

Rev.	00	01				COMBUSTION ENGINEERING, INC. CE AVERY DIVISION OLD DOVER ROAD NEWINGTON, N.H. 03801 W3-F-72	
Date	2/1/81	3/11/81					
Site Rep	<i>RL Mason</i>					No.	AS-P-007
QA	<i>D. Dada</i>					Title	NONCONFORMANCES AND CORRECTIVE ACTION
							WATERFORD STEAM ELECTRIC STATION - UNIT NO. 3
							Page <u>1</u> of <u>5</u>

# RECORD OF REVISIONS

REV. 00 -- INITIAL DISTRIBUTION  
 REV. 01 -- Para.'s. 6.2.2, 6.2.8 after "Quality Engineer"  
 add "or his designee".  
 Para. 6.2.12 after "The Deviation Notice" add  
 ", Nonconformance Report and Field Action  
 Report, if applicable,".  
 Para. 6.2.12.1 added.

C-E AVERY  
DIVISION  
CONTROLLED  
DOCUMENT

No. 1

**INFORMATION ONLY**

8505130197 841105  
PDR FOIA  
BERNABE84-205 PDR

EBASCO SERVICES INCORPORATED
QUALITY ASSURANCE ENGINEERING
<p>This Document is:</p> <p><input checked="" type="checkbox"/> Reviewed Without Comments</p> <p><input type="checkbox"/> Reviewed With Comments as Noted; Incorporate Comments, and Resubmit; Proceed With Order.</p> <p><input type="checkbox"/> Rejected; Revise and Resubmit</p> <p><b>NOTE:</b> 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 con- tractor from full responsibility for delivery of all materials, equip- ment, services and documentation in strict accordance with the Pur- chase Order.</p> <p>By: <i>[Signature]</i> Date: <u>3-26-81</u></p>

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## 1.0 PURPOSE

- 1.1 The purpose of this procedure is to provide measures for reporting, controlling, and dispositioning nonconformances and for obtaining corrective action to prevent recurrence.

## 2.0 SCOPE

- 2.1 This procedure describes the actions to be taken to generate Deviation Notices, identify the status of the item(s), disposition of the Deviation Notice, report violations of design requirements to the Owner, and to evaluate Deviation Notices in order to obtain corrective action to prevent recurrence.

## 3.0 REFERENCES

- 3.1 10CFR50 Appendix B - Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.
- 3.2 C-E Avery Division Quality Assurance Manual.
- 3.3 C-E Avery Division Procedure AS-P-006, Preparation and Control of Shop Travelers.
- 3.4 ANSI N45.2 - 1971, Quality Assurance Program Requirements for Nuclear Power Plants.
- 3.5 C-E Avery Division Procedure AS-P-005, Quality Assurance Records.
- 3.6 C-E Avery Division Procedure AM-10-009, Corrective Action.

## 4.0 DEFINITIONS

- 4.1 Nonconformance - A condition in characteristic, documentation or procedure which renders the quality of an item or service unacceptable or indeterminate. Examples of nonconformances include: physical defects, incorrect or inadequate documentation, or deviation from prescribed inspection procedures.
- 4.2 Inspection - A documented phase of quality control, which by means of examination, observation or measurement, determines the conformance of items to predetermined quality requirements.
- 4.3 Item - Any level of unit assembly, including structure, system, subsystem, component part or material.
- 4.4 Deviation Notice (DN) - The form to be completed by Quality Assurance to report a nonconformance. The disposition of the nonconformance will be made on the DN.
- 4.5 Nonconformance Report - Ebasco Services, Inc. form on which nonconformances that violate design requirements are reported to the Owner.

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4.6 Owner - Louisiana Power and Light Company or its authorized agents (Ebasco).

4.7 Engineering Instructions (E.I.) - The form used to add a minor repair operation to a Manufacturing Process Sheet when required by the disposition of a Deviation Notice.

4.8 Field Action Request (FAR) - The form used by the C-E NSSS Site Manager to document nonconformances pertaining to C-E supplied items.

4.9 NSSS - Nuclear Steam Supply System.

## 5.0 RESPONSIBILITY

5.1 The Quality Control Inspector is responsible for recording nonconformances on a Deviation Notice and for identifying the status of the nonconforming item by placing an inspection tag on the nonconforming item.

5.2 The Site Representative is responsible for dispositioning the Deviation Notice and for submitting a Nonconformance Report, with a recommended disposition, to the Owner if the nonconformance violates design requirements.

