

Ensuring the Quality of Installation

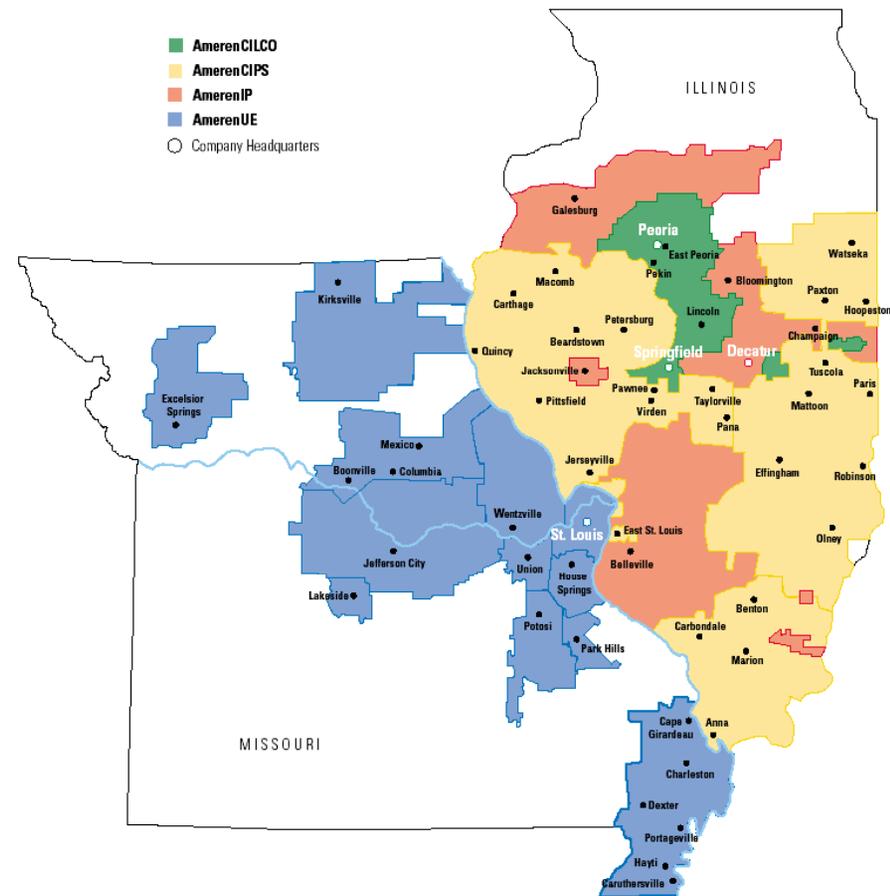


- > Ameren at a Glance
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- > Construction Inspector Responsibilities
- > Operator Qualification for Contractors
- > Quality Assurance Program
- > Alliance Contractors

Ameren at a Glance



- > 64,000 Square Miles in Illinois and Missouri
- > AmerenCILCO, CIPS, IP, UE
- > Nearly 1 Million Gas Customers
- > 2.4 Million Electric Customers



