE STROKING</b>			
H1	Prior to installation ensure valve is easily opening and closing full stroke.	Best Practice	<input type="checkbox"/>	<input type="checkbox"/>
<b>INSPECTORS</b>		<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>
NAME				
SIGNATURE				
DATE				



		PROJECT:		
		COMPANY:		
<b>QUALITY CONTROL FORM                      VE 01</b>		PROJ. No.:	QCF REV. A	SH. ____ OF ____
<b>CONTROL &amp; SAFETY VALVE AND IN-LINE INSTRUMENTS ERECTION SUMMARY REPORT</b>		CONTRACTOR:		VE 01 N° ____
ISOMETRIC / DRAWING N° _____ SH. _____ OF _____ REV. _____ AREA _____ EQUIPMENT ID N° _____ EQUIPMENT DESCRIPTION _____ EQUIPMENT CODE _____				
<b>INSPECTIONS (REF. TO QCP 1320.01)</b>		N.A.	ACC.	REMARKS/ REFERENCES
		<b>INSPECTORS SIGNATURE &amp; DATE</b>		
		CONTR.      TECHNIP      OWNER		
G.1	MATERIAL AVAILABLE AT SITE	<input type="checkbox"/>	<input type="checkbox"/>	
G.2	CHECK REPORT OF VISUAL INSPECTION / CALIBRATION	<input type="checkbox"/>	<input type="checkbox"/>	
G.3	VALVE/INSTRUMENT INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	
G.4	VALVE/INSTRUMENT DISMANTLING	<input type="checkbox"/>	<input type="checkbox"/>	
NOTES:				
<b>G.5) FINAL DOC. REVIEW</b>	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>TECHNIP</b>
	NAME			
	SIGNATURE			
	DATE			
		<b>OWNER</b>		

QCF STANDARD REV.0





TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-01) **W 01**

PROJ. No

QCF REV. A

SH. 1 OF 2

**RADIOGRAPHIC TEST REPORT  
(REQUIREMENTS)**

CONTRACTOR:

**W 01 N°** \_\_\_\_\_

APPLICABLE CODES/SPEC'S

• ASME V ART 2 ☐• ☐

ACCEPTANCE CRITERIA

• ☐• ☐

## FIELD OF APPLICATION

- PIPING ☐
- TANKS/  
SILOS ☐
- EQUIPMENT ☐

- WELDING ☐
- RAW MATERIAL ☐
- ☐

## MATERIAL

- C.S/LOW ALLOY ☐
- S.S/NI ALLOY ☐
- TI ☐

## SURFACE FINISH

- BEFORE PWHT ☐
- AFTER PWHT ☐
- AFTER HYDR.  
TEST ☐

## SOURCE

- X-RAY ☐
- $\gamma$ -RAY: ☐
- Ir 192 ☐
- Co. 60 ☐

- TYPE \_\_\_\_\_
- BRAND \_\_\_\_\_
- SINGLE SPOT ☐
- 360° EMISSION ☐
- KV \_\_\_\_\_

## FILMS

- TYPE \_\_\_\_\_
- BRAND \_\_\_\_\_
- 10 X 48 ☐ 10 X 24 ☐
- SINGLE ☐
- DOUBLE ☐

## PENETRIMETERS

- DIN ☐
- ASME ☐
- TYPE \_\_\_\_\_
- QUANTITY \_\_\_\_\_
- SOURCE SIDE ☐
- FILM SIDE ☐

## SENSITIVITY

- DIN \_\_\_\_\_%
- ASME \_\_\_\_\_
- SINGLE WALL ☐
- DOUBLE WALL ☐

## DENSITY

- REQUIRED \_\_\_\_\_
- RANGE \_\_\_\_\_
- SINGLE FILM ☐
- DOUBLE FILM ☐

## UNSHARPNESS

- GEOM UNSHARP \_\_\_\_\_
- MAX
- FOCAL SPOT \_\_\_\_\_
- MINIMUM FOCUS/  
FILM DIST.

## PARAMETERS

- VOLTAGE \_\_\_\_\_KV
- MIN.EXPOSURE \_\_\_\_\_
- MAX
- MIN
- DEVELOP TIME \_\_\_\_\_MIN
- DEVELOP TEMP \_\_\_\_\_°C

## EXPOSURE ARRANGMENT

- SOURCE  
INSIDE ☐  
OUTSIDE ☐
- FILM  
INSIDE ☐  
OUTSIDE ☐

## TECHNIQUE

- WALL  
SINGLE ☐  
DOUBLE ☐
- IMAGE  
SINGLE ☐  
DOUBLE ☐

REMARKS:

**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME

SIGNATURE

DATE

**TECHNIP INDIA LTD**





COMPANY:

SH. 2 OF 2

## W 01 N°

CM = CUT TO MODIFY

**TECHNIP INDIA LTD**





PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-02)

W 02

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

**ULTRASONIC  
TEST REPORT**

CONTRACTOR:

W 02 N° \_\_\_\_

APPLICABLE CODES/SPEC'S

• ASME V ART 4

☐

•

☐

ACCEPTANCE CRITERIA

•

☐

•

☐

## FIELD OF APPLICATION

• PIPING

☐

• BEVEL

☐

• FINAL PASS

☐• ☐• TANKS/  
SILOS☐• 1<sup>ST</sup> PASS☐

• OVERLAY

☐• ☐

• EQUIPMENT

☐

• BACK GOUGING

☐• RAW MATERIAL ☐• ☐• ☐

## MATERIAL

• C.S.

☐

• LOW ALLOY

☐

• BEFORE PWHT

☐• ☐

• TI

☐

• HASTELLOY

☐

• AFTER PWHT

☐• ☐

• S.S.

☐• ☐

• AFTER HYD. TEST

☐• ☐• ☐

## SURFACE CONDITION

• AS WELDED

☐

• BRUSHED

☐• ☐

TEMPERATURE \_\_\_\_\_

• AS GROUND

☐

• AS FORGED

☐• ☐

• AS ROLLED

☐

• AS MACHINED

☐• ☐

STEP \_\_\_\_\_

• AS CAST

☐

• AS BENT

☐• ☐

## INSPECTION METHOD

• STRAIGHT BEAM

☐

• TRANSVERSE WAVES

☐• BACK REFLECTION mm \_\_\_\_\_ ☐

• ANGLE BEAM SEARCH UNIT

☐

• TANDEM METHOD

☐• SIDE DRILLED HOLE mm \_\_\_\_\_  
Ø mm \_\_\_\_\_ ☐

• SINGLE TRANSDUCER

☐• SEARCH UNIT (TR) DUAL  
TRANSDUCER☐• FLAT BOTTOM HOLE mm \_\_\_\_\_  
Ø mm \_\_\_\_\_ ☐

• LONGITUDINAL WAVES

☐• ☐• ☐

## COUPLANT

• OIL

☐

• TYLOSE PASTE

☐

• WATER

☐

REF. CALIBRATION EQUIPMENT BLOCKS METHOD

SCANNING DIRECTION &amp; RESULTS

**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME

SIGNATURE

DATE

TECHNIP INDIA LTD





PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-03) **W 03**

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**LIQUID PENETRANT TEST REPORT  
(REQUIREMENTS)**

CONTRACTOR:

W 03 N° \_\_\_\_\_

APPLICABLE CODES/SPEC'S

- ASME V ART 6 ☐
- ☐

ACCEPTANCE CRITERIA

- ☐
- ☐

**FIELD OF APPLICATION**

- |  |   |   |                            |
|--|---|---|----------------------------|
| • PIPING <input type="checkbox"/>          | • BEVEL <input type="checkbox"/>                | • FINAL PASS <input type="checkbox"/>   | • <input type="checkbox"/> |
| • TANKS/<br>SILOS <input type="checkbox"/> | • 1 <sup>ST</sup> PASS <input type="checkbox"/> | • OVERLAY <input type="checkbox"/>      | • <input type="checkbox"/> |
| • EQUIPMENT <input type="checkbox"/>       | • BACK GOUGING <input type="checkbox"/>         | • RAW MATERIAL <input type="checkbox"/> | • <input type="checkbox"/> |

**MATERIAL**

**INSPECTION STAGE**

- |                                 |                                      |  |                            |
|---------------------------------|--------------------------------------|--|----------------------------|
| • C.S. <input type="checkbox"/> | • LOW ALLOY <input type="checkbox"/> | • BEFORE PWHT <input type="checkbox"/>     | • <input type="checkbox"/> |
| • TI <input type="checkbox"/>   | • HASTELLOY <input type="checkbox"/> | • AFTER PWHT <input type="checkbox"/>      | • <input type="checkbox"/> |
| • S.S. <input type="checkbox"/> | • <input type="checkbox"/>           | • AFTER HYD. TEST <input type="checkbox"/> | • <input type="checkbox"/> |

**INSPECTION METHOD**

- | TYPE                                       | PENETRANT                                 | DEVELOPPER                     | LIGHTING                             |
|--|---|--------------------------------|--------------------------------------|
| • COLOUR CONTRAST <input type="checkbox"/> | • WATER WASHABLE <input type="checkbox"/> | • DRY <input type="checkbox"/> | NATURAL <input type="checkbox"/>     |
| • FLUORESCENT <input type="checkbox"/>     | • POST EMUL. <input type="checkbox"/>     | • WET <input type="checkbox"/> | ARTIFICIAL <input type="checkbox"/>  |
|  | • SOLVENT <input type="checkbox"/>        | • BRAND _____                  | ULTRAVIOLET <input type="checkbox"/> |
|  | • TYPE <input type="checkbox"/>           |                                |                                      |
|  | • BRAND _____                             |                                |                                      |

**PRECLEANING**

**REMOVABLE**

**CLEANER**

**TIME**

- |                                      |                                   |                                   |                   |
|--------------------------------------|-----------------------------------|-----------------------------------|-------------------|
| • GRINDING <input type="checkbox"/>  | • BRUSH <input type="checkbox"/>  | • TYPE <input type="checkbox"/>   | PENETRATION _____ |
| • MACHINING <input type="checkbox"/> | • SPRAY. <input type="checkbox"/> | • CLOTHS <input type="checkbox"/> | DEVELOPPING _____ |
| • SOLVENT <input type="checkbox"/>   |                                   | • BRUSHY <input type="checkbox"/> | MAX READING _____ |

**PRECLEANING**

**REMOVABLE**

- |                                    |                                    |                                  |
|------------------------------------|------------------------------------|----------------------------------|
| • WATER <input type="checkbox"/>   | • DIPPING <input type="checkbox"/> | • SPRAY <input type="checkbox"/> |
| • ALCOHOL <input type="checkbox"/> | • SPRAY. <input type="checkbox"/>  | • BRAND _____                    |

**INSPECTORS**

**CONTRACTOR**

**TECHNIP**

**OWNER**

NAME

SIGNATURE

DATE

QCF STANDARD REV.0

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COMPANY:

SH. 2 OF 2

## W 03 N°

- ☐ WATER WASHABLE                      ☐ POST EMULSIFYING
- ☐ SOLVENT REMOVABLE                ☐ .....

[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-04)

W 04

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**MAGNETIC PARTICLE  
TEST REPORT**

CONTRACTOR:

W 04 N° \_\_\_\_\_

## APPLICABLE CODES/SPEC'S

- ASME V ART 7 ☐
- OTHER ☐

## ACCEPTANCE CRITERIA

- ☐
- ☐

## FIELD OF APPLICATION

- |  |   |   |                            |
|--|---|---|----------------------------|
| • PIPING <input type="checkbox"/>      | • BEVEL <input type="checkbox"/>        | • FINAL PASS <input type="checkbox"/>   | • <input type="checkbox"/> |
| • TANKS/SILOS <input type="checkbox"/> | • 1ST PASS <input type="checkbox"/>     | • OVERLAY <input type="checkbox"/>      | • <input type="checkbox"/> |
| • EQUIPMENT <input type="checkbox"/>   | • BACK GOUGING <input type="checkbox"/> | • RAW MATERIAL <input type="checkbox"/> | • <input type="checkbox"/> |

## MATERIAL

- |                                 |                                      |
|---------------------------------|--------------------------------------|
| • C.S. <input type="checkbox"/> | • LOW ALLOY <input type="checkbox"/> |
| • <input type="checkbox"/>      | • <input type="checkbox"/>           |
| • <input type="checkbox"/>      | • <input type="checkbox"/>           |

## INSPECTION STAGE

- |  |                            |
|--|----------------------------|
| • BEFORE PWHT <input type="checkbox"/>     | • <input type="checkbox"/> |
| • AFTER PWHT <input type="checkbox"/>      | • <input type="checkbox"/> |
| • AFTER HYD. TEST <input type="checkbox"/> | • <input type="checkbox"/> |

## INSPECTION METHOD

## MAGNETIZATION

- PRODS
- CONTACTS  
Cu ☐ Sb ☐

MAX DIST. \_\_\_\_\_

- YOKE
- FIXED LEGS ☐
- ARTICULAT.LEGS ☐

MAX DIST. \_\_\_\_\_

- COIL ☐
- BRAND \_\_\_\_\_

## PARTICLE

- DRY ☐
- WET ☐
- BRAND \_\_\_\_\_

## CURRENT TYPE

- HALF WAVE RECTIFIED ☐
- ALTERNATING ☐

## AMPERAGE FIELD

AMP \_\_\_\_\_  
FIELD \_\_\_\_\_

## COLOUR

- GRAY ☐
- FLUORESCENT ☐
- ☐

## LIGHTING

- NATURAL ☐
- ARTIFICIAL ☐
- ULTRAVIOLET ☐

## DEMAGNETIZATION

YES ☐ NO ☐  
RESIDUAL

## SUSPENSION

- OIL ☐
- WATER ☐

## METHOD

- CONTINUOUS ☐
- RESIDUAL ☐
- PULSES ☐

## PRECLEANING

- BRUSHING ☐
- ☐

REMARKS:

**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME

SIGNATURE

DATE

**TECHNIP INDIA LTD**





COMPANY:

SH. 2 OF 2

## W 04 N° \_\_\_\_\_

☐ DRY

☐ WET

☐ FLUORESCENT

[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 10

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

## NDE / PWHT / HT / PMI AND MATERIAL TRACEABILITY SUMMARY

CONTRACTOR:

W 10 N° (SEE ISO N° )

ISO N° \_\_\_\_\_ SH. \_\_\_\_ OF \_\_\_\_ NDE (Ref to W 09) \_\_\_\_\_ HEAT TREAT. REQUIR. Y ☐ N ☐  
PIPING CLASS \_\_\_\_\_ MATERIAL \_\_\_\_\_ PMI Y ☐ N ☐

## LEGEND

RTR = RADIOG. REPORT N°  
UTR = UT REPORT N°  
REP = REPAIR REPORT N°

PTR = PT REPORT N°  
MTR = MT REPORT N°



(1) B = BUTTWELD; S = SOCKET WELD; EW = EXTERNAL WELD  
(2) P = PREBRICATION; E = ERECTION  
(3) A = ACCEPTED; R = TO BE REPAIRED; C = TO BE CUT; CM = CUT TO MODIFY

JOINTS			BASE MATERIAL TRACEABILITY				PMI	WELDER IDENTIF.	WPS N°	CONTROL AND EVALUATION CERTIFICATION									
N°	Type (1)	P/E (2)	HEAT NUMBER	MANUFACTURER	IDENT CODE	SHORT DESCR.	REPORT N°			VISUAL (3)	RADIOGRAPHIC / ULTRASONIC TEST			PT / MT			PMI	PWHT	HT
											RTR / UTR	(3)	REP	PTR / MTR	(3)	REP	REPORT N°	REPORT N°	REPORT N°
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			

INSPECTORS		CONTRACTOR		TECHNIP		OWNER			
PHASE		PREFA.	ERECT.	PREFA.	ERECT.	PREFA.	ERECT.	PREFA.	ERECT.
NAME									
SIGNATURE									
DATE									

