

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND TOWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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April 9, 1984

Docket No. 50-336
B11122

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: (1) W. G. Counsil letter to D. G. Eisenhut, dated August 18, 1983.
(2) R. A. Clark letter to W. G. Counsil dated April 6, 1983.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Environmental Qualification of Electrical Equipment

In Reference (1) Northeast Nuclear Energy Company (NNECO) provided a detailed response to the NRC SER and TER transmitted in Reference (2). Reference (1) supplemented previous submittals regarding demonstration of compliance with 10 CFR 50.49.

Attachment (2) to Reference (1) consisted of an index of the qualification status of all equipment covered by 50.49, including an identification of that equipment for which replacement was scheduled for the 1983 refueling outage.

Attachment (3) to Reference (1) provided the Index to the System Component Evaluation Work (SCEW) Sheet Package.

Attachment (4) to Reference (1) consisted of the individual SCEW Sheets, Discrepant Equipment Summary Sheets, including Justifications for Continued Operation (JCOs) where necessary, and the SER/TER Review Sheets for all equipment covered by 50.49.

Since the docketing of Reference (1), the 1983 refueling outage has been completed, and certain environmental qualification upgrades have been implemented. Accordingly, we have revised the above discussed attachments to reflect installation of qualified equipment. The attachments to this letter consist of the following:

- o Attachment 1--Summary of Qualification Status of Equipment

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Covered by 10 CFR 50.49

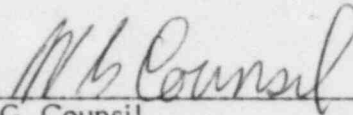
- o Attachment 2--Index to SCEW Sheet Package
- o Attachment 3--SCEW Sheets, Discrepant Equipment Summary Sheets (including JCOs), and SER/TER Review Sheets

Attachments 1 and 2 are included in the entirety; Attachment 3 only includes those pages which have been revised since the Reference (1) submittal.

We will continue to keep you informed regarding our progress towards total conformance with 10 CFR 50.49.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

A handwritten signature in cursive script, appearing to read "W. G. Counsil", is written over a horizontal line.

W. G. Counsil
Senior Vice President

Docket No. 50-336

Attachment 1

Summary of Qualification Status of
Equipment Covered by 10 CFR 50.49

April, 1984

EQUIPMENT ENVIRONMENTAL QUALIFICATION
QUALIFICATION STATUS OF EQUIPMENT
COVERED BY 10 CFR 50.49

MILLSTONE UNIT 2
INDEX OF COMMENTS

1. Refer to SER/TER Review Sheet for justification.
2. Added qualification reference.
3. Equipment not evaluated in 1983 TER.
4. Equipment located in a mild environment.

FACILITY: Millstone Station

UNIT: Two

DOCKET: 50-336

EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

Page: 1
 Rev: 2
 Date: 12/30/83

| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | JCO Provided | Comment |
|-------|------------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|--|-----------------|---------|
| | | | | | | Disagree | Modification | | | | |
| | | | | | | | Complete | Pending | | | |
| 2-A | Penetration | Conax | 85 | I.A | X | | | | | | |
| 3-A | T.B.'s | GE | 83 | I.A | X | | | | | | |
| 4-A | Cable (LV Pwr.) | Anaconda | 79 | II.A | | X | | | | | 1 |
| 5-A | Cable (Control) | Kerite | 78 | I.A | X | | | | | | |
| 6-A | Cable (Instr.) | Rockbestos | 71 | II.A | | X | | | | | 1 |
| 6-Aa | Cable (600V) | Kerite | 75 | I.A | X | | | | | | |
| 7-A | H ₂ Recomb. | Westinghouse | 86 | I.A | X | | | | | | |
| 8-A | Motor (Recir.Fans) | Westinghouse | 93 | II.A | | X | | | | | 1 |
| 9-A | Motor (P.I.R.Fans) | Joy | 92 | II.A | | X | | | | | 1 |
| 10-A | Limit Sw. | Namco | 63 | II.A | | X | | | | | 1 |
| 11-A | Limit Sw. | Namco | 64 | II.A | | X | | | | | 2 |

