DmB

Commonwealth Edison
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Address Reply to: Post Office Box 767
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May 23, 1986

PRIORITY ROUTING

First	Second
HA	NRC
DRA	FAC
DRP	SSA
DRS	NRL
PRSS	OL
EDMA	OI
	RAO

mig+1

FILE 1402

Mr. James G. Keppler
Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Dresden Station Unit 3
Modification Installation Inspection
NRC Docket Nos. 50-249

Dear Mr. Keppler:

Per your request, enclosed please find copies of information presented at the May 21, 1986 meeting at Region III offices regarding the subject inspection findings. Attachment 1 contains copies of the transparencies utilized in our presentation. Attachment 2 contains copies of the matrices we developed during our detailed review of the individual inspection findings.

We will contact you at a later date to arrange a meeting at Dresden Station during which we will present the results of our ongoing investigations and proposed long term corrective actions. If you wish to further discuss the enclosed information, please contact this office.

Very truly yours,

D. L. Farrar
Director of Nuclear Licensing

lm

Enclosures

cc: J. M. Taylor - I&E
J. A. Zwolinski - NRR
R. A. Gilbert - NRR
Resident Inspector - Dresden

1711K

MAY 27 1986

IE01

ATTACHMENT 1

TRANSPARENCIES FROM MAY 21, 1986

CECO/NRC MEETING

1711K

NRC Presentation - 5/21/86

1.	Assessment of NRC Findings	C. Reed
	A. Process - Interdisciplinary Review	"
	B. Findings - Safety Significance	J. Abel
	C. Grease Issue	"
	D. 50.59 Issue	"
2.	Identified Weaknesses	D. Scott
3.	Corrective Actions	"
4.	Actions At Other Stations	D. Galle
5.	Summary	C. Reed

Interdisciplinary Review

Assembled Large Interdisciplinary Review Team

- Experienced Personel
- Many Backgrounds

Reviewed All 100+ NRC Concerns

Constructed Matrix

Evaluated Accuracy, Safety Significance & Corrective Actions

Interdisciplinary Review

FINDINGS

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1. 22 Packages Reviewed - 20 Modifications & 2 Work Requests

2. Summary of Findings

   -Improper Installation

   -Improper Changes to Design
   (Field Change Reviews & Documentation)

   -Inadequate Procedures and
   Instructions

   -Inadequate Quality Assurance and
   Control - Indicated by Other Findings

Interdisciplinary Review

FINDINGS

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3. Examples of Findings

-Improper Installation

Cable Splices -
Instrument Rack Weld

-Improper Change to Design

Torus Vaccuum Breaker
Environmentally Qualified
Solenoid Valve Orientation

-Inadequate Procedures & Instructions

Torus Vaccum Breaker
Air Hose Connections
and Electrical Splices

-Inadequate Quality Assurance and
Quality Control

Inspection of Electric Splices
Prior to Placing in the Junction Box

Interdisciplinary Review
Safety Significance Evaluations

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1. No Immediate Safety Concerns

   -Units in Cold Shutdown

   -No Significant Deficiencies
   Identified on Operable Systems

2. Several Items Potentially Safety Significant
   If Undetected and Uncorrected

   -Recirc. Pipe Replacement

   Interference Removal
   Outside Scope of Work
   Packages

   -Electrical Splices
   (RAYCHEM)

   -Wiring Connected to Wrong
   Terminals

Interdisciplinary Review

Lubrication of Pratt Valve Seats

-NRC Confirmatory Action Letter
(April 13, 1983)

Implement Program to Ensure that
Foreign Materials are not Applied
to Valve Seating Surfaces

-Commonwealth Edison Response
(April 22, 1983)

Restriction on Use of Lubricants on
Valve Seating Surfaces Will Be In
Accord With Valve Vendor Recommendations

-Henry Pratt Company Recommendations
(November 1984)

"Steps Should Be Taken To See That
The Valves Are Cleaned With A
Solvent Instead Of An Abrasive And
Lightly Lubricated With Silicone
Based Grease..."

