

**SUBMISSION REQUIREMENTS:** There are (17) CII Best Practices. This form <u>MUST</u> be used for your submittal. Choose (2) maximum Best Practices by checking the appropriate boxes below. There is a space below the questions of each Best Practice to provide your response. Be descriptive, explain and elaborate on the details that made your project a success in the categories you have chosen. Please delete non-relevant best practices from your response. Rename this form using your Company Name and 2022 BP Awards.

Note, please provide with your response at least one high quality image in .jpg or .png format. It must be color and at least 1500 pixels and 300 dpi. The image may be used during our Awards Program.

## DUE: Friday, May 6th @ noon to info@slccc.net

Visit the Construction Industry Institute's (CII) website for further reference and guidance.

SUBMITTER INFORMATION				
Company Name	Contact Name	Phone	Email	

PROJECT INFORMATION			
Project Name:	Project Manager:	Designated Rep:	
Project Location:	Owner Name/Contact Email:	Architect/Email:	
Engineer/Email:	CM/GC Contractor/Email:	Sub-Contractor/Email:	
Other:			

Note: If your submission is selected to be a finalist, the SLC3 will require additional information such as team member names, disciplines and contact information. Awards are provided for up to five (5) team members for the Best Practice Winners.



## $\Box$ 1. Advanced Work Packaging

The overall process flow of all the detailed work packages (construction, engineering, and installation work packages). AWP is a planned, executable process that encompasses the work on an EPC project, beginning with initial planning and continuing through detailed design and construction execution. AWP provides the framework for productive and progressive construction and presumes the existence of a construction execution plan.

- 1. Provide an example of the Advanced Work Packaging that was used on your project.
- 2. At what point in the project did you implement Advanced Work Packaging?
- 3. Describe how the schedule was prepared prior to the start of engineering for the construction plan.
- 4. With whom did you review the construction plan?
- 5. What metrics were used to identify benefits that were realized in using Advanced Work Packaging?

### □ 2. Alignment

The condition where appropriate project participants are working within acceptable tolerances to develop and meet a uniformly defined and understood set of project objectives.

- 1. Describe the process used to identify all project stakeholders.
- 2. Describe how project leadership is properly trained, are effective and accountable for project results.
- 3. Describe how cost, schedule and project priorities are well defined and clear.
- 4. What procedures were put in place to facilitate clear, effective and open communication within the team?
- 5. Describe how team meetings were organized and kept timely & productive.
- 6. Define how the team culture impacted team performance and fosters trust, honesty and shared values.
- 7. How was the project leadership team accountable for achieving the project's goals?
- 8. Was the project properly funded and have a realistic schedule and scope to meet objectives?
- 9. What recognition program was established to reward team members for achieving the project goals?
- 10. What activities / tools / tasks were completed by the project leadership team to establish or maintain Alignment on the project?

## $\Box$ 3. Benchmarking & Metrics

The systematic process of measuring an organization's performance against recognized leaders for the purpose of determining best practices that lead to superior performance when adapted and utilized.

- 1. Why was it implemented?
- 2. Define the Corporate commitment to benchmarking?
- 3. Who was identified as the Benchmarking Associate?
- 4. How were Project Managers and Projects chosen for benchmarking?
- 5. What did you use as your benchmarking baseline?
- 6. How did your use of the Benchmarking and Metrics Best Practice contribute to the success of the project?
- 7. What metrics were used? Did you meet or exceed your metrics? What were the results?
- 8. How did you achieve buy-in by all members of the project team?
- 9. Was the Benchmarking Toolkit utilized during the project? Results?
- 10. How was data collected during the project execution?
- 11. What Online CII recommendations were utilized to improve performance?
- 12. Define what project closeout questionnaires that were utilized and how that feedback helped identify improvements.
- 13. Was data evaluated within your organization and with CII?
- 14. What self-analysis reviews were performed to compare to peers/projects?
- 15. Describe your how your improvement plan was developed.
- 16. How were lessons learned implemented for continuous improvement?



## □ 4. Change Management

The process of incorporating a balanced change culture of recognition, planning, and evaluation of project changes in an organization to effectively manage project changes.

