NORTHWEST CONSTRUCTION
CONSUMER COUNCIL -
BP Cherry Point Refinery- Mitigating
Project Risk Through Contracting Strategies
May 24, 2005
Agenda

- General Cherry Point Contracting Strategy
- Project Goals and Corresponding Risks
- Engineering Contracting Strategies
- Procurement Contracting Strategies
- Construction Contracting Strategies
- Recent Case Experiences
- IPA’s Thoughts
In mid-late 2002, it was recognized that the next few years for Cherry Point were going to be extremely busy with a number of large turnaround events, large capital projects and a host of compliance projects. It was clearly time to set a contracting strategy for the future.
Strategy was prepared with the input from the Turnaround, Capital (Engineering), Maintenance and Commercial Groups based on anticipated upcoming volumes of work.

Consulted with upcoming, known large projects as needed (ISOM/COGEN) and we continue to do so as large projects arise (ULSD/No. 2 Tail Gas)-it’s a living document.
What?

- The strategy covers all disciplines including engineering, mechanical, electrical and specialty contractors with the main focus on mechanical and electrical contractors.
- Union and Non-union
When?

- The mechanical and electrical contractors were identified and set in place during the first half of 2003.
- Specialty contractors were identified (and continue to be identified) as scopes are developed and bid packages issued where appropriate.
How?

- Successful Contractors were identified through competitive bid process – bidders typically those with previous BP/ARCO experience, some new contractors who were prequalified prior to the bid process, and/or contractors who have "federal" deals with BP.
Why?

- Establish primary and secondary and union/non-union contracts to fully utilize local resources - particularly supervision - to ensure Cherry Point was well positioned for the 2003-2006 Turnaround/Capital work.

- Third and fourth tier contractors were also identified, but no contracts issued.
Philosophy

- Time & Material
- Hard Money/Lump Sump/Incentive Contracts that make sense, have some historical precedence that it has worked (incentives); fits other ongoing work, i.e. tanks
Philosophy

• Safety-Always the First Priority
• Fully utilize Contractors, Supervision
• Competitive pricing
• Union/Non-Union
• Partnering
• Utilize BP General Shop/I& E/Machine Shop
Management

• Monthly (more frequent as necessary) meetings are held with the original Team members to discuss upcoming projects, schedules and best contractor fit.

• Early 2006 we may be going through the sourcing process again, as we see what work is on the horizon.
Project Goals And Corresponding Risks

• Safety Is The Top Priority
• No Harm To Environment/Community
• Cost
• Schedule
• Quality
• Operability/Maintainability
• Reimbursable

(Very Difficult to Define Scope and Deliverables Necessary for Lump-Sum Contracting)
Procurement

- Traditional Purchase Orders- Lump Sum

(One Alliance Is Fully Reimbursable)
Construction

- Reimbursable (T&M)
- Lump Sum Fixed Price
- Unit Rate
- Other
Construction- Reimbursable

• We Know the Risks (Same Projects)- Why Pay Someone to Manage Them For Us?

• We Know Our Contractors/They Know Us

• We Issue General Contracts- T&M Gets Contractor On Board Earlier

• Drives Better Safety/Quality- Contractor Not Focused On The $’s

• Relationship Based
Construction- Reimbursable

• Requires Knowledgeable Owner’s Team
• Requires Larger Owner’s Team
• Requires Known Contractor
• Requires Trust/Communication
• Does It Cost More??????????? NO!
Construction- Lump Sum Fixed Price

- Well Defined Scope Required to Bid- Takes Time
- Delays Mobilization- May Not Get Constructability
- Contractors Bid to Norms- Above 50/50 Point
- If Tools, Info, Material Are Furnished On Time- T&M is Cheaper
- Not Relationship Based- It’s Almost Always Adversarial
Construction- Lump Sum Fixed Price

• Consider For Unique Projects
• Consider For New or One-Off Contractor
• Consider For Discrete, Small Subcontracts
Recent Case Studies

• Dock Project- Lump Sum
  • Things Went *Near Perfect*
  • Potential to Have Saved Millions Under T&M
  • Historical T&M Precedence Caused Issues

• Clean Gasoline Project- T&M
  • Craft Productivities Better Than Expected- If This Had Been LS, Would Have Cost More
  • Converted One LS Contract and Saved $
Contract Approaches Examined

- **EPC Lump-sum**: Detailed engineering, procurement, and construction performed on a fixed-price basis by same firm or consortium

- **Reimbursable**: Essentially all work performed on a cost-plus fee or cost-plus incentive fee basis

- **Mixed**: Engineering and procurement performed on a reimbursable basis with predominantly fixed-price construction

- Results are controlled for definition; poorly defined EPC-lump sums have very large penalty
Contracting Strategy and Project Results

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- Mixed
- Reimbursable
- EPC Lump-sum
Why Are Lump-sum EPCs Usually More Expensive?

• EPC lump-sums seek to transfer project cost risk from the owner to the contractor

• Theory is that because contractors are leading the execution, they should be better able to manage the execution risks, yielding an efficient result

• Problem is that contractors are not easily able to bear equity risks; a substantial loss on a project jeopardizes the firm’s earnings or even survival

• Therefore, contractors will almost always bid on a higher than 50/50 basis (except when in financial trouble)

• The larger the project, the higher the risk premium
Should We Always Avoid EPC-Lump-Sum?

- Highly standardized ("package") plants with competition can often be bid lump-sum with little penalty
  - Watch for unusual conditions, e.g., footprint constraints
  - Tie-ins and integration with existing plant might be contracted separately
- Sometimes EPC lump-sum is an effective technique to reduce unnecessary change. (But team integration and discipline are better!)
- During periods of rapidly increasing project work-load, lump-sum can help leverage owner resources