

FRONT-END TRACK

WHAT ARE THE EXPECTATIONS FOR CONSTRUCTION CONTRACTORS AND ENGINEERING FIRMS REGARDING FRONT-END WFP?

- What do owners want from their contractors and engineers and what will they be looking for when qualifying contractors?

Speakers:

- Al Wahlstrom – Director of Central Construction, Suncor Energy
- Mike Eichhorn – General Manager Major Projects, Nexen

Moderator:

- Lloyd Rankin – President, Ascension Systems Inc.

Questions to Panel:

1. What evidence would the Construction Contractor or Engineering Firm be expected to provide to show proof of their understanding of and competence in WorkFace Planning in the Front End portion of the project?
 - Al Wahlstrom – Suncor plans to own the planning process and any other parties need to show ability to work within their framework. Why or How? We have chosen to take ownership because in the front-end we don't see ability to bring contractors in without compromising the contract process. In the front-end planning of large projects, Suncor recognizes that there will be multiple contractors on site – horizontal contract services – Suncor will know the most about these programs and have the best ability to integrate these programs. Engineering & construction contractors must work within their framework or systems. Suncor is open to new ideas in the bidding phase, but these 'better' ideas must fit into the larger picture.
 - Mike Eichhorn– Engineering contractor & construction contractor in front-end has to show willingness to work to our planning execution ideas, how we want to package work & material to support work in the field. We want to own the planning part of the project and they have to recognize & respect that.

2. What information should the Owner provide to the Construction Contractor and Engineering Firm to prepare for bidding on the project?
 - Mike Eichhorn – Dependent on the type of contract – lump sum or reimbursable. We will define what the owner will be accountable for in WFP & execution process. Will we bag & tag material or pass this on to the contractor? We will also show what our WFP organization will look like and how execution has gone on in the past regarding delivery of modules & equipment.
 - Al Wahlstrom – We use a gating process to develop projects. In FEED, work is conceptual with scoping study to get ready for detail design. We don't see a construction contractor being involved at this point. Suncor will give information to the contractor that details our planning processes and we expect that the execution plan & level 3 schedule will go into hand of contractor who will do the detail. They will have to use our standards and rules that are built into our execution planning. That is put in during the contract bidding process.

3. What lead you to become more involved in the planning process? Is this a trend with other owners?
 - Mike Eichhorn - About 5 – 6 years ago, Nexen embarked on Long Lake Project Phase I. This was the biggest project they had done to date. The execution plan was to set up a quasi alliance with 2 construction contractors & and engineering company. A shadow organization was not hired and the results for many reasons were not good. On a go forward basis, Nexen needs to be more involved in project management, material management and have more influence. When we execute the 2nd phase, we will have more staffing requirements to meet this expectation. It depends on the sophistication of companies and their management team – Junior players may need to rely on industry expertise.
 - Al Wahlstrom – Suncor's merger has added resources to the company. We are mostly based in oil sands and capital project development and need to maintain certain levels of expertise in project work. Experience around the Millenium project in 90's saw Suncor use an owner engineering team, construction advisory counsel and the results were not good. In 2002, Suncor formed Major Projects Group that is owner focused to have a more effective Project Management team to better manage our responsibilities in this environment. The planning side is newer

within Suncor and utilizes engineering & technological advisory resources, but planning was previously done by the contractors. Suncor feels that we have the best line of sight position over the whole project. Imperial Oil is looking more closely at long term relationships with planning groups, a different approach that works for them. Suncor has chosen their own way that may not necessarily be a trend. Each company will meet their own need in their own way.

4. Would your expectations be different if the work was lump sum verses cost reimbursable?
 - Mike Eichhorn – This is a matter of risk and who is taking it? Lump sum moves risk to the contracting party and they must be in control of the work. We need to specify inputs by owner being brought to the job and let the contractor execute as they know how.
 - Al Wahlstrom – We have a major responsibility to integrate activities across a site. We can transfer of risk to contract, but must integrate their deliverables with the rest of the planning – Suncor will not shadow but have contractors develop & present their plan of execution so that it fits our larger plan – shared responsibility. On Reimbursable projects, we expect the project team to operate the same as in Lump sum. In a firm price contract, the contractor drives decisions & pays. Otherwise, the owner drives the decisions in a reimbursable situation.

