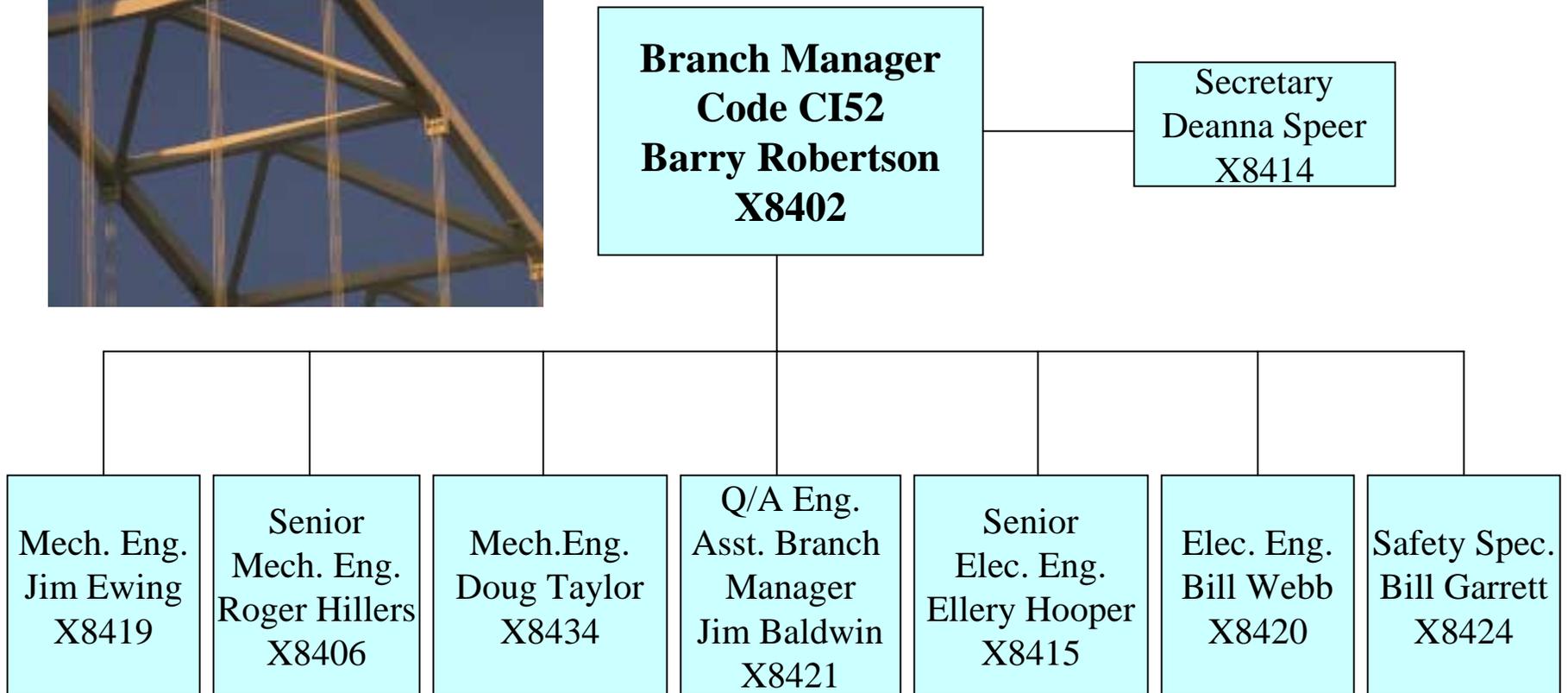




CONSTRUCTION ENGINEERING BRANCH CI52



CONSTRUCTION ENGINEERING BRANCH



CI52 resources are utilized throughout the Atlantic Division



ATLANTIC DIVISION



HQLANT



EFA CHES



EFA MED



EFA NE



OICC NAPLES



2nd Brigade

Resource for technical construction engineering support services from Atlantic Division, Naval Facilities Engineering Command in

SAFETY: Navy Construction Accident prevention Safety consultation and contractor risk management

MECHANICAL: Technical support with primary emphasis on HVAC commissioning

Electrical: Technical support with primary emphasis on emergency/stand by power systems

Quality Assurance: Construction Quality Assurance and Contractor Quality Control program support. COTR for CONCAP contract.

