

J. A. JONES CONSTRUCTION COMPANY

SITE INSPECTION AND TEST PROCEDURE

FOR

INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR

J. A. JONES CONST. CO. 75-317  
CONTROLLED DOCUMENT  
SET NO. 131

WATERFORD SES UNIT NO.  
CONTRACT NO. W3-NY-4

REV.	DATE	ENGINEERING REVIEWED BY	DATE	CONSTRUCTION REVIEWED BY	DATE	QUALITY ASSURANCE APPROVED BY	DATE
0	11-24-75	al Parnice	11/25/75	Leo Terry	11/25/75	J. J. [Signature]	11/25/75
1	12-5-75	al Parnice	12/5/75	Leo Terry	12/5/75	J. J. [Signature]	12/5/75
2	5-7-76	al Parnice	5/7/76	Leo Terry	6/8/76	J. J. [Signature]	5/7/76
3	9/20/76	al Parnice	9/20/76	J. J. [Signature]	9/20/76	J. J. [Signature]	7/20/76
4	1/17/77	C. Lopez	1/17/77	D. [Signature]	1/17/77	Z. R. [Signature]	1/17/77

FREEDOM OF INFORMATION  
ACT REQUEST

8506220142 850222  
PDR FOIA  
GARDEB4-455 PDR

84-455

C/653

SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 4 DATE: 1-13-77
PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4	

1.0 PURPOSE

To specify the surveillance and inspection activities that will be performed by J. A. Jones Quality Verification personnel to assure that concrete placing, curing, finishing and repair activities are correctly performed.

2.0 SCOPE

This procedure covers the placing, curing, finishing and repair of structural concrete for Waterford SES Unit No. 3, Phase I Concrete Construction.

3.0 REFERENCES

3.1 J. A. Jones Construction Work Procedure, W-WP-7, "Concrete Placing, Curing, Finishing and Repair".

3.2 Ebasco Specification No. LOU-1564.472, latest revision, "Concrete Placement, Curing and Finishing," as applicable.

3.3 ANSI N45.2.5-1974, "Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants".

4.0 RESPONSIBILITIES

4.1 The Owner is responsible for furnishing material and services as defined in the Contract. The Engineer is responsible for material receiving inspection, procedure review, testing and documentation of such tests as required.

4.2 J. A. Jones is responsible for forming, placing, curing, finishing and repair of structural concrete in accordance with approved drawings, specifications and procedures.

4.3 J. A. Jones Quality Verification personnel are responsible for surveillance and verification of the concrete placement, curing, finishing and repair activities conducted by J. A. Jones construction personnel.

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## 5.0 PRE-PLACEMENT INSPECTION

- 5.1 Verify that all actions listed on J. A. Jones and Ebasco Concrete Pre-Placement Checklist Record are satisfactorily completed and that each blank on this form is properly signed and dated or marked "N/A" if not applicable. Indicate acceptance of these actions by signing and dating the appropriate spaces of this form.
- 5.2 Verify that the previous lift is in place at least 48 hours.
- 5.3 Check concrete chutes for slopes between 1 to 3 and 1 to 2 inclusive and that pump lines, chutes or other means of conveyance are mortar tight.
- 5.4 Report the status/completion of pre-placement inspection to the Quality Verification Supervisor or his designee, who shall;
  - 5.4.1 Indicate approval of placement by signing the Concrete Pre-Placement Checklist Record (Attachment A) and the Ebasco Concrete Pre-Placement Checklist Record (Attachment B).
  - 5.4.2 Notify Ebasco Q.C. that the placement is prepared for acceptance.

## 6.0 PLACEMENT INSPECTION

- 6.1 Verify that concrete is deposited in structures in accordance with W-WP-7.
- 6.2 Monitor placement to assure that concrete is deposited as near to its final position as practicable.
- 6.3 Verify that the height of concrete free fall does not exceed five (5) feet.

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6.4 Verify vibrator operation. (6000 RPM minimum)

6.5 Verify that concrete is placed in accordance with the applicable J. A. Jones Concrete Pour Plan which has been reviewed by Ebasco for each specific pour.

6.6 Monitor placement to assure that any tendency to segregation is corrected by shoveling stones into mortar, not mortar over stones.

6.7 Monitor placement to assure that concrete is consolidated in accordance with ACI

6.8 Perform tests in Attachment C when placement of concrete is curtailed or out of sequence.

7.0 POST PLACEMENT

7.1 Verify that the finish applied to the surface of the placement is in accordance with the applicable drawing.

7.1.1 Verify that bleed water on the surface is removed prior to use of steel finishing tools.

7.2 Monitor curing of concrete to assure that it is continuous and in accordance with the pour plan.

7.2.1 Verify that surface temperature is at least 50°F for seven (7) days. (When average ambient temperature is above 60°F ambient temperature shall only be recorded).

7.2.2 Record curing temperatures on the Daily Concrete Inspection Report (Attachment D).

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7.3 Inspect concrete surface after form removal for rock pockets finish, cracks, honeycombs and general appearance.

