

J. A. JONES CONSTRUCTION COMPANY

CONSTRUCTION WORK PROCEDURE

FOR

HANDLING, STORING, INSTALLING, CADWELDING
AND MODIFICATION OF REINFORCING STEEL

RECEIVED
OCT 24 1975

SITE QUALITY ASSURANCE
WATERFORD 3

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

| REV. | DATE | ENGINEERING APPROVED BY | DATE | QUALITY ASSURANCE APPROVED BY | DATE | CONSTRUCTION APPROVED BY | DATE |
|------|----------|-------------------------|----------|-------------------------------|----------|--------------------------|----------|
| 0 | 10/1/75 | <i>E. J. Rault</i> | 10/2/75 | <i>Phillip J. Schenck</i> | 10/2/75 | <i>Lee T. Enny</i> | 10/2/75 |
| 1 | 10/14/75 | <i>al Prince</i> | 10/14/75 | <i>Phillip J. Schenck</i> | 10/14/75 | <i>SR. [unclear]</i> | 10-15-75 |
| 2 | 10/24/75 | <i>al Prince</i> | 10/24/75 | <i>Phillip J. Schenck</i> | 10/24/75 | <i>[unclear]</i> | 10-24-75 |
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FREEDOM OF INFORMATION
ACT REQUEST

84-455

C/675

REVIEWED

QUALITY ASSURANCE w/o Comments

BY: *Charles Harris* EBS/CO

DATE: 10/29/75

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| CONSTRUCTION WORK PROCEDURE | PROCEDURE NO. W-WP-4 |
| TITLE: HANDLING, STORING, INSTALLING, CADWELDING AND MODIFICATION OF REINFORCING STEEL | REV. NO 2 & DATE: 10/24/75 |
| PROJECT TITLE: WATERFORD SES UNIT NO. 3 CONTRACT NO. W3-NY-4 | |

1.0 PURPOSE

To outline methods used by J. A. Jones and Subcontractor to handle, store, install and splice reinforcing steel.

2.0 SCOPE

This procedure includes the proper references to be used by J. A. Jones and Subcontractors to comply with specifications and drawings. The utilization of records necessary to provide traceability is also part of this procedure.

3.0 REFERENCES

- 3.1 Ebasco Specification No. LOU-1564.473, "Concrete Reinforcing Steel Furnishing, Fabrication and Delivery".
- 3.2 Ebasco Specification No. LOU-1564.479, "Mechanical Splicing of Concrete Reinforcing Steel - Seismic Class 1".
- 3.3 ACI 318-71 "Building Code Requirements for Reinforced Concrete".
- 3.4 J. A. Jones W-WP-3, "Qualification of Welders".
- 3.5 Ebasco Procedure C 15.1.1 "Material Receiving, Warehousing and Control".
- 3.6 J. A. Jones Procedure POP-N-404, "Shipping and Receiving".
- 3.7 J. A. Jones Procedure POP-N-405, "Storage, Handling and Issuance of Items".
- 3.8 Approved construction drawings.
- 3.9 ERICO Products Company publication RB10M974.
- 3.10 "Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel during the Construction Phase of Nuclear Power Plants," ANSI N45.2.5 - 1974.
- 3.11 "Mechanical (Cadmold) Splices In Reinforcing Bars of Category I Concrete Structures," Regulatory Guide 1.10, Rev. 1, 1/2/73 (Safety Guide 10).

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4.0 RESPONSIBILITIES

- 4.1 Ebasco Services Incorporated is responsible for supplying reinforcing steel, ERICO Cadweld Splice Kits and testing services and records necessary to support J. A. Jones and Subcontractor work activities. See references 3.1, 3.2 and 3.5 above. J. A. Jones will inform Ebasco if any special graphite basins, crucible, or other splicing unit components are required.
- 4.2 J. A. Jones and Subcontractors are responsible for handling, installation, splicing and modifications to reinforcing steel as required by references 3.1 through 3.8. Qualified personnel per reference 3.4 shall be utilized for cadweld splicing operations. Compliance with "approved for construction" drawings is mandatory. Line and grade designations shall be adhered to.

