DOCUMENT TITLE: SAFE WORK PRACTICE ON WORK PERMIT SYSTEM AND RISK ASSESSMENT

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EXECUTIVE SUMMARY

In the Oil & Gas industries, the operation and maintenance risks are many, high in both

probability and consequences, unless adequately managed. The Work Permit System

with Risk Assessment plays a vital role in ensuring health, safety, environment by proper

communication and identifying activities related hazards with control measures.

The conditions set out on the work permit are meant as general guidelines and shall not

be assumed to cover every condition or circumstance that may be present or may arise

during the course of activities. The permit in itself does not make the job safe but shows

to what extent the job has been made safe. Issuers, executors, and their superiors are

responsible and accountable for ensuring strict compliance with this work permit system.

The contractor’s work permit system mentioned in this document can be adopted in the

greenfield areas only in compliance with the KIPIC Safe Work Practices and Procedures.

The Work Permit System and Risk Assessment (WPRA) are detailed, and all previous

major incident recommendations have been considered in this document.

1. INTRODUCTION

This document intends to address the safe work practices to protect KIPIC / Contractor’s

employees and assets from various hazards arising during non-routine maintenance and

construction activities by following the work permit system and risk assessment.

2. PURPOSE

The basic purpose of the Work Permit System and Risk Assessment is to assign the

responsibility of each party for the safe execution of the activities, i.e., prevent injuries

to personnel, protect assets, the environment, and the company’s reputation by

ensuring that all activities are carried out in the safest possible manner.

For all non-routine activities to be carried out within KIPIC premises, it shall have an

appropriate work permit and applicable authorization, and the same shall be authorized

by the respective permit issuer without any exception.

3. SCOPE

This document is applicable to all KIPIC sites including Al-Zour Refinery (ZOR), Liquefied

Natural Gas Import (LNGI) facility, Petrochemical’s project (PRIZe), Head office (HO),

and other areas wherever KIPIC has a degree of control.

The work permit authorizes the specific activities to be carried out in the work permit

area in KIPIC Premises and serves as a formal written system and official document of

conditions and requirements as agreed upon between authorized work permit Issuer &

Executor. Various designations mentioned in the document are refinery-based.

Equivalent designations shall be applicable for other locations/sites.

OH & S RISK REGISTER:

The basic form of Hazard Identification & Risk Assessment (HIRA), which considers all

the activities (routine, non-routine, & emergency activities) with occupational health and

safety risks (OH & S), how they are managed to risk levels, and how employees are

protected from these occupational health and safety hazards of a particular craft / team,

is the OH & S Risk Register.

WORK PERMITS & AUTHORIZATIONS:

The Work Permit system is the basic form of the risk assessment process (activitybased).

Hazard Identification and Controls (Hot Work & Cold Work permits and Confined

Space Entry & Excavation authorization) are a basic type of HIRA tool that aids in the

determination of Hazard Identification and Controls for specific (Maintenance,

Construction, and other non-routine) activities.

WORK PERMIT RISK ASSESSMENT (WPRA):

Work Permit Risk Assessment (WPRA) is a form of HIRA that is applied to critical

activities (Maintenance, Construction, and Non-routine activities). This will be carried

out by a multi-disciplinary team.

The above-mentioned processes address a wide risk spectrum related to maintenance,

construction & non-routine activities. A combination of one or more of these processes

shall be applied for managing risks associated with such activities executed with work

permits. The processes which are used in addition to Work Permits will be explained in

the various sections of this document.

ELECTRONIC WORK PERMIT SYSTEM AT KIPIC:

An electronic work permit system is implemented at KIPIC sites. Whenever an electronic

work permit system is not working / where not available, manual work permits should

be used by following the below procedure.

• Take a screen shot of the message appearing on the system.

• Send it by e-mail to Team Leader through Section Head (or through Senior Engineer of the

permit issuing team) and get his approval for using manual work permit.

• Users shall make necessary efforts to get the electronic work permit system restored as

early as possible.

• For further details refer e-Work permit user manual.

8.1 WORK REQUIRING A PERMIT

A work permit is required for the jobs including, but not limited to the following:

8.1.1 Maintenance Activities (Mechanical, Electrical, Instrument, Civil etc.)

8.1.2 Construction, Alterations / Modifications and Project works & working on fragile

roofs.

8.1.3 Process equipment cleaning activities.

8.1.4 Inspection and condition monitoring.

8.1.5 Vehicle/mobile equipment entry into Hazardous Areas.

8.1.6 Underwater maintenance, Marine construction.

8.1.7 Hydro testing / pneumatic testing of piping & equipment, confined space entry &

painting at yards (except painting yard) and workshops shall not be classified as

routine activities and they shall be done only with appropriate work permits and

other applicable processes.

8.1.8 Painting inside buildings (irrespective of elevation) requires work permit.

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8.1.9 Non-routine activities in workshops, warehouse, etc. other than those excluded

under clause # 8.2 (e.g., Building modification Civil / Mech./ Elect / AC work in

these buildings) etc.

8.1.10 Any non-routine activities carried out by operational personnel.

8.1.11 Other activities serving the Refinery / LNGI operations and Jobs under KIPIC

control executed outside KIPIC facilities.

Cold Work Permit (Green Colour Permit) is required for any activities that does

not involve the use of or generate a source of ignition (Refer Annexure - C).

Hot Work Permit (Red colour permit) is required for any activities that involve

the use of or generate a source of ignition capable of igniting a flammable mixture

or combustible material (Refer Annexure - E).

Confined Space Entry Authorization (Yellow colour authorisation) is associated

with work permit for personnel entry into a confined space (Refer KIPIC HSE

document on “Safe Work Practices on Confined Space Entry”).

Excavation Authorization is associated with work permit for excavation work

(Refer Safe work Practice on “Excavation”).

Manual Work Permit System.

Printed Work Permit form consists of the following features:

The Original and 3 copies

• Original marked "DISPLAY AT WORK SITE" (belongs to Executor)

• 1st copy marked "Field Operator copy/File copy”

• 2nd copy marked "Safety copy" (inserted in the permit box)

• 3rd copy marked "Issuer copy"

ISSUING AUTHORITY:

13.1.1 Operation Area Issuers:

i. Operator I (Grade 14).

ii. Operation Controller (Shift Supervisor) or above are eligible to be authorized as issuers

of all types of work permits in Operations areas.

iii. Control Room Operator / Operator II (Grade 13) are also eligible to be authorized as

issuers for special circumstances such as shutdown subject to approval by respective

site Operations Manager.

iv. Other than the above personnel, the operation manager may authorize the

commissioning management support services / O & M Service contractors (operational

personnel only) as issuers equivalent to the KIPIC designation.