



PROJECT	Sta
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Indby SRU & Additional Tanks **IOCL Paradip Refinery** 

**CLIENT** 

INDIAN OIL CORPORATION LIMITED

**QCP-SITE GRADING** 

Project No. 080557C001

Document No. 080557C-000-QCP-1421-001 Rev. No.

Page 1 of 3

### QUALITY CONTROL PLAN

### **CIVIL WORKS**

### SITE GRADING

### **REFERENCE DOCUMENTS:**

080557C-000-PP-805

Site Co-ordination & Communication procedure

Specifications for Site Grading

080557C-000-JSS-1421-001

Drawings

### **LEGENDA**

Н HOLD (RFI required - Work stop for inspection)

W WITNESS (RFI required)

WC 100 % SUPERVISION AND EXAMINATION BY CONTRACTOR. =

Ρ PREPARATION.

S SURVEILLANCE (No RFI) = R **REVIEW OF REPORTS** N.A. NOT APPLICABLE

**AUTHORIZATION / APPROVAL** Α

**IFA** = ISSUED FOR AUTHORIZATION/APPROVAL

INFO = FOR INFORMATION

Ĭ = WARNING (control of document revision status)

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

# Standby SRU & Additional Tanks IOCL Paradip Refinery

CLIENT

INDIAN OIL CORPORATION LIMITED

 QCP- SITE GRADING
 Project No. 080557C001
 Document No. 080557C-000-QCP-1421-001
 Rev. No. A
 Page 2 of 3

S.No	CHECK AND	QUALITY CONTROL	Action		NOTES
3.110	INSPECTION ITEM	REPORT	CONTR.	TECHNIP	NOTES
А	CLEARING AND STRIPPING OF SOIL INCLUDING DISPOSAL OF UNSUITABLE	By Contractor	WC	R	
В	AVAILABILITY OF VALID CALIBRATION CERTIFICATES OF INSTRUMENTS / TESTING EQUIPMENTS.	N.A.	wc	R	
С	FIELD CALIBRATION, IF ANY	N.A.	wc	R	
D	TAKING AND PLOTTING OF INITIAL LEVELS AT SPECIFIED INTERVALS FOR CUTTING AS WELL AS FILLING AREAS	N.A.	wc	S	
E	CLASSIFICATION (LEVELS OF STRATA) ANDS TESTING OF FILLING SOIL FOR SUITABILITY INCLUDING PREPARATION OF LEAD CHARS TO FITTING / DISPOSAL AREAS.	N.A.	WC	S	
F	PROPER WARNING OF EXPOSIONS, MISFIRES AND STORAGE OF EXPLOSIVE MATERILS (AS APPLICABLE).	By Contractor	WC	S	
G	BREAKING UP OF CLODS, LIMPS, ETC., AT THE TIME OF FILLING AND COMPACTION.	N.A.	WC	S	
Н	IDENTIFICATION AND SUITABILITY OF BORROW AREAS FOR FILLING SOIL / URRUM INCLUDING VERIFICATION OF PAYMENTS FOR ROYALTY, ETC.,	N.A.	wc	S	
1	COMPACTION TEST FOR EARTH FILLING IN SPCIFIED LAYERS INCLUDING FINISHED GRADE LEVELS.	By Contractor	WC	S	
J	VERIFICATION OF FINAL FINISHED GRADE LEVELS.	N.A.	WC	S	
K	COMPUTATION OF EARTH WORKS.	N.A.	wc	S	
L	RECORD OF TREE CUTTINGS, STACKING OF BLASTED ROCKS AND OTHER QUARRY MATERILS INCLUDING HANDING OVER TO OWNER	N.A.	WC	R	
М	PREPARATION OF "AS BUILT DRAWINGS"	N.A.	Р	Α	
N	REMOVAL OF SURPLUS EARTH / EXCAVATED MATERIAL AND LEVELING IN DISPOSAL AREAS.	N.A.	wc	S	
0	FINAL DOCUMENTATION REVIEW	N.A.	Р	W/R	





Standby SRU & Additional Tanks

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QCP-SITE GRADING Project No. 080557C001

**Document No**. 080557C-000-QCP-1421-001

Rev. No.

Page 3 of 3

### **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.
- 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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Standby SRU & Additional Tanks IOCL Paradip Refinery

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**INDIAN OIL CORPORATION LIMITED** 

QCP-EARTH MOVING

**Project No.** 080557C001

**Document No**. 080557C-000-QCP-1440-001

Rev. No. A

Page 1 of 4

### **QUALITY CONTROL PLAN**

### **CIVIL WORKS**

### **EARTH MOVING**

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A	SINGLE REPORT PER EACH MATERIAL – EACH LAYER
QC 11	SUMMARY PER EACH ITEM
CW 51 – CW 52 – CW 53- CW 61A - CW 61B	SINGLE REPORT PER EACH ITEM OR IDENTIFIED SECTION

### **REFERENCE DOCUMENTS:**

080557C-000-JSS-1423-001 SPECIFICATION FOR EARTH WORKS

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)

P = PREPARATION

R = REVIEW OF REPORTS N.A. = NOT APPLICABLE

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PROJECT	Standby SRU & Additional Tanks
	IOCL Paradip Refinery
CLIENT	INDIAN OIL CORPORATION LIMITED

