

Date

November 1, 1966

Subject

Engineering-Construction Organization

To

A. T. Raetzsch

From

Reference

R. E. Baker

An evaluation of project schedules and work loads indicates that our present engineering-construction organization must be strengthened by January, 1967. Attached is drawing 32A-647 which shows our proposed organization. The line organization centers on the project engineers who are responsible for design, procurement, and construction of the various facilities as authorized. A condensed job description of each of the functions starting at the bottom is as follows:

Construction Contractor

To construct or have constructed facilities in accordance with the drawings and specifications and the instructions issued by PPG field engineers and inspectors. Contractor supervisory personnel report to the PPG Area Field Engineer or other field personnel designated by him.

PPG Construction

This function is supervised by the Area Field Engineer. Reporting to him are civil, mechanical, electrical, instrument, and painting field engineers or inspectors. This field group serves as the company representative on all phases of construction activity. Specifically, their major responsibilities are: to witness and approve all tests; to inspect, approve and accept all construction work; to coordinate construction work with the plant maintenance and operating departments; to act as liaison between the contractor and the PPG engineering team; to control company-furnished materials and make them available to the contractor; and to work with the contractors' supervision to insure adequate productivity and that schedules are maintained.

The Area Field Engineer reports to the Project Engineer and operates his area construction program in accordance with the over-all plant construction program as directed by B. Spalding, the construction coordinator.

Engineering Team

The engineering function is split into two sections, Process and Design. The process section carries out or supervises all process design, and has the responsibility to check all phases of design to insure an efficient, safe plant that will operate with minimum personnel. This group serves as

1 BB 0011862 1

Date

November 1, 1966

Subject

Engineering-Construction Organization

To

A. T. Raetzsch

From

R. E. Baker

Reference

- Page 2 -

Engineering Team - contd.

liaison with the plant operations and development departments. They prepare the operating manual and with operating personnel plan the testing, washing, and start-up of the units. The Operations Representative supervises this section and reports to the Project Engineer.

The design section is supervised by the Mechanical Engineer, or in some cases the Electrical Engineer. He reports to the Project Engineer. This section consists of a mechanical or civil, an electrical, an instrument, and a materials engineer with additional personnel added where necessary. This group supervises design and drafting in their respective areas and in this capacity work with the engineering contractor. The materials engineer spends full time coordinating the procurement operation and is the project liaison man with purchasing.

Project Engineer

The Project Engineer is responsible for all phases of the project from authorization to start-up. To carry out his function he has process, design, and construction teams reporting to him. In addition, staff groups for cost control, materials control, labor relations, and safety are set up to carry out these various functions in support of design and construction. In addition, the over-all plant construction program is coordinated by a construction group, enabling him to plan his work in a defined area. The Project Engineer is responsible for the work of the engineering contractor and is specifically designated as the company representative. He reports to the Superintendent of Engineering.

Construction Scheduling and Man Power Leveling

Ford, Bacon & Davis Construction Corporation has been retained to prepare an over-all engineering-construction schedule. This schedule will be constructed from the individual project CPM schedules and over-all man power leveling. Assignment of construction man power will be based on the current area labor situation. This schedule will be updated as required and will be furnished to the construction coordinator (B. Spalding) to aid in construction planning and coordination.

1 BB 0011863 1

Date November 1, 1966 Subject Engineering-Construction Organization
To A. T. Raetzsch
From R. E. Baker Reference
- Page 3 -

Construction Coordination

B. Spalding is assigned as construction coordinator and will plan and coordinate the over-all construction program. He will attempt, by scheduling and by control of sub-contracting, to obtain maximum man power in the critical high priority areas and to maintain a steady work load for critical trades (pipe fitters and electricians). He will assist any of the construction teams on specific problems. He will maintain a check on the various project schedules and on labor and equipment productivity. He will report to the Superintendent of Engineering.

Safety Inspectors

PPG safety inspectors will be assigned to all construction work with a specific area designated to each man. Their duties are: to indoctrinate all contractor employees in plant safety practices and requirements; to observe and inspect all construction work on a regular and frequent basis; to report all unsafe acts and conditions to the contractors' supervision; to hold regular "gang box" safety meetings; to prepare daily and weekly reports; and to investigate with contractor personnel all accidents. The safety inspectors will report to the plant Safety and Training Director, who reports on construction safety to construction labor relations.

Labor Relations

Walter Melton is assigned as construction labor relations director and will indirectly supervise the construction guard force, safety and first aid. He has complete jurisdiction over labor relations. He will review construction planning and will advise the Construction Coordinator and the Project Engineer on potential problems. In the event a problem arises, the contractor's superintendent, the Area Field Engineer, and Spalding, will discuss the matter with W. Melton. Any decision rendered will be binding upon the contractor's supervisor. All actions during any labor dispute will be initiated by Melton. He will keep the Superintendent of Engineering and the Works Manager informed on construction labor problems and consult with them as necessary.

Construction Accounting

This function is to be manned by four or five people who will work only on construction accounting. All project costs are generated by purchase order, work orders, and accounting entries. This group will process all purchase

| BB 0011864 |

Date November 1, 1966
To A. T. Raetzsch
From R. E. Baker
Subject Engineering-Construction Organization
Reference
- Page 4 -

Construction Accounting - contd.

orders and work orders and maintain all accounts current. They will issue weekly and monthly reports covering funds expended and committed. They will report to the Cost Control Accountant.

Cost Control

This function is manned by A. Whalen, chief estimator, and W. Daniels, cost control accountant. They will furnish cost reports on a periodic basis. Reports will include actual cost to date, expenditures committed, and estimates of the cost to complete the project. Actual costs, commitments and projected costs to be analyzed and compared against the authorization and control estimates. They will establish and maintain accounting and estimating techniques and controls to assure timely and accurate flow of information.

Whalen and Daniels will report to the Material and Cost Coordinator.

Material Control

This function will be handled by a material control supervisor with two men reporting to him. The group will be supplemented by inspectors from the construction teams. They are responsible for: coordination and implementation of expediting and inspection; coordinating all material exchanges between projects; maintaining with the warehousemen an over-all material inventory; and coordinating the spare parts program with maintenance, operations and the plant warehouse.

Material and Cost Coordination

The Material and Cost Coordinator will supervise both cost and material groups and will report to the Superintendent of Engineering. It will be his responsibility to keep the Superintendent of Engineering and the Project Engineers informed and to consult with them on any unusual problems.

REB/prm

BB 0011865