FACILITY: Millstone Station

UNIT: Two

DOCKET: 50-336

EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

Page: 2
 Rev: 2
 Date: 12/30/83

| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | Comment |
|-------|---------------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|----------|---------|
| | | | | | | Disagree | Modification | | JCO | |
| | | | | | | | Complete | Pending | Provided | |
| 12-A | Conductor Seal Assy's. | Conax | 42 | I.A | X | | | | | |
| 13-A | Set Screw Conn. | Ideal | 35 | I.A | X | | | | | |
| 14-A | SOV | ASCO | 16 | I.A | X | | | | | |
| 15-A | SOV | ASCO | 28 | II.A | | X | | | | 1,2 |
| 16-A | SOV | ASCO | 16 | I.A | X | | | | | |
| 17-A | SOV | ASCO | - | - | | | | | | 3 |
| 19-A | SOV | ASCO | 30 | I.A | X | | | | | |
| 20-A | SOV | ASCO | 30 | I.A | X | | | | | |
| 21-A | SOV | ASCO | 27 | I.A | X | | | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | Disagree | NUSCO TER ASSESSMENT | | | JCO Provided | Comment |
|-------|-------------------|--------------|-----------------|-----------------|-----------------------------|----------|----------------------|---------|--|-----------------|---------|
| | | | | | | | Modification | | | | |
| | | | | | | | Complete | Pending | | | |
| 23-A | MOV | Limitorque | 95 | III.A | X | | | | | | |
| 24-A | MOV | Limitorque | 5 | II.A | | X | | | | | 1 |
| 25-A | SOV | ASCO | 30 | I.A | X | | | | | | |
| 27.A | XMTR | FOXBORO | 45 | I.B | X | | | X | | X | |
| 28-A | XMTR | FOXBORO | 56 | I.B | - - - - - Deleted - - - - - | | | | | | 1 |
| 29-A | XMTR | FOXBORO | 56 | I.B | X | | X | | | | |
| 30-A | XMTR | FOXBORO | 54 | I.B | X | | | X | | X | |
| 31-A | XMTR | FOXBORO | 45 | I.B | X | | X | | | | |
| 32-A | XMTR | FOXBORO | 45 | I.B | X | | X | | | | |

FACILITY: Millstone Station

UNIT: Two

DOCKET: 50-336

EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

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 Rev: 2
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | JCO Provided | Comment |
|-------|---------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|--|-----------------|---------|
| | | | | | | Disagree | Modification | | | | |
| | | | | | | | Complete | Pending | | | |
| 34-A | SOV | Valcor | 31 | II.C | | X | | | | | |
| 35-A | Connector | Litton | 43 | I.A | X | | | | | | |
| 36-A | Penetration | Conax | 85 | I.A | X | | | | | | |
| 37-A | Cable (Coaxial) | Rockbestos | 72 | II.A | | X | | | | 1 | |
| 38-A | Term.Blk. | Weidm. | 82 | I.A | X | | | | | | |
| 1-B | Term.Blk | GE | 84 | I.A | X | | | | | | |
| 2-B | Cable (5 KV) | Gen.Cable | 74 | IV | | X | | | | 1 | |
| 3-B | Cable (Control) | Kerite | 77 | I.A | X | | | | | | |
| 4-B | Cable (L.V. Pwr) | Anaconda | 80 | II.A | | X | | | | 1 | |
| 5-B | Cable (Instr) | Rockbestos | 70 | II.A | | X | | | | 1 | |
| 5-Ba | Cable (600V) | Kerite | 76 | I.A | X | | | | | | |

FACILITY: Millstone Station

UNIT: Two

DOCKET: 50-336

EQUIPMENT ENVIRONMENTAL QUALIFICATION
QUALIFICATION STATUS OF EQUIPMENT COVERED
BY RULE 10CFR50.49

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Rev: 1

Date: 8/18/83

| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | | Comment |
|-------|-------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|----------|---|---------|
| | | | | | | Disagree | Modification | | JCO | | |
| | | | | | | | Complete | Pending | Provided | | |
| 7-B | MOV | Limitorque | 1 | II.A | | X | | | | 1 | |
| 8-B | MOV | Limitorque | 1 | II.A | | X | | | | 1 | |
| 9-B | MOV | Limitorque | 1 | II.A | | X | | | | 1 | |
| 10-B | MOV | Limitorque | 10 | II.A | | X | | | | 1 | |
| 11-B | MOV | Limitorque | 2 | II.A | | X | | | | 1 | |
| 12-B | MOV | Limitorque | 2 | II.A | | X | | | | 1 | |
| 13-B | MOV | Limitorque | 4 | II.A | | X | | | | 1 | |
| 14-B | MOV | Limitorque | 14 | II.C | | X | | | | 1 | |
| 15-B | MOV | Limitorque | 3 | II.A | | X | | | | 1 | |
| 16-B | MOV | Limitorque | 8 | II.C | | X | | | | 1 | |

