



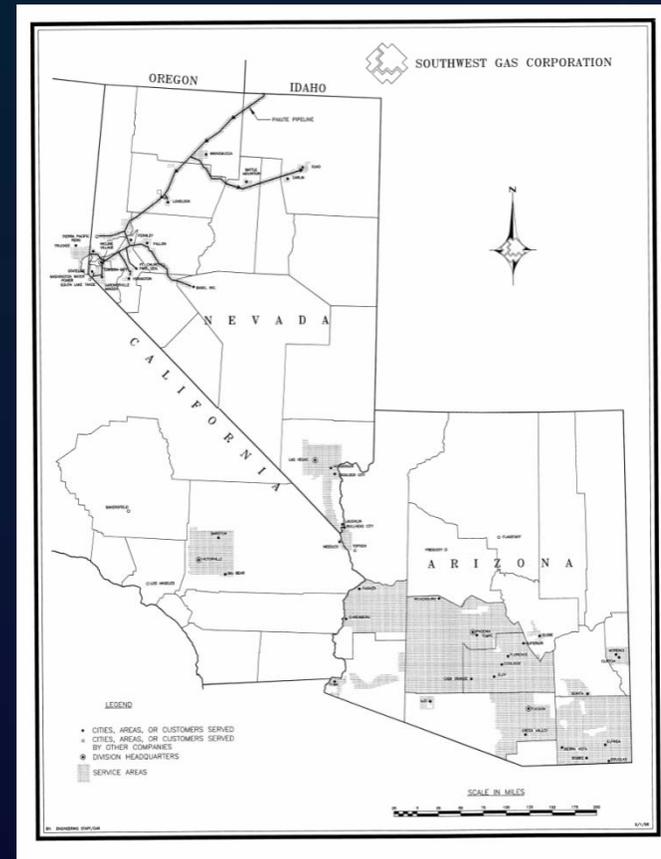
SOUTHWEST GAS CORPORATION

Ensuring Company and Contractor Qualifications:
New Construction

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Southwest Gas Corporation

- Arizona, California and Nevada
- 1.8 million customers
- 1,800 miles gas transmission pipelines
- 30,000 miles gas distribution main
- 1.75 million gas distribution services





Training at SWG

- Training critical to success
 - Over thirty Technical Instructors
 - SMEs in their field
 - Revise policy and procedure
 - Create/revise training materials
 - Provide technical instruction
 - Conduct knowledge, skill, and ability assessments
 - Third party utilized to assist with evaluations of contractors



Training Facilities





Training Facilities





Training Facilities





New Construction

- New construction OQ is not required by the code
- We ultimately own the facility being installed
- SWG included new construction right from the start



Examples

- Backfill
- Below Ground Coatings
- Inspection of materials
- Damage Prevention
- Pipe Joining
- Visual inspection of plastic joints
- Tapping and stopping
- Purging
- Line Marker Placement
- Squeezing
- Installation of valves
- Visual inspection of welded joints



Ensuring Qualification

- Implementation of the written program
- Main Elements:
 - Identifying the covered tasks
 - AOCs
 - Training
 - Evaluations
 - Qualifications
 - Program Effectiveness
 - Management of change



Covered Tasks/AOCs

- 73 covered tasks identified
 - Consortium
 - Industry public meetings
 - SMEs
- General training on AOCs conducted annually
- Covered tasks include task specific AOCs
- Field employees carry the AOC reference guide



Is training needed?

- Training not required, but?
- When is it required?
 - When no prior experience exists
 - When a failure occurs during an assessment
 - When you have reason to believe the person no longer is qualified to perform a covered task
 - New process or equipment



Training Development

- SMEs
- Line personnel
- Manufacturer supplied training
- Consultant developed



Evaluation Development

- SME review
 - Written assessments
 - Oral assessments
 - Practical/demonstrable assessments
- Evaluation/Assessment Security
 - Questionmark™ Perception™
- Pass/fail criteria