5.3 The Quality Assurance Engineer, or his designee, is responsible for reviewing and approving Deviation Notices, and verifying that the approved disposition is implemented.

## 6.0 PROCEDURE

6.1 When a nonconformance is detected during an operation on the MPS, the Quality Control Inspector shall prepare a Deviation Notice (DN) (Attachment 7.1), place a "Hold" tag (Attachment 7.2) on the nonconforming item, and record the DN number on the Manufacturing Process Sheet under the applicable sequence.

6.1.1 The "Hold" tag shall record the Manufacturing Process Sheet and applicable sequence, the Deviation Notice number, the date of the DN, and the controlled stamp number of the Quality Control Inspector.

6.1.2 Upon determination by the Site Representative, work may proceed in accordance with the Manufacturing Process Sheet provided that the work performed will not be affected by, or will not affect the dispositioning of the Deviation Notice.

6.2 The Site Representative shall review the Deviation Notice to determine if design requirements have been violated and shall record the cause of deviation.

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- 6.2.1 If design requirements have not been violated, the Site Representative shall disposition the DN "Accept As Is", or "Repair", by checking the appropriate block and signing and dating the DN.
- 6.2.2 The Quality Assurance Engineer, or his designee, shall review the disposition, and if acceptable, shall approve the DN by signing and dating. The DN shall be recorded on the Index for Manufacturing Process Sheets (Reference Procedure No. AS-P-006), and a copy forwarded to the Owner.
- 6.2.3 If the approved disposition is "Accept As Is", the "Hold" tag shall be removed from the item by the Quality Control Inspector, and the Deviation Notice closed out on the Manufacturing Process Sheet.
- 6.2.4 If the approved disposition is "Repair", and the repair is of a minor nature, Engineering Instructions (Attachment 7.3) may be generated in accordance with Procedure No. AS-P-006. The E.I. No. shall be recorded on the Deviation Notice. The Quality Control Inspector shall replace the "Hold" tag with an "Incomplete Operation" Tag (Attachment 7.4).
- 6.2.5 If the approved disposition is "Repair", and the repair is extensive, a Manufacturing Process Sheet referencing the DN, shall be generated in accordance with Procedure No. AS-P-006. The MPS No. shall be recorded on the Deviation Notice. The Quality Control Inspector shall replace the "Hold" tag with an "Incomplete Operations" tag.
- 6.2.6 Upon completion of the repair, inspection will be performed by Quality Control. If the results are satisfactory, the DN will be closed out on the Manufacturing Process Sheet, or the Engineering Instructions, the sequence signed off, and the "Incomplete Operations" Tag removed by the Quality Control Inspector.
- 6.2.7 If design requirements have been violated, the Site Representative shall forward a copy of the Deviation Notice to the Combustion Engineering, Inc. NSSS Site Manager for preparation of a Field Action Request (FAR) (Attachment 7.5).
- 6.2.8 Upon receipt of the dispositioned FAR, the Site Representative shall disposition the DN, and record the FAR number on the DN. The Site Representative shall obtain the review and approval of the Quality Assurance Engineer, or his designee.

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6.2.9 A Nonconformance Report (Attachment 7.6) shall be generated by the Site Representative and submitted to the Owner. The applicable Deviation Notice, and any documentation necessary to evaluate the disposition of the nonconformance, shall be attached. A recommended disposition shall be made by the Site Representative.

6.2.10 Upon return of the Nonconformance Report from the Owner, the DN shall be handled in accordance with paragraphs 6.2.3, 6.2.4, 6.2.5 and 6.2.6

6.2.11 After the disposition of the DN has been implemented, the Quality Assurance Engineer, or his designee, shall verify that required actions have been completed. The DN shall be signed and dated to indicate his acceptance.

6.2.12 The Deviation Notice, Nonconformance Report and Field Action Report, if applicable, shall be placed in the Records file in accordance with Procedure No. AS-P-005.

6.2.12.1 A copy of the Deviation Notice and subsequent documentation will be forwarded to the Quality Assurance Engineering site file at C-E Avery Division, Newington, N.H.

### 6.3 CORRECTIVE ACTION

6.3.1 The last copy of the Deviation Notice, on which has been recorded the cause of deviation, shall be sent by the Site Representative to the Corrective Action Administrator at the C-E Avery Division, Newington, N.H.

6.3.2 The Deviation Notice shall be evaluated in accordance with the requirements of Procedure No. AM-10-009, and corrective action requested, as required.

