

**ENTELEC 2000**  
**Qualifying SCADA Personnel for**  
**OPS Rule 49 CFR Parts 192 and 195**

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On August 27, 1999, the Department of Transportation's Office of Pipeline Safety published the final Rule 49 CFR parts 192 and 195 and announced an effective date of October 26, 1999. The rule's summary is:

"This final rule requires pipeline operators to develop and maintain a written qualification program for individuals performing covered tasks on pipeline facilities. The intent of this qualification rule is to ensure a qualified work force and to reduce the probability and consequence of incidents caused by human error. This final rule creates new subparts in the gas and hazardous liquid pipeline safety regulations. It establishes qualification requirements for individuals performing covered tasks, and amends certain training requirements in the hazardous liquid regulations. This final rule was developed through a negotiation process."

What does this mean for your SCADA Department? It means that your company will be implementing the most significant training and qualification rule in the pipeline industry in twenty (20) years. The SCADA Department, along with every other department, will need to qualify each employee or contractor for every covered task they perform.

How long do you have to comply? Operators must have a written qualification program by April 27, 2001. Operators must complete the qualification of all individuals performing covered tasks by October 28, 2002. Given the scope of this rule, if you have not started preparing your qualification program by now, you are already behind schedule.

What needs to be done? Participate in preparing your company's qualification program to ensure that the SCADA Department is adequately covered. Each company writes its own qualification program to allow for differences in size, complexity, and method of operating its pipeline(s). You have a vested interest in any section of the qualification program that covers the SCADA Department, so you should make sure the program is suitable to your needs.

How do I go about preparing the SCADA Department's portion of the qualification program? The following outline shows the basic steps to follow:

- I. Prepare the SCADA Department's portion of the qualification program.
  - A. Create a list of all tasks performed by your personnel.
  - B. Produce a list of all your personnel, showing which tasks each performs.
  - C. Determine which of these tasks is a covered task. A task is a covered task if it passes all four (4) of the following tests:
    1. Is performed on a pipeline facility,
    2. Is an operations or maintenance task,
    3. Is performed as a requirement of part 192 or part 195, or
    4. Affects the operations or integrity of the pipeline.
  - D. Prepare a process to evaluate all workers to determine each individual's ability to perform covered tasks.
  - E. Prepare a process to maintain records that demonstrate compliance:
    1. Identify each qualified individual,
    2. Identify the covered task(s) each individual is qualified to perform,
    3. Record the date(s) of current qualification, and
    4. Method of qualification.
- II. Complete the qualification of individuals performing covered tasks.
  - A. Qualify all individuals who will perform covered tasks using the written qualification program.
  - B. Maintain qualification records for five (5) years.
  - C. Periodically re-evaluate all individuals performing covered tasks to ensure they remain qualified.

Perhaps the most difficult group of people to deal with in your qualification program is the contractors. Since they typically work for several pipeline operating companies at a time, each contract employee will need to qualify for every covered task that they perform at each company where they are working. Unless handled efficiently, this could rapidly become unworkable with contract employees spending more time qualifying to do covered tasks than actually doing them. One possible solution will be for third-party companies to produce qualification programs to train and qualify contractors for common sets of covered tasks. Operating companies could then structure their qualification program so that qualification under the third party's program counts under

the operating company's qualification program. Thus, contractors could qualify once for a set of covered tasks and then effectively work for several operating companies.

What are the exceptions to the rule? There are two (2) broad categories of exceptions. First, unqualified people may perform covered tasks if they are supervised by a qualified person. This exception will be interpreted narrowly and the supervision must be very close. The supervisor should be in a position to take appropriate action should any abnormal conditions arise. Second, unqualified people may perform covered tasks if the work is part of an emergency response.

Now that we are coming to grips with the large amount of work necessary to implement this rule and remain compliant, what are the benefits beyond just remaining compliant? Most pipeline operators find it difficult to fund the amount of training they would like to provide their staff. This rule will help provide the justification for increased training. A better-trained workforce typically has higher morale. The increased training and improved morale will typically result in fewer and less severe incidents. Maintenance and repair should improve in quality and effectiveness. This will result in reduced, unscheduled downtime and less costly repairs. Many pipeline operators face losing many of their highly trained technicians to retirement in the near future. The qualification program, if done well, will help to capture the best practices of this group and propagate them to the next generation.

To summarize, we are all facing a tremendous amount of work in creating, and implementing, a compliant qualification program. The work is required to meet the new rule, so the focus should be on the benefits each company, and the industry as a whole, will realize. The flexibility allowed each company in writing a program to suit its needs should be tempered with the opportunity to utilize this training requirement in constructive ways that will actually improve operations efficiency, morale, and emergency preparedness via a more competent workforce.

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**Biography**

Duane P. Clementson is the Vice President of Operations at UTSI International Corporation in Friendswood, Texas. Mr. Clementson has over 20 years experience implementing high-performance software systems for SCADA and Telecommunication Systems. His experience includes work in the oil and gas pipeline, electric distribution, water, and traction power utilities. He has a BA from St. Olaf College in Northfield, Minnesota, and an MBA from the College of St. Thomas in St. Paul, Minnesota.