

**1050808, Supervisory Personnel – Bridge Structures, Post Tensioning  
Comments from Industry Review**

\*\*\*\*\*

**Ghulam Mujtaba, P.E., C.P.M.**

(352) 955-6685

**Comments:**

- 1- In the first sentence it has been specified that the technicians are the supervisors of the field operations. In the last sentence of the same paragraph it has been specified that Level II Crew supervisor may supervise the performing of the tensioning and grouting operations. These two requirements are in conflict with each other. The work should be performed and supervised by the crew members and their supervisor, respectively. The duties of the technicians should be to “observe” and inspect. The duties of the technicians should not be “supervision” or “management” of the work.
- 2- In the last sentence of the first paragraph it has been specified that “one of the crew members may be the Level II Supervisor”. The word “may” indicates that the contractor has the permission or choice to appoint one of the crew members as the Level II supervisor, but, it is a requirement. I suggest that the word “may” should be changed to “shall” or “must”, if we want contractor to have a Level II supervisor.
- 3- The qualifications of Level II Supervisor should be defined.
- 4- In the second paragraph, the terminology “crew foreman” has been mentioned. It is not clear if the “crew foreman” and Level II supervisor are the same person or different.

**Response:** 1- Disagree: The Contractor’s Supervisor almost always assists with the actual work of grouting or post-tensioning and this has proven to be an effective approach over the last 5 years since this spec has been in effect. 2- Disagree: The intent is to allow the Contractor to use crew members that are Level I or Level II but not to require Level II. 3- Disagree: The CTQP program provides the definitions and since the provision specifies that the technician has to be CTQP qualified it is incumbent on the technician to consult the CTQP administrator or website to find out what the qualifications are.

\*\*\*\*\*

**Ivan Lasa**

**Comment:**

As I understand the second sentence, in addition to three sentence above, the Contractor chooses when to have the two technician present (either post-tensioning OR grouting). Is that the intent?

**Response:** This concern will be effectively addressed in the revised text

\*\*\*\*\*

**Robert V. Robertson, Jr., P.E.**

(850) 414-4267

**Comment:**

Why do the workers have to be qualified if working under the DIRECT supervision of a qualified technician? I think we are getting way to deep with qualifying everyone. If this continues there will not be enough qualified workers to perform the work. When you get into electrical or plumbing work they all have "OJT" and so must construction.

Response: Workers will not have to qualified if working under the direct supervision of a Level II technician for simple elements like pier caps or flat slabs but will have to be qualified for major complex superstructures such as segmentals or drop in bulb-Ts. Because of the highly complex nature of this work, the involvement of at least to qualified workers is warranted. For complex superstructures, this will have little or no impact on the Contractor since subcontractors that specialize in grouting and PT almost always do this work and these subcontractors have an abundance of qualified people since they specialize in this type work.

\*\*\*\*\*

*Keith Waugh*  
*Leware Construction Company*  
*352-787-1616*  
[kwaugh@lewarecc.com](mailto:kwaugh@lewarecc.com)

Comment:

Why would the crew members need to be CTQP certified if the Technicians are certified? I'm against certification of the workers doing the work when the inspector (Technician) is certified. Eventually the Specs will want every worker CTQP certified in something and the cost of building roads will escalate.

Response: Workers will not have to qualified if working under the direct supervision of a Level II technician for simple elements like pier caps or flat slabs but will have to be qualified for major complex superstructures such as segmentals or drop in bulb-Ts. Because of the highly complex nature of this work, the involvement of at least to qualified workers is warranted. For complex superstructures, this will have little or no impact on the Contractor since subcontractors that specialize in grouting and PT almost always do this work and these subcontractors have an abundance of qualified people since they specialize in this type work.

\*\*\*\*\*

**Ed Koroshetz, P.E.**  
URS  
727-639-0198  
[ed\\_koroshetz@urscorp.com](mailto:ed_koroshetz@urscorp.com)

Comment:

I perceive a lack of clarification that can be argued by a person wishing to take a confrontational position with the article. It states in line five "Provide a minimum of two CTQP work crew members when performing post tensioning or grouting operations. One of the work crew members may be the Level II supervisor."

This does not clarify what the two CTQP qualified persons must be qualified in. It is assumed

that it is in the areas of post tensioning or grouting based on the operation being performed however it does not make a definitive statement.

