 <p>TAKREER شركة أبوظبي لتكرير النفط We Refine Right</p>	COMMON PROCEDURE				SK E&C GS E&C SECL DAEWOO ZUBLIN
	RESTRICTED AREA CONTROL PLAN				
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RESTRICTED AREA CONTROL PLAN

TAKREER Project No. : 5578

TAKREER Ruweis Refinery Expansion Project

DISTRIBUTION	
TAKREER	
SEOUL	
SITE	V
PMC	
SEOUL	
SITE	V
CONTRACTOR	
PROJECT	V
PROCESS	V
PIPING	V
ROTATING	V
STATIONARY	V
ELECTRICAL	V
INSTRUMENT	V
CIVIL	V
ARCHITECTURE	
PROCUREMENT	V
CONSTRUCTION	V
QA / QC	V
HSE	V
IT	V


Rev	Date	Description	Orig by	Chk'd by	App By	COMPANY App
0	31/01/13	For Construction	G.T.W.	Y. H YANG	I.H.Hur	
E	15/01/13	For Approval	G.T.W.	Y. H YANG	I.H.Hur	
D	03/01/13	For Approval	G.T.W.	Y. H YANG	I.H.Hur	
C	20/12/12	For Approval	KO Y. D	Y. H YANG	I.H.Hur	
B	4/12/12	For Approval	KO Y. D	Y. H YANG	I.H.Hur	
A	22/09/12	Issue for Review and Comments	KO Y. D	Y. H YANG	I.H.Hur	



ABU DHABI OIL REFINING COMPANY (TAKREER)

				
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Revision List
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Rev. No.	Date	Description	Page no.	Remark
A	22. Sep. 12	Originally issued for Review and Comment	All	
B	4. Dec. 12	Comments Incorporated	All	
C	20. Dec. 12	Comments Incorporated	All	
D	03. Jan. 13	Comments Incorporated		
E	15. Jan. 13	Comments Incorporated		
0	31. Jan. 13	Issued for Construction		




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AGREEMENT

By EPC CONTRACTORS Seal and EPC CONTRACTORS representative signature hereunder attached, it is recognized and covenanted by the Parties hereunder that a formal Agreement has been made regarding the works as described in this Common Water Flushing Procedure. This Agreement has been mutually signed and agreed

	EPC 1	EPC 2	EPC 3	EPC 4	EPC 6	EPC 7
Name						
Position						
Signature						
Date						



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1. Purpose

The Restricted Area Access Control plan has been developed to ensure safety and clarity on the requirements of access into Restricted Areas during commissioning. The plan is a written procedure which details the controls and requirements for entering into areas restricted to specific workers. This procedure is intended to prevent unauthorized personnel, equipment, and/or vehicles from entering or leaving the site and to ensure that the safety of workers, sub-contractors, visitors & all personnel entering into the CONTRACTOR controlled units on site. This procedure will be a supportive document to the Commissioning HSE Plan, and relevant common procedures.

2. Scope

This procedure shall be complied with by all subcontractors, visitors and personnel assigned for works in CONTRACTOR controlled units. The procedure will be applicable during all phases of commissioning.

3. Responsibilities

3.1 CONTRACTOR Commissioning Manager

The Contractor Commissioning Manager is responsible to ensure that access control to the restricted areas is continually applied and adhered to, that all persons are authorized to enter restricted areas and that this procedure is applied and followed.

3.2 CONTRACTOR HSE Manager (Commissioning)

The Contract HSE Manager will be responsible to ensure that

- Access personnel shall be posted at the check point and Substation as required.
- The access personnel will follow the requirements for access control and assist during Emergencies.
- The site access control shall be maintained according to the plan and reviewed as operational requirement need.
- Reviews shall take place on the plan and findings will be reported to the Commissioning Manager.


4. Procedures

4.1 General

As defined in the Commissioning Plan when a specific area or unit in the site reaches Mechanical Completion and or Ready for Commissioning Certificate, prior to the introduction of fuel gas, the unit should be clearly isolated with fence to restrict any unauthorized persons or vehicles and equipment entry to the commissioning area.

Basically the safety measures shall be taken as mentioned below before introducing the fuel gas in the unit and during commissioning stage.



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- Unnecessary temporary facilities such as containers, storage rooms and equipment in the site must be removed, only some facilities for commissioning will be allowed to be placed at the designated area in the site.
- Area & unit will be isolated with temporary fence in line with start up sequence.
- Vehicle entry will be controlled at the main gate & personnel entry will be controlled at the entrance of the units being commissioned (the vehicles/ equipment approved through the entrance certificate).
- Lines will be isolated with a blind and attaching with tags (Live Line-Dangerous).
- Security positioned (confirm PTW & maintain a log sheet).
- Oily Sewer System will be isolated from operating and non operating unit.
- The area or unit which will perform activities for commissioning shall be barricaded with 150 mm Yellow colour barricading tape, and warning signs.

The following requirements have to be met to achieve access control.

4.2 Facility Isolation

The process areas will be divided into individual units and areas as commissioning operations require.

In case of process areas, partially operation and all unit operation case and then, pilot burner firing and gas feed- in case for the Flare & Tank areas

The units will be isolated in the line with start -up sequence mentioned above.