### 7.0 ATTACHMENTS

7.1 Deviation Notice

7.2 Hold Tag

7.3 Engineering Instructions

7.4 Incomplete Operation Tag

7.5 Combustion Engineering, Inc. Field Action Request

7.6 Ebasco Services, Inc. Nonconformance Report



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DEVIATION NOTICENo 1589  
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C-E AVERY

JOB NO.		PART NAME		MPS NO.		SEQ. NO.		
DRAWING NO. AND REV.			PART NO.		NO. PARTS DEV.		INSPECTION:	
INSPECTOR			DATE		SHOP		DATE	
DATE			DATE		DATE		DATE	
DATE			DATE		DATE		DATE	

DWG. ZONE	REQUIREMENT	ACTUAL CONDITION

## DISPOSITION

CUSTOMER DRAWING NO. _____	QUALITY ENGINEER _____ DATE _____
<input type="checkbox"/> SUBMIT TO CUSTOMER	PROCESS ENGINEER _____ DATE _____
<input type="checkbox"/> PROCEED WITH SUBSEQUENT OPERATIONS	
<input type="checkbox"/> HOLD FOR WAIVER APPROVAL	

<input type="checkbox"/> ACCEPT AS IS	<input type="checkbox"/> SCRAP	<input type="checkbox"/> OTHER	<input type="checkbox"/> REPAIR-MPS NO. _____
---------------------------------------	--------------------------------	--------------------------------	---

APPROVALS:	CUSTOMER:
PROCESS ENG. _____ DATE _____	DESIGN ENG. _____ DATE _____
QUALITY ENG. _____ DATE _____	QUALITY ENG. _____ DATE _____

DN CLOSED BY _____	DATE _____
--------------------	------------

<b>To Be Removed By Quality Control Only</b>	
<b>HOLD</b>	
Job No. _____	Op. No. _____
Dev. No. _____	Date _____
Insp. _____	

## C-E AVERY DIVISION

## ENGINEERING INSTRUCTIONS

Attachment 7.3  
AS-P-007

No. E.I.

- ☐ Production Services  
☐ Drafting/Document Control  
☐ General File  
☐ Other \_\_\_\_\_

Job \_\_\_\_\_

Date \_\_\_\_\_

## Purpose of Instruction:

- ☐ Engineering Hold (Stop Work)  
☐ Engineering Change Order (Advance Approval)  
☐ Other \_\_\_\_\_

## Instruction Applied To:

Shop Order No.	Seq. No. & Oper. No.	Dwg. No. and Rev.	Part No.	Part Name
Procedure or Specification		Cust. P.O. No.	Cust. Dwg. No.	

## Specific Instructions

## General Instructions and Engineering Follow-Up Actions

- ☐ Job Must Not Proceed Beyond \_\_\_\_\_  
☐ Revised drawing/process sheet/Hold — Will be released no later than \_\_\_\_\_  
☐ A copy of this instruction shall become a permanent part of Shop Traveler No. \_\_\_\_\_  
and appropriate reference to it will be entered on the Manufacturing Process Sheet.  
☐ New Seq. No. \_\_\_\_\_ New Oper. No. \_\_\_\_\_ Std. Hours \_\_\_\_\_  
☐ Other \_\_\_\_\_

- ☐ The above instructions were given verbally or by telecon:

By \_\_\_\_\_ To \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

- ☐ E.I. No. entered on the Manufacturing Process Sheet.

ORIGINAL

Responsible Engineer

Date

No. 275 Rev. 8/71



<b>INCOMPLETE OPERATION</b>	
To Be Removed by Quality Control Only	
DEVIATION	
JOB NO.	OP. NO.
ISR NO.	DATE
INSPECTOR	

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Attachment 7.5

B.3.2.A

FIELD ACTION REQUEST	CUSTOMER	DATE	F.A.R. NO.
	PLANT NAME		
TO	SUBJECT		
1. PROBLEM - REQUIRES WINDSOR RESOLUTION 2. REPORT OF FIELD ACTION TAKEN 3. WINDSOR ENG. REQUEST FOR FIELD CHANGE			

Component Code No. \_\_\_\_\_ C-E PO/MO No. \_\_\_\_\_  
Drawing No. \_\_\_\_\_ Shop/Vendor Name \_\_\_\_\_  
BM No. \_\_\_\_\_ Shop/Vendor Order No. \_\_\_\_\_  
Piece Mark No. \_\_\_\_\_ Other Ref. \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

## FIELD RECOMMENDATION

UNDER \$2,500 ☐  
ESTIMATED COST: OVER \$2,500 ☐

WORK WEEK:

SWO REQUEST

☐ YES ☐ NO

SITE REPRESENTATIVE

DATE

AFFECTS ASME CODE: ☐ YES ☐ NO

Engineering  
Authorized - Project Mgr. \_\_\_\_\_

## FIELD ACTION REQUIRED

CHARGE NO.