Quality Control/Quality Assurance Support

- **Review and edit Quality Control specifications to ensure the requirements are job specific.**
- **Review or assist with review of contractor prepared QC plans.**
- **Assist in the preparation of QA plans.**
- **Provide Quality Control Training to perspective contractor QC representatives as well as ROICC QA personnel.**
- **Serve as a member of NAVFAC P-445 (Construction Quality Management Program) Task Force Team.**
- **Conduct Construction Assist Visits on active construction sites to assist ROICC's with ensuring adherence to QC requirements of the contract.**
- **Serve as the COTR for the CONCAP contract.**

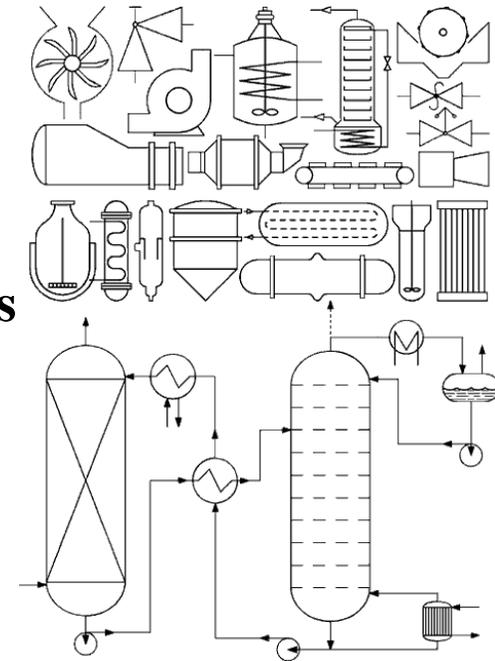
ELECTRICAL SUPPORT

- **Technical & constructibility review of contract documents.**
- **Technical submittal reviews.**
- **Witness factory testing.**
- **Conduct field acceptance tests.**
- **Inspection & troubleshooting electrical work in progress.**
- **Develop solutions to field problems.**
- **Participate in complex electrical negotiations.**
- **Participate with ROICC in meetings with electrical suppliers/manufacturers.**
- **Claims analysis**
- **Fiber optics**



