	PROJECT	Standby SRU & Additional Tanks IOCL Paradip Refinery		
	CLIENT	INDIAN OIL CORPORATION LIMITED		
QCP-EQUIPMENT TRAY INSTALLATION	Project No. 080557C001	Document No. 080557C-000-QCP-6860-001	Rev. No. 0	Page 1 of 3

QUALITY CONTROL PLAN
EQUIPMENT INTERNALS INSTALLATION
(TRAYS)

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
M 04 – CM 10	SINGLE REPORT PER EACH ITEM
CM 04	SINGLE REPORT PER EACH ITEM OR CHECKED TRAYS PORTION

REFERENCE DOCUMENTS:



- 080557C-000-PP-805 Site Coordination & Communication Procedure.
- 080557C-000-PP-807 Material Receiving, Inspection, Handling, Storage & Preservation
- 080557C-000-JSC-0000-003 Standard specification for Erection of Equipment & Machinery
- 080557C-000-JSC-0000-002 Standard specification for Tray Installation
- 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
! = WARNING (control of document revision status)



0	15.11.2019	ISSUED FOR IMPLEMENTATION	TB	PKP / LA	LA	JMC
REV.	DATE	STATUS	WRITTEN BY	CHECKED BY	APPROVED BY	AUTHOR. BY
DOCUMENT REVISIONS						

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S.NO	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
A)	PRELIMINARY ACTIVITIES				
A.1	CONTRACTOR AND MANUFACTURER DRAWINGS CHECK REVISION STATUS	N.A.	!	!	
A.2	CONTRACTOR AND MANUFACTURER TECHNICAL SPECIFICATIONS AND PROCEDURES	N.A.	IFA	A	
A.3	MANUFACTURER INSTALLATION MANUAL	N.A.	R	INFO	(1)
A.4	CONTRACTOR METHOD STATEMENT	N.A.	IFA	A	(1)
B)	BEFORE ERECTION				
B.1	MATERIAL RELEASED AND CONSERVATION STATUS				(2)
B.2	TRAY SUPPORTS POSITIONING	CM 10	WC	S	
C)	TRAYS INSTALLATION				
C.1	TRANSPORT TO JOBSITE	CM 10	WC	S	
C.2	TRAYS IDENTIFICATION/SELECTION	CM 10	WC	R/S	
C.3	SET UP ON THE GROUND OF A TRAY AS TRIAL (IF REQUIRED)	CM 10	WC	W/R	
C.4	TRAYS FIRST PORTION INSTALLATION AND BOLTS TIGHTENING	CM 10	WC	R/S	(3)
C.4.a	TRAYS LEVEL AND DIMENSIONAL MEASUREMENT OF FIRST PORTION	CM 04 - CM 10	WC	W/R	(3)
C.5	TRAYS SECOND PORTION INSTALLATION AND BOLTS TIGHTENING (IF ANY)	CM 10	WC	W/R	(3)
C.5a	TRAYS LEVEL AND DIMENSIONAL MEASUREMENT OF SECOND PORTION	CM 04 - CM 10	WC	W/R	(3)
C.6	TRAYS THIRD PORTION INSTALLATION AND BOLTS TIGHTENING (IF ANY)	CM 10	WC	W/R	(3)
C.6a	TRAYS LEVEL AND DIMENSIONAL MEASUREMENT OF THIRD PORTION	CM 04 - CM 10	WC	W/R	(3)
C.7	TRAYS FOURTH PORTION INSTALLATION AND BOLTS TIGHTENING (IF ANY)	CM 10	WC	W/R	(3) (4)

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S.NO.	CHECK AND INSPECTION ITEM	QUALITY CONTROL REPORT	ACTION		NOTES
			CONTR.	TECHNIP	
C.7a	TRAYS LEVEL AND DIMENSIONAL MEASUREMENT OF FOURTH PORTION	CM 04 - CM 10	WC	W/R	(3)
C.8	SPECIAL TRAYS LEAKAGE TEST (IF REQUIRED IN MFR manual)	M 04 - CM 10	WC	W/R	(4)
D)	CLEANING	CM 10	WC	W/R	
E)	FINAL DOCUMENTATION REVIEW	CM 10			

- 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
 - (3) THE NUMBER OF TRAYS PER EACH "PORTION" WILL BE DEFINED AT SITE TAKING INTO ACCOUNT THE FOLLOWING:
 - NUMBER AND TYPE OF TRAYS
 - NUMBER OF MANWAYS
 IN ANY CASE NO MORE OF FOUR "PORTIONS" WILL BE ADMITTED
(SEE EXAMPLE OF COLUMN PORTION AT PAGE 4)
 - (4) VENDOR SPECIALIST WILL BE CALLED, AS PER CONTRACTUAL REQUIREMENTS, FOR ACTIVITY MONITORING IN THE MANNER AND TIME AS PROVIDED BY CONTRACT

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

CM 04

PROJ. No.:

QCF REV. 0

SH. 1 OF 1

TRAYS LEVEL AND DIMENSIONAL
MEASUREMENT REPORT

CONTRACTOR:

ITEM _____ NOM. DIAM. _____ VENDOR _____ MATERIAL _____
NUMBER OF PORTION CHECKED _____ TOTAL PORTIONS N° _____

POS.	ACTUAL READINGS ⁽¹⁾							POS	ACTUAL READINGS ⁽¹⁾						
	1	2	3	4	5				1	2	3	4	5		
1								28							
2								29							
3								30							
4								31							
5								32							
6								33							
7								34							
8								35							
9								36							
10								37							
11								38							
12								39							
13								40							
14								41							
15								42							
16								43							
17								44							
18								45							
19								46							
20								47							
21								48							
22								49							
23								50							
24								51							
25								52							
26								53							
27								54							

TEST RESULT: ACCEPTED ☐

REMARKS:

INSPECTORS	CONTRACTOR	TECHNIP	OWNER	
NAME				
SIGNATURE				
DATE				

		PROJECT: _____					
		COMPANY: _____					
QUALITY CONTROL FORM CM 10		PROJ. No.: _____	QCF REV. 0	SH. 1 OF 1			
TRAYS INSTALLATION SUMMARY REPORT		CONTRACTOR: _____		_____			
ITEM _____ MATERIAL _____ VENDOR _____ DRAWING & REV. _____ TOTAL PORTIONS N° _____ AREA _____ SYSTEM _____							
INSPECTIONS (Ref. to QCP 6860.01)		N.A.	ACC.	REMARKS/ REFERENCES	INSPECTOR SIGNATURE & DATE		
					CONTR.	TECHNIP	OWNER
B.2	TRAY SUPPORTS POSITIONING	<input type="checkbox"/>	<input type="checkbox"/>				
C.1		<input type="checkbox"/>	<input type="checkbox"/>				
C.2		<input type="checkbox"/>	<input type="checkbox"/>				
C.3		<input type="checkbox"/>	<input type="checkbox"/>				
C.4		<input type="checkbox"/>	<input type="checkbox"/>				
C.4a		<input type="checkbox"/>	<input type="checkbox"/>	CM 04 (*)			
C.5		<input type="checkbox"/>	<input type="checkbox"/>				
C.5a		<input type="checkbox"/>	<input type="checkbox"/>	CM 04 (*)			
C.6		<input type="checkbox"/>	<input type="checkbox"/>				
C.6a		<input type="checkbox"/>	<input type="checkbox"/>	CM 04 (*)			
C.7		<input type="checkbox"/>	<input type="checkbox"/>				
C.7a		<input type="checkbox"/>	<input type="checkbox"/>	CM 04 (*)			
C.8		<input type="checkbox"/>	<input type="checkbox"/>	M 04 (*)			
D	CLEANING	<input type="checkbox"/>	<input type="checkbox"/>				
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES : CM 04 N° _____ M 04 N° _____							
N.A. = NOT APPLICABLE ACC. = ACCEPTED							
E) FINAL DOC. REVIEW	INSPECTORS	CONTRACTOR		TECHNIP	OWNER		
	NAME						
	SIGNATURE						
	DATE						



PROJECT:

COMPANY:

QUALITY CONTROL FORM

M 04

PROJ. No.:

QCF REV. 0

SH. 1 OF 1

**EQUIPMENT LEAKAGE
TEST**

CONTRACTOR:

ITEM _____ EQUIPMENT _____
MATERIAL _____ HORIZONTAL ☐ VERTICAL ☐
VENDOR _____ AREA _____
DRAWING & REV. _____ SYSTEM _____

TESTING DATA

1. PRESSURIZED PART	SHELL <input type="checkbox"/>	SHELL SIDE <input type="checkbox"/>	COIL <input type="checkbox"/>
		TUBE SIDE <input type="checkbox"/>	_____ <input type="checkbox"/>
2. NON PRESSURIZED PART	TRAYS <input type="checkbox"/>	_____ <input type="checkbox"/>	
3. TESTING MEDIA	NORMAL WATER <input type="checkbox"/>	SPECIAL WATER (Cl ____ ppm max) <input type="checkbox"/>	Test Water Certificate: _____
	AIR <input type="checkbox"/>	_____ <input type="checkbox"/>	
4. FOUNDATION CHECK	NOT REQUIRED <input type="checkbox"/>	REQUIRED <input type="checkbox"/>	(USE FORM M 06)
5. FILLING RECORD	START _____	STOP _____	
	RATE _____		
6. PRESSURE	_____ Kg/cm ²	GRAVITY <input type="checkbox"/>	
7. TEMPERATURE	_____ °C		
8. PRESSURE GAUGE	IDENTIFICATION _____	CALIBR. CERT. N° _____	
9. LEAKAGE	NO <input type="checkbox"/>	SOAP SOLUTION <input type="checkbox"/>	
	YES <input type="checkbox"/>		

REMARKS:

TEST RESULT: ACCEPTED ☐**INSPECTORS****CONTRACTOR****TECHNIP****OWNER**

NAME

SIGNATURE

DATE