QCP-EARTH MOVING Project No. 080557C001

**Document No**. 080557C-000-QCP-1440-001

Rev. No. A

Page 2 of 4

# QUALITY CONTROL PLAN CIVIL WORKS EARTH MOVING (1)

### **QUALITY CONTROL ACTIVITIES**

NIm	CHECK AND	QUALITY	ACT	TON	NOTES
Nr.	INSPECTION ITEM	CONTROL REPORT	CONTRACT.	TECHNIP	
<b>A</b> )	PRELIMINARY ACTIVITIES				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	Ţ	Ţ	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	Ţ	Ţ	
A.3	CONTRACTOR METHOD STATEMENT (IF REQUIRED)	N.A.	Р	R	(2)
B)	BEFORE EXECUTION				
B.1	QUARRY OR SITE MATERIALS APPROVAL	W 12/A	WC	INFO	(2) (3)
C)	GENERAL EXCAVATION				
C.1	LOCATION	CW 51	WC	R	
C.2	EXCAVATION AND DEPTH	CW 51	WC	W/R	
C.3	SLOPES	CW 51	WC	W/R	
C.4	TRANSPORT OF EXCAVATED MATERIAL TO DISPOSAL AREA	CW 51	WC	R	
C.5	DRAINAGE	CW 51	WC	W/R	
C.6	COMPACTED SUBGRADE	CW 51	WC	S	
C.7	GROUND DENSITY TEST (IF REQUIRED)	QC 11 / CW 51	WC	W/R	
C.8	PLATE LOAD TEST (IF REQUIRED)	CW 51	WC	W/R	
C.9	FINAL GRADING & FINISHING	CW 51	WC	W/R	
C.10	FINAL DOCUMENTATION REVIEW	CW 51	Р	R	
D)	EMBANKMENT				
D.1	GROUND PREPARATION	CW 52	WC	SS	
D.2	LAYING MATERIAL AND COMPACTION	CW 52	WC	W/R	
D.3	GROUND DENSITY TEST (IF REQUIRED)	QC 11 / CW	W		
		52		W/R	
D.4	PLATE LOAD TEST (IF REQUIRED)	CW 52	WC	S	
D.5	TOP ELEVATION	CW 52	WC	S	
D.6	SLOPES (IF REQUIRED)	CW 52	WC	S	
D.7	DRAINAGE (IF REQUIRED)	CW 52	WC	S	
D.8	FINAL ROLLING AND FINISHING	CW 52	WC		





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QCP-EARTH MOVING

Project No. 080557C001

**Document No**. 080557C-000-QCP-1440-001

Rev. No.

Page 3 of 4

# QUALITY CONTROL PLAN CIVIL WORKS EARTH MOVING (1)

### **QUALITY CONTROL ACTIVITIES**

	CHECK AND	QUALITY	ACT	ION	NOTES
Nr.	INSPECTION ITEM	CONTROL REPORT	CONTRACT.	TECHNIP	
D.9	FINAL DOCUMENTATION REVIEW	CW 52	Р	R	
E)	SECTION EXCAVATION				
E.1	POSITION AND ROUTING	CW 61A	WC	R	
E.2	EXCAVATION & DEPTH	CW 61A	WC	W/R	
E.3	COMPACTED GROUND	CW 61A	WC	s	
E.4	GROUND DENSITY TEST (IF REQUIRED)	QC11/CW 61A	WC	W/R	
E.5	SAND BED / LEAN CONCRETE ELEVATION (IF ANY)	CW 61A CW	WC	S	
E.6	ANCHOR BLOCKS OPERATIONAL AREA CLEAR (IF ANY)	61A CW 61A	WC	W/R	
E.7	TRANSPORT OF EXCAVATED MATERIAL TO DISPOSAL AREA (IF ANY)	CW 61A	WC	S	
E.8	FINAL DOCUMENTATION REVIEW		Р	R	
F)	BACKFILLING	CW 61B			
F.1	SAND COVERING (IF ANY)	CW 61B	WC	SS	
F.2	BACKFILLING	QC 11/CW 61B	WC	W/R	
F.3	GROUND DENSITY TEST (IF REQUIRED)	CW 61B	WC	S	
F.4	FINISHING WORK	CW 61B	WC	R	
F.5	FINAL DOCUMENTATION REVIEW		Р		
G)	SOIL SCRUBBING (IF ANY)	CW 53		s	
G.1	LOCATION	CW 53	WC	S	
G.2	REMOVAL FROM SITE OF ANY SURFACE OBSTRUCTION AND TRANSPORT TO DISPOSAL AREA (IF ANY)		WC		
	TRANSPORT TO DISPOSAL AREA (IF ANT)	CW 53		SS	
G.3	SOIL SCRUBBING	CW 53	WC	W/R	
G.4	TRANSPORT OF REMOVED SOIL TO INDICATED AREA		WC	_	
		CW 53		R	
G.5	FINAL GRADING	CW 53	WC		
G.6	FINAL DOCUMENTATION REVIEW		Р		



NOTES:

- (1) EXCLUDING ROADS & YARDS (FLEXIBLE TYPE) & RIGID PAVING CONTROLLED BY QCP 1450.01 & 1713.01
- (2) A COPY OF THE DOCUMENT WILL BE DELIVERED TO OWNER FOR INFORMATION
- (3) 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 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

LOCATION IDENTIFICATION / ITEM

COORDINATES

CW 51

PROJ. No.: QCF REV.

SH. 1 OF 1

### GENERAL EXCAVATION – SOIL FINISHING SUMMARY REPORT

CONTRACTOR:

CW 51 N° \_\_\_\_

AREA													
DWG'S	DWG'S & REV												
INSPECTIONS  N.A. ACC. REMARKS/ INSPECTOR SIGNATURE & DATE													
-	(Ref. to QCP 1440.01)		ACC.	REFERENCES	CONTRACTOR	TECHNIP	OWNER						
C.1	LOCATION												
C.2	EXCAVATION AND DEPTH												
C.3	SLOPES												
C.4	TRANSPORT OF EXCAVATED MATERIAL TO DISPOSAL AREA												
C.5	DRAINAGE												
C.6	COMPACTED SUBGRADE												
C.7	GROUND DENSITY TEST			QC 11 (*)									
C.8	PLATE LOAD TEST												
C.9	FINAL GRADING & FINISHING												
NOTES	NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES :  QC 11 N°												

oc.	INSPECTORS	CONTRACTOR	PMC	OWNER
IAL D	NAME			
O) FIN REV	SIGNATURE			
. C.	DATE			



LOCATION IDENTIFICATION / ITEM

QC 11 N°\_\_\_\_\_

COORDINATES

AREA



PROJECT:		

COMPANY:

CONTRACTOR:

OFNEDAL	EMPANIMENT	

CW 52 PROJ. No.:

QCF REV.

SH. 1 OF 1

CW 52 N° \_

GENERAL	. EMB	ANKME	:NT
SUMMA	<b>ARY R</b>	<b>EPORT</b>	•

	INSPECTIONS			REMARKS/	INSPECTOR SIGNATURE & DATE							
	(Ref. to QCP 1440.01)	N.A.	ACC.	REFERENCES	CONTRACTOR	TECHNIP	OWNER					
D.1	GROUND PREPARATION											
D.2	LAYING MATERIAL AND COMPACTION											
D.3	GROUND DENSITY TEST			QC 11 (*)								
D.4	PLATE LOAD TEST											
D.5	TOP ELEVATION											
D.6	SLOPES											
D.7	DRAINAGE											
D.8	FINAL ROLLING AND FINISHING											