TECHNIP INDIA LTD



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>W 12/A</b>		PROJ. No.:	QCF REV. A	SH. ___ OF ___
<b>CONSTRUCTION MATERIALS APPROVAL</b>		CONTRACTOR:		<b>W 12/A N° ____</b>
CIVIL <input type="checkbox"/>	PIPING <input type="checkbox"/>	MACHINERY <input type="checkbox"/>	INSTRUMENT <input type="checkbox"/>	INSULATION <input type="checkbox"/>
BLDG. <input type="checkbox"/>	MECHANIC. <input type="checkbox"/>	ELECTRICAL <input type="checkbox"/>	PAINTING <input type="checkbox"/>	STEEL STR. <input type="checkbox"/>
NDT <input type="checkbox"/>	SUPPORT PRF. <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
1. MATERIALS				
2. SUPPLIER				
3. PURPOSE				
4. ATTACHMENT DATA				
5. TYPE OF TEST PERFORMED				
6. TEST STANDARD UTILIZED				
REMARKS:				
RESULT:                      ACCEPTED <input type="checkbox"/> NOT ACCEPTED <input type="checkbox"/>				
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>	
NAME				
SIGNATURE				
DATE				

QCF STANDARTD REV.0









PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 14A

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

### DIMENSIONAL CHECK

CONTRACTOR:

W 14A<sup>(1)</sup> N° \_\_\_\_\_

LINE / ISOMETRICS N° \_\_\_\_\_

TEST CIRCUIT \_\_\_\_\_

SYSTEM \_\_\_\_\_

CHECK LIST	N.A.	V. ED	CHECK LIST	N.A.	V. ED
<b>1 GENERAL</b>			<b>4. GASKETS – BOLTS</b>		
Check per P&ID	<input type="checkbox"/>	<input type="checkbox"/>	Correct type	<input type="checkbox"/>	<input type="checkbox"/>
Line routing & size	<input type="checkbox"/>	<input type="checkbox"/>	Correct bolts or studs	<input type="checkbox"/>	<input type="checkbox"/>
Materials	<input type="checkbox"/>	<input type="checkbox"/>	Bolt lubrication	<input type="checkbox"/>	<input type="checkbox"/>
Flange rating	<input type="checkbox"/>	<input type="checkbox"/>	.....	<input type="checkbox"/>	<input type="checkbox"/>
Installation level & plumb	<input type="checkbox"/>	<input type="checkbox"/>			
Line slopes per drawing	<input type="checkbox"/>	<input type="checkbox"/>	<b>5. PIPE SUPPORTS</b>		
Branches located correctly	<input type="checkbox"/>	<input type="checkbox"/>	Field supports installed	<input type="checkbox"/>	<input type="checkbox"/>
Branches reinforced	<input type="checkbox"/>	<input type="checkbox"/>	Sufficient supports	<input type="checkbox"/>	<input type="checkbox"/>
Weepholes in reinforcing pads	<input type="checkbox"/>	<input type="checkbox"/>	Anchors installed	<input type="checkbox"/>	<input type="checkbox"/>
High point vents installed	<input type="checkbox"/>	<input type="checkbox"/>	Guides installed & aligned	<input type="checkbox"/>	<input type="checkbox"/>
Low point drains installed	<input type="checkbox"/>	<input type="checkbox"/>	Proper shoes installed and welded	<input type="checkbox"/>	<input type="checkbox"/>
Reducers located correctly / orientation	<input type="checkbox"/>	<input type="checkbox"/>	Spring supports per drawing, stopped	<input type="checkbox"/>	<input type="checkbox"/>
Reducer type correct	<input type="checkbox"/>	<input type="checkbox"/>	Piping sits on	<input type="checkbox"/>	<input type="checkbox"/>
Sample connections installed	<input type="checkbox"/>	<input type="checkbox"/>	.....	<input type="checkbox"/>	<input type="checkbox"/>
Clearances for expansion	<input type="checkbox"/>	<input type="checkbox"/>			
Orifice flanges properly oriented	<input type="checkbox"/>	<input type="checkbox"/>	<b>6. INSULATING</b>		
.....	<input type="checkbox"/>	<input type="checkbox"/>	Welded insulation supports installed	<input type="checkbox"/>	<input type="checkbox"/>
			Clearances adequate for insulation	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 VALVES</b>			.....	<input type="checkbox"/>	<input type="checkbox"/>
Identification code	<input type="checkbox"/>	<input type="checkbox"/>			
Flow direction	<input type="checkbox"/>	<input type="checkbox"/>	<b>7. INSTRUMENTS</b>		
Bypass installed	<input type="checkbox"/>	<input type="checkbox"/>	Correct control valves installed	<input type="checkbox"/>	<input type="checkbox"/>
Chain wheel installed	<input type="checkbox"/>	<input type="checkbox"/>	Meter runs properly installed	<input type="checkbox"/>	<input type="checkbox"/>
Extension installed	<input type="checkbox"/>	<input type="checkbox"/>	Valves at meter run installed	<input type="checkbox"/>	<input type="checkbox"/>
Steam oriented properly	<input type="checkbox"/>	<input type="checkbox"/>	Pressure gauge valves installed	<input type="checkbox"/>	<input type="checkbox"/>
Suitable access to operate & to maintain	<input type="checkbox"/>	<input type="checkbox"/>	Pressure gauges properly oriented	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	Temp. connections properly oriented	<input type="checkbox"/>	<input type="checkbox"/>
			.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 CONNECTION TO MACHINERY / EQUIPMENT</b>					
Flanges parallelism / Alignment	<input type="checkbox"/>	<input type="checkbox"/>	<b>8. TEST CIRCUIT PREPARATION</b>		
.....	<input type="checkbox"/>	<input type="checkbox"/>	Blinds installed	<input type="checkbox"/>	<input type="checkbox"/>
			Vents and drains installed	<input type="checkbox"/>	<input type="checkbox"/>

V.ED = VERIFIED

N.A. = NOT APPLICABLE

(1) SAME TEST CIRCUIT NUMBER

**INSPECTORS**

**CONTRACTOR**

**TECHNIP**

**OWNER**

NAME

SIGNATURE

DATE

TECHNIP INDIA LTD









PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 16

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**MODIFICATIONS AFTER PRESSURE TEST  
LINE/ISO CHECK REPORT**

CONTRACTOR:

W 16<sup>(1)</sup> N° \_\_\_\_\_

CIRCUIT N°

SYSTEM N°

LINE / ISO N°

SH. N°

MODIFICATION AS PER ATTACHED

**TEST TO BE CARRIED OUT****REPORT REFERENCE**

1)

**NDE**

RADIOGR. TEST

☐ YES

NO

SEE REPORT

ULTRASONIC TEST

☒ YES

NO

SEE REPORT

PENETR. TEST

☐ YES

NO

SEE REPORT

MAGNETIC TEST

YES



NO



SEE REPORT

\_\_\_\_\_

2)

**POST WELD HEAT TREATMENT**

YES



NO



SEE REPORT

\_\_\_\_\_

3)

**HARDNESS TEST**

YES



NO



SEE REPORT

\_\_\_\_\_

4)

**PMI**

BASE MATERIAL

☐ YES

NO

SEE REPORT

WELDING

YES



NO



SEE REPORT

\_\_\_\_\_

5)

**PRESSURE TEST**

YES



NO



SEE REPORT

\_\_\_\_\_

6)

**COATING / BITUMIZING CHECK**

YES



NO



SEE REPORT

\_\_\_\_\_

WELDERS IDENTIFICATION: \_\_\_\_\_

WPS N°: \_\_\_\_\_

REMARKS: (1) SAME LINE/ISO NUMBER

**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME

SIGNATURE

DATE





COMPANY:

W 18

SH. \_\_\_\_ OF \_\_\_\_

W 18 N° \_\_\_\_\_

DATE:

[illegible]

□

**OWNER**



DATE \_\_\_\_\_

**TECHNIP INDIA LTD**









 		PROJECT:																																																																																																								
		COMPANY:																																																																																																								
QUALITY CONTROL FORM <b>W 31B</b>		PROJ. No.:	QCF REV. A																																																																																																							
REINFORCING PADS PNEUMATIC TEST REPORT		CONTRACTOR:	SH. __ OF __ <b>W 31B N° ____</b>																																																																																																							
<p align="center"><b>REINFORCING PADS – PNEUMATIC TEST</b></p> <p>TEST MEDIUM _____ TEST PRESSURE _____ barg</p>																																																																																																										
<table border="1"> <thead> <tr> <th colspan="3">REFERENCE</th> <th rowspan="2">REINFORCING PAD IDENTIFICATION</th> <th rowspan="2">NOTES</th> </tr> <tr> <th>LINE / ISO N°</th> <th>SH.</th> <th>REV.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>			REFERENCE			REINFORCING PAD IDENTIFICATION	NOTES	LINE / ISO N°	SH.	REV.																																																																																																
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QCF STANDARD REV:0





 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>W 31C</b>		PROJ. No.:	QCF REV. A	SH. 1 OF 2
<b>INSPECTION OF VENTURI, RESTRICTION ORIFICE AND FLOW ORIFICE</b>		CONTRACTOR:		<b>W 31C N° _____</b>
EQUIPMENT ID NUMBER:	EQUIPMENT DESCRIPTION:	EQPT CODE	SYSTEM ID.	
LAYOUT DRAWING NUMBER:	REV N° :	PURCHASE ORDER NUMBER:		



  

ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
<b>A</b>	<b>General Installation Requirements</b>			
A1	Standard Orifice Plate Installation checked together for accuracy and data completion on installation: <ul style="list-style-type: none"> <li>• Orifice bore is sharp upstream, 45 degree bevelled downstream;</li> <li>• Orifice bore is sharp, restrictive and shaped like a semi-circle;</li> <li>• Orifice bore is not bevelled and has sharp honed corners;</li> <li>• Upstream edges honed round/smooth have no nicks or flat spots downstream is bevelled 45 degrees.</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>
A2	Orifice Plates checked: A) Material is A240 Type 316 SS (max 217 HB) or per P.O. B) Plates have a fine finish (honed, lapped, polished or buffed). C) Plates are free of surface defects and bore edges are smooth. D) Downstream bevelled edges have no grooves, ridges or pits. E) Plates are flat, bores are centered and outside edges deburred. F) Plates are free from mechanical damage and welding distortion. G) Welded handles are parallel to plates with welds ground flush.		<input type="checkbox"/>	<input type="checkbox"/>
A3	Visually ID markings and orientation.		<input type="checkbox"/>	<input type="checkbox"/>
A4	Visually check orientation against Standard drawing.		<input type="checkbox"/>	<input type="checkbox"/>
A5	Orifice plates and holders. Check installation meets Standard Drawing dimensions.		<input type="checkbox"/>	<input type="checkbox"/>
A6	Ring Joint Orifice Assemblies. Visually Check ID markings and orientation.		<input type="checkbox"/>	<input type="checkbox"/>
A7	Straight minimum piping run lengths for Orifice Runs are acceptable. Measure and ensure installation spacings are acceptable. Noting correct direction of flow, the "A" Upstream and "B" Downstream Dimensions are within stated tolerances.		<input type="checkbox"/>	<input type="checkbox"/>
A8	Verify installation spacings as applicable on lines.		<input type="checkbox"/>	<input type="checkbox"/>
A9	Visually check flange class meets installed with taps/jackscrews. Internal welds are smooth, NDE complete.		<input type="checkbox"/>	<input type="checkbox"/>
A10	Visually check flanges for ring joint orifice assemblies.		<input type="checkbox"/>	<input type="checkbox"/>
A11	Orifice Flange Taps. Check tap dimensions and ensure clearances and spacing.		<input type="checkbox"/>	<input type="checkbox"/>
A12	Venturi Cylindrical Inlet sections are examined and accepted.		<input type="checkbox"/>	<input type="checkbox"/>



 		PROJECT:		
		COMPANY:		
QUALITY CONTROL FORM <b>W 31C</b>		PROJ. No.:	QCF REV. A	SH. 2 OF 2
<b>INSPECTION OF VENTURI, RESTRICTION ORIFICE AND FLOW ORIFICE</b>		CONTRACTOR:		<b>W 31C N° _____</b>
ITEM N°	ACCEPTANCE CRITERIA	REFERENCE	N.A.	V.ED
A13	Venturi Convergent entrances are examined and accepted.		<input type="checkbox"/>	<input type="checkbox"/>
A14	Venturi Throat sections are examined and accepted.		<input type="checkbox"/>	<input type="checkbox"/>
A15	Venturi Divergent outlet sections are examined and accepted.		<input type="checkbox"/>	<input type="checkbox"/>
A16	Venturi items for inspection and acceptance are as follows: A) Throat linings, as applicable, are secure and undamaged. B) Pressure Taps (if applicable) meet Engineering Drawing dimensions.		<input type="checkbox"/>	<input type="checkbox"/>
A17	Measure/ensure installation spacings are acceptable and direction of flow is correct.		<input type="checkbox"/>	<input type="checkbox"/>
A18	SS materials and plates are kept wrapped and protected from damage and are handled with extreme care during installation.		<input type="checkbox"/>	<input type="checkbox"/>
A19	Installation of venturis and orifice plates are not permanently installed until after piping systems have been flushed clean and hydrotested. Installed venturis and orifice plates (to ensure proper pipefitting) are removed, blocked off or isolated prior to commencing flushing/cleaning as they are sensitive to damage. Venturis and orifice plates go in last on line reinstatement.		<input type="checkbox"/>	<input type="checkbox"/>
<b>Remarks:</b>				
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>	
NAME				
SIGNATURE				
DATE				



 				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>W 51AG</b>				PROJ. No.:	QCF REV. A	SH. 1 OF 2	
<b>PIPING ERECTION (PER ISO) SUMMARY REPORT</b>				CONTRACTOR:		<b>W 51AG N° _____</b>	
ISOMETRIC / DRAWING N° _____				SH. _____ OF _____		REV. _____	
AREA _____				SYSTEM N° _____			
INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP.	OWNER
D.1	PREASSEMBLY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.2	DELIVERED MATERIAL READY AT SITE (MATERIALS & SPOOLS IDENTIFICATION AND CONSERVATION STATUS)	<input type="checkbox"/>	<input type="checkbox"/>				
D.3	PIPE / SPOOL INTERNAL CLEANING	<input type="checkbox"/>	<input type="checkbox"/>	IC 01 (**)			
D.4	PIPE / SPOOL ERECTION AND ALIGNMENT (inclusive pipe identification transfer if required)	<input type="checkbox"/>	<input type="checkbox"/>				
D.5	PIPE / SPOOL TACK WELDS	<input type="checkbox"/>	<input type="checkbox"/>				
D.6	GAP CONTROL FOR SOCKET WELDS	<input type="checkbox"/>	<input type="checkbox"/>	W 24 (**)			
D.7	WELDING	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.8	ORIFICE FLANGES AND VENTURI INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	W 31C (**)			
D.9	PNEUMATIC TEST FOR REINFORCING PADS	<input type="checkbox"/>	<input type="checkbox"/>	W 31B (**)			
D.10	MATERIAL FULL TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.11	RT JOINT SELECTION REQUEST	<input type="checkbox"/>	<input type="checkbox"/>	RT 01 (**)			
D.12	NDE / PMI / PWHT / HT EXECUTION & TRACEABILITY						
D.12.1	WELDING DAILY PROGRESS & VISUAL EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 24 (**)			
D.12.2	PMI EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	QC 21 (**)			
D.12.3	PWHT CHART RECORDS	<input type="checkbox"/>	<input type="checkbox"/>	contractor Report (**)			
D.12.4	HARDNESS TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	contractor Report (**)			
D.12.5	LIQUID PENETRANT EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 03 (**)			
D.12.6	MAGNETIC PARTICLE EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 04 (**)			
D.12.7	RADIOGRAPHIC EXAM. FILM REVIEW	<input type="checkbox"/>	<input type="checkbox"/>	W 01 (**)			
D.12.8	ULTRASONIC EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 02 (**)			
D.12.9	NDE / PMI / PWHT / HT TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.13	JOINT REPAIR EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.14	REPAIRS RAD. FILM REVIEW	<input type="checkbox"/>	<input type="checkbox"/>	W 01 (**)			
D.15	JOINT CUT OUT FOR MODIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.16	PIPING SUPPORT INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
D.17	VALVE INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	V 01 (**)			
D.18	FLANGE FACES INSPECTION	<input type="checkbox"/>	<input type="checkbox"/>				