-WR 39291/2 Did Not Cause The Valves
To Be Opened

Interdisciplinary Review

10CFR 50.59 Reviews

-Field Changes to Modification Designs Require Design Review

-Changes to Design Details Do Not Require A 10CFR 50.59 Safety Evaluation Per 3-2,

"At Operating Plant Sites Only Minor Design Changes Will Be Processed By FCR. Major Changes Shall Be Processed As Revised Modification Per QP 3-51"

-Example

Missed Weld On Instrument Rack Structural Change Will Receive Documented Design Review Without A New Safety Evaluation

Identified Weaknesses

I. Improper Installation

- A. Instructions Need Improvement
- B. Failure to Follow Instructions
- C. Attitude - Allow Change w/o Adequate Documentation
- D. Human Error

II. Adherence to Design Change Control

- A. FCR System Perceived to be Too Complex
- B. Training Needs Improvement
- C. Attitude - Allow Change w/o Adequate Documentation
- D. Accountability Needs Enhancement

III. Procedures/Instructions

- A. Insufficient Detail
- B. Lack of Acceptance Criteria
- C. Instructions Not Transmitted to Worker

IV. QA/QC Overview

- A. QC INSPECTIONS/QA PROGRAM AUDITS NEED ADDITIONAL DETAIL
- B. QC INSPECTIONS/QA PROGRAM AUDITS NEED ADDITIONAL COMPREHENSIVENESS

Corrective Actions

1. Review All Unit 3 S/R Modification Packages Installed This Outage By Sta. Maint. & SSC. (Correct/Eval. Safety Significance Of Any Ident. Deficiencies)
2. Review 5 Unit 3 S/R Design Changes Installed By Contractors (Correct/Eval. Safety Significance Of Any Ident. Deficiencies)
3. Inspect 50% of Station RAYCHEM Splices (Sample Will Include All D2 Drywell Splices)
4. Walkdown CB&I Interference Scope Boundaries
5. Discuss Design Change Problems and Expectations With All Involved Station Employees
6. Ensure Sufficient Corp. Engineering Onsite to Handle Design Change Requests
7. Increase Tech. Staff Involvement In Design Change Package
8. Resolve All Specific Deficiencies Identified By The Safety System Outage Modification Installation Inspection Team

ACTIONS TAKEN AT OTHER OPERATING STATIONS

(QC/Z/LS/BY)

- MAY 19, 1986 NUCLEAR STATION'S DIVISION MEMO
  - INSPECT (10) RAY-CHEM SPLICES
    - + MINIMUM BEND RADIUS
    - + LENGTH
    - + FIBER GLASS BRAID
  - REVIEW (5) MOD PACKAGES (STATION, SUB-STA., CONST., CONTRACTOR) FOR INSTALLATION CHANGES W/O ADEQUATE DESIGN APPROVAL
  - REVIEW (5) MOD PACKAGES (STATION, SUB-STA. CONST., CONTRACTOR) FOR POST INSTALLATION VERIFICATION
    - + CABLE TERMINATION WITH DESIGN DRAWINGS
    - + USE OF SPECIFIED MATERIALS
    - + FABRICATION IAW DESIGN
  - EVALUATE SUB-STATION CONSTRUCTION WORK INSTRUCTIONS AND PROCEDURES FOR COMPLETENESS

- QUALIFIERS
  - IMPRECISE INSTRUCTIONS
  - QUICK SNAPSHOT
  - CALIBRATION OF REVIEWERS
  - RESULTS PRELIMINARY

SUMMARY OF PRELIMINARY RESULTS (AS OF 4:00 P.M. ON 5/20)

OTHER STATIONS REVIEW (QC/Z/LS/BY)

	RAY-CHEM SPLICE INSPECTION	CONTROL OF INSTALLATION CHANGES	POST INSTALLATION VERIFICATION	ADEQUACY OF SUB-STA. PROC.
QUAD	(11) INSP. ALL OK (NOT EQ HOWEVER)	(5) MODS - ALL OK	(5) MODS - ALL OK (EXCEPT POLARITY REVERSED ON TIMER COIL, FUNCTIONALLY OK)	YES
ZION	(6) BUTT SPLICES INSP. ALL OK (16) END SPLICES INSP. (16) SHORT (8) BRAIDING EXTENDS UNDER TUBE	(5) MODS - ALL OK	(5) MODS - ALL OK	YES
LSCS	(12) INSP. ALL OK	(3) MODS - ALL OK (PLUS 1985 REVIEW)	(3) MODS - ALL OK (PLUS 1985 REVIEW)	NO
BYRON	(20) INSP. ALL OK	(8) MODS - ALL OK	(8) MODS - ALL OK	N/A

Summary

Conducting general review of modification program at all our stations.

Long term correctice actions identified within 30 days.

