

J. A. JONES CONSTRUCTION COMPANY  
 SITE INSPECTION AND TEST PROCEDURE  
 FOR

INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR

WATERFORD SES UNIT NO. 3  
 CONTRACT NO. W3-NY-4

REV.	DATE	ENGINEERING REVIEWED BY	DATE	CONSTRUCTION REVIEWED BY	DATE	QUALITY ASSURANCE APPROVED BY	DATE
0	11-24-75	<i>al Panice</i>	11/25/75	<i>Les Terry</i>	11/25/75	<i>[Signature]</i>	11/25/75
1	12-5-75	<i>al Panice</i>	12/5/75	<i>Les Terry</i>	12/5/75	<i>[Signature]</i>	12/5/75
2	5-7-76	<i>al Panice</i>	5/7/76	<i>Les Terry</i>	6/8/76	<i>[Signature]</i>	5/7/76

REVIEWED  
 W/ COMMENTS X  
 W/O COMMENTS  
 INSPECTED  
 ERAPCO QUALITY ASSURANCE  
 BY: *[Signature]*  
 DATE: 5-8-76

FREEDOM OF INFORMATION  
 ACT REQUEST

8506220132 850222  
 PDR FOIA  
 GARDEB4-455 PDR

84-455  
 C/65P

SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 2 DATE: 5/7/76
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.

SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 2 DATE: 5/7/76
PROJECT TITLE: WATERFORD SES UNIT NO. 3    CONTRACT NO. W3-NY-4	

5.0 INSPECTION

5.1 The assigned Quality Verification Inspector(s) shall, as a minimum, perform the following inspection/verification/surveillance activities:

- 5.1.1 Verify that all actions listed on J. A. Jones 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. The Inspector(s) shall indicate acceptance of these actions by signing and dating the appropriate areas of this form.
- 5.1.2 "Deleted"
- 5.1.3 Perform surveillance of concrete transportation to assure that means of conveyance are mortar-tight and will deliver the concrete without segregation or loss of slump.
- 5.1.4 Verify that concrete is placed within 60 minutes or 300 revolutions, whichever occurs first, after water is added.
- 5.1.5 Perform surveillance to assure that concrete which has become excessively stiffened so that it cannot be placed in satisfactory condition without the addition of water is not deposited in the work.
- 5.1.6 Perform surveillance to assure that all concrete is discharged vertically until the concrete comes to rest in the structures.
- 5.1.7 Perform surveillance of concrete deposition to assure that concrete is deposited as near as practicable to its final position.
- 5.1.8 Perform surveillance to assure that the free height of drop of concrete does not exceed five (5) feet.
- 5.1.9 Perform surveillance to assure that concrete chutes, when used, have slopes between 1 to 3 and 1 to 2 inclusive.

R-1

SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 2 DATE: 5/7/76
PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4	
<p>R-1</p> <p>5.1.10 Perform surveillance to assure 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.</p> <p>5.1.11 Perform surveillance to assure that any tendency to segregation is corrected by shoveling stones into mortar, not mortar over stones.</p> <p>5.1.12 Perform surveillance to assure that bedding planes of concrete are approximately horizontal.</p> <p>5.1.13 Perform surveillance to assure that concrete is consolidated to maximum practicable density, is free from rock pockets and fits tightly against all form surfaces and embedded items.</p> <p>5.1.14 Perform surveillance to assure that correct vibrators are used, i.e. internal high-frequency type with a speed of not less than 6000 revolutions per minute.</p> <p>5.1.15 Perform surveillance to assure that vibrators are inserted vertically at approximate two (2) foot intervals and withdrawn slowly to prevent formation of pockets and that vibrators are not used to transport concrete. Vibrators shall penetrate the layer being placed and the underlayer as well. Adequate vibrating, melding and blending of succeeding batches will be assured by surveillance.</p> <p>5.1.16 Perform surveillance to assure that contact of vibrators with reinforcing steel is minimized and that form or surface vibrators are not used without Engineer's approval.</p> <p>5.1.17 Perform surveillance to assure that stone pockets or mortar pondages are not formed. Should these occur, they will be dug out, reformed and refilled.</p> <p>5.1.18 Perform surveillance to assure that the top layer of any block or any day's work is trued-up to a rectangular edging strip set horizontally in the forms and that, if work is suspended on any section for more than one hour, the horizontal edges of the concrete next to the forms on surfaces which will be exposed are brought to a horizontal plane perpendicular to the plane of the forms.</p>	

SPECIAL PROCESS PROCEDURE	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 2 & DATE 5/7/76

PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4

R-2

- 5.1.19 Should the placement of concrete be curtailed for any reason, or if the placing gets out of sequence, the Quality Verification Inspector shall test the surface of any concrete that is suspect of setting up before consolidation with fresh concrete. Testing shall be by inserting a blunt end rod into the suspected concrete surface at various location to assure adequate coverage of the suspected area. If the rod cannot be inserted to a depth greater than three (3) inches the inspector shall notify the Construction Superintendent that a possible cold joint condition exists, continued placement shall discontinue, and action must be taken in accordance with paragraphs 3.4, 7.13.4.3, and 7.13.4.4 of J. A. Jones Work Procedure W-WP-7 "Concrete Placing, Curing, Finishing and Repairs". Form, W-SITP-7.1 shall be used to completely document the above inspection, which shall include area affected, batch number of epoxy used, etc.
- 5.1.20 Perform surveillance to assure that wash water is removed in a manner to prevent staining of exposed surfaces.
- 5.1.21 Verify that, except for slip forming, each placement, in multiple lift work is allowed to sit for at least 48 hours prior to start of a subsequent placement.
- 5.1.22 Perform surveillance that all curing of concrete is done by continuous maintenance of water on all exposed surfaces unless otherwise approved by the Engineer.
- 5.1.23 Verify that curing temperature is maintained above 50°F and that concrete is maintained in a moist condition for at least the first seven (7) days after placement. Curing information shall be recorded on Attachment C.
- 5.1.24 Perform surveillance to assure that concrete repair and finishing is performed in accordance with approved specifications, procedures and drawings.
- 5.1.25 Collect a copy of the concrete delivery ticket for each concrete truck from the Ebasco QA Representative in the pouring area. Tickets shall be attached to the Daily Concrete Inspection Report, Reference Attachment B.



SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-7
TITLE: INSPECTION OF CONCRETE PLACING, CURING, FINISHING AND REPAIR	REV. NO. 2 DATE: 5/7/76
PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4	

5.2 The Quality Verification Supervisor shall, as a minimum, perform the following functions:

5.2.1 Indicate his approval of the Concrete Pre-Placement Checklist Record by dating and affixing his signature to this form. (Reference Attachment A).

5.2.2 Act as Contractor's representative in signing of Ebasco Services, Inc. Pre-Placement Checklist, if required.

5.2.3 Assure that the Engineer's approval has been obtained prior to the placement of any concrete and secure a copy for inclusion in the Quality Records File.

#### 6.0 DOCUMENTATION

J. A. Jones Quality Verification personnel will provide necessary documentation by use of the following forms:

6.1 J. A. Jones Concrete Pre-Placement Checklist Record.

6.2 Ebasco Pre-Placement Checklist.

6.3 J. A. Jones Concrete Inspection Report.

6.4 J. A. Jones Curing Log.

#### 7.0 ATTACHMENTS

7.1 J. A. Jones Concrete Pre-Placement Checklist Record.

7.2 J. A. Jones Daily Concrete Inspection Report.

7.3 J. A. Jones Concrete Curing Log.

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

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

CONCRETE PRE-PLACEMENT CHECKLIST RECORD

W-SITP-7 Attachment A

POUR NO. \_\_\_\_\_  
 ELEV. \_\_\_\_\_  
 REQ'D MIX \_\_\_\_\_

	COMPLETED AND INSPECTED												REMARKS
	J. A. JONES SUPERVISION				J. A. JONES ENGINEER				QUALITY VERIFICATION				
	Name	Date	Time	Per Dwg & Rev.	Name	Date	Time	Per Dwg & Rev.	Name	Date	Time	Per Dwg & Rev.	
1. CONCRETE													
a. Sandblast													
b. Greencut													
c. Treatment													
2. FORMS													
a. Dimension													
b. Line & Grade													
c. Clean													
d. Tight													
e. Braced													
f. Coating													
g. Char-fer Strips													
h. Key Ways													
i. Block Cuts													
j. Walers & Strongbacks													
k. Waterstop													
l. Release Agent													
3. REINFORCING													
a. Bar Quantities													
b. Spacing													
c. Elevation													
d. Cold-weld Mapping													
4. EMBEDS													
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 \_\_\_\_\_

J. A. JONES CONSTRUCTION COMPANY

WATERFORD UNIT NO. 3

DAILY CONCRETE INSPECTION REPORT

Report No: \_\_\_\_\_ Date: \_\_\_\_\_ Shift: \_\_\_\_\_

Quality Verification Inspector: \_\_\_\_\_

Placement Area/Location: \_\_\_\_\_

Area/Location Released By Engineer (Ebasco): Yes \_\_\_\_\_ No \_\_\_\_\_ Date: \_\_\_\_\_

Concrete Delivery Acceptable: Yes \_\_\_\_\_ No \_\_\_\_\_ Comments: \_\_\_\_\_

Concrete Placement Acceptable: Yes \_\_\_\_\_ No \_\_\_\_\_

Comments: \_\_\_\_\_

Consolidation Acceptable: Yes \_\_\_\_\_ No \_\_\_\_\_ Comments/Results: \_\_\_\_\_

Finishing Acceptable: Yes \_\_\_\_\_ No \_\_\_\_\_ Comments/Results: \_\_\_\_\_

Curing Acceptable: Yes \_\_\_\_\_ No \_\_\_\_\_ Comments: \_\_\_\_\_

Other Comments or Remarks: \_\_\_\_\_