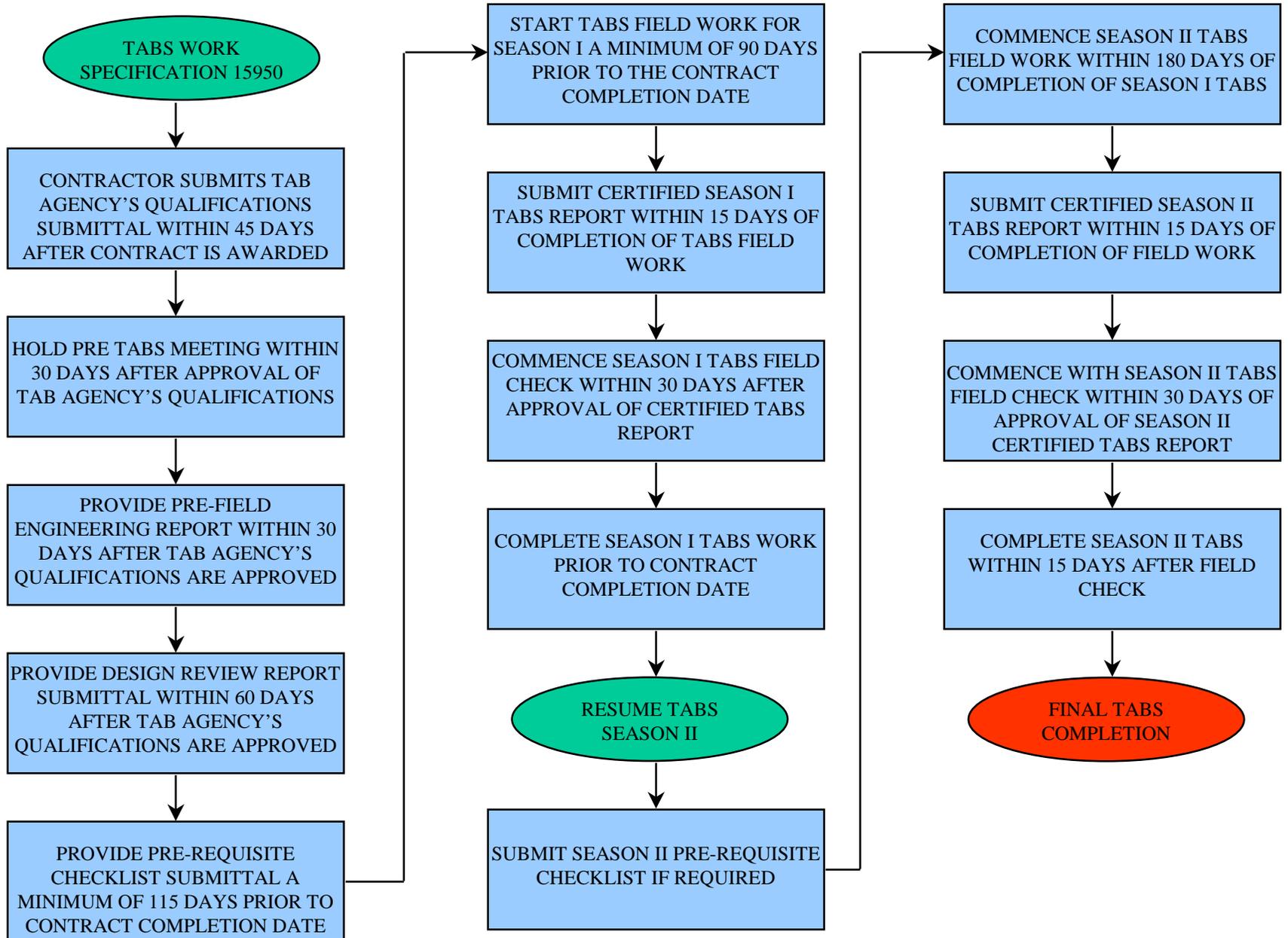
Mechanical Support

- **Technical & constructability review of contract documents.**
- **Technical submittal reviews.**
- **Witness factory testing.**
- **Conduct field acceptance tests (TABS/ACATS)**
- **Inspection & troubleshooting mechanical work in progress**
- **Develop solutions to field problems.**
- **Participate in complex mechanical negotiations.**
- **Participate with ROICC in meetings with mechanical suppliers/manufacturers.**
- **Claims analysis.**



