

2.7 Inadequate Vibration during Pour

Preliminary

May identify additional perspective on this issue
as RCA related efforts proceeds

<p>Description: Concrete, especially low slump concrete, requires rigorous mechanical intervention in order to spread through the forms and move around tightly spaced reinforcement. Vibration helps remove excess entrapped air and water. However, excessive vibration could result in segregation of concrete constituents, while too little vibration could result in voids and aggregate pockets even when the concrete slump is within spec.</p>	
<p>Data to be Collected and Analyzed:</p> <ol style="list-style-type: none">(1) Vibration inspection reports. A sample is provided in Exhibit 1.(2) Existence of voids and aggregate pockets. (Exhibit 2 and Willie Easman interview.)(3) Segregation of concrete constituents. (Exhibit 2)(4) Conduct interviews of former plant employees if available. (Exhibit 3)	
<p>Verified Refuting Evidence:</p> <ol style="list-style-type: none">1. Adequate mechanical vibration provided. (Ex 1).2. Visual and Petrographic observations show relatively dense matrix with air voids that do not appear excessive. (Ex. 2)3. Although several NCRs addressed voids and aggregate pockets that required corrections and were repaired, they are more a manifestation of slump issues than vibration (See FM 2.3 and Easman interview) <p>Reviewed by: Dr. Avi Mor, 352-795-6486 , ext 1030 – PII CR3 Team Office</p>	<p>Verified Supporting Evidence:</p>

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11/23/2009

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PII CR3 DOCUMENTS FOR # 175



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REPORT of CONCRETE PLACEMENT

REPORTED TO: FLORIDA POWER CORP.
PROJECT: CRYSTAL RIVER PLANT UNIT NO. 3
Concrete Supplier: West Coast Concrete, Inc.
Arch-Engineer: Gilbert Assoc., Inc.
General Contractor: J. A. Jones

Inspector: Timothy T. Giboney
T. GIBONEY, P. E.

Location: _____ POUR: 729 RB Date 3-1-73

SUBGRADE INSPECTION: NA

JOINT PREPARATION: OK

FORMS:

- Properly Coated
- Free From Holes
- Seams Tight
- Clean
- Proper Shoring & Supports
- Alignment

REINFORCEMENTS:

- Proper Clearance
- Proper Support
- Clean
- No. Tie Rods OK
- Location Tie Rods varied

EMBEDDED ITEMS: (List)

- Conforms to dwgs.
- _____
- _____
- _____

EQUIPMENT:

No. & Size of Vibrators 6 - 10,500 Frequency plus

Placement Equipment 2 - 6" Whiteman Concrete Pumps and 1 - 5 yd. bucket

Tremie Pipes - Number NA Size NA Location NA

PLACEMENT:

Consolidation Procedure Mechanical Vibration

Grouted Yes Time 12:30 - 12:45 PM Location Lower Const. Jt.

Concrete - Lift Depth 18" max. Direction of Pour N to S; S to N.

REMARKS: Exceptions: None

CC: 2 - JAW Quality Records
3 - P. T. L.
T: 3-5-3-4

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Order No. TA-7732

Report No. _____

Date 2-1-72

REPORT of CONCRETE PLACEMENT

REPORTED TO: FLORIDA POWER CORP.
PROJECT: CRYSTAL RIVER PLANT UNIT NO. 3
Concrete Supplier: West Coast Concrete, Inc.
Arch-Engineer: Gilbert Assoc., Inc.
General Contractor: J. A. Jones

Location: _____ Pour # 362 RB Date 1-26-72

SUBGRADE INSPECTION: N/A

JOINT PREPARATION: Min. 1/2 SCM

FORMS:

- Properly Coated
- Free From Holes
- Seams Tight
- Clean
- Proper Shoring & Supports
- Alignment

REINFORCEMENTS:

- Proper Clearance
- Proper Support
- Clean
- No. Tie Rods OK
- Location Tie-Rods OK

EMBEDDED ITEMS: (List)

Conforms to drawings

EQUIPMENT:

No. & Size of Vibrators 3 - 9,500 , 1 - 11,000 Frequency Plus

Placement Equipment 1 - Whitney Concrete Pump

Hoppers

Tremie ~~boxes~~ - Number N/A Size N/A Location N/A

PLACEMENT:

Consolidation Procedure Mechanical Vibration

Grouted N/A Time N/A Location N/A

Concrete - Lift Depth 18" Max. Direction of Pour West to East

REMARKS: EXCEPTIONS: Final cleanup. This item corrected prior to concrete placement.

- 1 - Florida Power Corp., M. C. Bennett
 - 2 - Florida Power Corp., E. E. Froats
 - 1 - PTL - Tampa
 - 1 - PTL - W. T. Hurst
 - 1 - PTL - Pgh.
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