	ပ	INSPECTORS	CONTRACTOR	PMC	OWNER
ľ	AL DO	NAME			
ľ	9 FIN	SIGNATURE			
ľ	20	DATE			

	Tochnin EMC	इंदियनअधिय		PROJECT:	PROJECT:							
	TechnipFMC	Indiano		COMPANY:	COMPANY:							
QUAL	ITY CONTROL FORM		CW 53	PROJ. No.:	QCI	REV.	SH.	1 OF 1				
	SOIL SCRUBBING SUMMARY REPORT			CONTRACT	OR:		cw	53 N°				
COORE	DINATES				_							
SUB AF	REA											
DWG'S	& REV.				_							
- Nr.	INSPECTIONS	N.A.	ACC.	REMARKS/	INSPE	CTOR SIGNAT	URE 8	& DATE				
- Nr.	(Ref. to QCP 1440.01)	N.A.	ACC.	REFERENCES	CONTRACTOR	TECHNIP	)	OWNER				
G.1	LOCATION											
G.2	REMOVAL FROM SITE OF ANY SURFACE OBSTRUCTION AND TRANSPORT TO DISPOSAL AREA											
G.3	SOIL SCRUBBING											
G.4	TRANSPORT OF REMOVED SOIL TO INDICATED AREA											

NOTES:

G.5

FINAL GRADING

GCF STANDARD REV.0
G.6) FINAL
DOC. REVIEW **INSPECTORS CONTRACTOR PMC OWNER** NAME SIGNATURE DATE

<u>.</u>					PROJECT:					
	TechnipFM		ianOil		COMPANY:					
QUAL	ITY CONTROL FORM		CW 6	1 A	PROJ. No.: QCF RE			REV. 0	SH	. 1 OF 1
	SECTION EXCA				CONTRACTOR:				cw	/ 61 A N°
	DINATEO	CATION		/	ITEM EXCAVATIO U/G PIPING U/G CABLES			NG	R:	
AREA							FOUNDA			
DWG'S	& REV									
	INSPECTIONS		T		EMARKS/		INSPEC	CTOR SIG	NATURE	& DATE
-	(Ref. to QCP 1440.01)	N.A.	ACC.		FERENCES	CONT	RACTOR	TEC	CHNIP	OWNER
E.1	POSITION AND ROUTING									
E.2	EXCAVATION & DEPTH									
E.3	COMPACTED GROUND									
E.4	GROUND DENSITY TEST			QC 11	(*)					
E.5	SEND BED / LEAN CONCRETE ELEVATION									
E.6	ANCHOR BLOCKS OPERATION AREA CLEAR	DNAL								
E.7	TRANSPORT OF EXCAVATED MATERIAL TO DISPOSAL AR									
NOTES	: (*) THE QC REPORTS N° SH QC 11 N°	IALL BE INDIC	ATED IN	THE RE	LEVANT HERE	BELOW	SPACES:			
. ö	INSPECTORS	CON	TRACT	OR		РМС			0	WNER
FINAL DOC.	NAME									
E E	SIGNATURE									

DATE

2					PROJECT:						
	TechnipFM(		nOil		COMPANY:						
QUAL	ITY CONTROL FORM		CW 6	1 B	PROJ. No.:	QCF RI	EV. 0	SH.	1 OF 1		
	BACKFILLI SUMMARY RE		CONTRACT	OR:			cw	61 B N°			
AREA	DINATES & REV.			/	IT	EM	EXCAVA <sup>-</sup> U/G PIPIN U/G CABI FOUNDA	LES TIONS			
_	INSPECTIONS (Ref. to QCP 1440.01)	N.A.	ACC.		MARKS/ ERENCES			TOR SIGNAT		<u> </u>	
						CON	TRACTOR	TECHNIF		OWNER	
F.1	SAND COVERING										
F.2	BACKFILLING										
F.3	GROUND DENSITY TEST			QC 11	(*)						
F.4	FINISHING WORK										
NOTES: (*) THE QC REPORTS N° SHALL BE INDICATED IN THE RELEVANT HERE BELOW SPACES:  QC 11 N°											
VIEW	INSPECTORS	CONT	RACT	OR		РМС			0	WNER	
OC. RE	NAME										
FINAL DOC. REVIEW	SIGNATURE										
F.5) F	DATE										

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	<b>y</b>	recr	nniphMi	Indiano	7			COMPANY:								
QU	ALITY CONTROL FO	ORM				QC 11		PROJ.	No.:	(	QCF REV.			1 OF 1		
	COMPACTION TEST SUMMARY						CONTRACTOR:							1 N°		
- DBOCB	ITEM AREA DATE (sub-grade,					LAYER THICKNESS	SMO	OTHNES	QUALIFIED LABORATORY TEST	No. OF		TEST F	RESULT	DEMARKO		
PROGR	PROGR OR AREA DATE (sub-grade, backfilling, sub-baseetc.)		backfilling, sub- baseetc.)	CHECK	CHECK	S	CHECK	REP. N° (REPORT ATTACHED)	REQ.	N°	ACC.	NOT ACC.	REMARKS			
1																
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NOTE:	THIS QCF CAN BE DO	NE BY EL	ECTRONIC SH	EET							•					
	INSPECTORS			CONTRACTOR					РМС				OWNE	7		
	NAME															
	SIGNATURE															
	DATE															

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QUALITY CONTRO	L FORM		W 12/A	PROJ. I	No.:		QCF REV	V. 0 SH. 1 OF 1			
	JCTION MATER	RIALS		CONTR	ACTOR:	:			W 12/A N°		
CIVIL	PIPING		MACHIN	IERY   INSTRUMEN			RUMENT		INSULATION		
BLDG.	MECHANIC.		ELECTR	ICAL		PAIN	TING		STEEL STR.		
NDT	SUPPORT PRF	. 🗆						_ 🗆			
1. MATERIALS											
2. SUPPLIER											
3. PURPOSE											
4. ATTACHMENT I	DATA										
5. TYPE OF TEST	PERFORMED										
6. TEST STANDAF	RD UTILIZED										
REMARKS:											
RESULT:	ACCEPTED				NC	T AC	CEPTED				
INSPECTORS	CONTRA	CTOR			РМС				OWNER		
NAME											
SIGNATURE											
DATE							1				





Standby SRU & Additional Tanks **PROJECT IOCL Paradip Refinery CLIENT** 

QCP-REINFORCED CONCRETE FOR FOUNDATION/ELEVATION STRUCTURES AND BASINS

Project No. 080557C001

Document No. 080557C-000-QCP-1710-001 Rev. No. Α

INDIAN OIL CORPORATION LIMITED

Page 1 of 5

### **QUALITY CONTROL PLAN**

### **CIVIL WORKS REINFORCED**

### **CONCRETE FOR** FOUNDATION/ELEVATION STRUCTURES AND BASINS

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
W 12/A – CW 15A	SINGLE REPORT PER EACH MATERIAL – CONCRETE MIX
CW 35 – CW 17	SINGLE REPORT PER EACH ITEM
CW 01	SUMMARY
CW 33 – CW 38	SINGLE REPORT PER EACH ITEM
CW 100	SINGLE REPORT PER EACH RELEASED GROUP OF ITEMS