Will make inprovements in:

- Accountability
- Training
- Comprehensiveness and detail in QC Inspections/QA Overview
- Level of Detail in SSC Procedures

Attachment 2

INSPECTION FINDINGS EVALUATION MATRIX

The following pages summarize the results of the detailed evaluation of the inspection findings performed by our interdisciplinary task force prior to and subsequent to the May 21, 1986 meeting at Region III. For each modification package reviewed during the inspection, the task force addressed each deficiency as characterized by the inspection team throughout the inspection and at the interim debriefing on May 7, 1986. The review addressed whether CECo. agrees with each finding as described by the inspectors, the safety significance of each finding, and short term and long term corrective actions. The descriptions below provide additional background on the meaning of each column heading as intended by the task force participants.

NRC Issue - This column reflects the specific findings or deficiencies identified by the inspection team for each modification. The description of each deficiency represents the findings as characterized by the inspection team members and communicated to our staff.

CECo. Agreement - This column indicates whether Commonwealth Edison agrees with each deficiency as characterized by the inspection team. In some cases, agreement is indicated on the basis that we concur that a deficiency exists with regard to the specific finding although we may not agree with the manner in which it was characterized. These conclusions represent the collective opinion of the inter-disciplinary task force based on discussions with plant personnel involved in the inspections and a review of the documentation associated with each mod package.

Safety Significance - This column represents the actual immediate safety significance of each individual finding in the judgement of the task force members. These conclusions are based on the accuracy of the findings as described by the inspection team, consideration of subsequent testing or documentation reviews that had not yet been performed and engineering evaluations of discrepancies. Note that this column reflects our perception of the immediate safety significance on an item-by-item basis and is not intended to reflect a collective review of the findings.

Corrective Actions - The short term corrective actions reflect actions currently completed or in progress to resolve specific deficiencies. Long term corrective actions are indicated for some items. In many cases, identification of long term actions has been deferred pending completion of our task force investigations.

NRC Concern - This column reflects the more general areas of concern into which we believe the individual findings would be grouped by the inspection team.

M12-3-84-27 and M12-3-84-28
(INSTALL 3-1601-50A & B SOLENOID VALVES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) Station Traveler says install solenoid vertically, however, solenoid is horizontal.	Yes	None (vendor allows to be horizontal)	Change Unit 2 Mod Package New MMP for Unit 3	-	Inadequate Procedure
B) Westec E.Q. checklist was for different valves	Yes	None (final QA/QC documentation review would find error)	Verify correct catalog # and revise checklist	-	Inadequate Procedure
C) Serial #'s for solenoids not the same as red tags in packages. Suspect red tags were reversed in packages. NRC asked us to verify this.	Yes	None (final QA/QC documentation review would find error)	Red tags placed in proper packages	-	Lack of QA/QC Review
D) Schematic air line detail is wrong.	Yes	None(test would have found problem)	Correct Drawings	-	Inadequate Procedure Inadequate Design Change
E) Operational test does not include a stroke time (just says open or closed) Does not like second part of test that verifies valve would open on loss of air. Does not believe step is explicit enough to verify proper operation	Yes	None (would have been required before startup; DOS and DIS before unit start-up	Revise Mod Package Test	-	Inadequate Procedure
F) Critical Drwg is wrong for M-25 & M-356.	Yes	None - M-25 was correct	DCR submitted for M-356	-	Inadequate Design Control

M12-3-84-27 AND M12-3-84-28
(INSTALL 3-1601-50A & B SOLENOID VALVES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
G) MMP States no existing drawing is affected by Mod. However, P&ID's are a ffected.	Yes	None - M-25 was correct	DCR submitted for M-356	-	Inadequate Design Control
H) Poor workmanship on air tubing to the 3-1601-20B valve.	No	None - reinspection indicates no air flow restriction	-	-	Improper installation Inadequate QA/QC
I) U-2 solenoids installed correctly however, package did not reflect changes in packages.	Yes	None - installation within vendor tolerances	Correct drawings	Task Force Recommendations	Improper Installation