				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>W 51AG</b>				PROJ. No.:	QCF REV. A	SH. 2 OF 2	
<b>PIPING ERECTION (PER ISO)</b> <b>SUMMARY REPORT</b>				CONTRACTOR:		W 51AG N° _____	
INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
D.19	FLANGES PARALLELISM / ALIGNMENT & GASKET INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	BT 01 (**)			
D.20	TORQUE WRENCHES CALIBRATION	<input type="checkbox"/>	<input type="checkbox"/>	Contractor Report (**)			
D.21	JOINT BOLTS TIGHTENING EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	BTC 01 (**)			
D.22	SLOPE CHECK	<input type="checkbox"/>	<input type="checkbox"/>	SS 01 (**)			
NOTES: (*) W 10 HAVE THE SAME N° OF THE ISOMETRIC (**) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : IC 01 N° _____ W31B N° _____ W31C N° _____ W24 N° _____ RT 01 N° _____ QC21 N° _____ W01 N° _____ W02 N° _____ W03 N° _____ W04 N° _____ V 01 N° _____ BT01 N° _____ BTC01 N° _____ SS 01 N° _____ PWHT contractor Report N° _____ HT contractor Report N° _____ CALIBRATION contractor Report N° _____							
D.25) FINAL DOC. REVIEW	INSPECTORS	CONTRACTOR		TECHNIP		OWNER	
	NAME						
	SIGNATURE						
	DATE						





TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 51T

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**PRESSURE TEST PREPARATION / EXECUTION  
(PER TESTING CIRCUIT)  
SUMMARY REPORT**

CONTRACTOR:

W 51T N° \_\_\_\_

TEST CIRCUIT N° \_\_\_\_\_ SYSTEM N° \_\_\_\_\_

LINES / ISOs N° \_\_\_\_\_

INSPECTIONS (REF. TO QCF 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTRACT.	TECHNIP	OWNER
E.1	TEST PACK CREATION	<input type="checkbox"/>	<input type="checkbox"/>				
E.2	PUNCH LIST BEFORE PRESSURE TEST	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (*)			
E.3	NDE VERIFICATION (Check of relative QCF W10 issued for ISO's)	<input type="checkbox"/>	<input type="checkbox"/>				
E.4	DIMENSIONAL CHECK	<input type="checkbox"/>	<input type="checkbox"/>	W 14A (*)			
E.5	PUNCH "A" CLEARANCE AND RELEASE FOR TEST	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (*)			
E.6	INTERNAL CLEANLINESS VERIFICATION (Check of relative QCF IC01 issued for spools/ISO)	<input type="checkbox"/>	<input type="checkbox"/>				
E.7	BLIND FLANGES INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	BCS 01 (*)			
E.8	PRESSURE TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	W 13 (*)			
E.9	WATER DRY-OUT EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	LU 01 (*)			
E.10	BLIND FLANGES REMOVAL	<input type="checkbox"/>	<input type="checkbox"/>	BCS 01 (*)			
E.11	WORK ACCEPTANCE OF "PUNCH LIST AFTER PRESSURE TEST" (LINE REINSTATEMENT)	<input type="checkbox"/>	<input type="checkbox"/>	W 14B (*)			

NOTES: (\*) W 14A HAVE THE SAME N° OF THE TEST CIRCUIT

(\*\*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :

PL 10 N° \_\_\_\_\_ W14A N° \_\_\_\_\_ W14B N° \_\_\_\_\_ BCS 01 N° \_\_\_\_\_ W13 N° \_\_\_\_\_ LU 01 N° \_\_\_\_\_

QCF STANDARD REV.1

E.12) FINAL DOC.  
REVIEW

INSPECTORS	CONTRACTOR	TECHNIP	OWNER
NAME			
SIGNATURE			
DATE			

TECHNIP INDIA LTD





TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 51T

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**PRESSURE TEST PREPARATION / EXECUTION  
(PER TESTING CIRCUIT)  
SUMMARY REPORT**

CONTRACTOR:

W 51T N° \_\_\_\_\_

TEST CIRCUIT N° \_\_\_\_\_ SYSTEM N° \_\_\_\_\_

LINES / ISOs N° \_\_\_\_\_

INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTRACT.	TECHNIP	OWNER
E.1	TEST PACK CREATION	<input type="checkbox"/>	<input type="checkbox"/>				
E.2	MECHANICAL CLEARANCE FOR PRESSURE TESTING	<input type="checkbox"/>	<input type="checkbox"/>	MC 01 (*)			
E.3	PUNCH LIST BEFORE PRESSURE TEST	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (**)			
E.4	NDE VERIFICATION (Check of relative QCF W10 issued for ISO's)	<input type="checkbox"/>	<input type="checkbox"/>	W 10			
E.5	PUNCH "A" CLEARANCE AND RELEASE FOR TEST	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (**)			
E.6	INTERNAL CLEANLINESS VERIFICATION (Check of relative QCF IC01 issued for spools/ISO)	<input type="checkbox"/>	<input type="checkbox"/>				
E.7	BLIND FLANGES INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	BCS 01 (**)			
E.8	BOLT TORQUING CHECK REPORT	<input type="checkbox"/>	<input type="checkbox"/>	BTC 01 (**)			
E.9	PRESSURE TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	W 13 (**)			
E.10	WATER DRY-OUT EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	LU 01 (**)			
E.11	BLIND FLANGES REMOVAL	<input type="checkbox"/>	<input type="checkbox"/>	BCS 01 (**)			
E.12	WORK ACCEPTANCE OF "PUNCH LIST AFTER PRESSURE TEST" (LINE REINSTATEMENT)	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (**)			

NOTES: (\*) MC 01 HAVE THE SAME N° OF THE TEST CIRCUIT

(\*\*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :

PL 10 N° \_\_\_\_\_ W14A N° \_\_\_\_\_ BCS 01 N° \_\_\_\_\_ W13 N° \_\_\_\_\_ LU 01 N° \_\_\_\_\_ BTC 01 N° \_\_\_\_\_

QCF STANDARD REV.1

E.12) FINAL DOC. REVIEW	INSPECTORS	CONTRACTOR	TECHNIP	OWNER
	NAME			
	SIGNATURE			
	DATE			

TECHNIP INDIA LTD





PROJECT:

COMPANY:

QUALITY CONTROL FORM **W 51UG**

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**PIPING ERECTION (PER ISO)  
SUMMARY REPORT**

CONTRACTOR:

**W 51UG N° \_\_\_\_**

ISOMETRIC / DRAWING N° \_\_\_\_\_

SH. \_\_\_\_\_ OF \_\_\_\_\_ REV. \_\_\_\_\_

AREA \_\_\_\_\_

SYSTEM N° \_\_\_\_\_

INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP.	OWNER
D.1	PREASSEMBLY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.2	DELIVERED MATERIAL READY AT SITE (MATERIALS & SPOOLS IDENTIFICATION AND CONSERVATION STATUS)	<input type="checkbox"/>	<input type="checkbox"/>				
D.3	PIPE / SPOOL INTERNAL CLEANING	<input type="checkbox"/>	<input type="checkbox"/>	IC 01 (**)			
D.4	PIPE / SPOOL ERECTION AND ALIGNMENT (inclusive pipe identification transfer if required)	<input type="checkbox"/>	<input type="checkbox"/>				
D.5	PIPE / SPOOL TACK WELDS	<input type="checkbox"/>	<input type="checkbox"/>				
D.7	WELDING	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.8	ORIFICE FLANGES AND VENTURI INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	W 31C (**)			
D.9	PNEUMATIC TEST FOR REINFORCING PADS	<input type="checkbox"/>	<input type="checkbox"/>	W 31B (**)			
D.10	MATERIAL FULL TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.11	RT JOINT SELECTION REQUEST	<input type="checkbox"/>	<input type="checkbox"/>	RT 01 (**)			
D.12	NDE / PMI / PWHT / HT EXECUTION & TRACEABILITY						
D.12.1	WELDING DAILY PROGRESS & VISUAL EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 24 (**)			
D.12.2	PMI EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	QC 21 (**)			
D.12.3	PWHT CHART RECORDS	<input type="checkbox"/>	<input type="checkbox"/>	Contractor Report (**)			
D.12.4	HARDNESS TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	Contractor Report (**)			
D.12.5	LIQUID PENETRANT EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 03 (**)			
D.12.6	MAGNETIC PARTICLE EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 04 (**)			
D.12.7	RADIOGRAPHIC EXAM. FILM REVIEW	<input type="checkbox"/>	<input type="checkbox"/>	W 01 (**)			
D.12.8	ULTRASONIC EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 02 (**)			
D.12.9	NDE / PMI / PWHT / HT TRACEABILITY	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.13	JOINT REPAIR EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.14	REPAIRS RAD. FILM REVIEW	<input type="checkbox"/>	<input type="checkbox"/>	W 01 (**)			
D.15	JOINT CUT OUT FOR MODIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	W 10 (*)			
D.16	PIPING SUPPORT INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
D.17	VALVE INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	V 01 (**)			
D.18	FLANGE FACES INSPECTION	<input type="checkbox"/>	<input type="checkbox"/>				



				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>W 51UG</b>				PROJ. No.:	QCF REV. A	SH. 2 OF 2	
PIPING ERECTION (PER ISO) SUMMARY REPORT				CONTRACTCTOR:		W 51UG N° ____	
INSPECTIONS (REF. TO QCP 1320.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
D.19	FLANGES PARALLELISM / ALIGNMENT & GASKET INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>	BT 01 (**)			
D.20	TORQUE WRENCHES CALIBRATION	<input type="checkbox"/>	<input type="checkbox"/>	Contractctor Report (**)			
D.21	JOINT BOLTS TIGHTENING EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	BTC 01 (**)			
D.22	SLOPE CHECK	<input type="checkbox"/>	<input type="checkbox"/>	SS 01 (**)			
D.23	PRESSURE TEST	<input type="checkbox"/>	<input type="checkbox"/>	W 51T (**)			
D.24	HOLIDAY TEST AFTER PRESSURE TEST	<input type="checkbox"/>	<input type="checkbox"/>	W 18 (**)			

NOTES: (\*) W 10 HAVE THE SAME N° OF THE ISOMETRIC

(\*\*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :



IC 01 N° \_\_\_\_ W31B N° \_\_\_\_ W31C N° \_\_\_\_ W24 N° \_\_\_\_ RT 01 N° \_\_\_\_ QC21 N° \_\_\_\_ W01 N° \_\_\_\_ W02 N° \_\_\_\_  
W03 N° \_\_\_\_ W04 N° \_\_\_\_ V 01 N° \_\_\_\_ BT01 N° \_\_\_\_ BTC01 N° \_\_\_\_ SS 01 N° \_\_\_\_ W 18 N° \_\_\_\_ W 51T

N° \_\_\_\_

PWHT Contractctor Report N° \_\_\_\_ HT Contractctor Report N° \_\_\_\_ CALIBRATION Contractctor Report N° \_\_\_\_

D.25) FINAL DOC. REVIEW	<b>INSPECTORS</b>	<b>CONTRACTCTOR</b>	<b>TECHNIP</b>	<b>OWNER</b>
	NAME			
	SIGNATURE			
	DATE			



 	PROJECT	Standby SRU & Additional Tanks		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-STEAM TRACING SYSTEM	Project No. 080557C001	Document No. 080557C-000-QCP-1330-001	Rev. No. A	Page 1 of 5





## QUALITY CONTROL PLAN

### STEAM TRACING SYSTEM

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
W 03 – W 04	SINGLE REPORT PER EACH EXAMINATION
HT01a - HT02a - HT02b	SINGLE REPORT PER EACH ITEM
HT01 – HT02 – HT03	SUMMARY
W13 - W14A - W14B - PL10	SINGLE REPORT PER EACH TESTING CIRCUIT

#### REFERENCE DOCUMENTS:



- 080557C-000-PP-805
  - 080557C-000-PP-814
  - 080557C-000-PP-807
  - 080557C-000-PP-804
  - QCP 1399.02
  - QCP 1399.01
  - 080557C-000-JSC-1300-001
  - 080557C-000-JSD-2300-001
  - 080557C-000-JSD-2200-001
  - 080557C-000-JSD-2200-002
  - 080557C-000-PP-820
  - 080557C-000-PP-821
  - DRAWINGS
- Site Coordination & Communication Procedure.  
Welding Specification for Fabrication of Piping  
Material Receiving Handling & Storage procedure  
Specification for Positive Material Identification at Construction Site.  
Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)  
Welders Management  
Standard Specification for Fabrication and Erection of Piping  
Specification for Surface Preparation and Protective Coating  
Job Specification for Hot Insulation of Vessels, Piping and Equipment  
Job Specification for Cold Insulation of Vessels, Piping and Equipment  
Standard specification for inspection, flushing and testing of piping systems.  
Equipment  
Job Construction specification for Welder Management

		 Samit Paul 2019.10.21 17:48:59 +05'30'		 Digitally signed by samit.paul@technipfmc.com DN: cn=samit.paul@technipfmc.com, date=2019.10.21 17:48:59 +05'30'	 Approved By 16:57:13 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.06 22:27:21 +05'30'
A	19/10/2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED

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 	<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks</b>		
	<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>		
<b>QCP-STEAM TRACING SYSTEM</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1330-001	<b>Rev. No.</b> A	Page 2 of 5

#### LEGENDA

H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL (RFI required)
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
RFI	=	REQUEST FOR INSPECTION
!	=	WARNING (control of document revision status)





 	PROJECT	Standby SRU & Additional Tanks		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-STEAM TRACING SYSTEM	Project No. 080557C001	Document No. 080557C-000-QCP-1330-001	Rev. No. A	Page 3 of 5

<h2 style="margin: 0;">QUALITY CONTROL PLAN</h2> <h3 style="margin: 0;">STEAM TRACING SYSTEM</h3>
---

S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	COMPANY	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
A.3	CONTRACTOR METHOD STATEMENTS	N.A.	WC	A	
<b>B)</b>	<b>BEFORE ERECTION</b>				
B.1	WELDERS MANAGEMENT	Use QCP 1399.01			(1)
B.2	WELDING, NDE/PMI/PWHT/HT MANAGEMENT	Use QCP 1399.02			(1)
B.3	MATERIALS APPROVAL AND RECEIVING INSPECTION	W 12/A	WC	W/R	
B.4	LINE SURFACE INSPECTION BEFORE TRACER INSTALLATION	Use QCP 2200.01			(1)
<b>C)</b>	<b>ERECTION</b>				
C.1	<u>STEAM AND CONDENSATE MANIFOLDS INSTALLATION</u>				
C.1.1	IDENTIFICATION	HT01a - HT01	WC	R/S	
C.1.2	POSITIONING	HT 01	WC	R/S	
C.1.3	MANIFOLDS INSPECTION	HT 01	WC	R/S	
C.1.4	FINAL DOCUMENTATION REVIEW	HT 01			
C.2	<u>TRACER FEED &amp; DISCHARGE LINES INSTALLATION</u>				
C.2.1	IDENTIFICATION	HT02a - HT02	WC	R/S	
C.2.2	POSITIONING	HT 02	WC	R/S	
C.2.3	COMPRESSION JOINT (IF TUBING)	HT 02	WC	R/S	
C.2.4	WELDING (IF PIPING)	HT 02	WC	R/S	
C.2.5	SUPPORTS	HT 02	WC	R/S	
C.2.6	NDE EXECUTION (IF PIPING)				
C.2.6a	VISUAL EXAMINATION	HT 02	WC	R/S	
C.2.6b	LIQUID PENETRANT EXAM. (where required)	W 03 - HT 02	WC	R/S	
C.2.6c	MAGNETIC PARTIC. EXAM. (where required)	W 04 - HT	WC	R/S	