5.0 DEFINITIONS

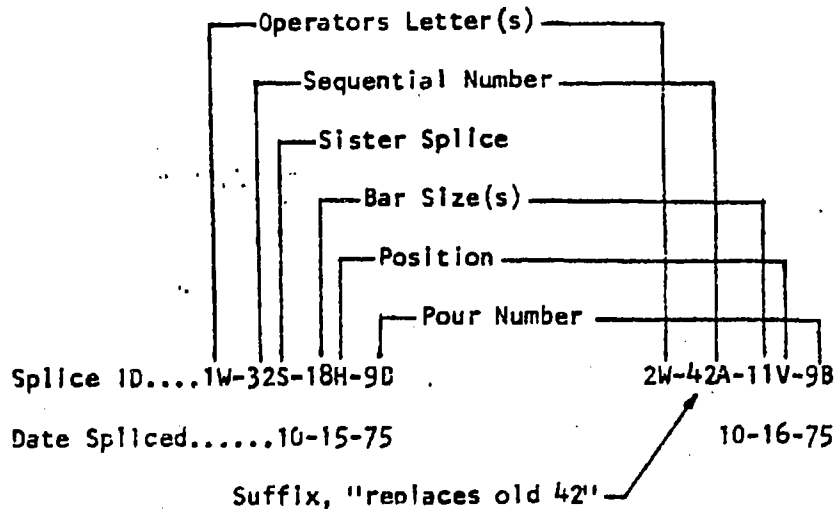
None

6.0 PROCEDURE

- 6.1 J. A. Jones shall unload reinforcing steel and if it is found that any steel does not conform to specifications or bar bending schedule, he shall segregate nonconforming bars into Engineer's Quality Control "Hold Areas".
- 6.1.1 Handling of materials received from Ebasco shall be in accordance with standard construction practices.
- 6.1.2 Storage of reinforcing steel received from Ebasco will be in accordance with reference 3.5.
- 6.1.3 Cadweld splice kits and weld filler materials shall be stored and protected by Ebasco. Withdrawal by J. A. Jones and Subcontractors will be on an "as needed" basis. Withdrawals shall be in accordance with references 3.5 and 3.7.
- 6.2 Installation of reinforcing steel and cadweld splicing shall be performed in accordance with references 3.1, 3.3, 3.4 and 3.9. Production and sister splices shall be made in accordance with the above references.
- 6.2.1 Ebasco shall be responsible for the testing of sister and production splices and providing J. A. Jones with copies of the results. J. A. Jones shall maintain attachment 7.1 for the duration of the job

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- 6.2.2 Cadweld splices shall be performed and mapped in accordance with "Approved Construction Drawings". J. A. Jones shall maintain a "as built" set of drawings showing cadweld locations and identification of individual splices.
- 6.2.3 J. A. Jones shall prepare and maintain daily and weekly cadweld test reports for the life of the job using Attachments 7.2 and 7.3 respectively.
- 6.2.4 Only approved construction drawings shall be used for construction.
- 6.2.5 Prior to placing of reinforcing steel all loose mill scale, dirt, grease or other contaminants shall be removed.
- 6.2.6 Marking of each cadweld to insure identification of splicer shall be performed at the completion of each splice. Weld splicer identification stamps shall be in characters not less than 1/8 inch in height. Splicer stamp number shall be placed on top of the sleeve. A symbol indicating the assigned identification letter(s) of the operator or crew, the sequential number of the weld (starting from the first weld made by the crew and continuing without interruption), a suffix if the splice is a sister splice of the splice with the same number, any other suffix required to establish that the splice replaces another related splice, the size(s) of the bar spliced, the position of the splice (horizontal or vertical), the pour number in which the splice is placed and the date the splice is made. For example:



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6.2.7 Preparation of reinforcing steel ends for cadwelding shall be in accordance with references 3.1 and 3.9.

6.3 Modifications to reinforcing steel requiring cutting shall be by sawing, shearing, grinding or flame cutting.

6.3.1 Reforming of bars if required shall be by cold bending with consent of the Engineer.

6.4 Errors, omissions or other deficiencies in cut sheets and drawings are not the responsibility of J. A. Jones or Subcontractors. Discrepancies noted during review or at the time of placement shall be brought to the attention of Ebasco for resolution.

7.0 ATTACHMENTS

7.1 Destructive Testing Progress for Cadweld Splices

7.2 Daily Cadweld Inspection Report

7.3 Weekly Cadweld or Rebar Test Report