### **REFERENCE DOCUMENTS:**

080557C-000-PP-805 SITE CO-ORDINATION & COMMUNICATION PROCEDURE

080557C-000-JSS-1700-001 SPECIFICATION FOR PLAIN & REINFORCED

**CEMENT CONCRETE** 

**Drawings** 

### **LEGENDA**

HOLD (RFI required - Work stop for inspection) Η

W WITNESS (RFI required) =

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Α	19/10/2019	ISSUED FOR INFORMATION	SMP	PK	LA/ANJ	JMC
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED



## QUALITY CONTROL PLAN CIVIL WORKS

### REINFORCED CONCRETE FOR FOUNDATION / ELEVATION STRUCTURES AND BASINS

### **QUALITY CONTROL ACTIVITIES**

Nr.	CHECK AND	QUALITY	ACT	TION	NOTES
INI.	INSPECTION ITEM	CONTROL REPORT	CONTR.	TECHNIP	
A)	PRELIMINARY ACTIVITIES				
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	Y	Ţ	
A.2	CONTRACTOR TECHNICAL SPECIFICATION AND PROCEDURE	N.A.	IFA	А	
A.3	CONTRACTOR METHOD STATEMENT	N.A.	IFA	Α	(1)
B)	BEFORE CASTING				
B.1	MATERIALS APPROVAL	W 12/A	IFA	Α	(1) (6)
B.2	MIXING FORMULA APPROVAL	CW 15A	IFA	Α	(1)
B.3	MIXING FORMULA LIST	CW 01	IFA	Α	(1) (2)
C)	EXCAVATION (IF ANY)	CW 61A / CW 33	WC	R	(5)
D)	CONSTRUCTION				
D.1	LEAN CONCRETE LEVEL	CW 33	WC	W/R	
D.2	COORDINATES CHECK	CW 33	WC	R	
D.3	FORMWORK	CW 33	WC	W/R	
	- GEOMETRY AND POSITION - STABILITY AND PLUMBNESS - CLEANLINESS				
	- OIL COATING				
D.4	REINFORCEMENT	CW 33	WC	W/R	
	- SPACERS AND CONCRETE COVER - LAP SPLICE				
	- BENDING AND TIE BAR				
	- REBAR NUMBER, SIZE & SPACING - CLEANLINESS				
	- WELDED WIRE FABRIC (IF ANY)				
	- COATING TOUCH UP (IF REQUIRED)				
D.5	EMBEDDED ITEMS	CW 33	WC	R	
	- ANCHOR BOLTS: NUMBER/SIZE & POSITION - STEEL INSERTS: POSITION & GEOMETRY				
	- COATING TOUCH UP (IF REQUIRED)				

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## QUALITY CONTROL PLAN CIVIL WORKS

### REINFORCED CONCRETE FOR FOUNDATION / ELEVATION STRUCTURES AND BASINS

### **QUALITY CONTROL ACTIVITIES**

Nr.	CHECK AND	QUALITY	ACTION		NOTES
INI.	INSPECTION ITEM	CONTROL REPORT	CONTR.	TECHNIP	
D.6	WATER STOPS (IF ANY) - POSITION AND TYPE	CW 33	WC	R	(3)
D.7	AUTHORIZATION FOR CASTING	CW 33	WC	W/R	
D.8	CASTING:	CW 33	WC	W/R	
D.8.1	SLUMP TEST & AIR CONTENT TEST (IF REQUIRED)	CW 35 / CW 33	WC	W/R	
D.8.2	SAMPLE STRENGTH TEST	CW 17 / CW 33	WC	W/R	
D.9	CURING	CW 33	WC	R/S	
D.10	ANCHOR BOLTS: - POSITION AND ELEVATION	CW 33	WC	W/R	(4)
D.11	FORMWORK STRIPPING	CW 33	WC	S	
D.11.1	CONCRETE SURFACE REPAIRING (IF ANY)	CW 33	WC	W/R	
D.12	PROTECTIVE COATING (WHERE REQUIRED)	CW 33	WC	W/R	
D.13	LEAKAGE TEST (IF ANY)	CW 38 / CW 33	WC	W/R	(3)
D.14	AUTHORIZATION FOR BACKFILLING	CW 33	WC	Α	
E)	BACKFILLING	CW 61B / CW 33	WC	W/R	(5)
F)	FOUNDATION RELEASE	CW 100 / CW33	WC	R	
G)	STRENGHT TEST RESULT & SAMPLE UNIT WEIGHT	CW 17 / CW33 LAB. TEST	WC	W/R	
H)	FINAL DOCUMENTATION REVIEW	CW 33	Р	R	

#### NOTES:

- (1) A COPY OF THE DOCUMENT WILL BE DELIVERED TO OWNER FOR INFORMATION
- (2) THE FORM CW 01 (MIX DESIGN LIST) MUST BE FILLED AND UP-TO-DATE BY CONTRACTOR, BUT SCANNED AT THE END OF THE WORKS ONLY
- (3) FOR BASINS ONLY. SEWER PITS LEAKAGE TEST SHALL BE EXECUTED TOGETHER WITH RELEVANT SEWER LINE (Use QCP 1470.001)
- (4) CONTRACTOR WILL PREPARE A DETAILED SKETCH
- (5) FORMS, INSPECTIONS AND ATTENDANCE SHALL BE IN ACCORDANCE WITH REFERRED QCP
- (6) MATERIAL APPROVAL WILL BE EXECUTED ONLY FOR MATERIAL SUPPLIED BY CONTRACTOR