 	PROJECT	Standby SRU & Additional Tanks		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-STEAM TRACING SYSTEM	Project No. 080557C001	Document No. 080557C-000-QCP-1330-001	Rev. No. A	Page 4 of 5

S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	COMPANY	
		02			
C.2.7	TRACER FEED & DISCHARGE LINES INSPECTION	HT 02	WC	W/R	
C.3	<u>TRACER LINES INSTALLATION</u>				
C.3.1	IDENTIFICATION	HT02b - HT02	WC	R/S	
C.3.2	POSITIONING	HT 02	WC	R/S	
C.3.3	COMPRESSION JOINT (IF TUBING)	HT 02	WC	R/S	
C.3.4	WELDING (IF PIPING)	HT 02	WC	R/S	
C.3.5	FIXING TO TRACED LINE SUPPORT	HT 02	WC	R/S	
C.3.6	EXPANSION LOOP (where required)	HT 02	WC	R/S	
C.3.7	NDE EXECUTION (IF PIPING)	HT 02	WC	R	
C.3.7a	VISUAL EXAMINATION	HT 02	WC	R	
C.3.7b	LIQUID PENETRANT EXAM. (where required)	W 03 - HT 02	WC	R	
C.3.7c	MAGNETIC PARTIC. EXAM. (where required)	W 04 - HT 02	WC	R	
C.3.8	TRACER LINES INSPECTION	HT 02	WC	W/R	
C.4	FINAL DOCUMENTATION REVIEW	HT 02			
C.5	<u>PRESSURE TEST</u>				
C.5.1	TEST PACK CREATION	HT 03	WC	R	
C.5.2	PUNCH LIST BEFORE PRESSURE TEST	PL10 – HT 03	WC	W	
C.5.3	DIMENSIONAL CHECK	W14A - HT 03	WC	W/R	
C.5.4	TEST PREPARATION (INCLUDING TESTING EQUIPMENT) & PRESSURE TEST EXECUTION	W13 - HT 03	WC	W/R	
C.5.5	WORK ACCEPTANCE OF "PUNCH LIST AFTER PRESSURE TEST" (LINE REINSTATEMENT)	W14B - HT 03	WC	W/R	
C.5.6	FINAL DOCUMENTATION REVIEW	HT 03			



NOTES:

- (1) FORMS, INSPECTION AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP.

GENERAL NOTES

- THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THE JOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN-CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN



 	<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks</b>		
	<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>		
<b>QCP-STEAM TRACING SYSTEM</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1330-001	<b>Rev. No.</b> A	Page 5 of 5

GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.

- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.





PROJECT:

COMPANY:

QUALITY CONTROL FORM

HT 02a

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

**TRACER FEED & DISCHARGE LINES INSTALL.  
REPORT**

CONTRACTOR:

HT 02a N° \_\_\_\_\_

**TRACER FEED LINES**

ITEM

**TRACER DISCHARGE LINES**

ITEM

NOTES:



**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME



SIGNATURE

DATE



 				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>HT03</b>				PROJ. No.:	QCF REV. A	SH. ____ OF ____	
<b>PRESSURE TEST SUMMARY REPORT</b>				CONTRACTOR:			HT 03 N° _____
INSPECTIONS (REF. TO QCP 1330.01)			N.A.	ACC	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE	
						CONTR.	TECHNIP
						OWNER	
C.5	PRESSURE TEST						
C.5.1	TEST PACK CREATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.5.2	PUNCH LIST BEFORE PRESSURE TEST	<input type="checkbox"/>	<input type="checkbox"/>	PL 10 (*)			
C.5.3	DIMENSIONAL CHECK	<input type="checkbox"/>	<input type="checkbox"/>	W 14A (*)			
C.5.4	TEST PREPARATION (INCLUDING TESTING EQUIPMENT) & PRESSURE TEST EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>	W 13 (*)			
C.5.5	WORK ACCEPTANCE OF "PUNCH LIST AFTER PRESSURE TEST" (LINE REINSTATEMENT)	<input type="checkbox"/>	<input type="checkbox"/>	W 14B (*)			
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : PL10 N° _____ W14A N° _____ W14B N° _____ W13 N° _____							
C.5.6 - FINAL DOC. REVIEW	INSPECTORS		CONTRACTOR		PMC		OWNER
	NAME						
	SIGNATURE						
	DATE						



 				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>HT 01</b>				PROJ. No.:	QCF REV. A	SH. ____ OF ____	
<b>MANIFOLDS INSTALLATION SUMMARY REPORT</b>				CONTRACTOR:			HT 01 N° ____
INSPECTIONS (REF. TO QCP 1330.01)			N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE	
						CONTR.	TECHNIP
						OWNER	
C.1	<b>STEAM AND CONDENSATE MANIFOLD INSTALLATION</b>						
C.1.1	IDENTIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	HT 01a (*)			
C.1.2	POSITIONING	<input type="checkbox"/>	<input type="checkbox"/>				
C.1.3	MANIFOLDS INSPECTION	<input type="checkbox"/>	<input type="checkbox"/>				
NOTES: (*) THE QC REPORT N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : HT 01a N° ____							
C.1.4 - FINAL DOC. REVIEW	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>PMC</b>		<b>OWNER</b>	
	NAME						
	SIGNATURE						
	DATE						





TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM

HT 01a

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

**STEAM & CONDENS. MANIFOLD INSTALLATION  
REPORT**

CONTRACTOR:

HT 01a N° \_\_\_\_\_

**STEAM MANIFOLD**

ITEM

**CONDENSATE MANIFOLD**

ITEM

NOTES:

**INSPECTORS**

**CONTRACTOR**

**PMC**



**OWNER**

NAME

SIGNATURE

DATE



 				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>HT 02</b>				PROJ. No.:	QCF REV. A	SH. ____ OF ____	
<b>FEEDER/DISCHARGE AND TRACER LINES INSTALL. SUMMARY REPORT</b>				CONTRACTOR:		HT 02 N° ____	
INSPECTIONS (REF. TO QCP 1330.01)			N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE	
						CONTR.	TECHNIP
<b>C.2</b>	<b>TRACER FEED &amp; DISCHARGE LINES INSTALLATION</b>						
C.2.1	IDENTIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	HT 02a (*)			
C.2.2	POSITIONING	<input type="checkbox"/>	<input type="checkbox"/>				
C.2.3	COMPRESSION JOINT (IF TUBING)	<input type="checkbox"/>	<input type="checkbox"/>				
C.2.4	WELDING (IF PIPING)	<input type="checkbox"/>	<input type="checkbox"/>				
C.2.5	SUPPORTS	<input type="checkbox"/>	<input type="checkbox"/>				
C.2.6	NDT EXECUTION (IF PIPING)						
C.2.6a	VISUAL EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.2.6b	LIQUID PENETRANT EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 03 (*)			
C.2.6c	MAGNETIC PARTIC. EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 04 (*)			
C.2.7	TRACER FEED & DISCHARGE LINES INSPECTION	<input type="checkbox"/>	<input type="checkbox"/>				
<b>C.3</b>	<b>TRACER LINES INSTALLATION</b>						
C.3.1	IDENTIFICATION	<input type="checkbox"/>	<input type="checkbox"/>	HT 02b (*)			
C.3.2	POSITIONING	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.3	COMPRESSION JOINT (IF TUBING)	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.4	WELDING (IF PIPING)	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.5	FIXING TO TRACED LINE SUPPORT	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.6	EXPANSION LOOP	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.7	NDT EXECUTION (IF PIPING)						
C.3.7a	VISUAL EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.3.7b	LIQUID PENETRANT EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 03 (*)			
C.3.7c	MAGNETIC PARTIC. EXAMINATION	<input type="checkbox"/>	<input type="checkbox"/>	W 04 (*)			
C.3.8	TRACER LINES INSPECTION	<input type="checkbox"/>	<input type="checkbox"/>				
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : HT 02a N° _____ HT 02b N° _____ W 03 N° _____ W 04 N° _____							
<b>C.4 - FINAL DOC. REVIEW</b>	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>PMC</b>		<b>OWNER</b>	
	NAME						
	SIGNATURE						
	DATE						



[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM

PL 10

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

PUNCH LIST

CONTRACTOR:

PL 10 N° \_\_\_\_\_

TEST PACK N° \_\_\_\_\_

SYSTEM N° \_\_\_\_\_

ITEMS TO BE CHECKED	N.A.	YES	ITEMS TO BE CHECKED	N.A.	YES	ITEMS TO BE CHECKED	N.A.	YES
WELDING COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>	RADIOGRAPHY / ULTRASONIC (W10)	<input type="checkbox"/>	<input type="checkbox"/>	PMI (W10)	<input type="checkbox"/>	<input type="checkbox"/>
PT / MT (W10)	<input type="checkbox"/>	<input type="checkbox"/>	PWHT / HT (W10)	<input type="checkbox"/>	<input type="checkbox"/>	MATERIALS TRACEABILITY (W10)	<input type="checkbox"/>	<input type="checkbox"/>
THK CHECK BY UT	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Item N°	Drawing / Line N°	Description	Category (1)	Discipline (2)	Issued by	Cleare d by	Verified (CONTRACTOR)		Verified (TECHNIP)		Verified (OWNER)	
							Name	Date	Name	Date	Name	Date

## NOTES:

1) Category A: To be resolved before hydrotest B: To be resolved after hydrotest

2) Discipline P: Piping M: Mechanical I: Instrument PA: Painting C: Civil O: Other

INSPECTORS	CONTRACTOR	PMC	OWNER
NAME			
SIGNATURE			
DATE			





PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-03) **W 03**

PROJ. No.:

QCF REV. A

SH. 1 OF 2

### LIQUID PENETRANT TEST REPORT (REQUIREMENTS)

CONTRACTOR:

W 03 N° \_\_\_\_\_

APPLICABLE CODES/SPEC'S

- ASME V ART 6 ☐
- ☐

ACCEPTANCE CRITERIA

- ☐
- ☐

#### FIELD OF APPLICATION

- |  |   |   |                            |
|--|---|---|----------------------------|
| • PIPING <input type="checkbox"/>          | • BEVEL <input type="checkbox"/>                | • FINAL PASS <input type="checkbox"/>   | • <input type="checkbox"/> |
| • TANKS/<br>SILOS <input type="checkbox"/> | • 1 <sup>ST</sup> PASS <input type="checkbox"/> | • OVERLAY <input type="checkbox"/>      | • <input type="checkbox"/> |
| • EQUIPMENT <input type="checkbox"/>       | • BACK GOUGING <input type="checkbox"/>         | • RAW MATERIAL <input type="checkbox"/> | • <input type="checkbox"/> |

#### MATERIAL

- |                                 |                                      |
|---------------------------------|--------------------------------------|
| • C.S. <input type="checkbox"/> | • LOW ALLOY <input type="checkbox"/> |
| • TI <input type="checkbox"/>   | • HASTELLOY <input type="checkbox"/> |
| • S.S. <input type="checkbox"/> | • <input type="checkbox"/>           |

#### INSPECTION STAGE

- |  |                            |
|--|----------------------------|
| • BEFORE PWHT <input type="checkbox"/>     | • <input type="checkbox"/> |
| • AFTER PWHT <input type="checkbox"/>      | • <input type="checkbox"/> |
| • AFTER HYD. TEST <input type="checkbox"/> | • <input type="checkbox"/> |

#### INSPECTION METHOD

- | TYPE                                       | PENETRANT                                 | DEVELOPPER                     | LIGHTING                             |
|--|---|--------------------------------|--------------------------------------|
| • COLOUR CONTRAST <input type="checkbox"/> | • WATER WASHABLE <input type="checkbox"/> | • DRY <input type="checkbox"/> | NATURAL <input type="checkbox"/>     |
| • FLUORESCENT <input type="checkbox"/>     | • POST EMUL. <input type="checkbox"/>     | • WET <input type="checkbox"/> | ARTIFICIAL <input type="checkbox"/>  |
|  | • SOLVENT <input type="checkbox"/>        | • BRAND _____                  | ULTRAVIOLET <input type="checkbox"/> |
|  | • TYPE <input type="checkbox"/>           |                                |                                      |
|  | • BRAND _____                             |                                |                                      |

- | PRECLEANING                          | REMOVABLE                          | CLEANER                           | TIME              |
|--------------------------------------|------------------------------------|-----------------------------------|-------------------|
| • GRINDING <input type="checkbox"/>  | • BRUSH <input type="checkbox"/>   | • TYPE <input type="checkbox"/>   | PENETRATION _____ |
| • MACHINING <input type="checkbox"/> | • SPRAY. <input type="checkbox"/>  | • CLOTHS <input type="checkbox"/> | DEVELOPPING _____ |
| • SOLVENT <input type="checkbox"/>   |                                    | • BRUSHY <input type="checkbox"/> | MAX READING _____ |
| PRECLEANING                          | REMOVABLE                          |                                   |                   |
| • WATER <input type="checkbox"/>     | • DIPPING <input type="checkbox"/> | • SPRAY <input type="checkbox"/>  |                   |
| • ALCOHOL <input type="checkbox"/>   | • SPRAY. <input type="checkbox"/>  | • BRAND _____                     |                   |

**INSPECTORS**

**CONTRACTOR**

**PMC**

**OWNER**

NAME

SIGNATURE

DATE





COMPANY:

SH. 2 OF 2

CONTRACTOR:

W 03 N°

- ☐ WATER WASHABLE ☐ POST EMULSIFYING
- ☐ SOLVENT REMOVABLE ☐ .....

