# Game Instructions

## Background and Objective

Our company, ABX Engineering Inc., provides integrity management service for oil and gas industry. An oil and gas company, DCK Exploration & Production, hires ABX Engineering to conduct RBI analysis for one of their offshore platform. Our objective is to complete the project in minimum time.

## Unit Cards

There are four categories of unit cards:

- *Hydrocarbon units* – Indicated by red cards. These unit cards have high priority to be completed first.
- *Flare, drain and utilities* – Indicated by yellow cards. These unit cards have medium priority.
- *Chemical injection and air system* – Indicated by green cards. These unit cards have low priority.

## Roles

There are three specific roles: a project manager, a resource tracker, and a work tracker. People of the specific roles should locate and familiarize themselves with their tools as follows:

| Role | Tool |
|---|---|
| **Project Manager** | Weekly Steps |
| **Resource Tracker** | Resource Utilization Chart and Lead Time Distribution Chart |
| **Work Tracker** | CFD and Control Chart |

## The Board

Unit cards enter the main board in Drawings Development phase, and are pulled into subsequent phases. For Drawings Development (DD), Damage Mechanism Assessment (DM), and Software Input and Analysis phase (SA), WIP limits apply across both in progress and complete. For instance, if in DD the WIP limit is three, there should never be more than three unit cards in total across DD in progress and DD complete.

The rework board should only be used when rework is required. The needs for rework will be generated by the Event Card.

## Dice

Each week we will roll the dice and reduce work on the unit card. The dice represent engineers in our team. The colours indicate their specialization. Orange dice represents corrosion/material engineer while the black dice represents an RBI engineer. RBI engineer can do the task in all three steps (i.e. Drawings Development, Damage Mechanism An Assessment, and Software Input and Analysis), while corrosion/material engineer can only do Drawings Development and Damage Mechanism Assessment tasks.

# Gameplay – Weekly Steps

The Project Manager ensures that the following steps are completed accurately each week.

## 1 Group Meeting

The project manager facilitates a “standup meeting” during which the team observe the state of the work on the board, and briefly discuss the strategy for the week. The team decide the dice to assign for each unit and the units to pull if necessary.

## 2 Play Board

Throw the dice, reduce work on assign units by the face value the dice shows, take notes of any leftover work. Spend leftover work on other units, pull units to do so if necessary (ensure WIP limits are honoured). Repeat until all dice have been thrown for the week. Track the available time (i.e. the face value shown by the dice) and the used time (i.e. the face value used to reduce the work on assign unit) on the Resource Utilization Chart.

## 3 Sanity Check

The project manager ensures WIP limits are honoured, and all unit cards are up to date: the week ready field is completed on all unit cards pulled onto the board; the week accepted and lead time field is completed on all accepted cards.

## 4 Track Charts

The project manager ensures that the chart tracker updates their charts. Trackers complete charts: CFD at the end of every week; control the chart only if certain units have been accepted.

## 5 Week Complete

Pickup end of the week event card (if there is any). Read aloud, take action if necessary, and place the event card back at the deck. See the plan for an event card section for pick up scheduling.


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