



Onshore Projects Business Improvement

Work Face Planning Update

MRM Flare Upgrade Project

Nov 30, 2010

Upstream Americas
Heavy Oil Onshore Projects

Duncan Lancaster

Work Face Planning

COAA – Improve planning of workforce activities to improve productivity and reduce costs

- *better utilization of expensive resources*
- *improve HSE performance*

Implemented COAA model on MRM Flare Upgrade Project with:

- *focus upfront in home office vs field*
- *supplemental resources*

Process Description

FIWP's are created for each discipline for an average of 10 workers X 10 Days X 10hrs (1000 Hours – Productivity included)

Approx. 600 FIWP will be created for the Flare Upgrade project based on the EWP'S and CWP'S.

Planning started in December, start FIWP's when dwgs IFC

Backlog Target - 8 weeks

One planner (GF level) for each discipline (Piping-Structural-Mechanical- Electrical- Civil-E&I-Scaffolding...etc.)

Work Packages include:

Work scope

HSE info

Safe work practices

Bowties

Permit info

Sign off sheet

Inspection Test Plan

Materials

Tools / Consumables

Equipment

GF Check list

Drawings

Critical lift plans

3-D Shots

Scaffold request

Lessons learned

Scaffolding

Upfront plan on scaffold

Scaffolder planner determines multi discipline use

Coordinator tags scaffolding accordingly for use by number of trades

Supervisors sign off when complete

This eliminates needless tear downs and rebuilds

Planning

Permit Coordinator meetings, planning lead determines priorities (PL performs integrator role)

8 week look ahead schedule reviewed per discipline every Monday

Leading indicators include:

- Number of FIWPs complete 8 weeks prior to field execution
- Number of packs created monthly per planner / discipline
- Graph to show packs completed by due date. (Green, yellow & red)