[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM (NDE-04)

**W 04**

PROJ. No.:

QCF REV. A

SH. 1 OF 2

**MAGNETIC PARTICLE  
TEST REPORT**

CONTRACTOR:

**W 04 N°** \_\_\_\_\_

APPLICABLE CODES/SPEC'S

- ASME V ART 7 ☐
- OTHER ☐

ACCEPTANCE CRITERIA

- ☐
- ☐

**FIELD OF APPLICATION**

- |  |   |   |                            |
|--|---|---|----------------------------|
| • PIPING <input type="checkbox"/>      | • BEVEL <input type="checkbox"/>        | • FINAL PASS <input type="checkbox"/>   | • <input type="checkbox"/> |
| • TANKS/SILOS <input type="checkbox"/> | • 1ST PASS <input type="checkbox"/>     | • OVERLAY <input type="checkbox"/>      | • <input type="checkbox"/> |
| • EQUIPMENT <input type="checkbox"/>   | • BACK GOUGING <input type="checkbox"/> | • RAW MATERIAL <input type="checkbox"/> | • <input type="checkbox"/> |

**MATERIAL**

**INSPECTION STAGE**

- |                                 |                                      |  |                            |
|---------------------------------|--------------------------------------|--|----------------------------|
| • C.S. <input type="checkbox"/> | • LOW ALLOY <input type="checkbox"/> | • BEFORE PWHT <input type="checkbox"/>     | • <input type="checkbox"/> |
| • <input type="checkbox"/>      | • <input type="checkbox"/>           | • AFTER PWHT <input type="checkbox"/>      | • <input type="checkbox"/> |
| • <input type="checkbox"/>      | • <input type="checkbox"/>           | • AFTER HYD. TEST <input type="checkbox"/> | • <input type="checkbox"/> |

**INSPECTION METHOD**

MAGNETIZATION	PARTICLE	COLOUR	SUSPENSION
• PRODS	• DRY <input type="checkbox"/>	• GRAY <input type="checkbox"/>	• OIL <input type="checkbox"/>
CONTACTS	• WET <input type="checkbox"/>	• FLUORESCENT <input type="checkbox"/>	• WATER <input type="checkbox"/>
Cu <input type="checkbox"/> Sb <input type="checkbox"/>	• BRAND _____	• <input type="checkbox"/>	
MAX DIST. _____	<b>CURRENT TYPE</b>	<b>LIGHTING</b>	<b>METHOD</b>
• YOKE	• HALF WAVE RECTIFIED <input type="checkbox"/>	• NATURAL <input type="checkbox"/>	• CONTINUOUS <input type="checkbox"/>
FIXED LEGS <input type="checkbox"/>	• ALTERNATING <input type="checkbox"/>	• ARTIFICIAL <input type="checkbox"/>	• RESIDUAL <input type="checkbox"/>
ARTICULAT.LEGS <input type="checkbox"/>		• ULTRAVIOLET <input type="checkbox"/>	• PULSES <input type="checkbox"/>
MAX DIST. _____	<b>AMPERAGE FIELD</b>	<b>DEMAGNETIZATION</b>	<b>PRECLEANING</b>
• COIL <input type="checkbox"/>	AMP _____	YES <input type="checkbox"/> NO <input type="checkbox"/>	• BRUSHING <input type="checkbox"/>
BRAND _____	FIELD _____	RESIDUAL	• <input type="checkbox"/>

REMARKS:

**INSPECTORS**

**CONTRACTOR**

**PMC**

**OWNER**

NAME

SIGNATURE

DATE





COMPANY:

W 04

SH. 2 OF 2

CONTRACTOR:

W 04 N°

☐ PRODS    ☐ POWDER    ☐ DRY  
☐ WET  
☐ FLUORESCENT

[illegible]





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 12/A

PROJ. No

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

**CONSTRUCTION MATERIALS  
APPROVAL**

CONTRACTOR:

W 12/A N° \_\_\_\_

CIVIL	<input type="checkbox"/>	PIPING	<input type="checkbox"/>	MACHINERY	<input type="checkbox"/>	INSTRUMENT	<input type="checkbox"/>	INSULATION	<input type="checkbox"/>
BLDG.	<input type="checkbox"/>	MECHANIC.	<input type="checkbox"/>	ELECTRICAL	<input type="checkbox"/>	PAINTING	<input type="checkbox"/>	STEEL STR.	<input type="checkbox"/>
NDT	<input type="checkbox"/>	SUPPORT PRF.	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

1. MATERIALS

2. SUPPLIER

3. PURPOSE

4. ATTACHMENT DATA

5. TYPE OF TEST PERFORMED

6. TEST STANDARD UTILIZED

REMARKS:

RESULT:

ACCEPTED

☐

NOT ACCEPTED

☐**INSPECTORS****CONTRACTOR****PMC****OWNER**

NAME

SIGNATURE

DATE









PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 14A

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

### DIMENSIONAL CHECK

CONTRACTOR:

W 14A<sup>(1)</sup> N° \_\_\_\_

LINE / ISOMETRICS N° \_\_\_\_\_

### TEST CIRCUIT

### SYSTEM

CHECK LIST	N.A.	V. ED	CHECK LIST	N.A.	V. ED
<b>1 GENERAL</b>			<b>4. GASKETS – BOLTS</b>		
Check per P&ID	<input type="checkbox"/>	<input type="checkbox"/>	Correct type	<input type="checkbox"/>	<input type="checkbox"/>
Line routing & size	<input type="checkbox"/>	<input type="checkbox"/>	Correct bolts or studs	<input type="checkbox"/>	<input type="checkbox"/>
Materials	<input type="checkbox"/>	<input type="checkbox"/>	Bolt lubrication	<input type="checkbox"/>	<input type="checkbox"/>
Flange rating	<input type="checkbox"/>	<input type="checkbox"/>	.....	<input type="checkbox"/>	<input type="checkbox"/>
Installation level & plumb	<input type="checkbox"/>	<input type="checkbox"/>			
Line slopes per drawing	<input type="checkbox"/>	<input type="checkbox"/>	<b>5. PIPE SUPPORTS</b>		
Branches located correctly	<input type="checkbox"/>	<input type="checkbox"/>	Field supports installed	<input type="checkbox"/>	<input type="checkbox"/>
Branches reinforced	<input type="checkbox"/>	<input type="checkbox"/>	Sufficient supports	<input type="checkbox"/>	<input type="checkbox"/>
Weep holes in reinforcing pads	<input type="checkbox"/>	<input type="checkbox"/>	Anchors installed	<input type="checkbox"/>	<input type="checkbox"/>
High point vents installed	<input type="checkbox"/>	<input type="checkbox"/>	Guides installed & aligned	<input type="checkbox"/>	<input type="checkbox"/>
Low point drains installed	<input type="checkbox"/>	<input type="checkbox"/>	Proper shoes installed and welded	<input type="checkbox"/>	<input type="checkbox"/>
Reducers located correctly / orientation	<input type="checkbox"/>	<input type="checkbox"/>	Spring supports per drawing, stopped	<input type="checkbox"/>	<input type="checkbox"/>
Reducer type correct	<input type="checkbox"/>	<input type="checkbox"/>	Piping sits on	<input type="checkbox"/>	<input type="checkbox"/>
Sample connections installed	<input type="checkbox"/>	<input type="checkbox"/>	.....	<input type="checkbox"/>	<input type="checkbox"/>
Clearances for expansion	<input type="checkbox"/>	<input type="checkbox"/>			
Orifice flanges properly oriented	<input type="checkbox"/>	<input type="checkbox"/>	<b>6. INSULATING</b>		
.....	<input type="checkbox"/>	<input type="checkbox"/>	Welded insulation supports installed	<input type="checkbox"/>	<input type="checkbox"/>
			Clearances adequate for insulation	<input type="checkbox"/>	<input type="checkbox"/>
<b>2 VALVES</b>			.....	<input type="checkbox"/>	<input type="checkbox"/>
Identification code	<input type="checkbox"/>	<input type="checkbox"/>			
Flow direction	<input type="checkbox"/>	<input type="checkbox"/>	<b>7. INSTRUMENTS</b>		
Bypass installed	<input type="checkbox"/>	<input type="checkbox"/>	Correct control valves installed	<input type="checkbox"/>	<input type="checkbox"/>
Chain wheel installed	<input type="checkbox"/>	<input type="checkbox"/>	Meter runs properly installed	<input type="checkbox"/>	<input type="checkbox"/>
Extension installed	<input type="checkbox"/>	<input type="checkbox"/>	Valves at meter run installed	<input type="checkbox"/>	<input type="checkbox"/>
Steam oriented properly	<input type="checkbox"/>	<input type="checkbox"/>	Pressure gauge valves installed	<input type="checkbox"/>	<input type="checkbox"/>
Suitable access to operate & to maintain	<input type="checkbox"/>	<input type="checkbox"/>	Pressure gauges properly oriented	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	Temp. connections properly oriented	<input type="checkbox"/>	<input type="checkbox"/>
			.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>3 CONNECTION TO MACHINERY / EQUIPMENT</b>					
Flanges parallelism / Alignment	<input type="checkbox"/>	<input type="checkbox"/>	<b>8. TEST CIRCUIT PREPARATION</b>		
.....	<input type="checkbox"/>	<input type="checkbox"/>	Blinds installed	<input type="checkbox"/>	<input type="checkbox"/>
			Vents and drains installed	<input type="checkbox"/>	<input type="checkbox"/>

V.ED = VERIFIED

N.A. = NOT APPLICABLE

(1) SAME TEST CIRCUIT NUMBER

**INSPECTORS**

**CONTRACTOR**

**PMC**

**OWNER**

NAME

SIGNATURE

DATE





PROJECT:

COMPANY:

## QUALITY CONTROL FORM

**W 14B**

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

### PUNCH LIST AFTER PRESSURE TEST (LINE REINSTATEMENT)

CONTRACTOR:

W 14B N°

CIRCUIT N°



SYSTEM N°

[illegible]

REMARKS:

<b><i>INSPECTORS</i></b>	<b><i>CONTRACTOR</i></b>	<b><i>PMC</i></b>	<b><i>OWNER</i></b>
<b>NAME</b>			
<b>SIGNATURE</b>			
<b>DATE</b>			



 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING SUPPORT PREFABRICATION	Project No. 080557C001	Document No. 080557C-000-QCP-1380-001	Rev. No. A	Page 1 of 4



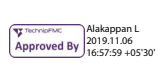

## QUALITY CONTROL PLAN

### PIPING SUPPORT PREFABRICATION

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
W 24S	DAILY REPORT
W 10S – W 50S	SINGLE REPORT PER EACH ISOMETRIC

#### REFERENCE DOCUMENTS:



- 080557C-000-PP-805 Site Coordination & Communication Procedure.
- 080557C-000-PP-814 Welding Specification for Fabrication of Piping
- 080557C-000-PP-807 Material Receiving, Handling & Storage procedure
- 080557C-000-PP-804 Specification for Positive Material Identification at Construction Site.
- QCP 1399.02 Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)
- QCP 1399.01 Welders Management
- 080557C-000-JSC-1300-001 Standard Specification for Fabrication and Erection of Piping
- 080557C-000-JSD-2300-001 Specification for Surface Preparation and Protective Coating
- 080557C-000-JSD-2200-001 Job Specification for Hot Insulation of Vessels, Piping and Equipment
- 080557C-000-JSD-2200-002 Job Specification for Cold Insulation of Vessels, Piping and Equipment
- 080557C-000-PP-820 Standard specification for inspection, flushing and testing of piping systems.
- 080557C-000-PP-821 Equipment
- 080557C-000-PP-821 Job Construction specification for Welder Management
- DRAWINGS

			 Samit Paul 2019.10.21 18:28:47 +05'30'	 Digitally signed by pankaj.paul@technipfmc.com DN: cn=pankaj.paul@technipfmc.com, email=pankaj.paul@technipfmc.com, Date: 2019.10.21 18:38:13 +05'30'	 Approved By Alakapann L 2019.11.06 16:57:59 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.06 22:27:42 +05'30'
A	19/10/2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED

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 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING SUPPORT PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1380-001	<b>Rev. No.</b> A	Page 2 of 4

#### LEGENDA

H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
RFI	=	REQUEST FOR INSPECTION
!	=	WARNING (control of document revision status)



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING SUPPORT PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1380-001	<b>Rev. No.</b> A	Page 3 of 4



S.No.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	COMPANY	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
<b>B)</b>	<b>BEFORE PREFABRICATION</b>				
B.1	SHOP APPROVAL (if any)	N.A. Use	WC	S	
B.2	WELDERS MANAGEMENT	QCP 1399.01			(1)
B.3	WELDING, NDE/PWHT/HT/PMI MANAGEMENT	Use QCP 1399.02			(1)
B.4	MATERIALS APPROVAL	W 12/A	WC	W/R	(2)
B.5	MATERIAL RELEASED AND CONSERVATION STATUS	W 50S	WC	R/S	
<b>C)</b>	<b>PREFABRICATION</b>				
C.1	WELDING	W 24S – W 50S	WC	R/S	
C.2	SUPPORT MARKING	W 10S – W 50S	WC	R/S	
C.3	DIMENSIONAL CHECK	W 10S – W 50S	WC	R/S	
C.4	PAINTING	Use QCP 2300.01			(1)
C.5	SHIPPING RELEASE	W 10S – W 50S	WC	R/S	
C.6	FINAL DOCUMENTATION REVIEW	W 50S			

NOTES: (1) FORMS, INSPECTIONS AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP.  
(2) MATERIAL APPROVAL WILL BE EXECUTED ONLY FOR MATERIAL SUPPLIED BY CONTRACTOR.

#### GENERAL NOTES

- THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THEJOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS



			PROJECT	Standby SRU & Additional Tanks		
				IOCL Paradip Refinery		
			CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING SUPPORT PREFABRICATION	Project No. 080557C001	Document No. 080557C-000-QCP-1380-001		Rev. No. A	Page 4 of 4	



POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.

- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



		PROJECT:					
		COMPANY:					
<b>QUALITY CONTROL FORM                      W 50S</b>		PROJ. No.:	QCF REV. A	SH. ____ OF ____			
<b>PIPING SUPPORT PREFABRICATION SUMMARY REPORT</b>		CONTRACTOR:		W 50S N° ____			
DRAWING N° _____ SH. ____ OF ____ REV. _____ SUPPORT MARK _____ AREA _____							
INSPECTIONS		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONT.	TECHNIP.	OWNER
B.5	MATERIAL RELEASED AND CONSERVATION STATUS	<input type="checkbox"/>	<input type="checkbox"/>				
C.1	WELDING	<input type="checkbox"/>	<input type="checkbox"/>	W 24S (*)			
C.2	SUPPORT MARKING	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
C.3	DIMENSIONAL CHECK	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
C.5	SHIPPING RELEASE	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :  W 10S N° _____ W 24S N° _____							
<b>C.6) FINAL DOC. REVIEW</b>	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>PMC</b>	<b>OWNER</b>		
	NAME						
	SIGNATURE						
	DATE						



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING SUPPORT PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1380-01	<b>Rev. No.</b> A	Page 1 of 4


## QUALITY CONTROL PLAN

### PIPING SUPPORT PREFABRICATION



TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
W 24S	DAILY REPORT
W 10S – W 50S	SINGLE REPORT PER EACH ISOMETRIC

#### REFERENCE DOCUMENTS:

- 080557C-000-PP-502 Inspection Methodology & Co-ordination Procedures
- 080557C-000-JSC-1390-001 Welding Specification for Fabrication of Piping
- 080557C-000-CSG-0000-002 Material Handling & Storage procedure
- 080557C-000-JSC-0000-001 Specification for Positive Material Identification at Construction Site.
- QCP 1399.02 Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)
- QCP 1399.01 Welders Management
- 080557C-000-JSD-1300-001 Standard Specification for Fabrication and Erection of Piping
- 080557C-000-JSD-2300-001 Specification for Surface Preparation and Protective Coating
- 080557C-000-JSD-2200-001 Job Specification for Hot Insulation of Vessels, Piping and Equipment
- 080557C-000-JSD-2200-002 Job Specification for Cold Insulation of Vessels, Piping and Equipment
- 080557C-000-JSC-0000-002 Standard specification for inspection, flushing and testing of piping systems.
- 080557C-000-JSC-0000-005 Equipment
- 080557C-000-JSC-0000-005 Job Construction specification for Welder Management
- DRAWINGS

						
A	19/10/2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	MP
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED





 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-PIPING SUPPORT PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1380-01	<b>Rev. No.</b> A	Page 2 of 4

#### LEGENDA

H	=	HOLD (RFI required - Work stop for inspection)
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S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
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!	=	WARNING (control of document revision status)



 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING SUPPORT PREFABRICATION	Project No. 080557C001	Document No. 080557C-000-QCP-1380-01	Rev. No. A	Page 3 of 4



S.No.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	COMPANY	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
<b>B)</b>	<b>BEFORE PREFABRICATION</b>				
B.1	SHOP APPROVAL (if any)	N.A. Use	WC	S	
B.2	WELDERS MANAGEMENT	QCP 1399.01			(1)
B.3	WELDING, NDE/PWHT/HT/PMI MANAGEMENT	Use QCP 1399.02			(1)
B.4	MATERIALS APPROVAL	W 12/A	WC	W/R	(2)
B.5	MATERIAL RELEASED AND CONSERVATION STATUS	W 50S	WC	R/S	
<b>C)</b>	<b>PREFABRICATION</b>				
C.1	WELDING	W 24S – W 50S	WC	R/S	
C.2	SUPPORT MARKING	W 10S – W 50S	WC	R/S	
C.3	DIMENSIONAL CHECK	W 10S – W 50S	WC	R/S	
C.4	PAINTING	Use QCP 2300.01			(1)
C.5	SHIPPING RELEASE	W 10S – W 50S	WC	R/S	
C.6	FINAL DOCUMENTATION REVIEW	W 50S			

NOTES: (1) FORMS, INSPECTIONS AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP.  
(2) MATERIAL APPROVAL WILL BE EXECUTED ONLY FOR MATERIAL SUPPLIED BY CONTRACTOR.