FACILITY: Millstone Station

UNIT: Two

DOCKET: 50-336

EQUIPMENT ENVIRONMENTAL QUALIFICATION
QUALIFICATION STATUS OF EQUIPMENT COVERED
BY RULE 10CFR50.49

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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO | TER ASSESSMENT | | JCO Provided | Comment |
|-------|-------------------|---------------|-----------------|-----------------|-------|----------|----------------------------------|--|-----------------|---------|
| | | | | | | Disagree | Modification Complete Pending | | | |
| 17-B | MOV | Limitorque | 12 | II.C | | X | | | | 1 |
| 18-B | MOV | Limitorque | 12 | II.C | | X | | | | 1 |
| 19-B | MOV | Limitorque | 12 | II.C | | X | | | | 1 |
| 20-B | MOV | Limitorque | 13 | II.C | | X | | | | 1 |
| 21-B | PP Motor | GE | 88 | II.A | | X | | | | 1 |
| 23-B | Fan Motor | Joy | 89 | II.A | | X | | | | 1 |
| 24-B | MO Damper | Raymond Cont. | - | - | | | | | | 3 |
| 25-B | PP Motor | Siemens/Allis | 90 | II.A | | X | | | | 1 |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | NUSCO TER ASSESSMENT | | | | JCO Provided | Comment |
|-------|-------------------|---------------|-----------------|-----------------|----------------------|-----------|--------------|-----------|-----------------|---------|
| | | | | | Agree | Disagree | Modification | | | |
| | | | | | | | Complete | Pending | | |
| 26-B | PP Motor | Siemens/Allis | 91 | II.A | | X | | | | 1 |
| 29-B | PP Motor | GE | - | - | | | | | | 3 |
| 30-B | MCC | GE | 87 | II.A | - - - - - | - - - - - | Deleted | - - - - - | - - - - - | 4 |
| 31-B | MCC | GE | - | - | - - - - - | - - - - - | Deleted | - - - - - | - - - - - | 4 |
| 35-B | SOV | ASCO | 29 | I.A | X | | | | | |
| 36-B | XMTR | Foxboro | 48 | I.B | X | | X | | | |
| 36-Ba | XMTR | Foxboro | 48 | I.B | X | | X | | | |
| 40-B | SOV | ASCO | 21 | I.B | X | | X | | | |
| 40-Ba | SOV | ASCO | 24 | I.B | X | | X | | | |
| 43-B | SOV | ASCO | 17 | I.A | X | | | | | |
| 46-B | SOV | ASCO | 15 | I.A | X | | | | | |
| 46-Ba | SOV | ASCO | 15 | I.A | X | | | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO | TER ASSESSMENT | | JCO Provided | Comment |
|-------|-------------------|--------------|-----------------|-----------------|-------|----------|----------------------------------|--|-----------------|---------|
| | | | | | | Disagree | Modification Complete Pending | | | |
| 47-B | SOV | ASCO | 17 | I.A | X | | | | | |
| 47-Ba | L.S. | NAMCO | 62 | | | X | | | | |
| 49-B | L.S. | NAMCO | 66 | I.B. | | X | | | | 2 |
| 50-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 51-B | L.S. | NAMCO | 67 | I.B | | X | | | | 1 |
| 52-B | SOV | ASCO | 17 | I.A | X | | | | | |
| 53-B | SOV | ASCO | 25 | II.A | | X | | | | 1 |
| 54-B | L.S. | NAMCO | 65 | I.B | | X | X | | | 2 |
| 55-B | L.S. | NAMCO | 66 | I.B | X | | X | | | |
| 56-B | SOV | ASCO | 20 | I.A | X | | | | | |
| 57-B | L.S. | NAMCO | 67 | I.B | | X | | | | 1 |
| 58-B | SOV | ASCO | 17 | I.A | X | | | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
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 Date: 8/18/83

| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | JCO Provided | Comment |
|-------|-------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---|----------|-----------------|---------|
| | | | | | | Disagree | Modification | | Complete | | |
| 66-B | SOV | ASCO | 19 | I.B | X | | | X | X | | |
| 66-Ba | SOV | ASCO | - | - | | | | X | X | | |
| 67-B | P.Sw. | Custom Comp. | - | - | | | | X | X | | 3 |
| 68-B | SOV | ASCO | 18 | I.A | X | | | | | | |
| 68-Ba | SOV | ASCO | 17 | I.A | X | | | | | | |
| 69-B | L.S. | NAMCO | 68 | I.B | X | | X | | | | |
| 69-Ba | L.S. | NAMCO | 68 | I.B | X | | X | | | | |
| 70-B | SOV | ASCO | - | - | | | | X | X | | 3 |
| 71-B | L.S. | NAMCO | - | - | | | | X | X | | 3 |
| 72-B | SOV | ASCO | 26 | I.B | X | | | X | X | | 1 |

FACILITY: Millstone Station

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | NUSCO TER ASSESSMENT | | | | | JCO Provided | Comment |
|-------|-------------------|--------------|-----------------|-----------------|----------------------|----------|--------------|--|----------|-----------------|---------|
| | | | | | Agree | Disagree | Modification | | Complete | Pending | |
| 83-B | MOV | Limitorque | 11 | II.A | | X | | | | | 1 |
| 84-B | MOV | Limitorque | 7 | II.A | | X | | | | | 1 |
| 85-B | PP Motor | Westinghouse | 94 | II.A | | X | | | | | 1 |
| 86-B | Vac.Sw. | Custom Comp. | - | - | | | | | | X | 3 |
| 89-B | MOV | Limitorque | 9 | II.A | | X | | | | | 1 |
| 91-B | XMTR | Foxboro | 47 | I.B | X | | | | X | | |
| 940B | SOV | ASCO | 23 | I.A | X | | | | | | |
| 95-B | SOV | ASCO | 18 | I.A | X | | | | | | |
| 96-B | SOV | ASCO | 22 | I.A | X | | | | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | |
|-------|-------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|----------|---------|
| | | | | | | Disagree | Modification | | JCO | Comment |
| | | | | | | | Complete | Pending | Provided | |
| 97-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 98-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 99-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 100-B | SOV | ASCO | 18 | I.A | X | | | | | |
| 102-B | SOV | ASCO | 18 | I.A | X | | | | | |
| 106-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 107-B | SOV | ASCO | 22 | I.A | X | | | | | |
| 108-B | SOV | ASCO | 17 | I.A | X | | | | | |
| 110-B | SOV | ASCO | 18 | I.A | X | | | | | |
| 112-B | L.S. | NAMCO | 68 | I.B | X | | X | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

