

**EBASCO SERVICES
INCORPORATED**

**QUALITY
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ENGINEERING**

This Document is:

- Reviewed Without Comments
- Reviewed With Comments as Noted; Incorporate Comments, and Resubmit; Proceed With Order.
- Rejected; Revise and Resubmit

NOTE:

Review of this document, with or without comments, is for general conformance with the applicable specifications only and in no way relieves the manufacturer or contractor from full responsibility for delivery of all materials, equipment, services and documentation in strict accordance with the Purchase Order.

By: NA Kalat
Date: 3/14/78

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

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	12-15-75	AL Prunice	3/15/76	Leo Terry	3/15/76	William C. Hill	3/15/76
1	3-16-76	AL Prunice	2/16/76	Lowell Lewis	3/16/76	William C. Hill	2/16/76
2	4/6/76	AL Prunice	4/6/76	Leo Terry	4/6/76	William C. Hill	4/6/76
3	4/20/76	AL Prunice	4/20/76	Leo Terry	4/20/76	William C. Hill	4/20/76
4	6/25/76	W. G. White	6/25/76	R. J. [unclear]	6/25/76	William C. Hill	6/25/76
5	7/9/76	AL Prunice	7/9/76	Leo Terry	7/9/76	William C. Hill	7/9/76
6	8/13/76	AL Prunice	8/13/76	Leo Terry	8/13/76	William C. Hill	8/13/76
7	2/29/78	Emmanuel	2/29/78	W. G. White	2/29/78	W. G. White	2/29/78
8	3/13/78	Emmanuel	3/13/78	2 Rev. [unclear]	3/13/78	W. G. White	3/13/78

FREEDOM OF INFORMATION
ACT REQUEST

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PDR FOIA
GARDE84-455 PDR

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SITE INSPECTION AND TEST PROCEDURE:	PROCEDURE NO. W-SITP-12
TITLE: BACKFILL AND COMPACTION INSPECTION	REV. NO. 8 DATE: 3/13/78
PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4	

1.0 PURPOSE

To specify the inspection and surveillance activities that will be performed by J. A. Jones Construction Quality Assurance/Quality Verification personnel to assure that backfill is placed and compacted in accordance with approved drawings, specifications and procedures.

2.0 SCOPE

This procedure governs the placing and compaction of backfill material for Waterford SES Unit No. 3, Phase I Concrete Construction.

3.0 DEFINITIONS

3.1 Class "A" fill shall be either sand containing no more than twelve (12) percent material passing a number 200 sieve or Pleistocene clay excavated from the plant island excavation. Clam shell used as surface material of construction roads may be contained within either the sand or clay.

3.2 Class "B" fill shall be selected sand, silt, clam shell, clay, or some combination of these materials capable of practical compaction.

3.3 Location of Class "A" and Class "B" fill shall be as shown on Ebasco Drawing No. LOU-1564.G497 S01, "General Backfill Plan and Sections".

4.0 REFERENCES

4.1 J. A. Jones Construction Work Procedure, W-WP-12, "Backfilling and Compaction".

4.2 Ebasco Services, Inc. Specification No. LOU-1564.482, "Filter and Backfill".

4.3 Ebasco Drawing No. LOU-1564.G490, "Nuclear Plant Island Structure - Construction Sequence".

5.0 RESPONSIBILITIES

5.1 Ebasco Services, Inc. is responsible for the furnishing of all backfill material and for all testing of backfill material and compacted backfill.

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5.2 J. A. Jones is responsible for the proper placing and compaction of backfill in accordance with approved drawings, specifications, and procedures.

6.0 INSPECTION

The assigned Quality Verification Inspector(s) shall perform 100% inspection as required on each fill area to assure that the requirements listed below are fulfilled. The inspector may observe more than one (1) "fill area" provided he has an unobstructed view of each area.

- 6.1 Material has been determined to be suitable by Ebasco and released to J. A. Jones.
- 6.2 Backfilling is accomplished in the proper sequence in accordance with Ebasco Drawing No. LOU-1564.G490.
- 6.3 Base to receive backfill has been properly prepared and released by Ebasco.
- 6.4 Sand and clam shell for Class "A" fill is spread and leveled in layers not exceeding 15 inches prior to compaction.
- 6.5 Class "A" sand backfill to be used in Class "B" areas shall have a maximum lift thickness of 15" before compaction.
- 6.6 Clay for Class "A" backfill and material selected from the excavation for Class "B" backfill is placed in layers not exceeding 10" prior to compaction.
- 6.7 Fill material is deposited uniformly over entire area being filled to a particular stage or level.
- 6.8 When required, fill material shall be dis-harrowed after spreading and before compaction to blend and aerate the material into a texture that can be consolidated into a homogeneous mass by the compaction operations.

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<p>6.9 Surface of each lift is kept reasonably smooth and free of ridges or groves which would adversely affect proper compaction of subsequent lifts.</p> <p>6.10 Hauling equipment, to the extent possible, shall use different paths from each other in order to aid compaction of the entire area and to avoid overcompaction of any given area.</p> <p>6.11 If area to receive fill is an original excavation, or compacted more than two days previously, surface shall be cleaned of all loose debris and improperly compacted material and cut to fresh material in addition, area shall then be proof rolled and accepted before subsequent backfilling.</p> <p>6.12 When two sections of fill join, fill placed first must have its slope shaved a minimum of three feet to expose undisturbed compacted material.</p> <p>6.13 Compaction is achieved with proper equipment operation and proper speed.</p> <p>6.14 Compaction is reasonably uniform within any one layer over entire area.</p> <p>6.15 All layers are compacted to full width.</p> <p>6.16 Backfill placed against building walls shall be compacted starting nearest the walls and proceeding outward.</p> <p>6.17 In restricted areas, fill material is not placed in lifts greater than 12" deep, and material is not greater than 3" in size.</p> <p>6.18 Reasonable care is taken to protect waterproofing membrane boards.</p> <p>6.19 Backfill placed against waterproofing membrane boards does not contain any particle greater than 1/2" in size.</p> <p>6.20 No fill is placed during heavy rain or on top of or into a pool of water.</p>	

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6.21 Compaction test is performed.

6.22 Surface of fill areas to be sloped to effect drainage away from building and into site drainage pattern.

6.23 Where fill is placed against naturally existing material on slopes, the slope shall be cut a minimum of 6" to remove surface vegetation, desiccated material, rain gullies, and all other discontinuities.

6.24 No fill placed within 20' of the boundary between material being compacted and uncompacted material being placed.

7.0 DOCUMENTATION

The assigned Quality Verification Inspector(s) documents his inspection activities by filling out the Daily Backfill Inspection Report (Attachment A). This report shall be filled out for each Inspector for each shift and fill location.

8.0 ATTACHMENTS

8.1 Daily Backfill Inspection Report