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 		<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks</b>		
			<b>IOCL Paradip Refinery</b>		
		<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>		
<b>QCP-PIPING SUPPORT PREFABRICATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1380-01		<b>Rev. No.</b> A	Page 4 of 4

TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.

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		PROJECT:					
		COMPANY:					
<b>QUALITY CONTROL FORM                      W 50S</b>		PROJ. No.:	QCF REV. A	SH. ____ OF ____			
<b>PIPING SUPPORT PREFABRICATION SUMMARY REPORT</b>		CONTRACTOR:		W 50S N° ____			
DRAWING N° _____ SH. ____ OF ____ REV. _____ SUPPORT MARK _____ AREA _____							
INSPECTIONS		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONT.	TECHNIP.	OWNER
B.5	MATERIAL RELEASED AND CONSERVATION STATUS	<input type="checkbox"/>	<input type="checkbox"/>				
C.1	WELDING	<input type="checkbox"/>	<input type="checkbox"/>	W 24S (*)			
C.2	SUPPORT MARKING	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
C.3	DIMENSIONAL CHECK	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
C.5	SHIPPING RELEASE	<input type="checkbox"/>	<input type="checkbox"/>	W 10S (*)			
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :  W 10S N° _____ W 24S N° _____							
C.6) FINAL DOC. REVIEW	INSPECTORS	CONTRACTOR		PMC		OWNER	
	NAME						
	SIGNATURE						
	DATE						





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 10S

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

PIPING SUPPORT PREFABRICATION & RELEASE

CONTRACTOR:

W 10S N°

IDENTIFICATION AND REFERENCES

CONTROL AND EVALUATION

LOT	DRAWING				IDENTIFICATION		WELDING			SUPPORT MARKING		DIMENSIONAL CHECK		RELEASE FOR PAINTING		DATA & SIGNATURE		
S.NO	DW	SH	REV	AREA	SUPPORT MARK	QTY	W 24S N°	ACC	N.A.	ACC	N.A.	ACC	N.A.	ACC	N.A.	CONT.	TECHNIP	OWNER
1								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
2								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
3								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
5								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
6								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
7								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
8								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
9								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
10								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
11								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
12								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
13								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
14								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
15								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
INSPECTORS		CONTRACTOR				PMC				OWNER								
NAME																		
SIGNATURE																		
DATE																		





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 12/A

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**CONSTRUCTION MATERIALS  
APPROVAL**

CONTRACTOR:

W 12/A N° \_\_\_\_

CIVIL	<input type="checkbox"/>	PIPING	<input type="checkbox"/>	MACHINERY	<input type="checkbox"/>	INSTRUMENT	<input type="checkbox"/>	INSULATION	<input type="checkbox"/>
BLDG.	<input type="checkbox"/>	MECHANIC.	<input type="checkbox"/>	ELECTRICAL	<input type="checkbox"/>	PAINTING	<input type="checkbox"/>	STEEL STR.	<input type="checkbox"/>
NDT	<input type="checkbox"/>	SUPPORT PRF.	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

1. MATERIALS

2. SUPPLIER

3. PURPOSE

4. ATTACHMENT DATA

5. TYPE OF TEST PERFORMED

6. TEST STANDARD UTILIZED

REMARKS:

RESULT:

ACCEPTED

☐

NOT ACCEPTED

☐**INSPECTORS****CONTRACTOR****PMC****OWNER**

NAME

SIGNATURE

DATE





QCF STANDARD REV.0





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 10S

PROJ. No.:

QCF REV. A

SH. \_\_\_\_ OF \_\_\_\_

## PIPING SUPPORT PREFABRICATION &amp; RELEASE

CONTRACTOR:

W 10S N°

## IDENTIFICATION AND REFERENCES

## CONTROL AND EVALUATION

LOT	DRAWING				IDENTIFICATION		WELDING			SUPPORT MARKING		DIMENSIONAL CHECK		RELEASE FOR PAINTING		DATA & SIGNATURE			
S.NO	DW	SH	REV	AREA	SUPPORT MARK	QTY	W 24S N°	ACC	N.A.	ACC	N.A.	ACC	N.A.	ACC	N.A.	CONT.	TECHNIP	OWNER	
1								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
3								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
4								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
5								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
6								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
7								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
8								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
9								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
10								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
11								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
12								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
13								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
14								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
15								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
INSPECTORS				CONTRACTOR				PMC				OWNER							
NAME																			
SIGNATURE																			
DATE																			





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 12/A

PROJ. No.:

QCF REV. A

SH. \_\_\_ OF \_\_\_

**CONSTRUCTION MATERIALS  
APPROVAL**

CONTRACTOR:

W 12/A N° \_\_\_\_

CIVIL	<input type="checkbox"/>	PIPING	<input type="checkbox"/>	MACHINERY	<input type="checkbox"/>	INSTRUMENT	<input type="checkbox"/>	INSULATION	<input type="checkbox"/>
BLDG.	<input type="checkbox"/>	MECHANIC.	<input type="checkbox"/>	ELECTRICAL	<input type="checkbox"/>	PAINTING	<input type="checkbox"/>	STEEL STR.	<input type="checkbox"/>
NDT	<input type="checkbox"/>	SUPPORT PRF.	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>

1. MATERIALS

2. SUPPLIER

3. PURPOSE

4. ATTACHMENT DATA

5. TYPE OF TEST PERFORMED

6. TEST STANDARD UTILIZED

REMARKS:

RESULT:

ACCEPTED

☐

NOT ACCEPTED

☐**INSPECTORS****CONTRACTOR****PMC****OWNER**

NAME

SIGNATURE

DATE







 		<b>PROJECT</b> <b>Standby SRU &amp; Additional Tanks</b> <b>IOCL Paradip Refinery</b>
		<b>CLIENT</b> <b>INDIAN OIL CORPORATION LIMITED</b>
<b>QCP-WELDERS MANAGEMENT</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1399-001
	<b>Rev. No.</b> A	Page 1 of 2
<b>QUALITY CONTROL PLAN</b> <b>WELDERS MANAGEMENT</b>		





TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 07	SINGLE LIST PER EACH WORK SHOP / SITE
W 19	SUMMARY
W 21	SINGLE REPORT PER EACH WELDER
W 22	WEEKLY REPORT

#### REFERENCE DOCUMENTS:

- 080557C-000-PP-805 Site Coordination & Communicaiton Procedure.
- 080557C-000-PP-814 Welding Specification for Fabrication of Piping
- 080557C-000-PP-807 Material Receiving Handling & Storage procedure
- 080557C-000-PP-804 Specification for Positive Material Identification at Construction Site
- QCP 1399.002 Piping Welding Activities Management (NDE / PWHT / HT / PMI Included)
- 080557C-000-JSC-1300-001 Standard Specification for Fabrication and Erection of Piping
- 080557C-000-PP-821 Job Construction Specification for Welders Management
- DRAWINGS

#### LEGENDA



- H = HOLD (RFI required - Work stop for inspection)  
 W = WITNESS (RFI required)  
 WC = 100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.  
 S = SURVEILLANCE (No RFI)  
 R = REVIEW OF REPORTS  
 N.A. = NOT APPLICABLE  
 A = AUTHORIZATION / APPROVAL  
 IFA = ISSUED FOR AUTHORIZATION/APPROVAL  
 INFO = FOR INFORMATION  
 RFI = REQUEST FOR INSPECTION  
 ! = WARNING (control of document revision status)

			 Samit Paul 2019.10.21 18:24:35 +05'30'	 Signed By 2019.11.06 16:58:23 +05'30'	 Approved By Alakappan L 2019.11.06 16:58:23 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.06 22:28:06 +05'30'
A	19/10/2019	ISSUED FOR INFROMATION	SMP	PKP	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED

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 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks</b>	
	<b>CLIENT</b>		<b>IOCL Paradip Refinery</b>	
<b>QCP-WELDERS MANAGEMENT</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1399-001	<b>Rev. No.</b> A	Page 2 of 2

S.No	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
<b>A) PRELIMINARY ACTIVITIES</b>					
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATIONS AND PROCEDURES	N.A.	!	!	
A.3	SITE SHOP FOR WELDER'S TESTING IS INSPECTED AND APPROVED	N.A.	WC	A	
<b>B) WELDER'S QUALIFICATION AT PREFABRIC. SHOP</b>					
B.1	WELDERS' QUALIFICATION BY INDEPENDENT RECOGNIZED THIRD PARTY ORGANIZATION	ASME or Equiv.	R	R	
B.2	WELDER QUALIFICATION WITH "TEST COUPON" & APPROVAL	W 19	WC	W/A	(1)
B.3	WELDERS IDENTIFICATION (STAMP) AND CARDS ASSIGNMENT	W 07	WC	A	
B.4	SHOP WELDERS LIST UP-TO-DATE	W 07	WC	R	
B.5	"PERIODICAL EVALUATION" (WEEKLY REPORT - AT SHOP)	W 22	WC	R	(1)
<b>C) TRANSFER OF WELDERS FROM "PREFABR. SHOP" TO "SITE"</b>					
C.1	SITE WELDERS LIST UP-TO-DATE	W 07	WC	R	
C.2	"CONTROL EVALUATION" AT SITE WORK STARTING	First 2 joints	WC	R/S	
C.3	"PERIODICAL EVALUATION" (WEEKLY REPORT - AT SITE)	W 22	WC	R	(1)
<b>D) WELDER'S QUALIFICATION AT SITE</b>					
D.1	WELDERS' QUALIFICATION BY INDEPENDENT RECOGNIZED THIRD PARTY ORGANIZATION	ASME or Equiv.	R	R	
D.2	WELDER QUALIFICATION WITH "TEST COUPON"	W 19	WC	W	(1)
D.3	WELDERS IDENTIFICATION (STAMP) AND CARDS ASSIGNMENT	W 07	WC	A R	
D.4	SITE WELDERS LIST UP-TO-DATE	W 07	WC	R/S	
D.5	"CONTROL EVALUATION" AT SITE WORK STARTING	First 2 joints	WC	R	
D.6	"PERIODICAL EVALUATION" (WEEKLY REPORT - AT SITE)	W 22	WC	R	(1)
<b>E) WELDERS HISTORY</b>		W 21	WC	W	(1)
<b>F) TACK WELDERS QUALIFICATION (AT SHOP &amp; AT SITE)</b>		Subc. Form	WC		



**REMARKS:** (\*) FOR THIS QCP "WELDER" HAS THE MEANING OF **WELDER & WELDING OPERATOR**

**NOTES:** (1) THESE REPORTS WILL BE ALWAYS AVAILABLE DURING PREFABRICATION/ERECTION BUT NOT INCLUDED IN THE SHOP/CONSTRUCTION QUALITY DOSSIER.

#### GENERAL NOTES

- THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THE JOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



 		PROJECT:											
		COMPANY:											
QUALITY CONTROL FORM						W 07		PROJ. No :		QCF REV. A		SH. ____ OF ____	
WELDERS LIST						SUBCONTRACTOR:				W 07 N° _____			
WELDERS DATA						QUALIFICATION DATA							
NAME		WELDER STAMP No.	WORK CATEGORY			WQR		PROCESS	MTL (PN)	POS.	DIA Inch	THK mm	
FAMILY	FIRST		PIPING	PRESS. VESSEL	STRUCT.	No.	DATE						
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
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			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
INSPECTORS		CONTRACTOR				PMC			OWNER				
NAME													
SIGNATURE													
DATE													





COMPANY:

**W 19**

SH. \_ OF \_

W 19 N°

[illegible]

**NOTE:** (1) YES MEANS APPROVAL FOR RADIOGRAPHIC EXAMINATION





COMPANY:

## QUALITY CONTROL FORM

W 21

PROJ. No.:

QCF REV. A

SH. 1 OF 1

## WELDER HISTORICAL REPORT

CONTRACTOR:

W 21 N°

WELDER NAME \_\_\_\_\_

WELDER STAMP

WELDER PERFORMANCE QUALIFICATION (WPQ) N°

[illegible]





COMPANY:

SH. \_\_\_\_ OF \_\_\_\_

## W 22 N°


MATERIAL : \_\_\_\_\_ PIPING CLASSES: \_\_\_\_\_ RT% \_\_\_\_\_

## CUMULATIVE DATA

[illegible]

Date:



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks IOCL Paradip Refinery</b>	
	<b>CLIENT</b>		<b>INDIAN OIL CORPORATION LIMITED</b>	
<b>QCP-PIPING WELDING ACTIVITIES MANAGEMENT</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1399-002	<b>Rev. No.</b> A	Page 1 of 3

**QUALITY CONTROL PLAN**  
**PIPING WELDING ACTIVITIES MANAGEMENT**  
**(NDE / PWHT / HT / PMI INCLUDED)**





TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 11	SUMMARY
W 25	MONTHLY REPORT

**REFERENCE DOCUMENTS:**


- 080557C-000-PP-805      Site Coordination & Communication Procedure.
- 080557C-000-PP-814      Welding Specification for Fabrication of Piping
- 080557C-000-PP-807      Material Receiving Handling & Storage procedure
- 080557C-000-PP-804      Specification for Positive Material Identification at Construction Sites
- 080557C-000-JSC-1300-001      Standard Specification for Fabrication and Erection of Piping
- QCP 1399.01      Welders Management
- DRAWINGS

**LEGENDA**

H	=	HOLD (RFI required - Work stop for inspection)
W	=	WITNESS (RFI required)
WC	=	100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.
S	=	SURVEILLANCE (No RFI)
R	=	REVIEW OF REPORTS
N.A.	=	NOT APPLICABLE
A	=	AUTHORIZATION / APPROVAL
IFA	=	ISSUED FOR AUTHORIZATION/APPROVAL
INFO	=	FOR INFORMATION
RFI	=	REQUEST FOR INSPECTION
!	=	WARNING (control of document revision status)

			 Samit Paul 2019.10.21 18:23:09 +05'30'	 Signed By Digitally signed by samit.paul@technipfmc.com DN: c=IN, o=TechnipFMC, ou=TechnipFMC, email=samit.paul@technipfmc.com Date: 2019.10.21 18:40:12 +05'30'	 Approved By Alakapann L 2019.11.06 16:58:50 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.06 22:28:38 +05'30'
<b>A</b>	<b>19/10/2019</b>	<b>ISSUED FOR INFORMATION</b>	<b>SMP</b>	<b>PKP</b>	<b>LA/ANJ</b>	<b>JMC</b>
<b>REV.</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>PREPARED</b>	<b>CHECKED</b>	<b>APPROVED</b>	<b>AUTHORIZED</b>



 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-PIPING WELDING ACTIVITIES MANAGEMENT	Project No. 080557C001	Document No. 080557C-000-QCP-1399-002	Rev. No. A	Page 2 of 3