- 1. Was the philosophy of change management discussed at the beginning of the project and understood by all parties?
- 2. Were all stakeholders in alignment with the project scope?
- 3. Were changes managed and reported against that project baseline scope?
- 4. What risks were identified based on the change management and how were they managed?
- 5. How were changes evaluated against business drivers and success criteria?
- 6. Was a systemized process in place to evaluate the justification and expedite approval of changes in a timely manner? (Feel free to share the document or format.)
- 7. What was the approval process for implementing change management and who was involved in the process?
- 8. What were the resulting metrics and discuss any knowledge gained (Lessons Learned) that will be applied on future projects?

## $\Box$ 5. Constructability

The optimum use of construction knowledge and experience in planning, design, procurement, and field operations to achieve overall project objectives.

- 1. What is the corporate constructability program that improved this project?
- 2. Who was involved in the constructability reviews for this project?
- 3. At what stages of the project were constructability reviews conducted?
- 4. What processes and tools did you use during these reviews?
- 5. What project benefits did the constructability reviews yield?
- 6. Did you have a formal constructability program used on the project and a method to review and adjust for the future?
- 7. What were lessons learned and how were they utilized to improve project in the future?

### □ 6. Disputes Prevention & Resolution

Techniques that include the use of a Disputes Review Board as an alternate dispute resolution process for addressing disputes in their early stages before affecting the progress of the work, creating adversarial positions, and leading to litigation.

- 1. Were provisions for a Dispute Resolution Board (DRB) included initially on this project, before contracts were awarded or after the first dispute?
- 2. Was the DRB included in all contracts and subcontracts?
- 3. When was the board organized, before conflict or after?
- 4. Was there, or would there be, any benefit in establishing the DRB before the first dispute?
- 5. Who specifically was on the DRB (specific names are not necessary, but the committee would like to know the discipline roles involved and whether their company was a part of the project; i.e. legal counsel from the owner company, CM from a construction management services company not on the project, etc.)?
- 6. Were there any neutral members on the DRB or were they all stakeholders in the project? How were neutral members determined?
- 7. Was Partnering involved in establishing the DRB with all stakeholders?
- 8. Did all members of the DRB have authority to approve proposed resolutions?
- 9. Was the DRB active throughout engineering and construction period with or without disputes?
- 10. What was the established operating procedure for the DRB?
- 11. What limits or restrictions were put into place for the DRB with regard to handling disputes?
- 12. If a DRB was not formed, describe the plan that was in place in the event a dispute was brought forward.
  - What was the procedure that was to be used if a dispute were to arise?
  - To whom would the complaint go?
  - Who would review the complaint?
  - How would it be resolved?
  - In what amount of time was the issue resolved to the full satisfaction of all parties?
- 13. What were the benefits of the method of resolution?
- 14. Did rapid resolution avoid costly delays?

## □ 7. Front-End Planning

The essential process of developing sufficient strategic information with which owners can address risk and make decisions to commit resources in order to maximize the potential for a successful project. FEP is often perceived as synonymous with front-end engineering design (FEED), front end loading (FEL), preproject planning (PPP), feasibility analysis, programming and conceptual planning.

- 1. Which members of the project team were involved in the front-end planning process?
- 2. Define the charter for the project team.
- 3. How was the pre-project plan developed and what were the key issues identified?
- 4. What specific technologies were analyzed and how did you select an approach for this project?
- 5. How were alternative approaches analyzed and narrowed down to the final decision?
- 6. What were the identified project risks? What courses of action were taken to mitigate or eliminate these risks?
- 7. How did pre-project planning impact design and scope development?
- 8. What procurement method was selected (Design / Bid / Build, Construction Management, Design-Build, Collaborative)? Why was this method selected?
- 9. What project constraints (resource availability, budget, etc.) were identified during the preplanning process and what measures were taken to control or overcome these constraints?
- 10. What project controls were selected for use during construction of the project?
- 11. Summarize how Pre-Project Planning helped to define the final project approach.



## □ 8. Implementation of CII Research

The comprehensive and effective use of proven CII products by member organizations as outlined in the CII Implementation Model.

- 1. Why is it worthwhile to invest in the cost of CII Research and Implementation practices?
- 2. Define what commitment did Senior management or corporate make towards the implementation of Best Practices for your organization?
- 3. How did the implementation of this Best Practice contribute to the success of the organization?
- 4. What have been the steps involved with your organization adopting the implementation of CII research?
- 5. What metrics have been used to measure the effectiveness of some of CII's research as pertaining to your project?
- 6. Describe how the Implementation Thermometer was utilized to determine your organizations approach to Best Practices.
- 7. How did your organization determine an implementation Champion? Explain that process and the Champion's role.
- 8. How were the Best Practices reviewed and which were determined to be implemented by the organization?
- 9. What are the goals for Best Practices going forward?
- 10. Describe how is training handled for the Best Practices being implemented?
- 11. How will the Best Practices implementation be tracked?
- 12. How will the benefits of Best Practices be measured?