Ameren at a Glance

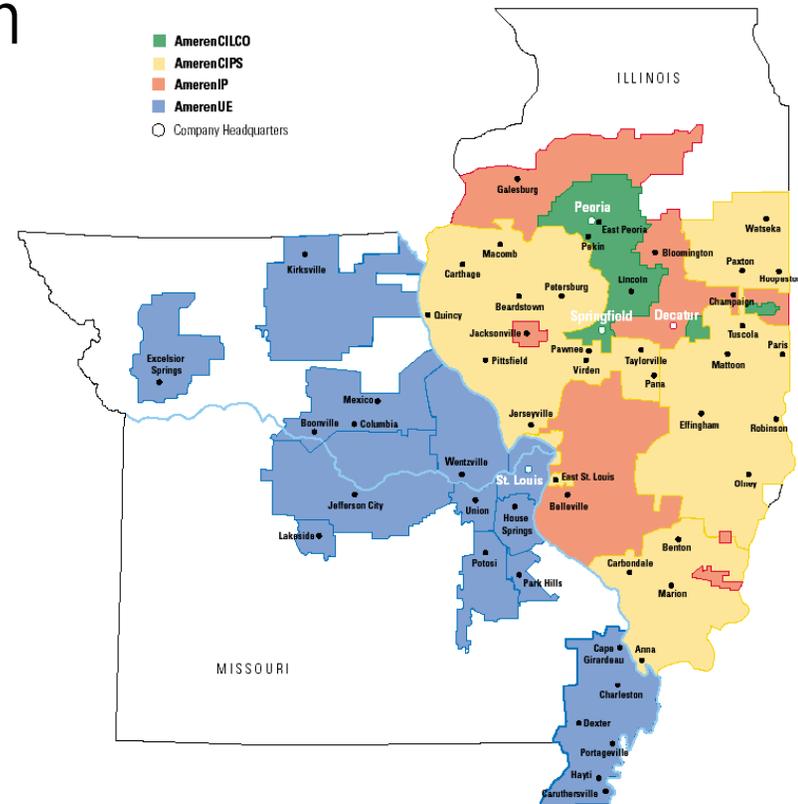


> Illinois

- 1,252 Miles of Transmission
- 16,840 Miles of Distribution
- 823,600 Services

> Missouri

- 48 Miles of Transmission
- 3,124 Miles of Distribution
- 134,010 Services



Gas Construction Oversight



- > To ensure quality gas construction activities, Ameren utilizes properly trained and qualified personnel
- > Construction activities performed by company crews are monitored by Gas Supervisors who:
 - Ensure crews have the knowledge, skills, and abilities to perform construction activities in accordance with the O&M Plan
 - Perform regular observation of gas construction activities in the field
 - Take immediate corrective action if construction activities are found to vary from requirements of the O&M plan.

Gas Construction Oversight



- > When gas construction work is performed by contractors, effective measures are taken to ensure that:
 - Work does not endanger the public or expose the Company to risks
 - Work is performed in accordance with the job specifications, construction standards, and OQ requirements
 - Coordination with City officials and other owners of affected facilities is established and maintained
 - Affected private property owners are contacted and made aware of the timing and scope of the proposed work
 - All records and maps documenting the work completed are thoroughly and accurately maintained

Gas Construction Oversight



- > In order to ensure that those objectives are fully met, Ameren will assign a Construction Inspector to every contractor crew.
- > Construction Inspectors may be:
 - Ameren management employee
 - Ameren qualified Gas Journeyman
 - Former Ameren Gas Journeyman or Construction Supervisor
- > Responsibilities of Construction Inspectors are detailed in the Gas Construction Oversight Section of the Ameren O&M Plan.

Gas Construction Oversight

- > Major areas of focus
 - Large diameter tapping (4" and larger)



Gas Construction Oversight

- > Major areas of focus
 - Main tie-ins/Retirements



Gas Construction Oversight

- > Major areas of focus
 - Purging
 - Pigging



Gas Construction Oversight

- > Major areas of focus
 - Pressure testing of mains and services



Gas Construction Oversight

- > Major areas of focus
 - Steel coating inspections



Gas Construction Oversight



- > Major areas of focus
 - Welding/plastic fusion



Gas Construction Oversight

- > Major areas of focus
 - Backfilling



Construction Inspector Responsibilities



> Safety

- Inspector ensures all work is performed in a safe manner to prevent personal injury or property damage applicable to all Ameren, local, state, and federal regulations
- Barricades, warning signals, and flagmen are provided by contractor and adhere to Ameren traffic control manual



Construction Inspector Responsibilities

> Safety

- All excavations shall adhere to all Ameren, local, state, and federal excavation safety requirements.



Construction Inspector Responsibilities



> Safety

- General construction areas, material storage areas, and contractor parking areas are kept clean, neat, orderly, and hazard free.



Construction Inspector Responsibilities



> Job Assignments

- Ensure work order packet is complete
- Ensure all necessary material is available
- Verify that any affected customers have been notified before construction begins

Construction Inspector Responsibilities



- > Inspect Construction Area
 - Inspect prior to construction to reduce false claims against both the contractor and Ameren
 - Photos and/or video

Construction Inspector Responsibilities



> Existing Facilities

- Although locating is responsibility of contractor, all foreign facilities known to the inspector shall be brought to the attention of the contractor
- Ensure that contractor makes all require notifications to facility owners and one call system in the event of damage to a facility
- Ensure all damages are properly recorded and reported

Construction Inspector Responsibilities



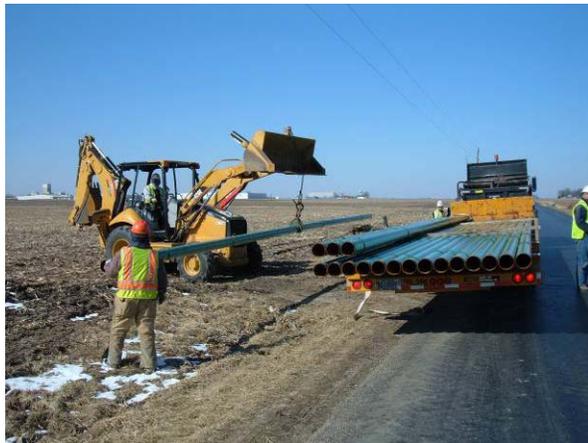
- > Interruption and Restoration of Service
 - When interruption of service is necessary, Inspector is responsible for making customer notification
 - Makes arrangements with appropriate Ameren Operating Center to have service restored if required

Construction Inspector Responsibilities



> Daily Routine and Check Points

- All work is completed in strict accordance with Ameren O&M Plan as well as all local, state, and federal regulations