CHARGE TO

SHIFTS

PREMIUM COSTS AUTHORIZED: ☐ YES ☐ NO

## FIELD COMPLETION REPORT

WRITER

DATE

APPROVED - Title

DATE

APPROVED - Title

DATE

## REFERENCES

RETEST

OTHER

Action Completed On

DATE

DESIGNATED Q.C. SITE REP.

DATE

TITLE

DATE

6009-11/5-77

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EBASCO SERVICES INCORPORATED

Attachment 7.6

QUALITY ASSURANCE  
NONCONFORMANCE REPORT

Distribution:

White - PQAE or Site QA Supervisor

Yellow - Organization recommending disposition

Pink - Initiator of NCR

REPORT NO. (11) \_\_\_\_\_

INSTRUCTIONS: (See back of form)

CLIENT OR PROJECT (12) \_\_\_\_\_

DRAWING NO./SPEC NO. (13) \_\_\_\_\_

SUPPLIER, CONSTRUCTION QC OR CONTRACTOR (14) \_\_\_\_\_

P.O. NO. (15) \_\_\_\_\_

DESCRIPTION OF COMPONENT, PART OR SYSTEM (16) \_\_\_\_\_

I. DESCRIPTION OF NONCONFORMANCE (17) (Items Involved, Specification, Code or Standard to Which Items Do Not Comply, Submit Sketch if Applicable)

NAME AND SIGNATURE OF PERSON REPORTING NONCONFORMANCE (18) \_\_\_\_\_

TITLE/COMPANY \_\_\_\_\_

DATE (19) \_\_\_\_\_

II. RECOMMENDED DISPOSITION (10) (Submit Sketch if Applicable)

NAME AND SIGNATURE OF PERSON RECOMMENDING DISPOSITION (11) \_\_\_\_\_

TITLE/COMPANY \_\_\_\_\_

DATE (12) \_\_\_\_\_

III. EVALUATION OF DISPOSITION BY EBASCO, REASON FOR DISPOSITION (13)

IV. CORRECTIVE ACTION (14) ☐ Required ☐ Not Required

V (15) <input type="checkbox"/> ENGINEERING	<input type="checkbox"/> QUALITY ASSURANCE	<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> OTHER
NAME (SIGNATURE) _____	NAME (SIGNATURE) _____	NAME (SIGNATURE) _____	NAME (SIGNATURE) _____
DATE _____	DATE _____	DATE _____	DATE _____
<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED
<input type="checkbox"/> ACCEPTED WITH COMMENTS	<input type="checkbox"/> ACCEPTED WITH COMMENTS	<input type="checkbox"/> ACCEPTED WITH COMMENTS	<input type="checkbox"/> ACCEPTED WITH COMMENTS

VI. VERIFICATION OF DISPOSITION

☐ REQUIRED☐ NOT REQUIRED (16)(17) BY \_\_\_\_\_  
EBASCO VENDOR QA OR QA  
ENGINEERING

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

COMBUSTION ENGINEERING, INC.  
C-E AVERY DIVISION  
OLD DOVER ROAD  
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### 13.0 Acceptance Standards for Hard Surfacing NG

- 13.1 The examination shall be confined to the area which has been hard surfaced.
- 13.2 Only indications with major dimensions greater than 1/16 inch shall be considered relevant.
- 13.3 The following relevant indications are unacceptable.
  - 13.3.1 Any linear indication greater than 3/16 inch long.
  - 13.3.2 Rounded indications with dimensions greater than 3/16 inch.
  - 13.3.3 Four or more indications whose major dimension is greater than 1/16 inch when the indications are in a line and are separated by 1/16 inch or less, edge to edge.
  - 13.3.4 Ten or more indications whose major dimension is greater than 1/16 inch when the indications are in any 6 square inch of surface with the major dimensions of the area not to exceed 6 inches, with the area taken in the most unfavorable location relative to the indications being evaluated.

### 14.0 Post-Examination Cleaning

- 14.1 Post-examination cleaning of acceptable surfaces.
  - 14.1.1 Clean the surface examined.
- 14.2 Post-examination cleaning of surfaces with areas to be repaired.
  - 4.2.1 Clean those areas which are acceptable taking care not to remove markings which indicate areas to be repaired.