S.No	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
<b>A) PRELIMINARY ACTIVITIES</b>					
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR / COMPANY TECHNICAL SPECIFICATIONS AND PROCEDURES	N.A.	!	!	
<b>B) WELDING</b>					
B.1	REVIEW OF PROPOSED (WPS) WELDING PROCEDURE SPECIFICATION.		A / R	A / R	
B.2	WELDING OF TEST COUPONS & SUBSEQUENT TESTING IF APPLICABLE		WC	H	
B.3	APPROVAL OF WPS & PQR		WC	H	
B.4	WELDING BOOK (PIPING WELDING KEY FORM)	W11	A	R	
B.5	LOG OF WELDING EQUIPMENT CALIBRATION VERIFICATION	Subc. Log	A	R	
<b>C) WELDING CONSUMABLES</b>					
C.1	PROCEDURE OF FILLER MATERIAL MANAGEMENT	Subc. Log	A	R	
C.2	STORAGE / HANDLING	Subc. Log	S	S	
C.3	MATERIAL CERTIFICATES	Subc. Log	R	S	
<b>D) ISOMETRICS</b>					
D.1	PIPE SPOOLS IDENTIFICATION	N.A.	S	S	
D.2	WELDS IDENTIFICATION	N.A.	S	S	
<b>E) POSITIVE MATERIAL IDENTIFICATION (PMI)</b>					
E.1	PMI PROCEDURE	N.A.	A	R	
E.2	PMI OPERATORS QUALIFICATION	N.A.	A	R	
<b>F) NON DESTRUCTIVE EXAMINATION (NDE)</b>					
F.1	VISUAL EXAMINATION (VT) PROCEDURE	N.A.	A	A	
F.2	LIQUID PENETRANT (PT) EXAM. PROCEDURE	N.A.	A	A	
F.3	MAGNETIC PARTICLE (MT) EXAM. PROCEDURE	N.A.	A	A	
F.4	RADIOGRAPHIC EXAM. (RT) PROCEDURE	N.A.	A	A	
F.5	ULTRASONIC EXAMINATION (UT) PROCEDURE	N.A.	A	A	
F.6	NDE MONTHLY STATUS	W 25	R	R	(1)
F.7	NDE PERSONNEL	N.A.	H	R	(2)
<b>G) POST WELD HEAT TREATMENT (PWHT) &amp; HARDNESS TEST (HT)</b>					
G.1	PWHT PROCEDURE	N.A.	A	R	
G.2	LIST OF JOINTS REQUIRING PWHT	N.A.	R	R	
G.3	HT PROCEDURE	N.A.	A	R	
<b>H) REPAIRS PROCEDURE</b>		N.A.	A	R	


NOTES:

- (1) THESE REPORTS WILL BE ALWAYS AVAILABLE AS HARD COPY DURING PREFABRICATION/ERECTION BUT NOT INCLUDED IN THE FINAL CONSTRUCTION QUALITY DOSSIER.
- (2) NDE PERSONNEL AND RELEVANT PROCEDURES SHALL BE APPROVED BY AN INDEPENDENT RECOGNIZED THIRD PARTY ORGANIZATION.

GENERAL NOTES

- 1 THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THEJOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN-CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC



 	<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks IOCL Paradip Refinery</b>		
	<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>		
<b>QCP-PIPING WELDING ACTIVITIES MANAGEMENT</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-1399-002	<b>Rev. No.</b> A	Page 3 of 3

ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.

- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 11

PROJ. No.:

QCF REV.0

SH. 1 OF 2

## PIPING WELDING KEY FORM

SUBCONTRACTOR:

W 11 N°

PIPING CLASS (REF TO W 09)	BASE MATERIAL (P-N° OR GRADE)	WPS N°	WELDING DETAIL N° (SEE SH. 2)	WELDING PROCESS			PREHEAT. (Y/N)	HARDNESS (Y/N)	CHARPY IMPACT (Y/N)	PWHT (Y/N)	WALL THK RANGE	PIPE SIZE RANGE	PQR N°	REMARKS
				GTAW	SMAW									

INSPECTORS

CONTRACTOR

PMC

OWNER

NAME

SIGNATURE

DATE



TechnipFMC



PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 11

PROJ.No.:

QCF REV. A

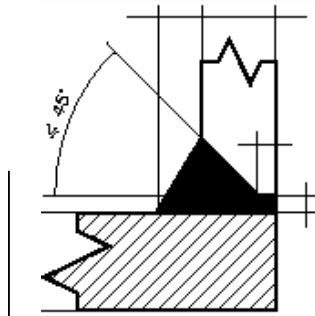
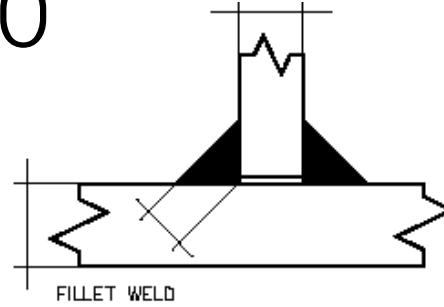
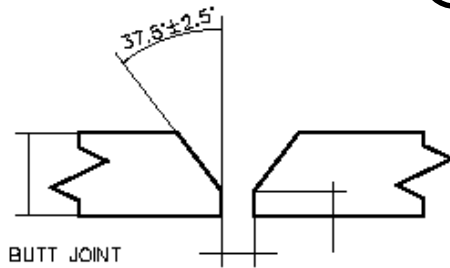
SH. 2 OF 2

PIPING WELDING KEY FORM  
ELDING DETAIL

SUBCONTRACTOR:

W11W

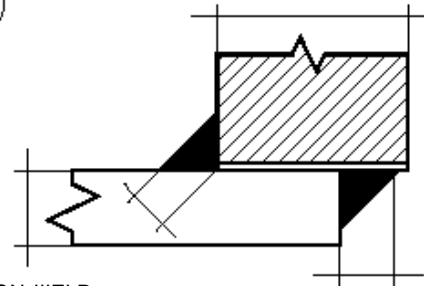
CD 0



SET ON BRANCH IIIELD

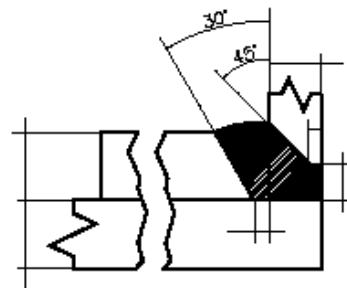
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4

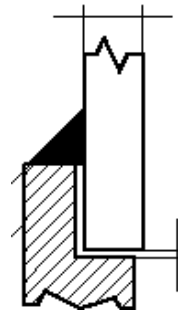


SLIP-ON IIIELD

Ⓡ ⓪

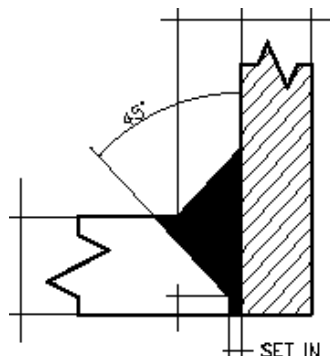


SET ON BRANCH VELD WITH REINFORCING PAD

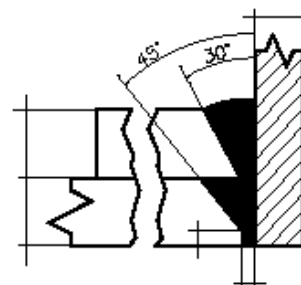


SOCKET VELD

⓪ Ⓡ



SET IN BRANCH WELD



SET IN BRANCH WELD WITH REINFORCING PAD





PROJECT:

COMPANY:

QUALITY CONTROL FORM

W 25

PROJ. No.:

QCF REV. 0

SH. \_\_\_\_ OF \_\_\_\_

## MONTHLY RADIOGRAPHIC AND REPAIRING STATUS

CONTRACTOR:

W 25 N° \_\_\_\_

UP-TO-DATE TO:

PROGR	ITEM OR DESCRIPTION	MATERIAL	A (1)	B	C = A x B	NDE TYPE	No CHECKS		EXTENSIONS		H = (E+G) / (D+F)	NOTES
			No JOINTS/m	REQUIRED % age	No. CHECKS		D	E	F	G	%	
							PERFORMED	DEFECTIVE	PERFORMED	DEFECTIVE	DEFECTS	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												

(1) JOINTS NUMBER TO BE CHECKED (PIPING) OR WELDING METERS TO BE CHECKED (TANKS, VESSELS, ....)

ISSUED By:

CONTRACTOR INSPECTOR

DATE

CHECKED BY:

PMC INSPECTOR DATE



 		PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery	
		CLIENT	INDIAN OIL CORPORATION LIMITED	
QCP-INSULATION	Project No. 080557C001	Document No. 080557C-000-QCP-2200-001	Rev. No. A	Page 1 of 3
<b>QUALITY CONTROL PLAN</b>  <b>INSULATION</b>				





TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
CL 1	SINGLE REPORT PER EACH TYPE OF MATERIAL
CL 2 – CL3	SINGLE REPORT PER EACH ITEM

#### REFERENCE DOCUMENTS:



- 080557C-000-PP-805 Site Coordination & Communication Procedure.
- 080557C-000-PP-807 Material Receiving , Handling & Storage procedure
- 080557C-000-JSD-2300-001 Specification for Surface Preparation and Protective Coating
- 080557C-000-JSD-2200-001 Job Specification for Hot Insulation of Vessels, Piping and Equipment
- 080557C-000-JSD-2200-002 Job Specification for Cold Insulation of Vessels, Piping and Equipment
- DRAWINGS

#### LEGENDA

- H = HOLD (RFI required - Work stop for inspection)  
 W = WITNESS (RFI required)  
 WC = 100 % SUPERVISION AND EXAMINATION BY CONTRACTOR.  
 S = SURVEILLANCE (No RFI)  
 R = REVIEW OF REPORTS  
 N.A. = NOT APPLICABLE  
 A = AUTHORIZATION / APPROVAL  
 IFA = ISSUED FOR AUTHORIZATION/APPROVAL  
 INFO = FOR INFORMATION  
 RFI = REQUEST FOR INSPECTION  
 ! = WARNING (control of document revision status)



			 Samit Paul 2019.10.21 18:51:55 +05'30'	 Authorized By Alakappan L 2019.10.22 12:24:08 +05'30'	 Approved By Alakappan L 2019.11.06 17:15:47 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.06 22:39:40 +05'30'
A	21.10.2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks IOCL Paradip Refinery</b>	
	<b>CLIENT</b>		<b>INDIAN OIL CORPORATION LIMITED</b>	
<b>QCP-INSULATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-2200-001	<b>Rev. No.</b> A	Page 2 of 3

S. NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR	TECHNIP	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
A.3	CONTRACTOR METHOD STATEMENT (if required)	N.A.	WC	A	
<b>B)</b>	<b>BEFORE ERECTION</b>				
B.1	MATERIALS APPROVAL	W 12A	WC	A	
B.2	MATERIALS CHECK IN CONTRACTOR WAREHOUSE	CL 1	WC	R/S	(1)
	- STORAGE				
	- INTEGRITY				
	- APPEARANCE				
	- DIMENSION				
<b>C)</b>	<b>INSTALLATION OF HOT INSULATION</b>				
C.1	JACKETING PREFABRICATION	CL 2	WC	R/S	
C.2	SURFACE APPEARANCE OF COMPONENTS TO INSULATE	CL 2	WC	R/S	
C.3	HEATING CHAMBER (for traced components only)	CL 2	WC	R/S	
C.4	INSULATING MATERIAL INSTALLATION	CL 2	WC	W/R	
C.5	JACKETING INSTALLATION	CL 2	WC	R/S	
C.6	MISCELLANEOUS FINISHING WORKS	CL 2	WC	R/S	
	- REMOVABLE INSPECTION WINDOWS (where required)				
	- EXPANSION JOINT (where required)				
	- JACKET OVERLAP				
	- SEALING				
C.7	FINAL DOCUMENTATION REVIEW	CL 2			
<b>D)</b>	<b>INSTALLATION OF COLD INSULATION</b>				
D.1	JACKETING PREFABRICATION	CL 3	WC	R/S	
D.2	SURFACE APPEARANCE OF COMPONENTS TO INSULATE	CL 3	WC	R/S	
D.3	INSULATING MATERIAL INSTALLATION	CL 3	WC	W/R	
	- APPLICATION OF PREFORMED INSULATION				
	- JOINTS SEALING				
	- METAL STRAPS APPLICATION				



 	<b>PROJECT</b>	<b>Standby SRU &amp; Additional Tanks IOCL Paradip Refinery</b>		
	<b>CLIENT</b>	<b>INDIAN OIL CORPORATION LIMITED</b>		
<b>QCP-INSULATION</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-2200-001	<b>Rev. No.</b> A	Page 3 of 3



S. NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR	TECHNIP	
D.4	VAPOR BARRIERS AND GLASS CLOTH INSTALLATION	CL 3	WC	W/R	
D.5	JACKETING INSTALLATION	CL 3	WC	W/R	
D.6	MISCELLANEOUS FINISHING WORKS - REMOVABLE INSPECTION WINDOWS (where required) - CONTRACTION JOINT (where required) - JACKET OVERLAP - SEALING	CL 3	WC	S	
D.7	FINAL DOCUMENTATION REVIEW	CL 3			

NOTES: (1) CONTRACTOR SHALL ISSUE AN RFI FOR EACH NEW DELIVERY.



#### GENERAL NOTES

- 1 THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THE JOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.



 		PROJECT:					
		COMPANY:					
QUALITY CONTROL FORM <b>CL 3</b>		PROJ. No.:	QCF REV. A	SH. ___ OF ___			
<b>COLD INSULATION SUMMARY REPORT</b>		CONTRACTOR:		CL 3 N° ____			
ITEM / TAG N° _____		ITEM / TAG DESCRIPTION _____					
AREA _____		INSULATION CODE _____					
INSPECTIONS (REF. TO QCP 2200.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
D.1	JACKETING PREFABRICATION	<input type="checkbox"/>	<input type="checkbox"/>				
D.2	SURFACE APPEARANCE OF COMPONENTS TO INSULATE	<input type="checkbox"/>	<input type="checkbox"/>				
D.3	INSULATING MATERIAL INSTALLATION  - APPLICATION OF PREFORMED INSULATION - JOINTS SEALING - METAL STRAPS INSTALL.	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
D.4	VAPOR BARRIERS AND GLASS CLOTH INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
D.5	JACKETING INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
D.6	MISCELLANEOUS FINISHING WORKS  - REMOVABLE INSPECTION WINDOWS - CONTRACTION JOINT - JACKET OVERLAP - SEALING	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
NOTES:							
D.7) FINAL DOC. REVIEW	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>PMC</b>	<b>OWNER</b>		
	NAME						
	SIGNATURE						
	DATE						





 				PROJECT:			
				COMPANY:			
QUALITY CONTROL FORM <b>CL 1</b>				PROJ. No.:	QCF REV. A	SH. ____ OF ____	
<b>INSULATION MATERIAL CHECK</b>				CONTRACTOR:		CL 1 N° ____	
CHECK LIST		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
<b>1</b>	<b>PACKING</b>  - STORAGE - INTEGRITY - APPEARANCE	  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
<b>2</b>	<b>JACKETING</b>  - DIMENSION - APPEARANCE	  <input type="checkbox"/> <input type="checkbox"/>	  <input type="checkbox"/> <input type="checkbox"/>				
<b>3</b>	<b>BAND OR WIRE</b>  - DIMENSION - APPEARANCE	  <input type="checkbox"/> <input type="checkbox"/>	  <input type="checkbox"/> <input type="checkbox"/>				
<b>4</b>	<b>SCREW/SEALANT/WIRE MESCH</b>  - DIMENSION - APPEARANCE	  <input type="checkbox"/> <input type="checkbox"/>	  <input type="checkbox"/> <input type="checkbox"/>				
NOTES:                    							
<b>INSPECTORS</b>		<b>CONTRACTOR</b>		<b>PMC</b>		<b>OWNER</b>	
NAME							
SIGNATURE							
DATE							