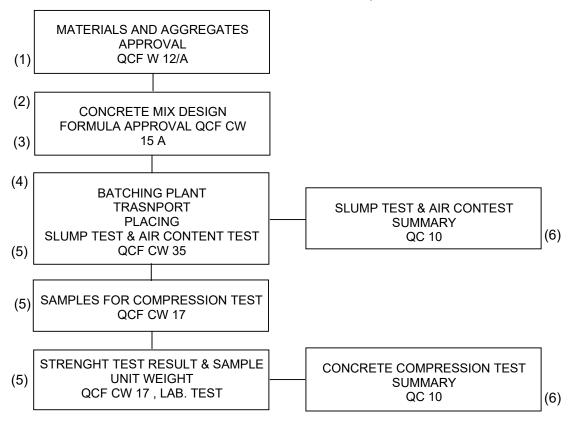
<b>▼</b> TechnipFMC	इटियनअधिक IndianOil	PROJECT	PROJECT Standby SRU & Additional Tanks IOCL Paradip Refinery		
		CLIENT	INDIAN OIL CORP	ORATION	LIMITED
QCP-REINFORCED CONCRETE FOR FOUNDATION/ELEVATION STRUCTURES AND BASINS	<b>Project No.</b> 080557C001	<b>Document No</b> . 080557C-000-QCP-1710-001		Rev. No.	Page 4 of 5

### **QUALITY CONTROL PLAN**

#### **CIVIL WORKS**

### REINFORCED CONCRETE FOR FOUNDATION / ELEVATION STRUCTURES AND BASINS

### **CONCRETE CONTROL SEQUENCE**



### NOTES:

- (1) MATERIALS AND AGGREGATES MUST BE APPROVED PRIOR STARTING OF WORKS AND EVERY CHANGE OF SOURCE.
- (2) GRANULOMETRY TEST EVERY WEEK AND EVERY CHANGE OF SOURCE OR WHENEVER REQUESTED BY CONTRACTOR
  - WATER CHEMICAL ANALYSIS SHALL BE REPEATED EACH TWO MONTHS AND EVERY CHANGE OF SOURCE OR WHENEVER REQUESTED BY CONTRACTOR.
- (3) ADMIXTURES REQUIRE PRIOR APPROVAL FROM CONTRACTOR/ENGINEER.
- (4) EVERY CONCRETE MIXER TRUCK MUST BE ACCOMPANIED BY TICKET REPORT (QCF W 35) AND EVERY CASTING SITE MUST BE HAVING CONCRETE SLUMP TEST APPARATUS.
- (5) FOR SLUMP & COMPRESSION TESTS SEE 072849C-000-JSS-1700-001
- (6) THE QC 10 WILL NOT BE PART OF THE QUALITY DOSSIER. IT IS ATTACHED AS AN EXAMPLE OF ELECTRONIC SHEET FOR CONCRETE MANAGEMENT ONLY.





I	PROJECT	Standby SRU & Additional Tanks
		IOCL Paradip Refinery

**CLIENT** 

**INDIAN OIL CORPORATION LIMITED** 

QCP-REINFORCED CONCRETE FOR FOUNDATION/ELEVATION STRUCTURES AND BASINS

Project No. 080557C001

**Document No**. 080557C-000-QCP-1710-001

Rev. No.

Page 5 of 5

#### **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.
- 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.

	- To also in Et 44	इंदियनअपियल	PROJECT:			
	TechnipFM	IndianOil	COMPANY:			
QUALIT	Y CONTROL FORM	CW 01	PROJ. No.:	QCF REV.	SH. 1 OF 1	
	MIX DESIGN	LIST	CONTRACTOR:		CW 01 N°	
ITEM	MIX DESIGI	N FORMULA	CONCRETE CLAS	ss	SETE ARRIVATION	
- ITEM	REFER. NR.	APPROVAL DATE	N/mm²	CONCE	RETE APPLICATION	
1	CW 15A N°					
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
REMARK	S:					

		PROJECT:		
TechnipFN	IndianOil	COMPANY:		
QUALITY CONTROL FORM		PROJ. No.:	QCF REV.	SH. 1 OF 1
FOUNDATION REPOI		CONTRACTOR:		CW 100 N°
Foundation	ns for :			
STEEL STRUCTURES				
STATIC EQUIPMENT				
ROTATING MACHINERY				
	FOUNDATIO	ONS RELEASED		
	AREA			AREA
	AREA		AREA	
	RELE	ASED BY		
CIVIL CONTRACTOR	DATE	PMC		DATE
REMARKS:				
	RECE	EIVED BY		
MECHANICAL CONTRACTOR	DATE	PMC		DATE

			T				
Today	chnipFMC	इंडियनऑयल		PROJECT:			
Tec C	TITIPFIVIC	IndianOil		COMPANY:			
QUALITY CONT	ROL FORM	CW 1	5 A	PROJ. No.:	QCF F	REV.	SH. 1 OF 1
CONCRE	TE MIX DESIGN A	APPROVAL		CONTRACTOR			CW 15 A N°
1. MIX DESIGN	l N°					_	
SPECIFIED CONCRETE STRENGTH (28 DAYS)     (CONCRETE CLASS)						_	
3 MIX DESIGN	CONCRETE STRE	ENGTH (28 DA	YS)			_	
4. MIX DESIGN				_			
5 CEMENT TY				_			
6 ADMIXTURE	S					_	
7. PURPOSE						_	
8. BATCHING F	PLANT						
9. ATTACHMEN	NT DATA					_	
REMARKS:			1				
RESULT:	ACCEPTED			ТОИ	ACCEPTE	D 🗌	
INSPECTORS	CONTRAC	CTOR		PMC			OWNER
NAME							
SIGNATURE							
DATE							





	PROJECT:				
--	----------	--	--	--	--

QUALITY CONTROL FORM

**CW 17** 

PROJ. No.: QCF REV.

SH. 1 OF 1

**CONCRETE SAMPLE COMPRESSION TEST** 

CONTRACTOR:

COMPANY:

CW 17 N° \_

### **SAMPLE DATA**

			CONC	RETE			ADMIXTURE	
- SAMPLE NR	ITEM	AREA	CLASS	MIX DESIGN	SAMPLE DATE	CASTING TEMPERATURE (C)	TYPE & DOSAGE	REMARKS

### **TEST RESULT**

SAMPLE	AGE AT		RESULT				ATTACHED QUALIFIED LABORATORY TEST RECORD		REMARKS
NR.	(DAYS)	STRENGHT	ACC.	UNACC.	N° & DATE				

INSPECTORS	CONTRACTOR	PMC	OWNER
NAME			
SIGNATURE			
DATE			

	12					PROJEC	T:					
-		TechnipFMC	Indian			COMPAN	NY:					
C	QUAL	ITY CONTROL FORM		CW 3	33	PROJ. No.: QCF		F REV.		SH. 1 OF 2		
		REINFORCED CONCRI				CONTRA	ACTOR:			CW 33 N°		
D N	DESCRIPTIO N DWG'S & REV AREA				- - -	FOOTING FOUNDAT ELEVATE ELEVATE	TION BEAMS			V F	COLUMN VALLS PITS	
		INSPECTIONS	N.A.	ACC		MARKS/			CTORS SIGNAT	URE		
-		(REF. TO QCP 1710.01)				ERENCES	CONTRAC	TOR	TECHNIP		OWNER	
С		EXCAVATION			CW 6	1A (*)						
D	.1	LEAN CONCRETE TOP ELEV.										
D	.2	COORDINATES CHECK										
D	.3	FORMWORK - GEOMETRY & POSITION - STABILITY & PLUMBNESS - CLEANLINESS - OIL COATING										
D	.4	REINFORCEMENT - SPACERS & CONCRETE COVER - LAP SPLICE - BENDING AND TIE BAR - REBAR NUMBER, SIZE & SPACING - CLEANLINESS - WELDED WIRE FABRIC - COATING TOUCH-UP (IF REQUIRED)										
D	.5	EMBEDDED ITEMS  - ANCHOR BOLTS: NUMBER / SIZE & POSITION  - STEEL INSERTS: POSITION & GEOMETRY  - COATING TOUCH-UP										
D	.6	WATER STOPS										
RFV		- POSITION & TYPE										
OCE STANDARD REV 2	.7	AUTHORIZATION FOR YES CASTING		ı	NO [	]						
OF STA	.8	CASTING										
	.8.1	SLUMP TEST & AIR CONTENT TEST			CW 3	5 (*)						

CW 17 (\*)

D.8.2

SAMPLE STRENGTH TEST

	TechninEMC (#84-3)(uni					PROJECT:							
-	TechnipFMC	Indian			COMPAN	NY:							
QUAL	ITY CONTROL FORM		CW 33	}	PROJ. No.: QCF F		REV.	SH	1. 2 OF 2				
	REINFORCED CONCRE SUMMARY REPORT				CONTRA	CTOR:			C۱	N 33 N°	_		
ITEM				=	FOOTING					COLUMN			
DESCRI			RE	- V	ELEVATE	TION BEAMS				VALLS PITS			
AREA	<u> </u>			_	ELEVATE								
	INODECTIONS			55	AA DIKO/		NSPEC:	TORS SIGNATI	IRF	& DATE			
-	INSPECTIONS (REF. TO QCP 1710.01)	N.A.	ACC		MARKS/ ERENCES	CONTRACT		TECHNIP	JI (L	OWNER			
D.9	CURING												
D.10	ANCHOR BOLTS - POSITION & ELEVATION			ATT	SEE FACHED KETCH								
D.11	FORMWORK STRIPPING												
D.11.1	CONCRETE SURFACE REPAIRING												
D.12	PROTECTIVE COATING												
D.13	LEAKAGE TEST			CW 38	3 (*)								
D.14	AUTHORIZATION FOR BACKFILLING YES			40 E	]								
Е	BACKFILLING			CW 61	1B (*)								
F	FOUNDATION RELEASE			CW 10	00 (*)								
G	STRENGHT TEST RESULT & SAMPLE UNIT WEIGHT			CW 17	7 (*)								
NOTES:	(*) THE QC REPORTS N° SHALL BE IND CW 17 N° CW 35 N° CW 3							CW 61B f	<b>1</b> °				
N.A.	= NOT APPLICABLE	AC	C. =	ACCE	PTED			1					
, oc.	INSPECTORS	CONT	RACT	OR		PMC			C	OWNER			
FINAL DOC. REVIEW	NAME												
. E	SIGNATURE												
	DATE												

	l ! . = .			PROJECT:					
Tec	hnipFN		ianOil	COMPANY	<b>'</b> :				
QUALITY CONTR	ROL FORM		CW 35	PROJ. No.		QCF REV.		SH. 1	OF 1
CONCRETES	SLUMP TE		ONTENT	CONTRAC		ı		CW 35	5 N°
CASTING ITEM(S): AREA DATE BATCH PLANT CONCRETE CLASS CONCRETE MIX DE									
TRUCK & TICKET No.	VOLUME OF CONCRETE		OFF LOADING	OFF LOADING	OFF LOADIN		P AT CO	AIR ONTENT	CONCRETE TEMP. AT
	(m³)	DATOITHME	TIME START	TIME FINISH	TIME	OIIL (	Citi)	(%)	SITE (°C)
		1							
	-								
	_								
	-								
	-								
	-								
	-								
	-	_							
REMARKS:									
TEST RESULT:	,	ACCEPTED							
INSPECTO	RS	CONTI	RACTOR		РМС			OWNE	=====================================
NAME									

SIGNATURE DATE

		PROJECT:					
TechnipFM	IndianOil	COMPANY:					
QUALITY CONTROL FORM	CW 38	PROJ. No.:	QCF RE	EV. SH. 1 OF 1			
HYDRAULIC TEST FO		CONTRACTOR:		CW 38 N°			
STRUCTURE DESCRIPTION/ITEM: DRAWING No. & REV.							
	TEST R	ECORD					
1. WATER FILLING		START FILLING UNIFORM RATE STOP	- -				
2. STABILIZING PERIOD		STARTSTOP					
3. TEST PERIOD		STARTEND					
4. WATER LEVEL		START					
5. LEAKAGE CHECK		YES   NO	-				
REMARKS  TEST RESULT: ACCEPTED							
INSPECTORS	CONTRACTOR	PMC		OWNER			
NAME	22			· · · · · · · · · · · · · · · · · · ·			
SIGNATURE							

DATE

	N to				<b>\</b>			PROJECT	Γ:					
		Technip	FMC	इंडियनऑयल IndianOi	y			COMPAN	Y:					
QUAL	ITY CONTROL FOR	M				QC 10		PROJ. No	).:			;	SH. 1	OF 1
	CONCRETE TES	T SUMMARY FO	R					CONTRACTOR:				QC 1	0 N°	
	ITEM OR			SITE		CON	CRETE	SLUMP T CONTE	EST & AIR NT TEST	STRENG	STH TEST			
PROGR	DESCRIPTION	AREA/ LOCATION	CASTING DATE	CASTING TEMP. °C	Q.TY m³	CLASS	MIX DESIGN NUMBER	TICKET NR	CW 35 NR LAB. TEST	SAMPLE NR	CW 17 NR LAB. TEST	REPORTS	(1)	REMARKS
1														
2														
3														
4														
5														
6														
7														
8														
10														
11														
12														
13														
14														