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 Rev: 2
 Date: 12/30/83

| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | Agree | NUSCO TER ASSESSMENT | | | | | Comment |
|-------|--------------------|--------------|-----------------|-----------------|-------|----------------------|--------------|---------|----------|---|---------|
| | | | | | | Disagree | Modification | | JCO | | |
| | | | | | | | Complete | Pending | Provided | | |
| 113-B | L.S | NAMCO | 68 | I.B | X | | X | | | | |
| 116-B | L.S | NAMCO | 68 | I.B | X | | X | | | | |
| 119-B | L.S. | NAMCO | 68 | I.B | X | | X | | | | |
| 120-B | L.S. | NAMCO | 68 | I.B | X | | X | | | | |
| 121-B | XMTR | FOXBORO | 46 | I.B | X | | | X | X | | |
| 122-B | Cable (Coaxial) | Rockbestos | 73 | II.A | | X | | | | 1 | |
| 1-C | MOV | Limitorque | 5 | II.A | | X | | | | 1 | |
| 2-C | XMTR | Foxboro | 45 | I.B | X | | X | | | | |
| 5-C | R.T.D. Conn. | Weeds | 81 | I.B | X | | X | | | | |

FACILITY: Millstone Station

UNIT: Two

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EQUIPMENT ENVIRONMENTAL QUALIFICATION
 QUALIFICATION STATUS OF EQUIPMENT COVERED
 BY RULE 10CFR50.49

Page: 13
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| SCEWS | Equipment Type | Manufacturer | 1983 TER No. | NRC Category | NUSCO TER ASSESSMENT | | | | | JCO Provided | Comment |
|-------|-------------------------------------|----------------|-----------------|-----------------|----------------------|----------|--------------|---------|---------|-----------------|---------|
| | | | | | Agree | Disagree | Modification | | | | |
| | | | | | | | Complete | Pending | | | |
| 8-C | XMTR | FOXBORO | 55 | I.B | X | | | X | | | |
| 9-C | XMTR | FOXBORO | - | - | | | | X | | | |
| 14-C | Pr. Sw. | Cust. Comp | 44 | I.B | - | - | - | - | Deleted | - | 1 |
| 15-C | Rad. Det. | General At. | 34 | II.A | | X | | | | | 1 |
| 16-C | XMTR | GEM | 57 | I.B | | X | | | | | 2 |
| 17-C | Accelometer | Endevco | 33 | I.B | | X | | | | | 1 |
| 18-C | Cable | Harline | 69 | I.B | | X | | | | | 1 |
| 19-C | Preamp. | Unholtz-Dickie | 32 | I.B | X | | | X | | | |
| 20-C | JCT.BX. | Hoffman | - | - | | | | X | | | 3 |
| 22-C | H ₂ Anal.Rad. Monitor | BPC | - | - | | | | | | | 3 |

Docket No. 50-336

Attachment 2

Index to SCEW Sheet Package

April, 1984

INDEXSYSTEMSCEW SHT. NO.125 VDC120 VAC4160V480V Load CentersReactor Cooling

Valve HV1060, 1062, 1064

Valve HV7311

Valve RC403, 405

Pz Heaters, Prop.

Valve RC414-417, 422-425

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95-B, 113-B

1-C

34-A, 35-A

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HPSI Pumps MP41A, B, C

LPSI Pumps MP42A & B

C.S. Pumps MP43A & B

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Valve SI662

Valve SI651

Valve SI614

Valve SI616, 626, 636, 646

Valve SI617, 627, 637, 647

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Valve HV3010, 3011

Valve HV3021, 3022

Valve SI411, 412

Valve SI652

Valve SI656

Valve SI663

Valve SI655

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Valve SI657

Valve SI306 (FT 306)

25-B

26-B

21-B

13-B

15-B

20-A

10-A, 23-A

8-B

9-B

7-B

83-B

89-B

16-B

24-A

13-B

15-B

13-B

10-A, 23-A

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94-B

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47-B, 47-Ba

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Boric Acid Tank HTR's P141, 142, 143, 144

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Valve CH510, 511

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 Valve CH504

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 10-A, 15-A
 10-A, 14-A
 10-B, 51-B, 52-B
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 SGFPT - H5A & B
 Main Fdwtr Cntl Valve FV5268, 5269

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46-B, 46-Ba

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Service Water Pumps MP5A, B, C
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 Valve HV6489
 Valve HV6400
 Valve HV6438, 6439
 Valve HV6389, 6397
 Service Water Strainer ML1A, B, C
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 Valve HV6731, 6735, 6050, 6055, 6315, 6316
 Valve HV6002, 6003
 Valve HV6013, 6014, 6011
 Valve HV6096, 6095
 Valve HV6108, 6106
 Valve HV6072, 6073, 6075, 6077
 Valve HV6080, 6084, 6088, 6092
 Valve HV6739
 Valve HV6004, 6006, 6005, 6007
 Valve HV6015, 6017, 6016, 6018, 6012

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53-B, 54-B, 55-B, 56-B

11-B

12-B

96-B, 107-B

97-B, 98-B, 106-B, 112-B

Inst. & Sta. Air

Valve HV7083

99-B

Main Steam

| | | |
|------------------------------------|--|-------------|
| Valve HV4218, 4222 | | 17-B, 19-B |
| Valve HV4189, 4191, 4188 | | 18-B, 20-B |
| Valve HV4250, 4251 | | 57-B, 58-B |
| Valve HV4246, 4248 | | 49-B, 50-B |
| Valve HV4217, 4221 | | 40-B, 40-Ba |
| Valve HV4223, 4224 & PT-4223, 4224 | | 36-B, 36-Ba |
| Valve HV4193, 4209 | | 66-B, 66-Ba |

