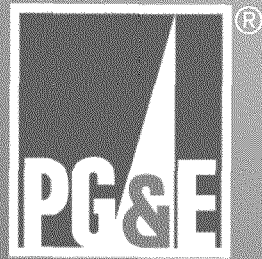


Pipeline Safety Enhancement Plan (PSEP)

Quality Control and Quality Assurance
Overview Work Implementation Phase



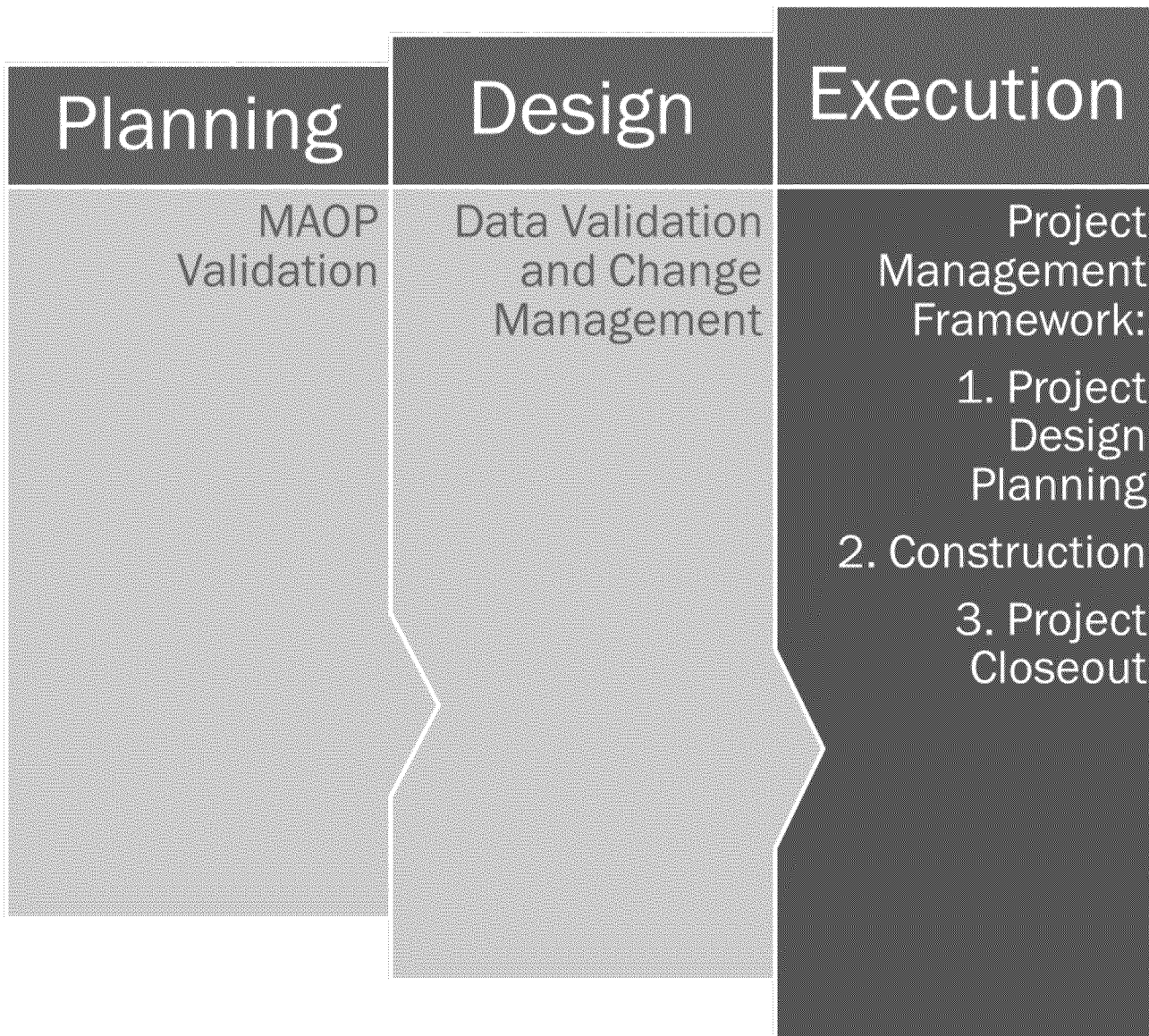


Contents/Agenda

- Overview QA/QC Activities – CPUC SED category format
- Project Management Control Framework
 - Project Design/Planning
 - Construction
 - Project Closeout
- Organizational overview – QA/QC activities



QA/QC Activities





Project Management Control Framework

Project Design/Planning Quality Control Points

Initial Job Authorizations	Competitive Bidding & Alliance Target Pricing	Program Governance*
50% Job Walks	Safety –Site Specific Safety Plans and Traffic Control Plans*	Project Management
Engineering Design Reviews*	Construction Approval* (permitting, engineering and project management)	Cost and Schedule Management
Project Job Estimate (pre-construction)	Customer Outreach Open Houses and Letters/Calls	Contract Approval per Delegated Authority Limits

*Control subject to a Quality Assurance check.



Project Management Control Framework

Construction Quality Control Points	
<u>Safety</u> Site Inspections Leadership on-site visits	<u>NDE Inspection*</u> Random Field Observation by ATS SMEs (commenced July 2012)
<u>Environmental Compliance</u> Site Inspections	<u>Construction Oversight</u> Bureau Veritas (2011 Strength Testing only)
<u>Construction Management Inspection*</u> (per Level I QC field manual)	<u>RCP Independent Certification of Hydrotest Results</u> (Strength Testing only)
<u>Operator Qualification*</u>	<u>Site Restoration</u>
<u>Program Quality Assurance Site Inspections</u> (Level II QA Field Manual)	<u>Supplier Quality Audits</u>

*Control subject to a Quality Assurance check.



Project Management Control Framework

Project Closeout Quality Control Points

Completion of As-Builts (checklist)*

Mapping
(Pipeline information entered into Asset database)

Project Record Archival*

*Control subject to a Quality Assurance check.



Organizations Performing QA/QC Activities