ATTACHMENT I  
SECTION VIII DIVISION I & II 1980  
ACCEPTANCE STANDARDS

EVALUATION OF INDICATIONS

Relevant indications are those which result from mechanical discontinuities.

- (a) Linear indications are those indications in which the length is more than three times the width. Only indications with major dimensions greater than 1/16 in. (1.6mm) shall be considered relevant.
- (b) Rounded indications or indications which are circular or elliptical with the length less than three times the width.
- (c) Any questionable or doubtful indications shall be retested to verify whether or not actual defects are present.
- (d) Localized surface imperfections, such as may occur from machining marks, surface conditions, or an incomplete bond between base metal and cladding, may produce similar indications which are not relevant to the detection of unacceptable discontinuities.

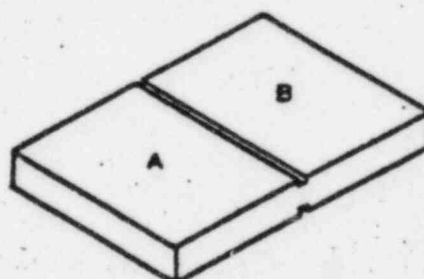
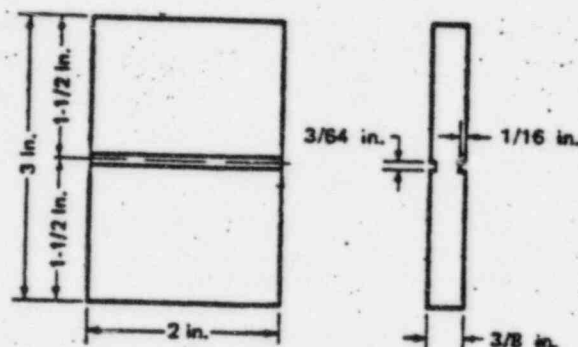
ACCEPTANCE STANDARDS

These acceptance standards shall apply unless other standards are specified for specific applications within this Division.

All surfaces to be examined shall be free of:

- (a) relevant linear indications;
- (b) four or more rounded defects in a line separated by 1/16 in. (1.6mm) or less (edge to edge) except where the specification for the material establishes different requirements for acceptance so far as defects are concerned.

ATTACHMENT II  
NDE-P-048 REV. 04



LIQUID PENETRANT COMPARATOR  
(Note: Dimensions given are for guidance only  
and are not critical.)



COMBUSTION ENGINEERING, INC.  
C-E AVERY DIVISION

DATE \_\_\_\_\_

LIQUID PENETRANT  
MAGNETIC PARTICLE  
EXAMINATION REPORT

CONTRACT NO. \_\_\_\_\_ ENVELOPE NO. \_\_\_\_\_ CODE NO. \_\_\_\_\_

SEQUENCE \_\_\_\_\_ OPERATION \_\_\_\_\_ DRAWING NO. \_\_\_\_\_ S/N \_\_\_\_\_

PART NAME \_\_\_\_\_ NDE PROCEDURE USED \_\_\_\_\_ JT. NO. \_\_\_\_\_

1ST ☐ 2ND ☐  
ROOT PASS ☐ 1/2" LEVELS 3RD ☐ 4TH ☐ FINAL WELDED SURFACE ☐  
COMPLETE ☐ INCOMPLETE ☐ WELD PREP ☐  
CLAD ☐

FOR LIQUID PENETRANT EXAMINATION

CLEANER BATCH NO. \_\_\_\_\_ PENETRANT BATCH NO. \_\_\_\_\_

DEVELOPER BATCH NO. \_\_\_\_\_ DWELL TIME \_\_\_\_\_

SOLVENT REMOVABLE METHOD ☐ WATER WASHABLE ☐ SURFACE TEMPERATURE \_\_\_\_\_FOR MAGNETIC PARTICLE EXAMINATION

EQUIPMENT USED \_\_\_\_\_ METHOD USED \_\_\_\_\_

EQUIPMENT NO. \_\_\_\_\_ PROD SPACING \_\_\_\_\_

AMPS PER IN. \_\_\_\_\_

EVALUATION OF TEST RESULTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

ACCEPT ☐ REJECT ☐

ISR NO. \_\_\_\_\_

TECHNIQUE SKETCH, IF REQUIRED:

OPERATOR \_\_\_\_\_

NDE LEVEL \_\_\_\_\_

DATE \_\_\_\_\_