Aux. Bldg. Ventilation

| | |
|-----------------------|--------------------|
| Fuel Handling Fan | MF20 |
| Fuel Handling Damper | HV8151, 8275, 8326 |
| E.S.F.G.D. Damper | HV824, 8133, 8249, |
| D.C. Sw. Gr. Fan | MF54A & B |
| Batt. Rm. Exhaust Fan | MF112A & B |

Ctmt. & Encl. Bldg. Vent

| | | |
|----------------------------|--------------------------|------------|
| Cntmt. Air Fan | MF14A, B, C, D | 8-A |
| Cntmt. Purge Fan | MF23 | |
| Cntmt. Sample Fan | MF39A & B | |
| E.S.F.G.D. Air Unit | MF15A & B | 23-B |
| Encl. Bldg. Fan | MF25A & B | |
| Post Incident Fan | MF18A & B | 9-A |
| Cntmt. Rad. Mon. Valve | HV8121, 8122 | |
| Cntmt. Purge Valve | HV8082 | 10-A |
| Purge Fan Iso-Damper | HV5050 | |
| Cntmt. Purge Damper | HV8150, 8151 | 10-A, 17-A |
| Encl. Bldg. Damper | HV8079 | |
| Encl. Bldg. Damper | HV8074 | |
| Cntmt. Valve | HV8128 | |
| Encl. Bldg. Damper | HV8153 | |
| E.S.F.G.D. Damper | HV8306 | 24B |
| Fuel Handling Damper | HV8062 | |
| E.B. Filt. Damper | HV8254 | |
| E.G. Filt. Htr. | X61A, B | |
| Cntmt. Rad. Mon. Valve | HV8124 | |
| Cntmt. Purge Valve | HV8125, 8080 | 10-A |
| Encl. Bldg. Damper | HV8081 | |
| Cntmt. Purge Damper | HV8126 | |
| Encl. Bldg. Damper | HV8127, 8073, 8070 | |
| Encl. Bldg. Valve | HV8078 | |
| Fuel Handling Damper | HV8143 | |
| Encl. Bldg. Damper | HV8063 | |
| E.S.F.G.D. Damper | HV8312 | 24B |
| H ₂ Purge Valve | HV8377, 8378, 8379, 8380 | 11-A, 21-A |
| H ₂ Recombiner | H29A & B | 7-A |
| Steam Jet Damper | HV8654, 8695 | |
| Cntmt. Leak Damper | HV8650, 8651 | |
| Cntmt. Rad. Mon. Valve | HV8656 | |

Aux. HVAC

| | |
|----------------------------|--------------------------|
| Cntl. Room Fan | MF21A & B |
| Cntl. Room Fan | MF31A & B |
| Cntl. Room Fan | MF32A & B |
| D.G. Room Fan | MF38A & B |
| Cntl. Room Damper Cntl. | |
| Vital Sw. Gr. Rm. Fan | MF51 & 52 |
| Chilled Water Pump | MP122A & B |
| Chilled Water Pump Valves | HV8846, 8847, 8848, 8850 |
| Chilled Water Pump Valves | HV8853, 8854, 8855, 8856 |
| Cntl. Rm. Htrs. | X60A & B |
| Cntl. Rm. Compressor | MF22A & B |
| Cntl. Rm. Condenser | MF36A & B |
| Cntl. Rm. HVAC Ckts. Misc. | |
| Chiller | X169A & B |
| Sw. Gr. Room Valve | PV6925, 6926, 6927 |
| Sw. Gr. Room Fan | MF133 & 134 |

Clean Liquid Radwaste

| | |
|---|--------------------------|
| Prim. Drain Tank Valve HV9015, 9016, 9230 | 11-A, 19-A, 100-B, 119-B |
|---|--------------------------|

Gas & Aerated Liquid Radwaste

| | |
|-------------------------------|-------------------------------|
| Waste Tank Valve HV9125, 9126 | 11-A, 19-A, 68-B, 69-B, 103-B |
|-------------------------------|-------------------------------|

Sampling System

| | |
|--------------|--------------|
| Valve HV7690 | 68-Ba, 69-Ba |
|--------------|--------------|

Encl. & Aux. Bldg. Drains

| | |
|--------------------------------|-------------------|
| Cntmt. Sump Valve HV9150, 9151 | 11-A, 19-A, 110-B |
|--------------------------------|-------------------|

Rx Trip Sw. GearDiesel Generator

| | |
|----------------------|--|
| D.G. Power & Cntl. | |
| D.G. Unit Cntl. | |
| D.G. Air Compressors | |

Boric Acid Heat TracingRadiation Monitoring

| | |
|------------------------------------|------------------|
| Hi Range Rad Detector RE8240, 8241 | 122-B, 15-C, 37A |
|------------------------------------|------------------|

| | |
|------------------|-----|
| Hydrogen Monitor | 22C |
|------------------|-----|