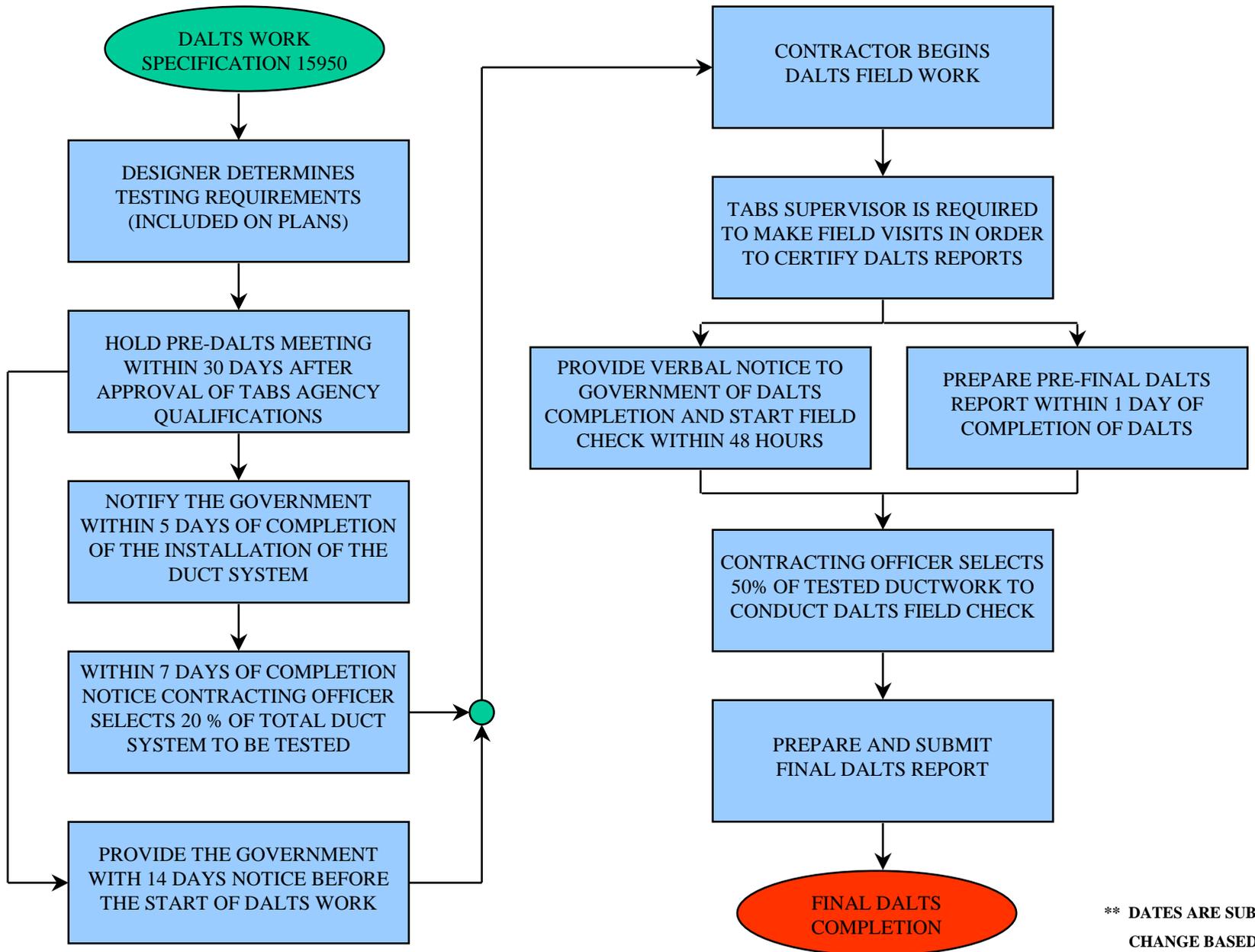
Importance of TABS/ACATS Prior to Facility Acceptance

- **Historically, one of the highest areas of customer dissatisfaction after occupancy.**
- **Systems are complex and if not made to operate properly when the facility is built, they probably never will.**
- **Both design and construction deficiencies are commonplace with regard to HVAC systems.**
- **TABS/ACATS are processes that focus on providing a product that ultimately meets the customer needs.**
- **After facility acceptance, the contractor loses interest and any modifications that are required are painful/disruptive to the customer.**
- **ROICC's must help by being able to convince the customer that allowing us time to compete these systems prior to occupancy will pay dividends for the life of the facility and potential adverse impacts that may impair operations.**