		PROJECT:  COMPANY:					
<b>QUALITY CONTROL FORM      CL 2</b>		PROJ. No.:	QCF REV. A	SH. ____ OF ____			
<b>HOT INSULATION SUMMARY REPORT</b>		CONTRACTOR:		<b>CL 2 N° ____</b>			
<div style="display: flex; justify-content: space-between;"> <div>             ITEM / TAG N° _____              AREA _____           </div> <div>             ITEM / TAG DESCRIPTION _____              INSULATION CODE _____           </div> </div>							
INSPECTIONS (REF. TO QCP 2200.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
C.1	JACKETING PREFABRICATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.2	SURFACE APPEARANCE OF COMPONENTS TO INSULATE	<input type="checkbox"/>	<input type="checkbox"/>				
C.3	HEATING CHAMBER	<input type="checkbox"/>	<input type="checkbox"/>				
C.4	INSULATING MATERIAL INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.5	JACKETING INSTALLATION	<input type="checkbox"/>	<input type="checkbox"/>				
C.6	MISCELLANEOUS FINISHING WORKS  - REMOVABLE INSPECTION WINDOWS - EXPANSION JOINT - JACKET OVERLAP - SEALING	<input type="checkbox"/>    <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>    <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
NOTES:							
<b>C.7) FINAL DOC. REVIEW</b>	<b>INSPECTORS</b>	<b>CONTRACTOR</b>		<b>PMC</b>	<b>OWNER</b>		
	NAME						
	SIGNATURE						
	DATE						



 		PROJECT:	
		COMPANY:	
QUALITY CONTROL FORM <b>W 12/A</b>		PROJ. No.:	QCF REV. A
<b>CONSTRUCTION MATERIALS APPROVAL</b>		CONTRACTOR:	<b>W 12/A N°</b> _____
CIVIL <input type="checkbox"/>	PIPING <input type="checkbox"/>	MACHINERY <input type="checkbox"/>	INSULATION <input type="checkbox"/>
BLDG. <input type="checkbox"/>	MECHANIC. <input type="checkbox"/>	ELECTRICAL <input type="checkbox"/>	STEEL STR. <input type="checkbox"/>
NDT <input type="checkbox"/>	SUPPORT PRF. <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
1. MATERIALS			
2. SUPPLIER			
3. PURPOSE			
4. ATTACHMENT DATA			
5. TYPE OF TEST PERFORMED			
6. TEST STANDARD UTILIZED			
REMARKS:			
RESULT:		ACCEPTED <input type="checkbox"/>	NOT ACCEPTED <input type="checkbox"/>
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>
NAME			
SIGNATURE			
DATE			



 	<b>PROJECT</b>		<b>Standby SRU &amp; Additional Tanks IOCL Paradip Refinery</b>	
	<b>CLIENT</b>		<b>INDIAN OIL CORPORATION</b>	
<b>QCP-PAINTING</b>	<b>Project No.</b> 080557C001	<b>Document No.</b> 080557C-000-QCP-2300-001	<b>Rev. No.</b> A	Page 1 of 3

## QUALITY CONTROL PLAN

### PAINTING





TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL
CP 1	SINGLE REPORT PER EACH WAREHOUSE INSPECTION
CP 2	SINGLE REPORT PER EACH ITEM

#### REFERENCE DOCUMENTS:



- 080557C-000-PP-805 Site Coordination & Communication Procedure.
- 080557C-000-PP-807 Material Receiving, Handling & Storage procedure
- 080557C-000-JSC-1300-001 Standard Specification for Fabrication and Erection of Piping
- 080557C-000-JSD-2300-001 Specification for Surface Preparation and Protective Coating
- 080557C-000-JSD-2200-001 Job Specification for Hot Insulation of Vessels, Piping and Equipment
- 080557C-000-JSD-2200-002 Job Specification for Cold Insulation of Vessels, Piping and Equipment
- DRAWINGS

#### LEGENDA

- H = HOLD (RFI required - Work stop for inspection)  
 W = WITNESS (RFI required)  
 S = SURVEILLANCE (No RFI)  
 R = REVIEW OF REPORTS  
 N.A. = NOT APPLICABLE  
 A = AUTHORIZATION / APPROVAL  
 IFA = ISSUED FOR AUTHORIZATION/APPROVAL  
 INFO = FOR INFORMATION  
 ! = WARNING (control of document revision status)



			 Samit Paul 2019.10.21 18:53:09 +05'30'	 Checked By Alakapann L 2019.11.07 18:22:15 +05'30'	 Approved By Alakapann L 2019.11.07 18:22:47 +05'30'	 Authorized By Morischristopher Jesumarian 2019.11.07 20:25:43 +05'30'
A	21.10.2019	ISSUED FOR INFORMATION	SMP	LA	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED



 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION		
QCP-PAINTING	Project No. 080557C001	Document No. 080557C-000-QCP-2300-001	Rev. No. A	Page 2 of 3

S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
<b>A)</b>	<b>PRELIMINARY ACTIVITIES</b>				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	!	!	
A.3	SUB CONTRACTOR METHOD STATEMENT (if required)	N.A.	WC	A	
<b>B)</b>	<b>BEFORE APPLICATION</b>				
B.1	MATERIALS APPROVAL	W 12A	WC	A	
B.2	MATERIALS CHECK IN CONTRACTOR WAREHOUSE:				
B.2.1	MATERIAL IDENTIFICATION AND CONSERV. STATUS & EXPIRING DATE CHECK	CP 1	WC	S	(1)
B.2.2	COATING EQUIPMENT, CONTROL & TEST INSTRUMENTS	CP 1	WC	S	
B.3	PAINTERS IDENTIFICATION & CARD ASSIGNMENT (IF ANY)	N.A.	WC	A	
<b>C)</b>	<b>PAINTING APPLICATION</b>				(2)
C.1	<u>SURFACE PREPARATION</u>				
C.1.1	ENVIROMENTAL CONDITIONS & SOLUBLE SALT CONTAMINATION	CP 2	WC	W/R	(3)
C.1.2	ABRASIVE BLASTING EXECUTION; SURFACE PROFILE CHECK; VISUAL EXAMINATION;	CP 2	WC	W/R	
C.2	<u>PRIMER</u>				
C.2.1	ENVIRONMENTAL CONDITIONS & PRIMER EXECUTION	CP 2	WC	W/R	
C.2.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	CP 2	WC	R	
C.2.3	CURING & ADHESION TEST	CP 2	WC	W/R	
C.3	<u>INTERMEDIATE COATING</u>				
C.3.1	CLEANLINESS, ENVIRONM. CONDITIONS & INTERMEDIATE COATING EXECUTION	CP 2	WC	R	
C.3.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	CP 2	WC	R	
C.3.3	CURING & ADHESION TEST	CP 2	WC	W/R	
C.4	<u>FINAL COATING</u>				
C.4.1	CLEANLINESS, ENVIRONM. CONDITIONS & FINAL COATING EXECUTION	CP 2	WC	R	
C.4.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	CP 2	WC	W/R	
C.4.3	CURING & ADHESION TEST	CP 2	WC	W/R	
C.4.4	HOLIDAYS TEST (Only for vessels and tanks internal coating)	CP 2	WC	W/R	



 	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION		
QCP-PAINTING	Project No. 080557C001	Document No. 080557C-000-QCP-2300-001	Rev. No. A	Page 3 of 3

S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
C.5	<u>BRUSHING &amp; TOUCHUP</u>	CP 2	WC	W/R	
C.6	<u>IDENTIFICATION MARKING</u>	CP 2	WC	S	
C.7	<u>FINAL DOCUMENTATION REVIEW</u>	CP 2			

NOTES: (1) CONTRACTORS SHALL ISSUE AN RFI FOR EACH NEW DELIVERY.



(2) CONTRACTORS SHALL RECORD ON A PROPER LOGBOOK THE ENVIRONMENTAL CONDITIONS EACH WORKING DAY.  
AT LEAST: TEMPERATURE (°C), RELATIVE MOISTURE (%) AND DEW POINT (°C)  
LOGBOOK SHALL BE ALWAYS AVAILABLE AND ANYWAY ATTACHED TO FINAL DOSSIER.

(3) CONTRACTORS SHALL RECORD ON A PROPER LOGBOOK THE SOLUBLE SALT CONTAMINATION TEST ABOUT ALL LOTS OF MATERIALS, BEFORE AND AFTER THE SURFACE PREPARATION.  
LOGBOOK SHALL BE ALWAYS AVAILABLE AND ANYWAY ATTACHED TO FINAL DOSSIER.



#### GENERAL NOTES

- 1 THE ENCLOSED ITP'S ARE INDICATIVE AND SHALL BE FOLLOWED FOR DEVELOPING THEJOB SPECIFIC ITP'S FOR THE WORKS TO BE PERFORMED BY THE CONTRACTOR. THE PROVISIONS INDICATED FOR STAGE WISE INSPECTION BY TECHNIP AND OWNER (FOR SPECIFIC ACTIVITIES) ARE THE MINIMUM AND THE ENGINEER-IN- CHARGE MAY DECIDE TO INCREASE HOLD POINTS/ WITNESS POINTS, WHILE APPROVING THE JOB SPECIFIC ITP'S. ACTIVITIES FOR WHICH ITP'S ARE NOT PROVIDED IN THIS SPECIFICATION. CONTRACTOR TO DEVELOP AND GET THE SAME APPROVED BY TECHNIP/OWNER BEFORE START OF THE WORK. IN GENERAL ROLE OF TECHNIP HAS BEEN SPECIFIED IN THE DOCUMENT THE ROLE OF OWNER TO BE SPECIFIED DURING PREPARATION OF SITE SPECIFIC ITP'S.
- 2 CONTRACTOR TO SUBMIT JOB SPECIFIC REPORTING FORMATS AND JOB PROCEDURES FOR THE JOBS FOR EACH ACTIVITY LISTED IN THE ITP'S AND SUBMIT TO TECHNIP/OWNER FOR APPROVAL. BEFORE COMMENCEMENT OF THE ACTIVITY. IF THE CONTRACTOR HAS TO DEVIATE FROM THE GIVEN ITP FOR A VALID REASON, HE SHALL OBTAIN PRIOR WRITTEN APPROVAL OF TECHNIP/OWNER. CONTRACTOR TO CARRY OUT 100% EXAMINATION OF ALL ACTIVITIES.





 		PROJECT:					
		COMPANY:					
QUALITY CONTROL FORM <b>CP1</b>		PROJ. No.:	QCF REV. A	SH. ___ OF ___			
<b>PAINTING MATERIAL CHECK</b>		CONTRACTOR:		<b>CP 1 N°</b> _____			
WORKSHOP WAREHOUSE <input type="checkbox"/>		SITE WAREHOUSE <input type="checkbox"/>					
CHECK LIST		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
					CONTRACT.	TECHNIP	OWNER
1	<b>STORAGE</b>						
	- PAINT	<input type="checkbox"/>	<input type="checkbox"/>				
	- CATALYST	<input type="checkbox"/>	<input type="checkbox"/>				
	- THINNER	<input type="checkbox"/>	<input type="checkbox"/>				
	- HARDENER	<input type="checkbox"/>	<input type="checkbox"/>				
	- .....	<input type="checkbox"/>	<input type="checkbox"/>				
2	<b>IDENTIFICATION &amp; EXPIRING DATE</b>						
	- PAINT	<input type="checkbox"/>	<input type="checkbox"/>				
	- CATALYST	<input type="checkbox"/>	<input type="checkbox"/>				
	- THINNER	<input type="checkbox"/>	<input type="checkbox"/>				
	- HARDENER	<input type="checkbox"/>	<input type="checkbox"/>				
	- .....	<input type="checkbox"/>	<input type="checkbox"/>				
3	<b>PAINTING EQUIPMENT</b>	<input type="checkbox"/>	<input type="checkbox"/>				
4	<b>CONTROL &amp; TEST INSTRUMENTS</b>	<input type="checkbox"/>	<input type="checkbox"/>				
NOTES:							
<b>INSPECTORS</b>		<b>CONTRACTOR</b>		<b>PMC</b>		<b>OWNER</b>	
NAME							
SIGNATURE							
DATE							



 				PROJECT:				
				COMPANY:				
QUALITY CONTROL FORM <b>CP 2</b>				PROJ. No.:	QCF REV. A	SH. ____ OF ____		
<b>PAINTING SUMMARY REPORT</b>				CONTRACTOR:		<b>CP 2 N° _____</b>		
ITEM / TAG N° _____				ITEM / TAG DESCRIPTION _____				
AREA _____				PAINTING CYCLE _____				
INSPECTIONS (REF. TO QCP 2300.01)			N.A.	ACC.	REMARKS/ REFERENCES	INSPECTORS SIGNATURE & DATE		
						CONTRACT.	TECHNIP	OWNER
<b>C.1</b>	<b>SURFACE PREPARATION</b>							
C.1.1	ENVIROMENTAL CONDITIONS & SOLUBLE SALT CONTAMINATION	<input type="checkbox"/>	<input type="checkbox"/>					
C.1.2	ABRASIVE BLASTING EXECUTION; SURFACE PROFILE CHECK; VISUAL EXAMINATION;	<input type="checkbox"/>	<input type="checkbox"/>					
<b>C.2</b>	<b>PRIMER</b>							
C.2.1	ENVIROMENTAL CONDITION & PRIMER EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>					
C.2.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	<input type="checkbox"/>	<input type="checkbox"/>					
C.2.3	CURING & ADHESION TEST	<input type="checkbox"/>	<input type="checkbox"/>					
<b>C.3</b>	<b>INTERMEDIATE COATING</b>							
C.3.1	CLEANLINESS, ENVIRONM. COND. & INTERMEDIATE COATING EXECUT.	<input type="checkbox"/>	<input type="checkbox"/>					
C.3.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	<input type="checkbox"/>	<input type="checkbox"/>					
C.3.3	CURING & ADHESION TEST	<input type="checkbox"/>	<input type="checkbox"/>					
<b>C.4</b>	<b>FINAL COATING</b>							
C.4.1	CLEANLINESS, ENVIRONM. COND. & FINAL COATING EXECUTION	<input type="checkbox"/>	<input type="checkbox"/>					
C.4.2	VISUAL EXAMINATION & THICKNESS CHECK (DFT)	<input type="checkbox"/>	<input type="checkbox"/>					
C.4.3	CURING & ADHESION TEST	<input type="checkbox"/>	<input type="checkbox"/>					
C.4.4	HOLIDAYS TEST	<input type="checkbox"/>	<input type="checkbox"/>					
<b>C.5</b>	<b>BRUSHING &amp; TOUCHUP</b>	<input type="checkbox"/>	<input type="checkbox"/>					
<b>C.6</b>	<b>IDENTIFICATION MARKING</b>	<input type="checkbox"/>	<input type="checkbox"/>					
NOTES:								
<b>C.7) FINAL DOC. REVIEW</b>	<b>INSPECTORS</b>	<b>CONTRACTOR</b>			<b>PMC</b>		<b>OWNER</b>	
	NAME							
	SIGNATURE							
	DATE							



 		PROJECT:	
		COMPANY:	
QUALITY CONTROL FORM <b>W 12/A</b>		PROJ. No.:	QCF REV. A
<b>CONSTRUCTION MATERIALS APPROVAL</b>		CONTRACTOR:	<b>W 12/A N°</b> _____
CIVIL <input type="checkbox"/>	PIPING <input type="checkbox"/>	MACHINERY <input type="checkbox"/>	INSULATION <input type="checkbox"/>
BLDG. <input type="checkbox"/>	MECHANIC. <input type="checkbox"/>	ELECTRICAL <input type="checkbox"/>	STEEL STR. <input type="checkbox"/>
NDT <input type="checkbox"/>	SUPPORT PRF. <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
1. MATERIALS			
2. SUPPLIER			
3. PURPOSE			
4. ATTACHMENT DATA			
5. TYPE OF TEST PERFORMED			
6. TEST STANDARD UTILIZED			
REMARKS:			
RESULT:		ACCEPTED <input type="checkbox"/>	NOT ACCEPTED <input type="checkbox"/>
<b>INSPECTORS</b>	<b>CONTRACTOR</b>	<b>PMC</b>	<b>OWNER</b>
NAME			
SIGNATURE			
DATE			