Instrumentation

| | | |
|---------------------------|-------------------------|------------------------|
| Pz. Pressure & Level | P100 & L110 | 27-A, 30-A |
| Pz. Pressure | P102 | 32-A |
| Pz. Pressure | P103 & P103-1 | 2-C, 1-D |
| Pz. Level | L103 | 2-D |
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| Pz. Relief Valve Temp. | T106, 107, 108 | |
| Quench Tank Pressure | P116 | |
| Quench Tank Temp. | T116 | |
| Quench Tank Level | L116 | |
| RCP Loop Pressure Diff. | P111 & 121 | |
| RCP Loop Temp. | T112 & 122 | 5-C |
| RCP Loop Temp. | T111, 115, 121 & 125 | 4-D, 5-D |
| RCP Loop Temp. | T103, 104 & 105 | |
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Note: See pages 192 & 193 for S.G. Atmosphere Press. P-4223 & 4224.

| | | |
|------------------------------------|-------------------------|------------|
| Aux. Fd. Flow | F5277 & 5278 | 8-C |
| Cond. Storage TK Level | L5282 | 15-D |
| HPSI Pressure | P301 | |
| LPSI Pressure | P302 | 9-D |
| Cntmt. Spray Pressure | P303 | |
| HPSI & LPSI Flow | F311, 312, 321, 322 | 11-D |
| HPSI & LPSI Flow | F331, 332, 341, 342 | 11-D |
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| Vol. Cntl. Tank Pressure | P225 | 7-D |
| Vol. Cntl. Tank (Letdown Temp.) | T224 & 225 | |
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| B.A. Pump Pressure | P206 & 208 | |
| Charging Pressure & Flow | P212 & F212 | 6-D |
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| Cntmt. Pressure | P8113, 8114, 8115, 8116 | 91-B |
| Cntmt. Pressure | P8117 | |
| Cntmt. Temp. | T8096 | |
| Cntmt. Humidity | H8064 | |
| E.B.F.S. Pressure | P8071 & 8075 | |
| E.B.F.S. Pressure | P8060 | |
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| Containment Press. | PT8238, 8239 | 121-B |
| Cont. Sump Level | LT8242, 8243 | 16-C |
| RBCCW Pump Pressure | PS6119A, B, C | 67-B |

Reactor Protection

| | |
|---------------------|-------------------|
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| Nuclear Power | |
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| Pz Pressure | (see page 420) |
| Pz Thermal Margin | (see page 436) |
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Control Elem. Assembly

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Cable

| | |
|----------------------|-------------|
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| | |
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|--|----------|
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| | |
|--------------------------------------|------------------|
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| PMW Flow F210X, Y | |
| PMW Level L7277 | |
| RBCCW Sd Htx Flow F6042, 6043 | 21-D, 22-D |
| RBCCW Sg Tank Level L6001, 6730 | 18-D, 24-D |
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Docket No. 50-336

Attachment 3

SCEW Sheets, Discrepant Equipment Summary Sheets (including JCOs)
and SER/TER Review Sheets

April, 1984

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| SYSTEM COMPONENT EVALUATION WORK SHEETS - COMPONENTS INSIDE THE CONTAINMENT | SHEETS INCLUDING 2A - 38A |
| SYSTEM COMPONENT EVALUATION WORK SHEETS - COMPONENTS OUTSIDE THE CONTAINMENT | SHEETS INCLUDING 1B - 122B |
| SYSTEM COMPONENT EVALUATION WORK SHEETS - COMPONENTS REQUIRED ONLY BY PLANT EMERGENCY OPERATING PROCEDURES | SHEETS INCLUDING 1C - 20C |
| MISCELLANEOUS ELECTRICAL EQUIPMENT | |
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Facility: . . llstone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|-----------------------|------------|-----------------------|--------------------|-------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: Main Steam Plant ID No.: PT 4223, Component: Pressure transmitter Manufacture: Foxboro Model Number: NE11GM-H-I-E-L-XJB Function: Initiating signal for steam generator atmospheric dump Accuracy: Service: Steam Generator Pressure Location: Aux. Bldg. EL. 36'6" Zone A50 | Operating Time | Continuous | Continuous | P | 1 | Simultaneous Test | |
| | Temperature (°F) | 324°F | 350°F | Profile 21, A | 1 | Simultaneous Test | |
| | Pressure (PSIA) | 1.6 psig | 85psig | A | 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100% | 100% | A | 1 | Simultaneous Test | |
| | Chemical Spray N/A | N/A | 3000 ppm Boron | N/A | 1 | Simultaneous Test | |
| | Radiation N/A | N/A | 2.0X10 ⁸ R | | 1 | Sequential Test | |
| | Aging | 40 Years | 1) 10 yrs 2) 9 yrs | P.D.L. | 1 | Sequential Test | See Notes 1 & 2 |
| Flood Level Elev: Above Flood Level: Yes No | Submergence | | | | | | |

*Documentation References:

- Wyle Laboratories Report #45592-4 dated 5/18/83.

Notes: PT-4223 S/N = 4796183

- Transmitter qualified life is 10 years
- Viton "O" ring for transmitter cover is qualified for 9 years @ 120°F, however, must be replaced each time cover is removed.