Construction Inspector Responsibilities

> Daily Routine and Check Points

- Verify that all work is performed based on latest drawings and specifications and are aware of the latest change orders
- Coordinate contractor activities with appropriate Ameren Operating Centers (i.e. purging, tie-ins, large tapping jobs)



Construction Inspector Responsibilities

> Daily Routine and Check Points

- Resolve conflicts and questions with the appropriate personnel
- Verify that all utility locates, permits, and easements are current
- Check status of material



Construction Inspector Responsibilities



> Extras

- Inspector should avoid extras whenever possible
- Should be resolved promptly
- Work with local supervision and contractor to discuss potential impacts and come to agreement prior to major scope changes
- Note changes and authorizing person's name and date on appropriate drawing and progress report

Construction Inspector Responsibilities



> Record Requirements

- Location of anodes, test lead wire boxes, insulators, valves, or any other appurtenances which are installed are recorded
- Variations of main and service locations are documented
- Actual footage of mains and services installed are verified

Construction Inspector Responsibilities



> Record Requirements

- As-built drawings showing accurate measurements are completed and submitted upon completion
- Contractor submits daily progress reports for approval
- Unusual events, accidents, labor holdups, material problems, and permit violations are documented
- Paving repair orders are completed in accordance with local, state, and federal requirements

Construction Inspector Responsibilities



> Record Requirements

- All contractor employees are Operator Qualified to perform covered tasks or are working under the direct supervision of an individual who is qualified (span of control).
- Contractor is responsible to have copy of individual Operator Qualifications on site

Operator Qualification for Contractors



- > Any contractor performing covered tasks is required to provide their OQ plan for evaluation
- > Once approved, the contractor will be placed on the "Approved Contractor List"
- > Evaluation of a contractor OQ plan will consist of the following:
 - Covered Task List
 - Abnormal Operating Conditions
 - Documentation and Recordkeeping

Operator Qualification for Contractors



- > OQ Review / Pre-Construction Meeting
 - Conducted prior to commencement of any work
 - Review and test the contractor employees on Ameren specific requirements and address any gaps between Ameren OQ plan and the contractor's OQ plan
 - Will also cover the following:
 - Span of Control
 - Suspension or Loss of Qualification
 - Communication of Change
 - Recordkeeping
 - Review of Gas Emergencies
 - Additional responsibilities of the contractor

Quality Assurance Program



- > By reviewing Ameren's gas operations and taking corrective action when deficiencies are identified, the quality of operations and systems can be improved



Ret. General Colin Powell

*"Keep looking below surface appearances.
Don't shrink from doing so (just) because you
might not like what you find."*

Quality Assurance Program



> Objectives

- To review Ameren's gas operations with respect to Federal/State codes, O&M Plan, and Gas Operations Field Reference Guide
- Take corrective actions with required in order to:
 - Re-direct focus on proper procedures
 - Modify current procedures/training to improve quality
 - Promote the addition of new procedures/training to improve quality

Quality Assurance Program



> Field Inspections

- Conducted on Ameren and contractor crews
- Unannounced to field personnel
- Review covered tasks being performed at time of inspection
- Findings shared with crewleader, foreman, and/or construction inspector at conclusion of inspection
- Initial follow-up with supervision by phone

Quality Assurance Program



- > Field Inspections
 - Documented on appropriate Field Inspection Form

Form No.	Activity
QA1001	Customer Meters and Regulators
QA1002	Joining
QA1003	Emergency Valves
QA1004	Leak Repair
QA1005	Leak Survey
QA1006	Pipeline Patrol
QA1007	Pressure Control
QA1008	Odorization
QA1009	Leak Investigation
QA1010	Corrosion Control
QA1011	Main O&M
QA1012	Service O&M
QA1013	Pressure Testing
QA1014	Transmission O&M
QA1015	Abnormal Operating conditions & Emergency Response
QA1016	Locating

Quality Assurance Program



> Field Inspections

- Summary report completed for each inspection detailing the focus of the inspection, findings, and recommendations based on findings.
- Summary report submitted to local supervision for review and corrective action.
- Common issues are reviewed with Gas Leadership
- QA reports for contractors are communicated with all contractor crews working for Ameren in Illinois.

Alliance Contractors



- > Ameren also ensures quality installations by utilizing Alliance Contractors
- > Alliance Contractors significantly increase consistency
 - Safety
 - People
 - Work practices
 - Quality of installations
- > Prior to 2009, Ameren utilized a single alliance contractor for 8 years.
- > In 2009, Ameren rebid Alliance Contractor work and entered into a 5 year agreement with two Alliance Contractors

Alliance Contractors



- > Illinois Operations Support (IOS) Construction Supervisors ensure quality by performing job site inspections
- > Alliance Contractors also conduct internal Quality Assurance inspections and report findings back to Ameren
- > Alliance Contractors are a literal extension of Ameren
- > Work is limited for new contractors that have not previously performed work for Ameren to allow an assessment of safety, people, work practices, and quality of installations