M12-2/3-85-34

(PROVIDE A FLANGED PORTHOLE BETWEEN UNIT 2 & 3 RX BLDG FOR DECON HOSES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) Questioned that this Mod should be safety related.	No	None- Not secondary cont. boundary and proper review by SNED	-	-	Inadequate Design Change
B) Mod package lacks details. (e.g. no weld sizes, grout spec, pipe size, etc.)	No	None - details were included	-	-	Inadequate Procedure
C) S&L technical evaluation in package only discusses a 4" diameter core bore in wall. However, a 5" core bore was installed. Exact location on wall where hole is installed is different than where referenced in package.	Yes	None - based on engineering evaluation	Engineering Evaluation	-	Inadequate Design Change
D) No explicit weld direction given (sketch says 3/8" weld, however 1/8" welds used).	Yes	None - not structural or pressure boundary weld	Repair Weld	-	Inadequate Procedure Inadequate QA/QC Involvement
E) S&L asks to mention a REBAR HIT, however, no mention of Rebar in package.	Yes	None - hits within engineering guidelines	Document Hits, Engineering Evaluation	-	Inadequate Procedure
F) Safety Evaluation made to approve 4" holes not 5" holes.	Yes	None - based on engineering and safety evaluations	New Safety Evaluation, Engineering Evaluation	-	Inadequate 50.59 Review

M12-2/3-85-34

(PROVIDE A FLANGED PORTHOLE BETWEEN UNIT 2 & 3 RX BLDG FOR DECON HOSES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
G) Pipe in wall was not grouted as specified in package.	No	None - package was followed	-	-	Improper installation Inadequate Procedure Inadequate QA/QC
H) No documentation on a Fire Barrier Approval included in package.	Yes	None - per engineering evaluation	Engineering Evaluation	-	Lack of 50.59

RPR INTERFERENCES M12-3-85-17

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) 2 piping runs did not match CB&I/Impell sketch drawings #181 and #187	No	None - piping matches drawings	Complete verification on piping run	-	Improper Installation
B) No spring hanger setting on Drwg #181.	Yes	None - final QC/QA documentation review would find error	Received hanger setting	-	Inadequate Procedure
C) Observation; cut in a frame needs repaired.	Yes	None (planned to repair)	-	-	-
D) Slope conditions on drains not defined	Yes	Potential	1.Evaluate technical significance 2.Walkdown & evaluate lines	-	Inadequate Design Change
E) CB&I sketches must be approved before being used. (Our comment was that Impell does approve the sketches).	Yes	None - sketches are approved	-	-	Inadequate Procedure
F) CB&I worked outside their scope.	Yes	Potential	1.Audit of work within packages 2.Umbrella walkdown & commitments 3.Fix specific items	-	Improper Installation

M12-3-85-SO-D/G COOLING WATER PUMP SUCTION PRESSURE GAUGES

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) A bronze valve was mentioned in package, however, a brass valve was actually used. No documentation was changed in package to reflect this.	Yes	None - S & L permits either type valve	DR written	Task Force Recommendations	Inadequate Design Control
B) A Seismic Evaluation for the addition of this piping was not addressed.	No	None - (documented through 50.59)	Will complete seismic eval.	-	Inadequate Design Control
C) Package states a rising stem valve to be used however, a non-rising stem valve was actually used. Not documented.	Yes	None	DR written	-	Inadequate Design Control
D) A 2-2 ½" socket was used to fit up on an 8" pipe. No mention of grinding was included in package.	No (addressed in general welding procedure)	None	-	-	Inadequate Procedure
E) NRC found the pressure gauge isolation valve open, however when we visited the plant, found the valve closed.	Yes (due to surv.)	None	Walked line and found valve in proper position	-	

LEAD SHIELDING REVIEWS

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
Lack of lead installation procedure doesn't ensure analysis is valid.	Yes	None	-	1. Revise DAP 12-12 2. Write DTS	Inadequate Design Control
Need a 50.59 analysis for each installation	No	None - Procedure is reviewed per 50.59	-		Inadequate Design Control

M12-3-83-29 (MODIFY LPCI CONTROL ROOM SUCTION VALVES 3-1501-5A, B, C & D)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Modification approval sheet and SNED Mod letter do not agree for T.S. and FSAR categories.	Yes	None - FSAR design requirements met	Revise Mod approval sheet	Revise DAP 5-1	Inadequate Design Change

M12-3-84-9 (ANTI-HAMMERING PREVENTION ON C.S. 1402-25A & B VALVES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Need a drawing change to a cable tab.	Yes	None - Mod installed correctly	Submit DCR	Task Force Recommendations	Inadequate Design Changes
2) MOV 3-1402-25B incorrect cable ID # for a wire in the field.	Yes	None (Cable I.D. problem not part of modification	Correct field label		Improper installation
3) MOV 3-1402-25A splices exceed the minimum bend radius.	Yes	None- No actual damage	1.Straightened splice 2. Ray Chem Inspection Program	Task Force Recommendations	Improper installation Inadequate Procedures Inadequate QA/QC