SCEWS No. 36-B
1983 TER No. 48
Date: Rev. 1 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

SCEW Sheet 36-B revised to reflect fully qualified equipment installed during 1983 refueling outage.

II) SER concerns: Equipment in NRC Category I.B

Response:

Same as III

III) TER concerns: Equipment qualification pending modification.

Response:

See I above.

IV) Proposed corrective action and schedule. N/A

V) Justification for continued operation. N/A

_____ Reaffirmed

_____ Revised

_____ New

Facility: llstone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|-----------------------|------------|-------------------------|--------------------|-------|-------------------|----------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: Main Steam Plant ID No.: PT-4224 Component: Pressure transmitter Manufacture: Foxboro Model Number: NE11GM-H-I-E-L-XJB Function: Initiating signal for steam generator atmospheric dump Accuracy: Service: Steam Generator pressure Location: Aux. Bldg. Elev. 36' 6" Zone A51 | Operating Time | Continuous | Continuous | P | 1 | Simultaneous Test | |
| | Temperature (°F) | 326°F | 350°F | Profile 20, A | 1 | Simultaneous Test | |
| | Pressure (PSIA) | 1.8 psig | 85 psig | A | 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100% | 100% | A | 1 | Simultaneous Test | |
| | Chemical Spray N/A | N/A | 3000 ppm Boron | N/A | 1 | Simultaneous Test | |
| | Radiation N/A | | 2.0 X 10 ⁸ R | | 1 | Sequential Test | |
| | Aging | 40 Years | 1) 10 yrs. 2) 9 yrs. | P.D.L. | 1 | Sequential Test | See Notes 1 & 2 |
| Flood Level Elev: Above Flood Level: Yes No | Submergence | | | | | | |

*Documentation References:

- Wyle Laboratories Report #45592-4 dated 5/18/83

Notes: PT-4224 S/N = 4796182

- Transmitter qualified life is 10 years.
- Viton "O" ring for transmitter cover is qualified for 9 years @ 120°F, however must be replaced each time cover is removed.

SCEWS No. 36-Ba
1983 TER No. 48
Date: Rev. 1 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

SCEW Sheet 36-Ba revised to reflect fully qualified equipment installed during 1983 refueling outage.

II) SER concerns: Equipment in NRC Category 1.B
Response:

Same as III

III) TER concerns: Equipment qualification pending modification
Response: See I above.

IV) Proposed corrective action and schedule. N/A

V) Justification for continued operation. N/A

_____ Reaffirmed

_____ Revised

_____ New

Facility: Istone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF ¹ | | QUAL. METHOD | OUTSTANDING ITEMS |
|---|-----------------------------|-----------------------|-------------------------|--------------------------------|-------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: Reactor Coolant Plant ID No.: PT-103 Component: Pressure Transmitter Manufacture: Foxboro Model Number: N-E11GM Function: Low range pressurizer press. Accuracy: $\pm 0.5\%$ Service: Location: CTMT (-) 5' rack C-140 C-5 | Operating Time | Continuous | Continuous | P | 1 | Simultaneous Test | |
| | Temperature (°F) | Profile 18 | 350°F | D D | 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 19 | 85 psig | D | 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100 | 100% | | 1 | Simultaneous Test | |
| | Chemical Spray | 2400 PPM Boron | 3000 ppm Boron | F | 1 | Simultaneous Test | |
| | Radiation | 8.2x10 ⁶ R | 2.0 X10 ⁸ R | K | 1 | Sequential Test | |
| | Aging | 40 yrs. | 1) 10 yrs. 2) 9 yrs. | P.D.L | 1 | Sequential Test | See Notes 1 & 2 |
| Flood Level Elev: -14'4" Above Flood Level: Yes X No | Submergence | NA | NA | NA | NA | NA | |

*Documentation References:

1. Wyle Laboratories Report #45592-4 dated 5/18/83

Notes: PT-103 S/N 4774240

- 1) Transmitter qualified life is 10 years
- 2) Viton "O" ring for transmitter cover is qualified for 9 years @ 120°F, however must be replaced each time cover is removed.

SCEWS No. 2-C
1983 TER No. 45
Date: Rev. 1 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

SCEW Sheet 2-C revised to reflect installation of qualified equipment during the 1983 refueling outage.

II) SER concerns: Equipment in NRC Category I.B

Response: Same as III

III) TER concerns: Equipment qualification pending modification

Response: See I above.

IV) Proposed corrective action and schedule. N/A

V) Justification for continued operation. N/A

_____ Reaffirmed

_____ Revised

_____ New

Facility: 1st Nuclear Pr. Sta.