If there are any equipment and valve station to be serviced with gas or utility in the unit under construction will be isolated with fence.

4.3 Authorized Persons for entrance to the unit.

Authorized Persons will be certified with an Area Pass Card to enter the Restricted Area commissioning area unit.


The Pass Card will be issued by Contractor HSE Manager authorised by the Commissioning Manager

- Personnel with Pass Card will be allowed to go into the Restricted Area as approved by PTW and JSA.

Commissioning members
Vendors
Workers
Others authorized persons by Commissioning Manager

- Additionally, workers were required by PTW and holders of Pass Card may have access to approved Restricted Area.
- For the entrance of Substations an endorsement of the workers Access Card is required by the Commission Manager, after attending the Electrical Safety Training as required.



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4.4 Access Control Step

A check point will be installed at the access point of the unit, and isolated with a temporary fence. There will be a Security post with 24 hours monitoring.

The Security guard will verify the Authorized Persons and Equipment entering the areas.

4.4.1 Access Control for people

To gain access the following steps have to be followed ;

- The Access controllers will carry out the check on the Pass Card.
- Everyone shall have a valid Pass Card which will be checked by access control at the approved Check Points.
Commissioning personnel shall be identified with a dedicated sticker on their hard helmet
The person entering the restricted area shall not be allowed to carry items like restricted items mobile phones, cigarette, lighters matches, or cameras, so these items shall be left in the office.
- Any toxic, flammable, hazardous material will not be allowed into the restricted area without written permission of Commissioning Manager.
- All battery operated equipment must be certified explosion proof and intrinsically safe.
- It is the responsibility of the owner to ensure that he recovers all the items that are left at the Access Point when he leaves the area.
- Equipment will be checked at the Check Points by the Access controller to ensure that the appropriate inspection sticker is affixed to the equipment.
- Information regarding the number of persons in a unit or restricted area for site, muster at location
Points, wind direction indicated by wind sock or identifiable flag will be updated regularly.

All personnel entering the working area shall attend a Tool Box talk at the commencement of each shift or as required. They should place the access card on the access control board. It shall be their responsibility to take this with them when they leave the unit or restricted area. It shall be presented by the Access controller on departure.

In particular to gain access to Sub-Station an approved access card shall be presented to the access controller as per the Electrical Safety Rules an access card is required with PTW for workers.


This will be controlled by the competent Electrical person (SS operator) & Access controller at the entrance of the sub-station.

To gain access into other parts of the sub-station, i.e. Transformer bay, Cable room, a dedicated permit to work is required.

4.4.2 Access Control for Vehicle/Equipment

No Vehicle/Equipment will be allowed to enter the site without an entry certificate.



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An application form obtainable from the Commissioning Office shall be completed and if acceptable an entry certificate shall be authorised by the commissioning manager of his delegate prior to entry.

The number of vehicles allowed to enter will be restricted and shall meet the requirements specified below for entrance to the site.

To gain access the following regulations shall be met and followed.

- The movement of equipment with internal combustion engines (ICE) will be controlled at the Access Point, due to the possibility of the equipment being a source of ignition.
- All equipment shall requires a valid inspection sticker.
- Only ICE equipment with an inspection sticker will be allowed to gain access to the site. This will include equipment like vehicles, cranes, generators, compressors, trucks etc.
- The equipment will be inspected by the CONTRACTOR Equipment Inspector & after approval the inspected sticker will be posted on the equipment.
All equipment shall be inspected with a checklist by its driver or operator every daily prior to commencement of work.
- The following requirements for ICE equipment will have to be met before approval is granted ;
 - ✓ The equipment has to be diesel driven.
 - ✓ All required safety equipment must be installed on the equipment.
 - ✓ A dedicated parking zone will be identified for vehicles in the site.

4.5 Access control for common pipe rack

During commissioning stage some lines of common pipe rack will be serviced with utility and hydrocarbons.

To control access of non authorized personnel at the common pipe rack Contractor will take action as below.

- The live line shall be identified as live by affixing “**Danger - LIVE LINE**” tags at regular intervals along the length of the line.
This serves to identify the line as being live to all personnel to prevent inadvertent line breaking.
- All work except operation activities on the pipe rack shall be undertaken under the authority of a permit to work (PTW).
- A safety supervisor or security guard will be especially assigned to monitor the pipe rack to control access by unauthorized personnel and work without PTW etc..


4.6 Flare and Tank Area

The Flare and Tank Area will be isolated by two controls to the area according to the start up sequence i.e. before firing the pilot burner and gas feed-in case to start up plant.

In case of firing the pilot burner, the flare knock out drum area will be isolated with temporary fence.

In case of Gas feed-in, the area will be isolated and managed as below.



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- All temporary facilities shall be removed and kept away at a safe distance.
- The open area shall be fenced off at a safety distance.
- Commissioning offices with watchman shall be placed at the entrance of Flare Stack area.

4.7 PTW control in the site

All PTW's (Permit To Works) will be issued at the Permit Control office at a location to be defined.

5. References

- Commissioning HSE Plan : **5578-E3-HSE-HU-00037**
- Permit To Work Procedure : **5578-E3-HSE-HU-00042**

6.0 Definitions of Terms

PTW's (Permit To Works)

JSA (Job SafetyAnalysis)

ICE (Internal combustion engines)