5. What is the difference between evidence for vendor prequalification and vendor bid purposes?
 - Mike Eichhorn– There is general information in a prequalification document. At bid time, we want to see an execution plan & organizational chart.
 - Al Wahlstrom – There is a different experience in Western Canada compared to international control on contracts with prequalification packages having contractors commit. In prequalification, Suncor requires that they show what they CAN do, and in the bid process what they WILL do.

Audience questions:

1. In greater planning responsibility by owners, how do you strike a balance for getting contractor info without affecting big process?
 - Mike Eichhorn– Nexen gets contractor input 3 months before mobilization and defines scope & details work packages then. We rely on internal staff to define these areas. We do not hire silo construction managers but subcontract the work ourselves.
 - Al Wahlstrom– Like Nexen, we believe that we have competent construction planning capabilities within our project management group. No doubt, different contractors can execute more efficiently in different ways. The silo must interface and these issues need to be sorted out; then bring their process in and look at their work packaging so they can build and have other plans for components of the project to tie in with. They are a silo but not independent. Using peel back or layering issue and combine various activities so at end of day Suncor drives planning process.

2. Can we develop into WFP a handoff process to get a buy in from all of the stakeholders to get maximum benefit from the WFP concept? How do we get a clear hand off to contractors if we are doing all of the planning?
 - Al Wahlstrom– During the bidding phase Suncor gives clear execution plans so that the contractor plan or execution plan will then be integrated with the contractor. If the contractor believes they have a better way, we would expect to get through that discussion during the bidding phase, not after the bid is complete. Within Alberta, the infrastructure is small enough that there is flexibility to make changes during the bidding process.
 - Mike Eichhorn – Handoff would work if we were throwing over the fence, but in our model we will be more involved with contractor in setting up the work packages. There will be a full slate of WP (2000 hrs) virtually prepared prior to contractor coming in and learning the scope. At that point, scale WP down to 1000 hours.
 - Lloyd Rankin– Research done by WFP Committee that generally owners want control down to Level 3 schedule – CWP, Budget & Schedule to manage to. Degrees below the CWP will be up to the contractors to figure out or the owner could decide to get involved. Static packages can be strongly influenced by owner but they want

contractors to manage dynamic packages once the work gets to the field.

- Mike Eichhorn– It is important to coordinate all the activities of all contractors on site. Nexen will manage the materials and need to be intimately aware of how the contractor is going to construct and become much more integrated.
3. Wayne Cusitar– Owners will control procurement & warehouse function? Does that mean engineering does mechanical & civil but procurement is a different function? How do you handle taking over materials?
- Mike Eichhorn - Manage piping bulks and fabricate spools etc as we know when they need to be at site.
 - Lloyd – Suncor & Nexen have been in the game longer than most heavy oil producers and their plan of action may be different than some of the new players. Newer players may not have the construction expertise.

Owners, Engineers, Contractors are still evolving the COAA Best Practices Model and the WFP Committee is gathering information from stakeholders to continue developing & evolving the model. As a volunteer organization, we need to prioritize what the next steps should be. We need feedback for how to move forward.

- Mike Eichhorn– My personal hope is not to water down WFP by bringing it into the front-end. The true value is in the fact that the tradesman has the drawings & tools to get the work done.
- Al Wahlstrom– In gathering statistics, JV Driver & Flint have proven that getting the material to the site for the craftsmen will show a significant change in productivity and we do not want to lose this factor. Involvement with COAA means that more standardized work processes will bring more success. We believe front-end planning will double productivity gain and will add to what has already been developed. The barrier is related to siloing of engineering & supply chains groups – the need to integrate their activities for a better overall construction plan. The Project Management Team has to drive the best possible execution plan for the whole project.