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) ECTP does not have acceptance criteria for motors.	Yes	None - equipment meets design requirements	-	ECTP's to be revised	Inadequate Procedure
2) 2 wires were found terminated on the same terminal connection in the MOV 3-1501-22B.	Yes	None - equipment operable	Fix terminations	-	Inadequate Design Changes
3) Annaconda T.W. wire was found being used internally in the MOV 1001-5B.	No	None - not E.Q. because of short oper. time	-	-	Inadequate Design Changes
4) In C.E. Package 042 field cable 76902 not striped to NRC satisfaction. (NRC comment)	No	None	-	-	-
5) In C.E. Package, a T/C ground wire end crimped over insulation per NRC.	Yes	None - T/C still operable	Improve installation per this Mod		Improper installation Inadequate QA/QC involvement
6) In C.E. Package, a concrete expansion anchor extended too far out of embedment by NRC viewpoint.	No	None - minimum embedment verified to be correct	Verify embedment	-	Improper installation Inadequate QA/QC involvement

GENERAL COMMENTS

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) An HVAC cable which is non-safety was found being run down a Division I cable tray by the Nuthern panels, etc. Is this acceptable?	No	None - installation meets original FSAR design requirements	-	-	Improper Installation

M12-3-84-104(EQ MOV 3-202-5A)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1. NRC found tape on motor leads, questioning applicability.	No	None - meets EQ binder requirement	Engineering evaluation	-	Inadequate Design Changes

M12-3-83-38 & 39 (Transmitter Replacement for RVLIS Mod)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Hardware okay by Pope.	N/A	-	-	-	
2) 50.59 generic checklist problem in Q.A. Manual.	Yes	None - intent of 50.59 met	QA Manual revised	-	Inadequate Design Control
3) Mod approval form and SNED letter does not agree. Change DAP 5-1	Yes	None - FSAR design requirement met	Revise Mod approval sheet	Revise DAP 5-1	Inadequate Design Change
4) A) DAP 5-1 Form 5-1D (Fire Protection Checklist) not signed before start of work.	Yes	None - no fire protection concerns associated with this MOD	Form Signed	Task Force Recommendations	Inadequate Procedures
B) Need Form 5-1D re-written to provide blanks for user to sign-off.	Yes	None - same as 4A	DAP Form to be revised		

M12-3-83-30 (MODIFY C.S. CONTROL ROOM SUCTION VALVES 3-1402-3 A & B)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1. Mod approval sheet and SNED Mod letter do not agree.	Yes	None - FSAR design requirements met	Revise Mod approval sheet	Revise DAP 5-1	Inadequate Design Change
2. Wires landed incorrectly - traveler and drwg's correct, however, mistake by workman in the field functional test and Q.C. release had not been completed yet	Yes	None- Testing would have found problem	Wiring corrected	Task Force Recommendations	Improper Installation Inadequate QA/QC Involvement
3. An FCR should have been incorporated for this job. (No orange-blk cable)	Yes	None - does not affect Mod	Issued FCR	-	Inadequate Design Change
4. NRC believes this Mod should be reflected in the FSAR.	No	None - based on engineering evaluation	Engineering evaluation	-	Lack of 50.59 Review

M12-3-84-27 & 28 (INSTALL SO 3-1601-50A & B VALVES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1. A) E.Q. splices over braided jacket.	Yes	None (Raychem to discuss Monday)	Re-spliced	Task Force Recommendations	Improper installation Inadequate QA/QC
B) Conductor showing through splice.	Yes	Potential	Conductor respliced	Task Force Recommendations	Improper installation Inadequate Procedure Inadequate QA/QC
C) Marks on splice from codulet.	No	None - splice intact	-	-	
D) Exceeded Ray Chem minimum bend radius.	Yes	Potential	Conductor respliced	Task Force Recommendations	

M12-3-84-38 (SEISMIC SUPPORT 2208-5 & 6 RACKS)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1. FCR 042-17 written to change configuration due to interferences. Does SNED review and should a new 50.59 be written?	No	None - change reviewed per QA Manual	-	-	Inadequate Design Changes
2. M-3620 Sheet 3 of 3 from A/E transmittal referenced for Unit 2 but not for Unit 3	No	None - M-3620 Sheet 3 does not apply to Unit 3	-	-	Inadequate Procedures
3. M-3620 Sheet 2 of 3 says use ASTM-36 tubing, however not possible.	Yes	None - engineering evaluation	NCR started to correct drawing and mod letter	Task Force Recommendations	Improper installation Inadequate Design Changes Inadequate QA/QC involvement
4. On 2203-8 rack, a weld was missing.	Yes	None - engineering evaluation	Weld installed	Task Force Recommendations	Improper installation Inadequate QA/QC involvement

