

4550503 Structures Foundations
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Charles E. Boyd, P.E.
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Comments: (11-15-11) Recommend the second paragraph, first sentence of 455-15.9.3 be revised as shown in attached file. The sentence as is runs on and is confusing.

During placement operations, ensure that the discharge end of the tremie or pump line is within 6 inches of the bottom of the shaft excavation until at least 10 feet of concrete has been placed. Thenceforth, ~~and is continuously e~~ Ensure that the discharge end of the tremie or pump line is continuously embedded at least 10 feet into the concrete at all times during placement operations after 10 feet of concrete has been placed until the shaft casing is overpoured sufficiently to eliminate all contaminated concrete.

Response: The sentence has been revised to: *“During placement operations, ensure that the discharge end of the tremie or pump line is within 6 inches of the bottom of the shaft excavation until at least 10 feet of concrete has been placed. Ensure the discharge end of the tremie or pump line is continuously embedded at least 10 feet into the concrete after 10 feet of concrete has been placed and until the casing is overpoured sufficiently to eliminate all contaminated concrete.”*

Jeff O'Leary
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Comments: (11-28-11) The changes for the first sentence of the second paragraph of 455-15.9.3 "During placement operations ...", now creates the following sentence: "During placement operations, ensure that the discharge end of the tremie or pump line is within 6 inches of the bottom of the shaft excavation until at least 10 feet of concrete has been placed and is continuously embedded at least 10 feet into the concrete after 10 feet of concrete has been placed until the casing is overpoured sufficiently to eliminate all contaminated concrete." This sentence is somewhat discontinuous &/or redundant. Either break the sentence into two or get rid of "after 10 feet of concrete has been placed". The 10' embedment was already established previously.

Response: The sentence has been revised to: *“During placement operations, ensure that the discharge end of the tremie or pump line is within 6 inches of the bottom of the shaft excavation until at least 10 feet of concrete has been placed. Ensure the discharge end of the tremie or pump line is continuously embedded at least 10 feet into the concrete after 10 feet of concrete has been placed until the casing is overpoured sufficiently to eliminate all contaminated concrete.”*

Pat McCann

Comments: (12-20-11) 455-8.3 *“Locate all splices in the authorized pile length in portions of the pile expected to be at least 15 feet below the final ground surface after driving.”*

If the intent is for this to apply to all splices whether pre-planned or not, suggest we place this sentence after the first sentence in this section. *“One shorter segment of pile may be added by field splicing or shop splicing to achieve the authorized pile length when needed.”* If the 15 foot location also applies to this sentence, suggest you mention this a condition in the sentence.

Response: Agree with moving “*Locate all splices in the authorized pile length in portions of the pile expected to be at least 15 feet below the final ground surface after driving.*” to the third sentence of the paragraph.

The 15 foot location applies to all splices in the authorized length. In order to reduce confusion “*One shorter segment of pile may be added by field splicing or shop splicing to achieve the authorized pile length when needed.*” was revised to “*One shorter segment of pile may be used to achieve the authorized pile length when needed.*”

(comment added 01-03-12)

Wayne "Bert" Woerner II
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Comments: (12-20-11) **455-15.7 Casing;**

In omitting the line, “or concrete when indicated in the plans”, are we going exclusively to metal casing. If so, “use metal casings only” can be suggested.

455-15.8.1 Mineral Slurry;

In the table on Viscosity, the range of **30** to 50 seems to be a complete change from lower end to upper end. There is no indication that the lower end of **28** as noted in the 2010 Specification is changing to **30**. Which will remain/change **28** or **30**?

455-15.8.3 Fluid in Excavation At Time Of Concrete Placement;

Just for clarification, are we going to delete the current section, “Exception for drilled Shafts for Miscellaneous Structures”, as noted in the 2010 Specification which is noted under this section number, in place for “Fluid in Excavation at Time of Concrete Placement”? The same section number **455-15.8.3** is used for both headings. There are no proposed change indicated for the current section 455-15.8.3.

Response:

455-15.7 Casing: Disagree. The revised text already makes this clear. No change made.

455-15.8.1 Mineral Slurry: Please refer to the current Specification rather than the 2010 SpecBook. The current low end of the viscosity range is 30 and will remain at 30. No change made.

455-15.8.3 Fluid in Excavation At Time Of Concrete Placement: Please refer to the current Specification rather than the 2010 SpecBook. The current section is not titled “Exception for drilled Shafts for Miscellaneous Structures.” No change made

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(comment added 01-05-12)

Mike Bergin
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Comments: (11-28-11) I'm Ok with the revisions. I am concerned that the contractor will need to be aware that there is less tolerance for cages being placed that are not concentric to the inside of the shaft. The 4 1/2 inch clear cover means that the contractor will have to ensure the placement of the cage is correct. the 6" of cover gave the contractor some latitude, but any deviation may be an issue of durability. Will there be some notification to alert the contractor that this spec applies to his contract? The CEI will also need to be aware of this change and provide oversight and

ensure the tolerances are maintained.

Response:

Disagree - The tolerance on shaft diameter does not change. This change allows more tolerance than before in that the reduced minimum cover allows the cage to be out of position by $<1\frac{1}{2}$ inches. In the previous text (6" min cover) the cage position had to be perfectly concentric if the hole diameter is no greater than the auger diameter. No change made.
