



PROJECT: Lockheed Aeronautical Systems
C-17 Processing Facility

CLIENT: Mechanical Contracting Firm

LOCATION: South Eastern, United States

CCL was retained by a large mechanical contracting firm to evaluate cost overruns due to delays and changes in the design on the Lockheed Aeronautical Systems C-17 Processing Facility Project. The contractor was one of several prime contractors working for a construction manager to construct a new aircraft parts plating facility near Dobbins Air Force Base.

The mechanical prime contractor was awarded three bid packages which included anodizing piping systems, building mechanical utilities and installation of owner-supplied equipment. Work included stainless steel and galvanized steel piping for various systems including transfer piping, drain piping and overflow drains from each of 18 plating tanks, compressed air and city water, tank air agitation, steam, condensate, chilled water, natural gas, pumps and other related valves, equipment and controls. The contractor also installed a new boiler, heating and chilled water coils in the plating tanks, chiller and cooling tower.

The project was on a very short construction schedule, as Lockheed had urgent need of the facility. Purchasing, detailing of piping schematics, shop and field fabrication, ordering of special valves and accessories, and manpower hiring from the local unions was expedited to enable the facility to be operational in less than two months. The work was planned with two shifts six days a week during most of the project.

All three bid packages experienced delays caused by late release of tanks, late delivery of owner-furnished equipment, and on-going and extensive changes in the design. Many of the design revisions, changes in the piping configuration and pipe routing modifications were made after the contractor had ordered, received and fabricated stainless steel piping systems. To overcome the delays and permit Lockheed's use of the facilities as soon as possible, the contractor had to execute work out of the planned sequence, accelerate work, hire additional manpower including Sunday and overtime work, share work areas with other prime contractors, and expedite re-order of significant amounts of materials, valves and specials for the project.

CCL prepared a CPM schedule analysis to identify and quantify the effects of the delays and disruptions to mechanical contractors work effort. CCL impacted the as-planned construction schedule to demonstrate the effects of delays on the project completion date, and compared actual completion dates to as-planned and impacted dates to demonstrate the delays in start-up avoided as a result of the contractor's acceleration efforts.

CCL prepared a written report summarizing the schedule analysis and CCL's findings regarding the amount of delay and impact costs the mechanical prime should be compensated. CCL found the contractor was entitled to additional compensation and calculated the value of the claim for additional performance costs resulting from changes, disruption, acceleration, additional and extended field overhead and supervision costs, home office overhead and interest on retainage and withheld change order payments.

The mechanical contractor included CCL's findings in their claim submitted to the construction manager. The claim was settled prior to litigation.