

ATTACHMENT 9

**GENE FDI NO. HT2-0121-12900, REVISION 0
FIELD DISPOSITION INSTRUCTION
HATCH UNIT 2
SHROUD REPAIR PROGRAM
JUNE 1995**

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GE Nuclear Energy

Field Disposition Instruction

**ORIGINAL WHEN
STAMPED IN RED**

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PROJECT <u>Hatch</u>	UNIT <u>2</u>	DATE OF ISSUE JUN 19 1995
EQUIPMENT <u>Shroud Repair Program</u>		<i>J. Trovato</i>
MPL NO. <u>B11-A001</u>		ECN/IR/DDR/FDDR

DESCRIPTION OF TASK

I. Purpose

This FDI documents the design, requirements and material required to install the stabilizers for the shroud horizontal welds.

II. Required Documents (Supplied by Engineering)

Document Number	Revision	Description
A. 107E5734	0	Reactor Modification Drawing
B. PL107E5734	0	Parts List, Reactor Modification Drawing
C. 25A5720	0	Stabilizer Installation Specification
D. 21A2040	1	Cleaning and Cleanliness Control
E. 25A5718	0	Shroud Repair Hardware Design Specification
F. 25A5717	1	Shroud Stabilizers Code Design Specification
G. 25A5719	0	Shroud Stabilizer Fabrication Specification
H. GENE-B11-00637-005	0	Safety Evaluation for Hatch 2 Shroud Repair
I. 25A5721	0	Shroud Stabilizers Code Stress Report
J. GENE-B11-00637-002	0	Shroud and Repair Hardware Stress Analysis
K. GENE-B11-00637-003	0	Seismic Analysis Report for Hatch 2 Shroud Repair
L. QAM-001	4	GE Quality Assurance Manual

APPROVAL <i>M. Schwab</i> FDI ORIGINATOR <i>Donald Johnson</i> QUALITY <i>George O. Smith</i> MATL APPL ENGR <i>A.L. Fixney</i> ENGRG MANAGER <i>M. Schwab</i> RESPONSIBLE ENGR <i>George O. Smith</i> PROJECT MANAGER	DATE <u>6/19/95</u> <u>6/19/95</u> <u>6/19/95</u> <u>19 JUN 85</u> <u>6/19/95</u> <u>6/19/95</u>	APPROVALS _____ _____ _____	DATE _____ _____ _____	THIS EQUIPMENT IS SAFETY RELATED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SAFETY FUNCTION IS AFFECTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO FIELD WORK ORDER NO. _____ COMPLETION RECORD REQUIRED BY R.E. YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
		DISTRIBUTION CODE INTERNAL EXTERNAL	FDI TASK COMPLETED _____ DATE _____	
		_____ _____	SITE QUALITY CONTROL _____ FIELD MANAGER _____	

Reference DRF B11-00637

* for L.W. King



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III. Material Required (per Paragraph II.A and II.B)

<u>Document Number</u>	<u>Document Revision</u>	<u>Parts Description</u>	<u>Qty</u>	<u>Parts List Revision</u>	
A.	112D6693G001	0	Upper Stabilizer Assembly	4	0
B.	112D6694G001	0	Stabilizer Support Assembly	4	0
C.	112D6695G001	0	Tie Rod Assembly	4	0
D.	112D6696G001	0	Tie Rod / Spring Assembly	4	0
E.	112D6697G001	0	Core Plate Wedge Assembly	4	0
F.	112D6698G001	0	Mid Support Assembly	4	0
G.	112D6699G001	0	Lower Stabilizer Assembly	4	0
H.	112D6759G001	0	Collet Assembly	4	0
I.	112D6700P001	0	Rod, Tie	4	n/a
J.	112D6701P001	0	Nut, Tie Rod	4	n/a
K.	112D6702P001	0	Spring, Lower	4	n/a
L.	112D6704P001	0	Bracket, Upper Spring	4	n/a
M.	112D6705P001	0	Support, Upper	4	n/a
N.	112D6705P002	0	Support, Upper	4	n/a
O.	112D6706P001	0	Support	4	n/a
P.	112D6707P001	0	Contact, Lower	4	n/a
Q.	112D6709P001	0	Nut, Top Support & Pin Detail	16	n/a
R.	112D6709P002	0	Nut, Top Support & Pin Detail	4	n/a
S.	112D6709P003	0	Nut, Top Support & Pin Detail	32	n/a
T.	112D6709P004	0	Nut, Top Support & Pin Detail	32	n/a
U.	112D6709P005	0	Nut, Top Support & Pin Detail	4	n/a
V.	112D6709P006	0	Nut, Top Support & Pin Detail	12	n/a
W.	112D6710P001	0	Bolt, Top Support	8	n/a
X.	112D6712P001	0	Retainer	4	n/a
Y.	112D6713P001	0	Spring, Retainer	32	n/a
Z.	112D6714P001	0	Bolt, Jack	8	n/a
AA.	112D6714P002	0	Bolt, Jack	4	n/a
BB.	112D6715P001	0	Sleeve, Jack Bolt	12	n/a
CC.	112D6717P001	0	Spring, Retainer	4	n/a
DD.	112D6718P001	0	Support, Mid	4	n/a
EE.	112D6719P001	0	Ring, Mid Support	4	n/a
FF.	112D6720P001	0	Screw, Mid Support	4	n/a
GG.	112D6721P001	0	Wedge, Core Plate	4	n/a