## $\Box$ 9. Lessons Learned

A critical element in the management of institutional knowledge, an effective Lessons Learned program will facilitate the continuous improvement of processes and procedures and provide a direct advantage in an increasingly competitive industry.

- 1. How were the Lessons Learned concept introduced and implemented? What was the process?
- 2. What was the formalized program and how did senior level management support it?
- 3. How were Lessons Learned from previous projects identified, tracked and implemented in the pre-project planning phase for this project?
- 4. What stakeholders were involved in reviewing the Lessons Learned that impacted this project? Owner, Engineer/Architect, Contractors, Subcontractors?
- 5. How did Lessons Learned impact the project work scope development?
- 6. How did project management handle lessons learned and utilize them to improve this project?
- 7. How were any legal issues addressed regarding documentation of mistakes or better methods of execution that could also result in providing formalized documentation for claims?
- 8. Discuss metrics gained from the program due to utilizing lessons learned from previous projects.
- 9. Define how lessons learned from this project will be utilized for continuous improvement.



### □ 10. Materials Management

An integrated process for planning and controlling all necessary efforts to make certain that the quality and quantity of materials and equipment are appropriately specified in a timely manner, are obtained at a reasonable cost, and are available when needed.

- 1. What materials management challenges did your project face? For example,
  - Pre-purchase
  - Off-site fabrication
  - Lead time
  - Re-use of materials
  - Warehousing on-site/off site
  - Transportation
- 2. What tools and techniques did you use to manage these challenges?
- 3. Who was responsible for this material management and how was this tracked prior to and during the project?
- 4. What material issues developed during the project and how were they addressed?
- 5. What project benefits resulted from this approach?
- 6. How were lessons learned from this project used to improve future projects?

## □ 11. Partnering

A long-term commitment between two or more organizations as in an alliance or it may be applied to a shorter period of time such as the duration of a project. The purpose of partnering is to achieve specific business objectives by maximizing the effectiveness of each participant's resources.

- 1. Describe the owner's preparation and planning in the Partnering process.
  - What were the owner's business drivers for partnering?
  - Did the owner identify competency gaps that needed filling?
  - At what point was the decision made to partner (i.e. during the project or in advance)?
  - What levels within the owner organization and ultimately in the Partner company were involved in the process?
- 2. Describe the evaluation process to select the partner company.
  - Was a selection team chartered?
  - Were selection criteria established?
- 3. Describe the partnering relationship
  - What was the process for building trust?
  - Were metrics developed?
  - Was a risk/reward system established?
  - Describe some win-win project objectives and success criteria.
    - Was a dispute resolution plan formed?
- 4. Describe the results in the partnering relationship
  - When did the relationship begin?
  - Were there previous jobs between the owner and partnering company?
  - What has the impact been on total project cost, schedule and/or safety?
- 5. How did the Partnering address issues as they developed during the project?
- 6. What role did the Partnering play in the development of the work processes for the project?
- 7. What were the benefits by utilizing Partnering for this project?



## $\Box$ 12. Planning for Modularization

The evaluation and determination of offsite construction in the front end planning phase to achieve specific strategic objectives and improved project outcomes. Includes developing a business case and execution strategy for large-scale transfer of stick-built construction effort from the jobsite to fabrication shops or yards.

- 1. At what point in the project was the Modularization strategy selected?
- 2. What was the business case developed in support of the Modularization approach?
- 3. What were the execution plan differences identified to prepare for modular shipment?
- 4. What were the critical success factors monitored to ensure Modularization selection was correct?
- 5. What benefits were realized using Modularization? How did Modularization improve the project?
- 6. Was a formal practice identified by the company or project in support of future modularization? If so, what was it?

#### $\Box$ 13. Planning for Startup

Startup is defined as the transitional phase between plant construction completion and commercial operations, that encompasses all activities that bridge these two phases, including systems turnover, check-out of systems, commissioning of systems, introduction of feedstocks, and performance testing.

