Identify/Select Project Alternatives

Description:
Identification of facility requirements relating to the operation of the facility over its lifetime. The facility objectives must demonstrate compliance with corporate business strategies.

Revision A
Date 10/26/06
Source CII RT-221
Dwg IFD.BP.2

IFD.BP.2 INFORMATION FLOW DIAGRAM
Conduct Market Research and Analysis

Those activities required to initially determine whether a new facility, or plant expansion, is technically and economically beneficial, and should be approved for project initiation. Pre-existing corporate information useful to the decision making, such as historical cost data and project performance histories, are made available.

Revision: A
Date: 10/26/06

Source: CII RT-221
Dwg: IFD.BP.3
E:\Source\Task\BP.4.1

Establish Image & Public Relations

Activities initiated to establish a positive corporate image in a project locale to improve public relations and to demonstrate the benefits of a proposed project to a local community, municipality, or governing body. Potentially negative project impacts are identified and corporate strategies appropriate to mitigate such impacts are formulated.

Revision: A  Date: 10/26/06

Source: CII RT-221

Decision:

Data:

Team List (BP.4.2)

Resumes

Project Team Workload

Decision (BP.4.5)
Finalize Project Alternatives

Selection of a final project site from among alternatives. Site selection is predicated on physical suitability, availability, cost, environmental considerations, and other related business objectives defined by the owner.

Revision
Date 10/26/06

Source CII RT-221

Document Data

Title Finalize Project Alternatives

Description Selection of a final project site from among alternatives. Site selection is predicated on physical suitability, availability, cost, environmental considerations, and other related business objectives defined by the owner.
Business Objectives (BP.1.14)

Project Alternatives (BP.2.6)

Scope of Due Diligence (BP.6.1)

Easements & Rights of Way (BP.6.2)

Zoning Ordinance and Restrictions (BP.6.3)

Codes in Effect (BP.6.4)

Other (EDA, Tax Abatement, etc) (BP.6.5)

Environmental Regulations (BP.6.6)

Phone Book (BP.6.7)

Collection of Contacts of Authorities and Jurisdictions (BP.6.8)

Plot Release Requirements (BP.6.9)

Permit Requirements (BP.6.10)

List of Necessary Consultants (BP.6.11)

Regulatory Summary for Management Review (BP.6.12)

Conceptual Solutions Report (BP.6.13)

Alternate Options (BP.6.14)

Decision (BP.6.15)

Regulatory Summary (BP.6.16)

Source Task BP.6

Title Address Regulatory Issues

Description

Activities initiated to address regulatory issues and reporting requirements necessary for a project's development. Regulatory agencies may be at the local, state, or federal level of government. Required actions to ensure project compliance during the construction phase and during plant operations are identified and undertaken by the appropriate party.

Revision

Date 10/26/06

Source CII RT-221

Dwg IFD.BP.6
The process of determining qualified sources of raw materials to support plant operations. Modes of delivery, scheduled quantities, cost, storage requirements, and other such issues are considered.
Develop Labor Plan and Address Human Resource Issues

Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.

Revision: A  Date: 10/26/06  Source: CII RT-221

Source Task: BP.9
Title: Develop Labor Plan and Address Human Resource Issues
Description: Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.

Revision: A  Date: 10/26/06  Source: CII RT-221

Source Task: BP.9
Title: Develop Labor Plan and Address Human Resource Issues
Description: Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.

Revision: A  Date: 10/26/06  Source: CII RT-221

Source Task: BP.9
Title: Develop Labor Plan and Address Human Resource Issues
Description: Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.

Revision: A  Date: 10/26/06  Source: CII RT-221

Source Task: BP.9
Title: Develop Labor Plan and Address Human Resource Issues
Description: Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.

Revision: A  Date: 10/26/06  Source: CII RT-221

Source Task: BP.9
Title: Develop Labor Plan and Address Human Resource Issues
Description: Includes personnel administration and definition of administrative procedures. May include requirements for project staffing for all project phases and plant operation. Source of labor and adequacy of supply are determined. Human resource issues are evaluated to establish project policy.
Source Task

Title

Description
The process of early definition and planning of plant startup requirements to ensure smooth transition from the construction phase to plant operations.