NOTE: THIS QCF SHALL BE DONE BY ELECTRONIC SHEET

(1) CW 33 FOR CONCRETE STRUCTURES – CW 32B FOR RIGID PAVING – CW 54 FOR CONCRETE PILES

Water State of the				PROJE	CT:						
Techi	nipFMC	Indiano	Dil	COMPA	ANY:						
QUALITY CONTRO	OL FORM		W 12/A	PROJ. I	PROJ. No.: QCF REV				SH. 1 OF 1		
	UCTION MATER	RIALS		CONTR	ACTOR:	•			W 12/A N°		
CIVIL	PIPING		MACHIN	ERY		INSTR	UMENT		INSULATION		
BLDG.	MECHANIC.		ELECTR	ICAL		PAINT	NG		STEEL STR.		
NDT	SUPPORT PRF	. 🗆									
1. MATERIALS					·						
2. SUPPLIER											
3. PURPOSE											
4. ATTACHMENT	DATA										
5. TYPE OF TEST	PERFORMED										
6. TEST STANDA	RD UTILIZED										
REMARKS:											
RESULT:	ACCEPTED				NO	T ACC	EPTED				
INSPECTORS	CONTRA	ACTOR			РМС			<u> </u>	OWNER		
NAME	1										
SIGNATURE	<u> </u>										
DATE											





PROJECT	Standby SRU & Additional Tanks
	IOCL Paradip Refinery

CLIENT

**INDIAN OIL CORPORATION LIMITED** 

QCP-STEEL STRUCTURES ERECTION

**Project No.** 080557C001

**Document No**. 080557C-000-QCP-1812-001

Rev. No.

Page 1 of 3

### **QUALITY CONTROL PLAN**

### STEEL STRUCTURES ERECTION

TYPE OF QUALITY CONTROL REPORT	CERTIFICATION EXTENT
CS 2	SINGLE REPORT PER EACH STRUCTURE
CS 3	SINGLE REPORT PER EACH LOT OF NODES
CS 6 – CS 7	SINGLE REPORT PER EACH STRUCTURE OR IDENTIFIED SECTION
CW 58	SINGLE REPORT PER EACH RELEASED GROUP OF ITEMS

### **REFERENCE DOCUMENTS:**

080557C-000-JSS-1800-001 SPECIFICATIONS FOR STRUCTURAL STEEL WORKS

Drawings

### **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)

			Samit Paul 2019.10.21 18:50:18 +05'30'	Signed By Signed	Technipi MC Alakappan L 2019.11.06 Approved By 17:14:39 +05'30'	Morschristopher Jesumarian Authorized By Authorized By
Α	21/10/2019	ISSUED FOR INFORMATION	SMP	PKP	LA/ANJ	JIVIČ
REV.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	AUTHORIZED





PROJECT	Standby SRU & Additional Tanks					
	IOCL Paradip Refinery					
CLIENT	INDIAN OIL CORPORATION LIMITED					

QCP-STEEL STRUCTURES ERECTION

**Project No.** 080557C001

**Document No**. 080557C-000-QCP-1812-001

Rev. No. A

Page 2 of 3

## QUALITY CONTROL PLAN STEEL STRUCTURES ERECTION

### **QUALITY CONTROL ACTIVITIES**

Nr.	CHECK AND	QUALITY CONTROL	ACT	ION	NOTES
	INSPECTION ITEM	REPORT	CONTR.	TECHNIP	
<b>A</b> )	PRELIMINARY ACTIVITIES	N. A			
A.1	CONTRACTOR DRAWINGS CHECK REVISION STATUS	N.A.	Y	Y	
A.2	CONTRACTOR TECHNICAL SPECIFICATIONS AND PROCEDURES	N.A.	Y	Ţ	
A.3	CONTRACTOR METHOD STATEMENT & ENGINEERED LIFTING STUDY (IF REQUIRED)	N.A.	Р	R	(1)
B)	BEFORE ERECTION				
B.1	MATERIAL RELEASED AND CONSERVATION STATUS	N.A.	WC	S	
B.2	FOUNDATIONS CHECK	CS 2	WC	W/R	
C)	STEEL STRUCTURE ERECTION				
C.1	PRE-ASSEMBLYING (IF ANY)	CS 2	WC	S	
C.2	ERECTION	CS 2	WC	S	
C.3	COLUMN POSITION CHECK	CS7/CS2	WC	S	
	- COLUMN ALIGNMENT				
	- COLUMN ELEVATION				
	- COLUMN PLUMBNESS				
C.4	BEAMS POSITION CHECK	CS6/CS2	WC	S	
	- BEAMS ELEVATION / LEVELNESS				
C.5	ANCHOR BOLTS TIGHTNESS BEFORE GROUTING	CS 2	WC	W/R	(2)
C.6	BOLTS TIGHTNESS FOR ELEVATED STRUCTURE	CS 3 / CS 2	WC	W/R	
C.7	GROUTING AUTHORIZATION	CW 58 / CS 2	WC	W/R	(3)
C.8	ANCHOR BOLTS TIGHTNESS AFTER GROUTING	CS 2	WC	S	(2)
C.9	CLEANING & FINAL ACCEPTANCE	CS 2	WC	W/R	
C.10	FINAL DOCUMENTATION REVIEW	CS 2	Р	R	





PROJECT	Standby SRU & Additional Tanks
	IOCL Paradip Refinery
CLIENT	INDIAN OIL CORPORATION LIMITED

QCP-STEEL STRUCTURES ERECTION

**Project No.** 080557C001

**Document No**. 080557C-000-QCP-1812-001

Rev. No. A

Page 3 of 3

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

#### (2) ANCHOR BOLTS TIGHTENING PROCEDURE:

BEFORE GROUTING:

- ALL BOLTS SHALL BE IN A CONDITION TO INSURE A GOOD CONTACT BETWEEN MATING SURFACES;
- NUTS SHALL BE MARKED WITH CRAYONS OR CHALK TO SHOW THE LOCATION IN THE PREVIOUS CONDITION.

AFTER GROUTING:

- ALL BOLTS SHALL BE IN A "SNUG TIGHT" CONDITION AND ADDITIONALLY SHOULD BE TIGHTENED BY  $90^{\circ} + 180^{\circ}$  NUT ROTATION.
- (3) THESE GROUTING AUTHORIZATION REPORTS WILL BE ALWAYS AVAILABLE DURING THE CONSTRUCTION BUT NOT INCLUDED IN THE CONSTRUCTION QUALITY DOSSIER.