M12-3-84-49 & 50 (E.Q. East and West LPCI Room Cooler Motors)

NRC ISSUE	CECO AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Motor mounting in question; no detail in package.	Yes	None - engineering evaluation	Engineering evaluation	-	Inadequate Design Changes
2) Ray Chem in-line tubing for motor leads had no material certs in package. Review with Q.A. Inspector said he reviewed certs to verify proper size. No red tags can be found.	Yes	None- Tag lost but part is listed on doc. checklist	-	-	Inadequate QA/QC involvement
3) MMP seems to indicate all 3 leads should be repaired. However, intent was only to do damaged lead.	No	None - Necessary work accomplished	-	-	Inadequate Design Changes
4) For the East Room Cooler M12-3-84-50					
A) One belt found off/other belt okay.	Yes	None - redundant belts	Belt reinstalled	-	Improper installation Inadequate QA/QC involvement
B) NRC says we need matched belts.	No	None- Surveillance would catch this	-	-	Inadequate Design Changes
C) Poor operation practice noted-coolers not taken OOS for belt problem. Observation.	No	None- Not required per Tech. Spec.	-	-	N/A

NRC ISSUE	CECO AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
4) Continued-					
D) Flexible conduit not replaced.	No	None - not a design requirement in the Mod	Red tag removed from package	-	Improper installation Inadequate QA/QC involvement
E) Connection for conduit loose not per Traveler	Yes	None- Conduit cannot come off	-	-	Improper installation Inadequate QA/QC involvement
F) Per Westinghouse Manual, Raychem not okay for splicing but should have used 3M Scotch Tape.	No	None - engineering evaluation	Engineering evaluation	-	Improper installation Inadequate QA/QC involvement
G) Splice kit installed on glass braided tubing not per 2nd MMP.	No	None - engineering evaluation	Engineering evaluation	-	Improper installation Inadequate QA/QC involvement
H) Q.C. verification did not follow MMP.	No	None - MMP installation was properly QC verified	-	-	Inadequate QA/QC involvement
I) For both M12-3-84-49&50					
1. Q.C. inspector not qualified per ANSI 45.2.6	No	None - The 2 QC Inspectors meet ANSI 45.2.6 requirements	-	-	Inadequate QA/QC involvement
2. Not all Q.C. trained on Raychem splices	Yes	None- QC inspector qualified per ANSI 45.2.6 requirement	-	-	Inadequate QA/QC involvement

NRC ISSUE	CECO AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
4) Continued-					
J) NRC does not like how Attachment "B" are/was filled out. Station Memo okay for T.S. but not sufficient for caution statement. Found error in T.S. sections on 49 pkg.	Yes	None - No evidence of any T.S. violations	Memo issued to Operating	-	Inadequate Procedures
K) Form 5-1D not properly signed.	Yes	None - No fire protection concerns associated with this Mod	Form signed	Revise DAP 5-1	Inadequate Procedures
L) Static Seismic Analysis not correct.	No	None - Engineering evaluation	Engineering Evaluation	-	Inadequate Design Changes
M) No hold points for E.Q. splices for motor lead repair splices	Yes	None - Splices installed adequately	-	Task Force Recommendations	Inadequate Procedures Inadequate QA/QC involvement
N) No acceptance criteria for Megger. Results, etc. in Traveler.	Yes	None- Exceeds IEEE Standard	-	ECTP's to be revised	Inadequate Procedures
O) No Polarization Test in Traveler as required for E.Q.	Yes	None- Not applicable for small motors	Engineering Evaluation	ECTP's to be revised	Inadequate Procedures
P) Bolted connection splice over wire braid	Yes	None - Splice sealing area unaffected	Opened splice - found no problems	-	Improper Installation

