

4000710 CONCRETE STRUCTURES
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comment: (12-10-13)

Do we really need this? I don't know of this being a general problem. I thought we had general language that says to place concrete so to avoid cold joints. If not, more general language is what we should use. If we are not using something like SCC for CIP already it is just a matter of time till we will and this language will not be valid.

Response: The consensus of construction engineers in the field is that imposing a target thickness (the spec says approximately 20 inches) of 20 inches on lift thickness has value since it encourages Contractors to plan their concrete placements more effectively which increases the probability of success for large concrete placements. No changes made.

D3 Materials Office

Comment: (1-3-14)

1. What methods should be used to determine if the underlying layer is fluid enough to prevent a cold joint?

Response: Specification 400-7.11.4 addresses this concern. No changes made.

2. What is an adequate depth of vibration penetration into the underlying layer to ensure proper consolidation of the layers?

Response: Specification 400-7.11.4 addresses proper vibration into underlying layers. No changes made.

3. I am concerned about not specifying some time frame between successive layers, especially when pouring large prestressed beams. The bottom flanges are difficult to vibrate and cold joints can occur affecting structural integrity and aesthetics.

Response: Specification 400-7.11.4 clearly states that concrete must remain plastic enough to avoid cold joints and allow intermingling of layers during vibration. No changed made.

D4 Const.

Comment: (1-9-14)

The proposed spec. change deletes the 20 minute restriction. I don't see where this addressed elsewhere in Section 400. Are we no longer concerned about the time between pour layers?

Response: A specific duration is not covered elsewhere but it is not needed since Specification 400-7.11.4 requires underlying layers to be fully consolidated into the layer above during vibration regardless of how long the underlying layer has been in place. No changes made.
