ADVANCED WORK PACKAGING
“BACK TO BASICS”
for
MANAGING ENGINEERING
BEST PRACTICES CONFERENCE - 2015

Presenter:
Glen Warren
Co-Chair - COAA AWP/WFP Committee
AGENDA
1. Basics of AWP – some definitions
2. Flowchart of AWP Packaging
3. Barriers to Implementation
4. Owners – what you need to key on
5. Owners – what is different from traditional?
6. Wrap-up and Q&A
AWP in simple terms is the formalization of the “packaging” process for all:

• Construction Work Packages (CWPs)
• Engineering Work Packages (EWPs), and
• Procurement Packages (PWPs)

To support safe, efficient, and productive

• Installation Work Packages (IWPs).
AWP – BACK TO BASICS
AWP – BACK TO BASICS

Issued IFC

ENGINEERING WORK PACKAGE (EWP)

Engineering Produces Bill of Material

PROCUREMENT PACKAGE (PWP)

Purchase Order to Supplier

SUPPLIER EQPT &/OR MATERIAL

CONSTRUCTION WORK PACKAGE EXECUTED (CWP)

Work commences

8 week lag

IWP – 1

IWP – 2

IWP – 3

IWP – 4

Eqpt / Mat’l arrives Prior to work start
AWP – BACK TO BASICS

Issued IFC

ENGINEERING WORK PACKAGE (EWP)

Lag gets squeezed
CWP starts late

Work commences

CONSTRUCTION WORK PACKAGE EXECUTED (CWP)

Vendor Data needed to complete EWP delivered late or incomplete

PROCUREMENT PACKAGE (PWP)

SUPPLIER EQPT &/OR MATERIAL
AWP – BACK TO BASICS

Barriers to implementation:

Benefits not clear (not enough case studies) - which makes buy-in more difficult

Too much effort involved in Front End

Moves additional costs into Front End
Maturity Model

AWP Maturity
1. Process Adherence
2. Organizational Alignment
3. Contract Integration

Project Performance
1. Productivity
2. Cost
3. Safety
4. Schedule
5. Quality
6. Predictability
Maturity Model

AWP Early Stages

- Set small project goals
- Allocate adequate budgets
- Identify key roles to drive AWP implementation
- Perform intensive training

Performance Breakout

- Productivity
- Quality
- Predictability
- Schedule
- Cost
- Safety
Maturity Model

AWP Effectiveness

- Set ambitious project goals
- Prioritize incremental improvement projects
- Watch out for complacency
- Attain to AWP guidelines

Performance Breakout

1. AWP Early Stages
2. AWP Effectiveness

PROJECT PERFORMANCE

AWP MATURITY
Maturity Model

AWP Business Transformation

• Continue investing in AWP implementation
• Increase the flexibility of Project Managers to evolve/adapt AWP processes
• Export the project as “world-class” benchmark

Performance Breakout

Productivity
Quality
Cost
Predictability
Safety
Schedule
AWP – BACK TO BASICS

Owners – What you should be doing

• AWP/WFP – This should be a key project strategy. Announce it. Support it. Tell the stakeholders your expectations!

• Prequalify your EP and C (or EPC)
• Ensure contract T&C’s support AWP
• Support your champion(s)
AWP – BACK TO BASICS

Owners – What you should be doing

Clarify Scope
AWP – BACK TO BASICS
Owners – What you should be doing

Review Project Management

• Confirm templates for CWP, EWP, and PWP
• Confirm data requirements (content, format and schedule for all deliverables)
• Confirm Rules of Credit for CWP, EWP and PWP for progressing and forecasting completion dates
Implementation
Setting Controls
AWP – BACK TO BASICS

Owners – What you should be doing

Contractual Issues

- Prequalify stakeholders on ability to support AWP implementation.
- T&C’s support AWP and have incentives for timely completion of CWPs, EWPs, and PWPs.
Owners – What you should be doing
Review Model of Record

- Boundaries of each CWP/EWP clear (no overlaps)
- Attributes of all items (spools, bulks and tagged equipment) tied to EWP and also support system identification
- Clarify use of model for engineering design construction planning, project progressing etc?
Owners – What you should be doing

Review Schedule

• Each CWP supported by predecessor EWP(s)
• Dates for associated vendor data tied to each EWP.
• Adequate lag from scheduled EWP IFC date and associated start of CWP.)
AWP – BACK TO BASICS

Owners – What you should be doing

Review Procurement Packages

• ALL materials / equipment can be traced back to individual EWP
• ALL materials / equipment can be traced back to individual SYSTEM
Owners – What you should be doing

Review Material Management Process

• Clarity of who receives / warehouses material
• What is process to get material from warehouse (eg. pick sheets by IWP or EWP?)
• Who bags and tags material?
AWP – BACK TO BASICS

What is needed – and is it new?
1. Clear correlation between content and schedules of CWP and EWP releases.
2. Clear definition of package boundaries
3. Defined templates for packages
4. Procurement packages mapped to EWP/CWP
5. Strategy for vendor data deliveries
6. Process to progress / forecast EWPs/CWPs
7. Prequalify stakeholders for AWP/WFP
8. Expectation clear in contract language
9. Defined materials management processes
THANK YOU