M12-3-84-8 (HGA 11 RELAY)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Construction test signed off by maintenance man in two spots where only one spot should have been signed.	Yes	None - Test completed satisfactorily	Const. Test Corrected	-	Improper installation Inadequate QA/QC involvement
2) Finding on wiring connection being wrong so that if M12-3-82-27 was completed would disable a HGA 11 relay.	No	None- M12-3-82-27 has steps to put wire in proper place	Correct construction test (new MMP)	-	Improper installation Inadequate Design Change Inadequate QA/QC involvement
3) Traveler step signed off for item 2 above but not correctly completed.	Yes	None - Construction test would catch	Correct Traveler (new MMP)	-	Improper installation Inadequate Design Change Inadequate QA/QC involvement
4) Referenced copies of drawings in panels not all changed properly as signed off in traveler	Yes	None - Not used as a design document	Remove sketch - Revise MMP	-	Improper installation Inadequate QA/QC involvement
5) Inadequate Design Change Control - 12E3757D had error but no FCR written.	Yes	None- Corrected in field.	DCR submitted	Task Force Recommendations	Inadequate Design Change
6) Unapproved notes on drawings to help workmen do the job/ notes should be on MMP.	No	None - Notes were aids to clarify drawing	Document approval of notes (new MMP)	Task Force Recommendations	Inadequate Procedures

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
7) Not all applicable drawings in package and NRC feels job should have been re-drawn showing as-built conditions. Traveler does not list all drawings.	No	None - Instructions and drawings provided information needed for installation	-	-	Inadequate Design Change Inadequate Procedures
8) Traveler does not give explicit details.	No	None - See item 6	Document approval of notes (new MMP)	Task Force Recommendations	Inadequate Procedures
9) Potential non-compliance for no DAP 2-7 Attachment "A" for drawing 12E-2758C Rev. Y.	No	None - Drawing 12E2758C Rev. Y does not exist	-	-	Inadequate Design Change

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) 50.59 problem as stated in M12-3-83-38 and 39.	Yes	None - Intent of 50.59 met	QA Manual revised	-	Inadequate Design Control
2) Step 10 of Traveler dated 2-6-85 states all work to be completed by approved SSC procedures. However, SSC has no procedures for all evolutions. e.g., cable pull procedure which measures tension Install cable tray Run raceways and termination,etc.	Yes	None - No significant installation deficiencies except for Ray Chem splices	-	Generate new procedures	Inadequate Procedures
3) In 3-2202-73 A & B have NSR and SR cables not 6" separation	Yes	None - installation not finished yet	ECN to be issued	-	Inadequate Design Changes
4) Per 12E-2103A, Rev. E, Note 5 says record pull tension of cable. SSC does not have a procedure to do this nor was it documented.	Yes	None - Requirement not necessary based on installation methods	NCR issued (on cable pulls)	-	Inadequate Procedures
5) Stickers on conduits too far apart greater than 15 feet.	Yes	None - Cable identification maintained	Install more stickers	-	Improper installation Inadequate QA/QC involvement
6) Supports greater than 42" from conduit bends.	Yes	None - Engineering evaluation	NCR issued	-	Improper installation Inadequate Design Changes Inadequate QA/QC involvement

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
7) Improper grounding from conduit to cable trays.	Yes	None- Personnel safety issue	Ground clamps to be installed	Task Force Recommendations	Improper installation Inadequate QA/QC involvement
8) In panel 3-2352 and 3-2389 A & B splices did not conform to vendor requirements. Vendor requirements found in 83-40 but not in 83-38. Raychem splice approximately 3" long not 6" as required.	Yes	None- Not in service	Change fittings and resplice	Task Force Recommendations	Improper installation Inadequate Procedures Inadequate QA/QC involvement
9) DFPP 4175-1 Rev. 0 does not reflect T.S. 3.12.4 and procedure in package. However, DFPP 4175-1 Rev 1 does reflect T.S.					
A) Concerned that temporary firestop using Kaowool is not adequate.	No	None - Engineering evaluation	Engineering evaluation	-	Inadequate Design Control
B) This should be a temporary mod using a 50.59 review.	No	None - Procedurally controlled	-	-	
10) No Q.C. hold points for E.Q. splices as required by DAP 15-1. NRC feels this is a general problem with SSC work.	Yes	Not in service yet	QC hold pts on splice rework	Task Force Recommendations	Improper installation Inadequate QA/QC involvement