Qualifications

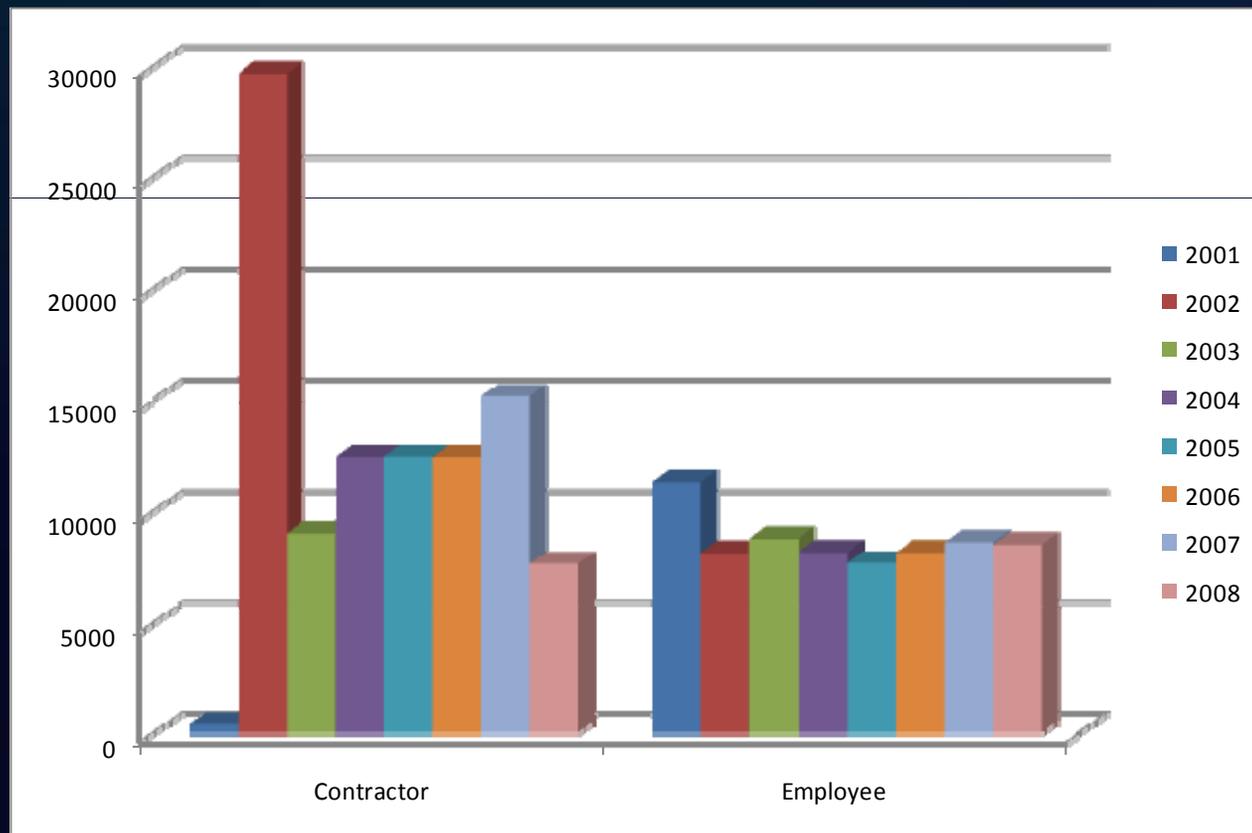
- Initial
- Re-qualification intervals
 - Suspension
- Revocation
- Three strike rule
 - Three opportunities to pass
 - Company employees 12 month ineligibility
 - Contractor employees are revoked



Program Effectiveness

- Annual review of program:
 - Reports
 - Training pass/fail
 - Incident critiques
 - Field audits

Annual Report of Total Qualifications





Management of Change

- Manual revisions
 - Memo of “What’s New”
 - Revision log
- Training Change
 - Determination as to whether qualification is affected
- Significant changes communicated to regulatory agencies



New Construction OQ and DIMP

- Mitigates the threat of incorrect operation
 - Qualifying employees on new construction tasks
 - Field Audits
 - Inspection
 - Operation manual requirements



Summary

- At Southwest Gas Corporation
 - Training is an investment in the future
 - New construction is considered part of our OQ program by choice
 - Ensuring qualifications supports the safety and reliability of our system



Questions

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