Revision

Date
10/26/06

Source
CII RT-221

Dwg
IFD.BP.10

Project
Alternatives
Document (BP.2.6)

Schedule
Duration Data (BP.10.1)

BP.2.6
Conceptual Schedule & Estimate Document (SD.1.13)

BP.10.1
BP.10.2
BP.10.3
BP.10.4
BP.10.5
BP.10.6
BP.10.7
BP.10.8
BP.10.9

BP.2.22
Labor Plan (BP.2.22)

BP.9.4
Plant Cost Estimate Requirement Data (BP.9.4)

BP.9.5
Staff Requirements (BP.9.5)

BP.10.1
Schedule Duration Data (BP.10.1)

BP.10.2
Estimated Startup Cost (BP.10.2)

BP.10.3
Objective Evaluation (BP.10.3)

BP.10.4
Preliminary Startup Objectives (BP.10.4)

BP.10.5
Startup Plan (BP.10.5)

BP.10.6
Verbal Comments (BP.10.6)

BP.10.7
Modified Startup Cost Estimate (BP.10.7)

BP.10.8
Startup Plan Data (BP.10.8)

BP.10.9
Revised Startup Plan (BP.10.9)

Plant Information

Modified Schedule (BP.10.3)

Plant Comments (BP.10.4)

Verbal Comments (BP.10.5)
Refine Public Relations
Description
Finalize public relations plan based upon which project alternative was selected. This is a more detailed PR plan then designated in BP.5.

Source Task
BP.12
Refine Public Relations

Computer generated page
Develop Contract Strategy

Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.

Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
Title Develop Contract Strategy
Description Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.

Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
Title Develop Contract Strategy
Description Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.

Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
Title Develop Contract Strategy
Description Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.

Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
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Revision A
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Dwg IFD.CS.1

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Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
Title Develop Contract Strategy
Description Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.

Revision A
Date 11/2/06

Source CII RT-221
Dwg IFD.CS.1

Source Task CS.1
Title Develop Contract Strategy
Description Identification of the major components in the engineering, procurement, and construction concerning responsibilities, scope and costs to achieve the best overall project objectives.
**Title**: Develop Bid Package Scope

**Description**: Identification of the major components of equipment procurement and construction concerning scope and responsibilities.

**Revision**: A

**Date**: 11/2/06

**Source**: CII RT-221

**Dwg**: IFD.CS.2

**Project Objectives** (BP.5.7)

**Process & Facility Scope** (SD.1.12)

**Conceptual Schedule & Estimate** (SD.1.13)

**Owner’s Planning Responsibilities List** (CS.2.1)

**Owner’s Startup Responsibilities List** (CS.2.2)

**Owner’s Construction Responsibilities List** (CS.2.3)

**Owner’s Procurement Responsibilities List** (CS.2.4)

**Owner’s Engineering Responsibilities List** (CS.2.5)

**Owner’s Responsibility Document** (CS.2.6)

**Contractor’s Planning Responsibilities List** (CS.2.7)

**Contractor’s Startup Responsibilities List** (CS.2.8)

**Contractor’s Construction Responsibilities List** (CS.2.9)

**Contractor’s Procurement Responsibilities List** (CS.2.10)

**Contractor’s Engineering Responsibilities List** (CS.2.11)

**Contractor’s Responsibility Document** (CS.2.12)

**Contractor Bid Package Scope**

**Evaluation Criteria Matrix** (BP.1.19)

**Contracting Strategy** (CS.1.16)

**Legal Review** (CS.2.17)

**Corporate Review of Bid Package Scope** (CS.2.18)

**In-House Project Team Review** (CS.2.19)

**Project Controls Review** (CS.2.20)

**Decision for Bid Package Scope** (CS.2.21)

**Approved Bid Package** (CS.2.22+)

**Bid Package Non Approval Document** (CS.2.22-)

**Description of the major components of equipment procurement and construction concerning scope and responsibilities.**
Title: Review Potential Contractor Bidders

Description: The process of screening contractors by the project owner, according to a given set of criteria, in order to determine their competence to perform the work if awarded the contract. The organization's constructability programs or accomplishments may be a factor that is considered in this evaluation. Includes approved bidders list - List of a group of Suppliers or Subcontractors that have been approved to provide bids or quotations for materials or services for a particular single package.
Title: Select Contractor Team

Description:
Selection of one firm or a team of firms for the actual engineering, procurement, and construction process.