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) T.S. reference in DAP 15-1 Attachment "B" is incorrect.	Yes	None - Applicable Tech Spec not required at this time	Correct Att. "B", Memo to Operating	-	Inadequate Procedures
2) DAP 5-1 Form 5-1D not filled out	Yes	None - No fire protection concerns associated with this Mod	DAP form being revised	-	Inadequate Procedures
3) Installation test needs to be initialed not checked per ANSI standards.	No	None - ANSI N45. 2.3 does not require each step to be initialed	Check ANSI standard	-	Inadequate Procedures
4) NRC asked to see seismic qual. documents.	NA	-	-	-	
5) Needs acceptance criteria for test.					
A) MSL Mon.	No	None - GE functional test required by Spec T-3315	-	-	Inadequate Procedures
B) Recorder	Yes	None - Not in service	Revise Test	-	Inadequate Procedures
6) No reference in mod installation test for proper "Q" setpoint & trips and settings.	Yes	None - Surv. to be performed before S/U	Procedure being written for "Q"	-	Inadequate Procedures

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
1) Form 5-1D not signed.	Yes	None	DR written form signed	-	Inadequate Procedure
2) Also, mod referenced DGA 19, but this procedure deleted and placed in DEOP's.	No	None - DGA 19 existed at time checklist prepared	-	-	Inadequate Procedures

GENERAL PROBLEMS

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) In 903-33 & 32, ½" dia. spare cable needs to be removed or secured and labeled.	Yes	None - Workmanship	Remove cable	-	Improper installation
B) No OOS tags on this cable mentioned above.	No	None - Not within OOS scope	-	-	
C) 903-32, no covers on trays (Panduit)	Yes	None	WR written to replace covers	-	
D) Paper combustibles in 903-32.	Yes	None	Paper removed	-	
E) 14 safety related fuses removed but only a few had OOS tags connected to fuses. Other OOS tags just on bottom of panel	Yes	None	OOS tag to be placed on fuses - memo issued to Operating Dept	-	
F) Terminal block broken in 903-33. Work request written to repair	Yes	None- Just cracked	WR written to repair terminal block	-	
G) Bad splice in 903-33 panel.	Yes	None	WR written to replace cable- no splice	-	

M12-2-84-14
(UNIT 2 CCSW PUMP VAULT COOLER REVERSAL VALVES)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) A/E drawing reflects as-built assembly after Mod was installed Cooler #'s were backwards on drawings three of the dimensions were not correctly shown on as-built drawing.	Yes	None - Engineering evaluation	Engineering evaluation and DCR	Task Force Recommendations	Inadequate Design Change
B) No direction in package was given for proper orientation of valve in pipe.	Yes	None (valve installed properly)	-	-	Inadequate Procedure
C) Operating procedures should address perferred flow direction	Yes	None - Engineering evaluation	Engineering evaluation	-	Inadequate Procedure

WORK REQUESTS ON 3-1601-50A & B VALVES/1601-20A & 20B

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
A) Bolt problem not correctly documented in package. Used correct bolt however, not properly documented.	Yes	None - Proper bolt was installed	DR written	Task Force Recommendations	Inadequate Design Change Inadequate Procedure
B) Weld was different than stated on weld MAP.	Yes	None - Weld does not affect safety function of valve	Finish Weld	Task Force Recommendations	Improper Installation
C) Work request states to apply silicone grease to seats. NRC concerned this is the same issue as the MSIV grease issue.	No	None - CAL not violated	-	-	Inadequate Procedure
D) NRC feels this work request should be a Mod.	No	None - Classified in accordance with QA Manual	-	-	Inadequate Design Control
E) Didn't stake all bolts as W.R. states. Staking was not practical, however not documented.	Yes	None - Impractical	Document Change in Package	Task Force Recommendations	Inadequate Design Change
F) W.R. needs a 11-7A or 11-5A for bolts.	No	None - Proper bolt was installed	-	-	Inadequate Procedure
G) No sign-off for system cleanliness.	No	None - (package had not been closed out & valve not opened)	-	-	Inadequate QA/QC Involvement

WORK REQUEST ON 3-1601-50A & B VALVES/1601-20A & 20B

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION SHORT TERM	CORRECTIVE ACTION LONG TERM	NRC CONCERN
H) General concern on how machinery history is maintained.	No (TJM package)	None	-	-	Inadequate Procedure

M12-3-83-57 (LUGS ON MAIN STEAMLINE PIPING)

NRC ISSUE	CECo AGREEMENT	SAFETY SIGNIFICANCE	CORRECTIVE ACTION		NRC CONCERN
			SHORT TERM	LONG TERM	
A) Detail on drwg. says to snug up tightly, however not followed. This is not a technical concern.	Yes	None (installed adequately)	Issue FCR	-	Improper Installation