- 1. At what stage in the project did Planning for Start-up begin?
- 2. How did the design phase of the project address Startup criteria?
- 3. Were the start-up requirements addressed in the contract and procurement process? If so, please describe.
- 4. Which members of the project team developed criteria for the start-up and commissioning plan?
- 5. What potential issues were avoided by the implementation of the start-up plan?
- 6. How did the project benefit from Planning for Startup? What were the cost savings realized?
- 7. Was the start-up and commissioning plan initiated by the project team or was it necessitated by other features of the project (LEED, Factory Manual, etc.).
- 8. What was the checkout and commissioning plan? How was this implemented?
- 9. Describe how the Startup Team executed the performance testing, initial operations and how this impacted eventual startup for project completion.



### □ 14. Project Risk Assessment

The process to identify, assess, and manage risk. The project team evaluates risk exposure for potential project impact to provide focus for mitigation strategies.

- 1. Was the Project Manager adequately trained in the utilization of Project Risk Assessment (PRA)?
- 2. Was the PRA conducted on a frequent basis throughout the life of the project?
- 3. Was it implemented using an outside facilitator?
- 4. Did the project team use Front End Planning tools, such as the PDRI and PRA, to provide sufficient scope definition to thoroughly define existing and future conditions and risks so that decision makers could evaluate the viability of a project prior to moving forward with design and construction?
- 5. What were the project risks?
- 6. How were the project risks assessed and what was done to prevent impact on the project?
- 7. Were risk mitigation costs and contingency added to the authorized budget because of the risk assessment process?
- 8. Was the schedule impact of the project's mitigation plan, properly reflected in the project schedule because of using PRA?
- 9. Were the stakeholders aligned with the project risks and the defined risk mitigation plan?
- 10. What was the value of Project Risk Assessment on this project?



## □ 15. Quality Management

Quality management incorporates all activities conducted to improve the efficiency, contract compliance and cost effectiveness of design, engineering, procurement, QA/QC, construction, and startup elements of construction projects.

- 1. Define Quality Management for your organization?
- 2. How do you assure consistent quality?
- 3. What challenges have driven your need to focus more on Quality Management?
- 4. How did it make the project successful?
- 5. What metrics were used to measure your quality results and what were those results?
- 6. Describe your quality auditing process and what issues were discovered to improve quality on the project and for the future.
- 7. What follow-up or critique reviews are conducted following the project to assess quality management?
- 8. How are identified improvements processed, documented and implemented for future work?



## $\Box$ 16. Team Building

A project-focused process that builds and develops shared goals, interdependence, trust and commitment, and accountability among team members and that seeks to improve team members' problem-solving skills.

- 1. What was the team building process that you employed?
- 2. Who was involved in the team and how did they impact the project?
- 3. What characteristics of this project made team building a critical element of success?
- 4. What barriers or obstacles were encountered in implementing the team building concept and how were they addressed?
- 5. What issues were identified during the project that the team reviewed and addressed? How did this affect the overall project?
- 6. What benefits did the project achieve because of the team effort and what experience was gained that will be implemented on future projects?
- 7. What were the key performance indicators and cost benefits on the project because of the Team Building approach?

## □ 17. Zero Accidents

Include the site-specific safety programs and implementation, auditing, and incentive efforts to create a project environment and a level of training that embraces the mindset that all accidents are preventable and that zero accidents is an obtainable goal.

- 1. How did you promote a culture of safety on the project to obtain zero accidents? Describe your project specific safety program.
- 2. What was included in the site-specific safety plan for the project?
- 3. Did the site-specific safety plan include an emergency plan for the project?
- 4. Describe or provide details on any safety handouts or handbooks that were issued to the workers.
- 5. Was there a full-time safety professional assigned to the project and was that person onsite full time? How did this help to attain zero accidents?
- 6. Describe any safety incentive programs that were used during the project.
- 7. What involvement did Senior management have about zero accident/safety records for this project? Does this recordkeeping include subcontractor safety statistics?
- 8. Describe pre-job accident/safety planning. When were these sessions held? What topics were covered. Include a sample of the JSA.
- 9. Describe the zero accident/safety planning orientation that all workers are required to attend. Does this include all workers, including subcontractors?
- 10. What type of weekly zero accident/safety meetings were scheduled and held throughout this outage?
- 11. Do all workers coming on site participate in pre-hire substance abuse testing? What are the requirements?
- 12. Do all workers on the project participate in random substance abuse testing? What are the requirements?
- 13. During project progress meetings, how is safety addressed in each meeting?