

PROJECT EXECUTION PROCEDURE

1. Overview

On award of the Contract, RTH Construction will develop a basic organization structure for the execution of the project. The structure will:

- provide direct lines of authority and responsibility within the project
- assume close interaction between disciplines and departments to facilitate exchange of information.
- provide integration of Client & Consulting personnel with RTH Construction's organization.

A dedicated Task Force will be established to provide total project support. This will be led by the Project Manager who is responsible for the success of the project and ensure that all phases of the project are properly executed.

The task force utilized in the front end activities would also be used in later phases of the project, such as the design, construction and commissioning activities:

The objectives in controlling the project are to ensure

- the project is completed on schedule and within budget.
- the completed facilities comply with relevant contractual specifications and local government regulations.
- proper communication are established at all levels, including Client and Consulting personnel.

2. Planning / Scheduling

The planning / schedule function supports management at all levels in the identification, scheduling and monitoring of project. Its prime planning functions include:

- development and maintenance of work breakdown structure that identifies the project product.
- development and maintenance of the project master schedule and task schedules, which show the major activities and key events required to complete the program and their inter-relationships and dependencies.
- monitoring of performance compared with schedules and reporting of status to all management levels.

- analysis of variances, recommendation of corrective action and co-ordination of replanning as required.

A master schedule is initially developed by the Project Planner. The master schedule is made up of all the important activities at project management level and establishes milestones for the major phases of the project tasks. Once the task schedules have been developed, the master schedule is revised and adjusted to reflect task objectives and their interfaces. These schedule are updated on weekly or monthly basis and submitted to Client & Consultant per Contract requirements.

3. Materials Control

A Materials Controller will be responsible for effective control and distribution of all materials and equipment ordered for the project.

The Controller will monitoring and control all material activities subsequent to the preparation for bill of quantities and requisitions until issue for fabrication of disposal as surplus or scrap.

Materials Control at sites have functional responsibilities to the Procurement Manager who monitors their activities ensuring adherence to procedures for:

- Receiving
- Issuing
- Storage
- Damage
- Transfers
- Surplus disposal
- Local purchase and delivery
- Site close out

After from the Purchasing function which is covered separately by the Procurement Office, the Materials Controller is responsible for

- ensuring that circulation of all materials related documentation up to and including the requisition avoids delays within and between the contributing departments.
- maintaining log and monitoring progress of vendor drawing, etc. received against know requirements.

- monitoring receipt of requisition.
- assignment and control of field expeditors who are in close contract with manufacturers, fabricators and suppliers of material order and closely monitor progress of work including sub-vendors.
- co-ordination of inspection services to ensure that QA are alerted in time and that inspection is completed on schedule. (In some cases the Field Expeditor also serves as QA Inspector and vice-versa).
- co-ordinator of packing and transportation arrival at the manufacturer's plant.

4. Fabrication Management

Project control systems to assist the Fabrication Management to ensure project completion on time and within schedule will be developed in accordance with the Contract conditions.

The fabrication shop is controlled by a Shop Engineer, with support staff assigned to him. It is the responsibility of the shop management team to ensure that the fabrication schedules are met, within budget and in accordance with both the drawing and specifications and the requirements of Client & Consultant.

The Shop Engineer will work in close collaboration with the Construction Manager and Consulting team representative.

5. Construction Management

During the construction/site erection phase, the project management team's function includes, but not necessarily limited to, the following tasks:

- review Site Safety Conditions.
- review and formulate methods of construction, rigging and quality control procedures to ensure good workmanship and adherence to all required plans and specifications.
- continually supervise work in progress.
- maintain up-to-date construction progress charts for all major phases of construction.
- regularly report construction progress.
- take timely corrective action if construction progress is not generally on schedule.
- where design concepts or basic criteria are not modified, initiate field changes which may be required for the expeditious implementation of the work.

- where specialist or skilled trades are required, ensure that qualified craftsmen are assigned to the work.
- carry out performance and operating tests of major equipments and systems.
- review and verify periodic requests for payment by sub-contractor.
- establish and enforce a mechanical completion check-list.

6. Pre-commissioning and commissioning

This phase of the project is, in part, concurrent with the final stages of construction. As mechanical work and tests are completed and provisional acceptance made, Construction management turns over jurisdictional control to the Client & Consultant commissioning team for plant commissioning.

Commissioning will be performance by cleaning, purging and making the facilities fit for operations. Commissioning procedures are continued until operation of all constructed facilities has been established and deemed safe for normal, routine operations.

The following items will be included in commissioning procedures prior to start-up:

- field check of piping and instrumentation against respective P & I diagrams.
- check rotation of rotating equipment.
- check functioning of all safety devices and review safety procedures with personal.
- review equipment guarantees and warranties to ensure start-up conditions do not nullify guarantees.
- review availability and inventory of spare parts and expendable commodities at plant site.