7.3.1 Note results on Final Placement Inspection Report (Attachment E) including sketches with dimensions when applicable.

8.0 DOCUMENTATION

8.1 Concrete Pre-Placement Checklist Record (J.A. Jones)

8.2 Concrete Pre-Placement Checklist Record (Ebasco)

8.3 Daily Concrete Inspection Report

8.4 Final Placement Inspection Report

9.0 ATTACHMENTS

9.1 Cold Joint Verification and Treatment

9.2 See 8.0 "Documentation"

W-SITP-7 Attachment A  
POUR NO. \_\_\_\_\_  
ELEV. \_\_\_\_\_  
REQ'D MIX \_\_\_\_\_

J. A. JONES CONSTRUCTION COMPANY  
WATERFORD UNIT NO. 3

CONCRETE PRE-PLACEMENT CHECKLIST RECORD

BUILDING \_\_\_\_\_  
SCH. POUR DATE \_\_\_\_\_  
ACTUAL POUR DATE \_\_\_\_\_

	COMPLETED AND INSPECTED										REMARKS
	J. A. JONES SUPERVISION			J. A. JONES ENGINEER			QUALITY VERIFICATION				
	Name	Date	Time Per Day & Rev	Name	Date	Time Per Day & Rev	Name	Date	Time Per Day & Rev		
1. CONCRETE											
a. Sandblast											
b. Greenout											
c. Treatment											
2. FORMS											
a. Dimension											
b. Line & Grade											
c. Clean											
d. Tight											
e. Braced											
f. Coating											
g. Chaffer Strips											
h. Saw Cuts											
i. Block Cuts											
j. Whalers & Strengtheners											
k. Interlocks											
l. Release Agent											
3. REINFORCING											
a. Bar Quantities											
b. Spacing											
c. Elevation											
d. Cold-Field Lapping											
e. Ends											
a. Quantity											
b. Line & Grade											
c. Elevation											
d. Identification											
5. GENERAL											
a. Cleanliness											
b. Instrumentation											
c. Weather Protection											

APPROVED AREA SUPERINTENDENT \_\_\_\_\_

DATE \_\_\_\_\_

APPROVED Q. V. SUPERVISOR \_\_\_\_\_

DATE \_\_\_\_\_



WATERFORD STEAM ELECTRIC STATION  
1980 - 1165 MW INSTALLATION - UNIT NO. 3  
CONCRETE PREPLACEMENT CHECKLIST RECORD

Location: \_\_\_\_\_

Elevation: \_\_\_\_\_ to \_\_\_\_\_ Placement No. \_\_\_\_\_

Detailed Description: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ITEM	CONTRACTOR			INSPECTOR		
	Time	Date	Int.	Time	Date	Int.
Sandblast/Greencut/Foundation Treatment						
Forms (Line and Grade)						
Blockouts, Keys, Waterslop, etc.						
Reinforcing Steel						
Anchor Bolts, Embedded Steel						
Electrical						
Mechanical						
Final Clean up						

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approved for Placing \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_  
Contractor's Representative

Approved for Placing \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_  
Ebasco's Q.C. Representative

(See Reverse Side for Instructions)

## COLD JOINT VERIFICATION AND TREATMENT

### Test for Cold Joint:

1. Insert a blunt end rod (#4 or #6 rebar is sufficient) into the concrete surface at various locations.
2. If the rod cannot be inserted a depth of three (3) inches into the concrete, insert a vibrator into the suspected area. If up to a 2" vibrator sinks into the concrete 6" in fifteen (15) seconds the concrete is fresh enough to place on. If not, supervision shall be notified that a cold joint situation exists.
3. Verify that the cold joint area is treated in accordance with W-WP-7. (Document on Attachment D).



DAILY CONCRETE INSPECTION REPORT

PLACEMENT NO. \_\_\_\_\_ DATE: \_\_\_\_\_ SHIFT: \_\_\_\_\_

INSPECTOR \_\_\_\_\_ ; \_\_\_\_\_

ACTIVITY	ACCEPT	REJECT	N/A
<u>Consolidation</u>			
<u>Discharge</u>			
<u>Lifts</u>			
<u>Beam Settlement</u>			
<u>Placing Technique (ACI SP-2)</u>			
<u>Vertical Free Fall</u>			
<u>Reinforcing Position</u>			
<u>Concrete Finish</u>			
<u>Other</u>			

CURING DATA

DATE	TIME	CURRENT TEMPERATURE	HIGH TEMP	LOW TEMP	CONTINUOUS MOISTURE	Q.V. INSPECTOR

Note any comments on reverse side of form:

FINAL PLACEMENT INSPECTION REPORT

INSPECTION	INITIALS	DATE	ACCEPT	REJECT	N/A
<u>Curing</u>					
<u>Surface Prep. (Const. Joints)</u>					
<u>General Appearance</u>					
<u>Finish</u>					
<u>Dowels (Spacing &amp; Quantity)</u>					
<u>Other</u>					

COMMENTS: (Note open NCR's and DR's on placement, map crack patterns, etc.)