Revision: A
Date: 11/2/06

Source: CII RT-221
Develop Preliminary Design Criteria Including PFD's and PID's

Activities in the Pre-Project Planning phase which provide general design criteria and project objectives used as the basis for developing the project design concept(s). After this process is complete, the design progresses to the level where detail design calculations and construction documentation can be begun.
Formulate Preliminary Organization

Description

Development of senior management assignments and project responsibilities for design and construction.
Address Quality and Safety Issues

Development of quality and safety management systems; development of procedures for quality and safety improvement processes.
The dependencies and constraints are identified from the task lists, standard logic diagram, and deliverables to include information on the location of tasks, the relationships among the tasks, and the deliverables. The task list will be expanded to include all the deliverables for the project. A key project management tool enabling the project manager to delineate, in as much detail as required, the plan for executing a project and by this means advise all concerned departments and individuals in the company of the requirements, responsibilities and assignments for carrying out the task. An integrated and coordinated program for completing all project activities.
Consolidation of facility scope plan activities and feedback of technical, commercial, and project execution requirements from instructions and/or consultation with the client. Written description of work provides sufficient detail for identification of project tasks, sequence, and relationships. Develop preliminary summary of project characteristics, contractual arrangements, and related project information.
Define Start-Up Requirements

Development of facility start-up plan which defines required activities, sequence of execution, and assignment of responsibilities.
Determine the requirements for acquiring and maintaining the physical location, process equipment, and physical infrastructure of the project.
Source Task

Title

Description

Determine the requirements for power, water, sewer and other utilities and/or infrastructure, as well as other support facilities not part of the immediate location.
Develop Environmental Scope

Determine the extent of environmental work such as remediation, assessments, wetlands, and other considerations.

Source: CII RT-221
Dwg: IFD.SD.3

Revision: A
Date: 11/2/06

Key
- Document Data
- TP - External
- SD - On-Page Connector
- BP - Off-Page Connector

IFD.SD.3 INFORMATION FLOW DIAGRAM
Develop Site Plan

Determine the location and physical layout of facilities, utilities, infrastructure and other support processes or structures.
Preparation of a list of tasks and deliverables that break the work scope into manageable work pieces, including time and cost aspects.
Conduct Technical Surveys & Process Analysis

Collection of initial technical information that may be in the form of drawings, engineering specifications, and other information formats that is used to define plant components and process requirements.

Revision A
Date 1/5/07
Source CII RT-221
Dwg IFD.TP.1

IFD.TP.1 INFORMATION FLOW DIAGRAM
Obtain License Agreements

Activities to secure appropriate patents and licenses for processes and products associated with the project's development and life-cycle operation. Procedures focused on ensuring that proprietary products and processes are secure.

Revision A
Date 1/5/07

Source CII RT-221
Dwg IFD.TP.3

 TP.3
 List of Process Requirements (TP.3.1)

TP.2
 Project/Product Specifications (TP.2.2)

TP.1
 Reviewed Key Vendor Data (TP.1.3)
Establish Security & Secrecy Agreement

Creation of any security requirements for the project among project participants. Establishment of differing security levels for project when required.

Revision A

Date 11/2/06

Source CII RT-221

Dwg IFD.TP.4

TP.2

Owner Security Requirements

TP.3.1

Project Certification Needs & Test Plan

TP.4

List of Owner Secrecy Requirements (TP.4.2)

Corporate Security Plan

Existing Corporate Security Document (TP.4.3)

Security & Secrecy Goals & Objectives List (TP.4.3)

Preliminary Approval Document (TP.4.4)

List of Security Levels Required (TP.4.5)

Multiple Levels of Security Document (TP.4.4)

TP.4.1

TP.4.2

List of Owner Secrecy Requirements (TP.4.2)

Corporate Security Document

TP.4.6

Multiple Levels of Security Decision (TP.4.6)

Project Participant Security Levels (TP.4.6)

Identify Specific Staff Security Level (TP.4.7)

Identify Approved Project Staff (TP.4.8)

Corporate Security Document (TP.4.4)

List of Security Levels Required (TP.4.5)

List of Security Levels Required (TP.4.5)

TP.4.9

Identify Approved Project Staff (TP.4.8)

Corporate Security Document (TP.4.4)

List of Security Levels Required (TP.4.5)

List of Security Levels Required (TP.4.5)

TP.4.11

List Implementation of Security Procedures (TP.4.11)

TP.4.12

Feedback Regarding Plan (TP.4.12)

Approved Decision (TP.4.13)

TP.4.13

Approved Decision (TP.4.13)

TP.4.14

List Implementation of Security Procedures (TP.4.11)

TP.4.15

Revised/Updated Security & Secrecy Plan (TP.4.15)

Finalized Official Security & Secrecy Plan (TP.4.16)

TP.4.16

Finalized Official Security & Secrecy Plan (TP.4.16)

TP.4.17

Recovery Plan (TP.4.14)

Revised Updated Security & Secrecy Plan (TP.4.15)

TP.4.18

Revised Updated Security & Secrecy Plan (TP.4.15)

TP.4.19

Revised Updated Security & Secrecy Plan (TP.4.15)