It just says a CTQP work crew member.

Are they level 1 or 2?

What area of qualification are they? Earthwork, post tensioning, pile driving etc.

Suggestion : *"Provide a minimum of two work crew members that are qualified in CTQP Post Tensioning Level 1 or Grouting Level 1 when performing associated operations. One of the qualified work crew may be the Level II supervisor."*

**Response: This concern will be effectively addressed in the revised text**

\*\*\*\*\*

**Randy Cropp**

772-871-1804

[rcropp@conegraham.com](mailto:rcropp@conegraham.com)

#### Comments:

Only the Supervisor/foreman should need to be qualified. This specification if adopted is a complete overkill and a waste of the taxpayers money. SUPERVISORY PERSONNEL-BRIDGE STRUCTURES, POST TENSIONING. (REV 5-12-09) SUBARTICLE 105-8.8.7 (of the Supplemental Specifications) is deleted and the following substituted: 105-8.8.7 Post Tensioning: Perform all post-tensioning field operations under the direct supervision of a CTQP qualified Level II Qualified Post-Tensioning Technician for post tensioning operations, and a CTQP qualified Level II Grouting Technician for grouting operations qualified through the Department's Construction Training Qualification Program (CTQP). In addition, provide a minimum of two CTQP qualified work crew members that are CTQP Level I Qualified when performing post-tensioning or and grouting operations Technicians. One of the work crew members may be the Level II supervisor. All personnel involved in grouting must attend a grouting training session provided by the Department not less than seven days prior to the start of the first stressing or grouting operation of the project. Perform all vacuum grouting operations under the direct supervision of a crew foreman who has been trained and has experience in the use of vacuum grouting equipment and procedures. Submit the crew foreman's credentials to the Engineer prior to performing any vacuum grouting operations. Conduct all stressing and grouting operations in the presence of the Engineer. Coordinate and schedule all post-tensioning activities to facilitate inspection by the Engineer.

**Response: Workers will not have to qualified if working under the direct supervision of a Level II technician for simple elements like pier caps or flat slabs but will have to be qualified for major complex superstructures such as segmentals or drop in bulb-Ts. Because of the highly complex nature of this work, the involvement of at least to qualified workers is warranted. For complex superstructures, this will have little or no impact on the Contractor since subcontractors that specialize in grouting and PT almost always do this work and these subcontractors have an abundance of qualified people since they specialize in this type work.**

\*\*\*\*\*

**Ken Zinck**  
386-740-3471  
[ken.zinck@dot.state.fl.us](mailto:ken.zinck@dot.state.fl.us)

Comment submitted by Tammie Andrews of Orlando Construction:

It has been our experience that the video (training session) provided good information and a refresher of grouting operations. The contractor was provided with the tape and signed off that the necessary personnel attended the training session. There is no value to us by eliminating the review training session and I would NOT recommend removing the last sentence in Spec. 105-8.8.7 Post Tensioning as proposed. Suggest Not Deleting: "All personnel involved in grouting must attend a grouting training session provided by the Department not less than seven days prior to the start of the first stressing or grouting operation of the project."

Response: The video requirement was implemented at a time when Contractors and CEIs were inexperienced and under trained for doing PT and grouting operations. Since then, the Department has imposed much stricter experience and training requirements for CEI and Contractor personnel as follows: 1) Specification 105-8.8 now requires the Contractor's Project Engineer, Superintendent, Foreman and others to meet specific PT and grouting experience and training requirements in order to work on a complex project that requires PT and grouting. 2) CEI staff must also meet similar requirements for the following personnel: Senior Project Engineer, PA, Senior Inspector and others. 3) Senior Inspectors in charge of PT and grouting must be CTQP qualified technicians which requires them to receive comprehensive training. As a result of all these stricter requirements, only those individuals that meet the experience and training requirements are permitted to manage or work on PT or grouting. With this in mind, the Office of Construction was faced with the decision to either update the out of date grouting video and manual at great expense or to discontinue it since the need for it has greatly diminished. In light of this time of limited funding, it was decided to discontinue; however, CEI staff can always request that the Contractor's staff voluntarily attend a viewing of the video with supplemental comments provided to cover specification changes since the video was issued.

\*\*\*\*\*