#### **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.
- 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

	Control of the Contro				PROJECT:					
	TechnipF		हैयनऔयल idianOil		COMPANY:					
QUAL	ITY CONTROL FOR		CS		PROJ. No.:		QCF F	REV. A	SH.	1 OF 1
	STEEL STRUCTU	JRES ERECT Y REPORT	ΓΙΟΝ		CONTRACTO	OR:	•		CS 2	2 N°
STEEL	STRUCTURE DESCRIP	TION / ITEM								
AREA										
	INGS & REV.									
_	INSPECTIONS		N.A.	ACC	REMARKS/		INSPEC	TORS SIGNA	TURE	& DATE
	(REF. TO QCP 1812.0	)1)			REFERENCES	CONTR	RACTOR	TECHNII	P	OWNER
B.2	FOUNDATION CHECK									
C.1	PRE-ASSEMBLYING									
C.2	ERECTION									
C.3	COLUMN POSITION CHE	CK								
	- COLUMN ALIGNMENT									
	- COLUMN ELEVATION				CS 7 (*)					
	- COLUMN PLUMBNESS				CS 7 (*)					
C.4	BEAMS POSITION CHEC									
	- BEAMS ELEVATION / LI				CS 6 (*)					
C.5	ANCHOR BOLTS TIGHTN GROUTING	IESS BEFORE								
C.6	BOLTS TIGHTNESS FOR STRUCTURE	ELEVATED			CS 3 (*)					
C.7	GROUTING AUTHORIZAT	TION YES	] N	10 🗆	CW 58 (*)					
C.8	ANCHOR BOLTS TIGHTN GROUTING	IESS AFTER								
C.9	CLEANING & FINAL ACCI	EPTANCE								
NOTES:	CW 58 N° CS					ELOW SPA	ACES:			
N.A.	= NOT APPLICABLE		ACC	. =	ACCEPTED					
	INSPECTORS	CONT	RACTO	OR		РМС			OW	/NER
C.10) FINAL DOC. REVIEW	NAME									
O FII	SIGNATURE									
.: 2.	DATE									

To als		दंश्यिमशीयल	PRO	PROJECT:								
lech	nipFMC	IndianOil	CON	COMPANY:								
QUALITY CONTRO	DL FORM	CS 3	PRO	OJ. No.:	QCF REV. A	SH. 1 OF	<del>-</del> 1					
	TIGHTENING C		CON	NTRACTOR:		CS 3 N°						
STEEL STRUCTURE D	DESCRIPTION / IT	EM										
4554				DEV								
AREA		DR/	AWINGS	k KEV.								
1 NUMBER OF OMOGE IN THE REFERENCE												
2 SIZE OF BOLTS			_	CHECKED BOLTS PER NODE	ACTUAL TORQUE (1) (Nm)	ACC.	UN-ACC.					
_												
BOLTS CLASS			_									
-												
4 DESIGN TIGHTENING	G TORQUE (Nm)		_									
(ONLY FOR CALIBRA	TED WRENCH APPI	LICATION)										
5 TOTAL N° OF BOLTS	FOR THE REF. LOT		_									
6 BOLT CHECK												
MINIMUM 5% OF	TOTAL BOLTS FOR	THE REF. LOT										
MINIMUM 2 BOLT	S PER EACH NODE											
_												
TIGHTENING METHO	D											
CALIBRATED WR	RENCH											
TURN OF NUTS			li									
-		Total Bolt	t Checked		]							
REMARKS: (1) Column t	o fill up only when Ca	alibrated Wrench is a	applied.									
INSPECTORS	CONTR	ACTOR		РМС		OWNER						
NAME												
SIGNATURE												
DATE												

TechninEMC (1924-3)(44)						PR	PROJECT:										
Techniprivic							MPANY:										
QU	QUALITY CONTROL FORM CS 6						OJ. No.:	QCF	REV.	A	SH. 1 OF 1						
			URAL BEAMS N & LEVELNES	S		CO	NTRACTOR:	•			CS 6 N°	6 6 N°					
STE	EL STRUCTUR	E DESC	RIPTION / ITEM:														
	WING & REV.:																
		TION:															
ARE	:A	•															
NI°	BEAM	FND						۸۵۵۶	DTEN		DEMVDKS						
- N°	MARK	-A-	TOP ELEVATION	YES	NO	-B-	TOP ELEVATION	YES	NO		REWARKS						
		(.,				( · /											
ТОИ	ES: (1	) COLUN	IN IDENTIFICATION	N													
	INSPECTORS		CONTRACT	OR			РМС				OWNER						
	NAME	ECC ARK															
	SIGNATURE																

DATE

TechnipFMC (SQUAN)						F	PROJECT:								
	Tech	dianOil	(	COMPANY:											
QU	IALITY CONTRO	DL FORM			CS 7	F	PRO	J. No.:		QCF	REV.	Α	SH. 1 OF 1		
	STRUCTURAL COLUMNS ELEVATION & PLUMBNESS				(	CON	TRAC	TOR:				CS 7 N°			
STE	EL STRUCTURE [	DESCRIPTIO	ON / IT	EM:									<b>_</b>		
DRA	AWING & REV.:		-												
	RUCTURE SECTIO	N:	-												
ARE	ĒΑ		-												
	COLUMN	ELEV	ATION		PLUME	NESS A	A (1)		PLUM	IBNESS	B (1)				
N°	IDENTIFICATION	BASEPLATE	ACCE	EPTED	N/S	A	ACCE	PTED	E/W		ACCE	PTED	REMARKS		
		ELEVAT.	YES	NO	[mm]	Y	YES	NO	[mm]		YES	NO			
S	I = NORTH I = SOUTH I = EAST V = WEST	ΓΕ (1): CHE	ск сс	DLUMN	PLUMBNES	S IN T	WO.	DIRE	CTIONS (A-	B) OR	THOG	GONAL .	TO EACH OTHER		
	INSPECTORS	(	CONT	RACT	OR			P	РМС				OWNER		
	NAME														
	SIGNATURE														

DATE

To also in Et 4	इंटियनओपल	PROJECT:					
TechnipFM	IndianOil	COMPANY:					
QUALITY CONTROL FORM	CW 58	PROJ. No.:	QCF REV. A	SH. 1 OF 1  CW 58 N°			
GROUTING AUTHORIZA	ATION REPORT	CONTRACTOR:					
STEEL STRUCTURES STATIC EQUIPMENT ROTATING MACHINERY							
	ITEMS TO	BE GROUTED					
	AREA AREA AREA AREA AREA AREA AREA AREA		AREA	AREA AREA AREA AREA AREA AREA AREA			
	RELE	ASED BY					
MECHANICAL CONTRACTOR EMARKS:	DATE	PMC		DATE			
INFARRO.							
	RECI	EIVED BY					