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Document Number	Document Revision	Parts Description	Qty	Parts List Revision	
HH.	112D6722P001	0	Clip, Core Plate	4	n/a
II.	112D6723P001	0	Bolt, Wedge	4	n/a
JJ.	112D6724P001	0	Screw, Top Support	16	n/a
KK.	112D6725P001	0	Bracket, Top Support	4	n/a
LL.	112D6726P001	0	Latch	12	n/a
MM.	112D6726P002	0	Latch	4	n/a
NN.	112D6753P001	0	Wedge, Upper Stabilizer	8	n/a
OO.	112D6754P001	0	Block, Upper Stabilizer	4	n/a
PP.	112D6754P002	0	Block, Upper Stabilizer	4	n/a
QQ.	112D6756P001	0	Arm, Upper Stabilizer	4	n/a
RR.	112D6757P001	0	Bolt, Upper Stabilizer	8	n/a
SS.	112D6758P001	0	Nut, Upper Stabilizer	8	n/a
TT.	112D6760P001	0	Collet	4	n/a
UU.	112D6761P001	0	Clevis Pin	4	n/a
VV.	112D6762P001	0	Cruciform Spacer	4	n/a
WW.	112D6763P001	0	Bolt	8	n/a
XX.	112D6764P001	0	Torque Restraint, Part 1	4	n/a
YY.	112D6765P001	0	Torque Restraint, Part 2	4	n/a
ZZ.	112D6766P001	0	Cruciform Spacer, Part 2	4	n/a
AAA.	112D6767P001	0	Cruciform Rod	4	n/a
BBB.	112D6768P001	0	Nut	4	n/a
CCC.	112D6773P001	0	Torque Restraint, Part 3	4	n/a
DDD.	112D6774P001	0	Bolt, Torque Restraint	4	n/a

IV. Repair Procedure

All of the stabilizer installation shall be performed under water. All work shall be performed in accordance with Paragraph II.A and II.C.

1.0 Shroud Top Flange and Support

Machine the required slots in the shroud top flange, and the required holes in the shroud support, per II.A.

2.0 Repair Hardware Installation

Install the four stabilizers in accordance with the requirements in Paragraph II.A and II.C.



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3.0 Repair Examination

A visual examination of the completed repair shall be performed. The television camera shall be capable of resolving a .001 inch diameter wire on a neutral gray background.

- a. Examine each clevis pin to assure that it is properly located and in correct contact with the bottom of the slot in the lower spring.
- b. Examine the core plate wedge assemblies to assure that they are properly seated.
- c. Examine the stabilizer assemblies for contact between the RPV wall and the upper stabilizers (2 contacts each), mid supports (2 contacts each), and lower contacts (1 contact each).
- d. Examine the stabilizer assemblies for contact between the shroud and the upper support (1 contact each) and lower spring (1 contact each).

V. Quality Requirements

- 1.0 GE Site Quality Control Representatives shall provide QC surveillance and document the field work performed, to insure that the requirements of this FDI have been met. All work is to be performed in accordance with GE Quality Assurance Manual QAM-001.
- 2.0 The following shall be the minimum Quality Control Documentation Requirements:
 - a. Video tape of the completed repair.
 - b. Process documentation and inspection data sheets as applicable.
 - c. As-built dimensions per II.A.
- 3.0 The following procedures and supporting documentation shall be submitted to GE Site QA and Plant Owner (as applicable) for review, and approval obtained prior to use. Previously approved GENE procedures may be used in satisfying the requirements of this paragraph provided they are approved by the Plant Owner.
 - a. Installation procedures, travelers, or sequence data sheets, drawings, sketches, instructions, etc. These procedures or travelers shall include cleaning and cleanliness, tool control, machining processes, and visual inspection methods.
 - b. Hardware certifications.



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VI. Safety / Reliability

Safety and reliability have been considered in the issue of the design documents for this project. The requirements for this design are contained in the Design Specifications 25A5718 and 25A5717. The seismic analysis of the repair is documented in GENE-B11-00637-003. The structural analysis of the repair is documented in GENE-B11-00637-002 and Specification 25A5721. The safety evaluation for the repair is contained in GENE-B11-00637-005. No new safety requirements, reviews or technical specifications are required by this FDI.