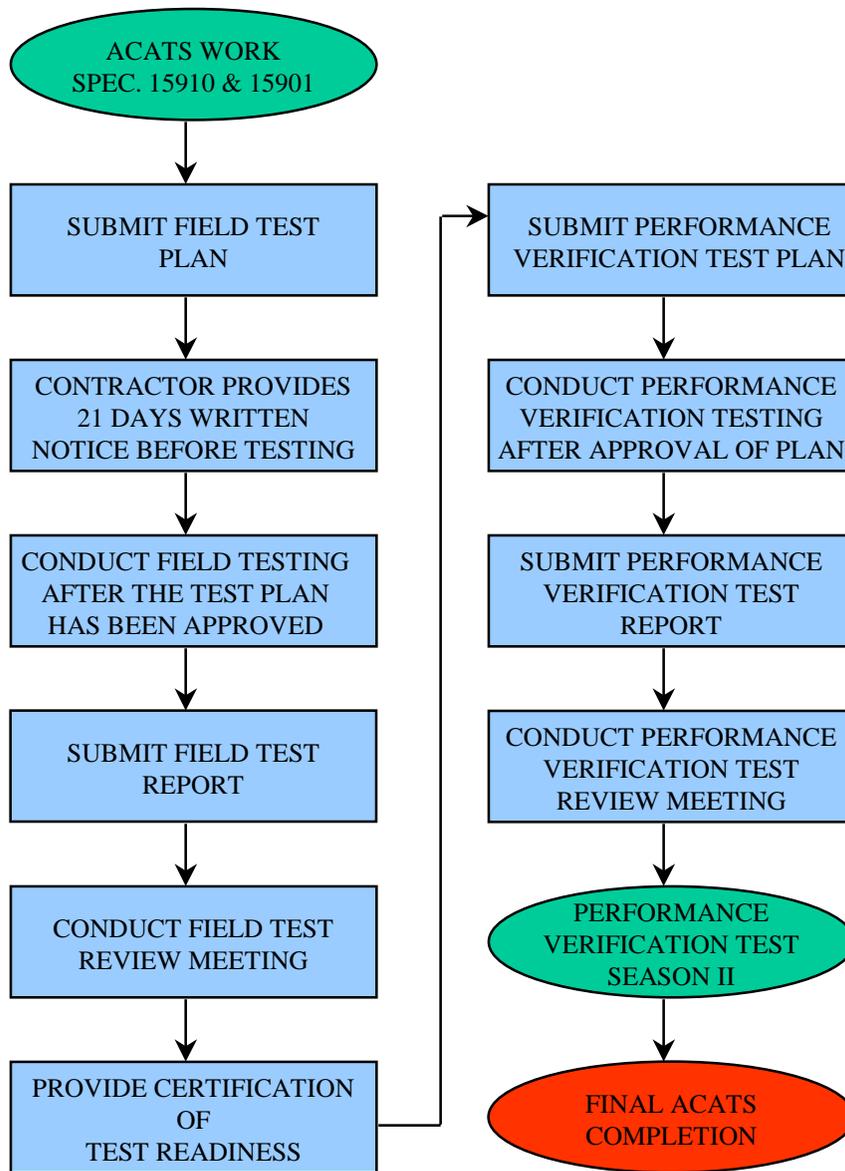
TABS OVERALL PROCESS

**** DATES ARE SUBJECT TO CHANGE BASED ON SPECIFIC CONTRACT REQUIREMENTS**



DALTS OVERALL PROCESS

** DATES ARE SUBJECT TO CHANGE BASED ON SPECIFIC CONTRACT REQUIREMENTS



ACATS OVERALL PROCESS - SEASON I/II

Why TABS/ACATS Process Fails

- **Failure of contractor to adhere to specified submittal requirements within the time frames specified.**
- **Lack of knowledge by junior ROICC QA personnel and failure of ROICC management to provide periodic in-house training.**
- **TABS/ACATS not generally identified as primary topic during by-weekly QC meetings.**
- **Construction durations fail to take TABS/ACATS process into consideration – set up to fail from the start.**
- **Construction schedules fail to allot time for TABS/ACATS submittals and appropriate time for testing/verification activities.**
- **Customer pressure to move into facility prior to testing/verification being conducted.**

Suggestions To Improve CI52 Support Provided

- **Early notification of projects where assistance is desired.**
- **Provide copy of Plans, Specifications and applicable amendments on projects where assistance is needed.**
- **Provide copies of applicable contract modifications during construction.**
- **Schedule assistance visits as far in advance as possible and maintain this schedule as best you can.**
- **Ensure that new ROICC QA employees are indoctrinated as to what we do and the programs that we support.**
- **Frequent status updates via e-mail or telephone indicating progress/potential schedule changes.**

Questions ?