Unit: T&C

Docket: 50-336

SYSTEM COMPONENT E. JATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|--|-----------------------------|-------------------------------------|--------------------|------------------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: RCS Plant ID No.: TE112HA-D, TE122HA-D, TE112CA-D, TE122CA-D Component: RTD Assembly Manufacture: Weed Instrument Co. Inc. Model Number: 612, Sensor #SP612-2B-C-4-C-18-A2-0 Function: RCS loop temp. RTD Cable Termination Accuracy: $\pm 0.011^{\circ}\text{F}$ @ 32°F $\pm 0.04^{\circ}\text{F}$ @ 212°F $\pm 0.05^{\circ}\text{F}$ @ 554°F Service: Location: CTMT C-5 | Operating Time | continuous | Continuous | | 1 | Simultaneous Test | |
| | Temperature ($^{\circ}\text{F}$) | Profile 16, 18 | 485 $^{\circ}\text{F}$ | D | 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 16, 19 | 75 psig | D | 1 | Simultaneous Test | |
| | Relative Humidity (%) | 100% | 100% | D | 1 | Simultaneous Test | |
| | Chemical Spray | 2400 ppm boron | 80 ppm Hydrazine 11000 ppm Boron | F | 1 | Simultaneous Test | |
| | Radiation | $1.5 \times 10^8 \text{ R}$ | $3.03 \times 10^8 \text{ R}$ | K | 1 | Sequential Test | |
| | Aging | 40 yrs. | 40 yrs. | P.D.L. | 1 See Note 1) | Sequential Test | See Note 2 |
| Flood Level Elev: (-)14'4" Above Flood Level: Yes x No | Submergence | N/A | N/A | N/A | N/A | N/A | |

*Documentation References:

1. National Technical Systems Report #548-8854-2, Revision B, dated 10/21/82, "Nuclear Qualification Testing . . . for Weed Instrument Co., Inc.

Notes:

- 1) If it ever becomes necessary to open connection terminal head, follow Weed Instrument Procedure #3031-00133-002 as given on NUSCO drawing #25203-29460.
- 2) Problems were encountered during installation of Weed RTDs into Rosemount thermowells. Fully qualified RTDs will be operational by the end of the 1985 refueling outage.

12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

DISCREPANT EQUIPMENT SUMMARY

MILLSTONE UNIT 2

EQUIPMENT: RCS Loop Temperature RTD Connection Heads:

| | | | |
|----------|----------|----------|----------|
| TE-112CA | TE-112HA | TE-122CA | TE-122HA |
| 112CB | 112HB | 122CB | 122HB |
| 112CC | 112HC | 122CC | 122HC |
| 112CD | 112HD | 122CD | 122HD |

MANUFACTURER:

Weed Instrument Company

QUALIFICATION DISCREPANCY:

Documentation to demonstrate similiarity between as installed and as tested equipment lacking.

SAFETY FUNCTION AND JUSTIFICATION
FOR CONTINUED OPERATION:

These components provide means of terminating the referenced RTD's. The RTD's provide control room indication of the monitored parameters and RPS input for the thermal margin/low pressure trip set point determinations.

The referenced documentation indicates that the components are qualified. Reasonable assurance that these components will provide the required protection is indicated by preoperational testing conducted by NNECO.

SCEWS No. 5-C
1983 TER No. 81
Date: Rev. 1 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

SCEW Sheet 5-C revised to reflect the installation of qualified equipment during the 1983 refueling outage.

However, problems during installation will require further modification.

II) SER concerns: Equipment in NRC Category I.B

Response: Same as III

III) TER concerns: Equipment qualification pending modification

Response:

See Item IV.

IV) Proposed corrective action and schedule.

Fully qualified devices will be installed prior to the end of the 1985 refueling outage.

V) Justification for continued operation.

 Reaffirmed

 X Revised

 New

Facility: 1st Stone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|-----------------------------|------------|-------------------------|--------------------|-------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| EE SH 454 | | | | | | | |
| System: Aux. Feed Water Plant ID No.: FT-5277, 5278 | Operating Time | Continuous | Continuous | P | 1 | Simultaneous Test | |
| Component: Differential pressure transmitter | Temperature (°F) | 326°F | 350° F | Profile 20A, A | 1 | Simultaneous Test | |
| Manufacture: Foxboro Model Number: NE13DH | Pressure (PSIA) | 1.8 PSIG | 85 psig | A | 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100 | 100% | A | 1 | Simultaneous Test | |
| Function: Aux. feed flow indication | Chemical Spray | NA | 3000 ppm Boron | NA | 1 | Simultaneous Test | |
| Accuracy: =0.5% | Radiation | NA | 2.0 x 10 ⁸ R | NA | 1 | Sequential Test | |
| Service: | Aging | 40 yrs. | 1) 10 yrs. 2) 9 yrs. | P.D.L. | 1 | Sequential Test | See Notes 1 & 2 |
| Location: Zone A-51 | | | | | | | |
| Flood Level Elev: Above Flood Level: Yes No | Submergence | | | | | | |

*Documentation References:

- Wyle Laboratories Report #45592-4 dated 5/18/83

Notes:

FT-5277A FT-5278A
FT-5277B FT-5278B

- Transmitter qualified life is 10 years
- Viton "O" ring for transmitter cover is qualified for 9 years @ 120°F, however must be replaced each time cover is removed.

SCEWS No. 8-C
1983 TEF No. 55
Date: Rev. 1 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

SCEW Sheet 8-C revised to reflect the installation of fully qualified equipment during the 1983 outage.

II) SER concerns: Equipment in NRC Category I.B

Response:

Same as III

III) TER concerns: Equipment qualification pending modification

Response:

See I above

IV) Proposed corrective action and schedule. N/A

V) Justification for continued operation.

N/A

_____ Reaffirmed

_____ Revised

_____ New

Facility: Millstone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|----------------------|-------------------------|-----------------------|--------------------|---------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| PZR relief valve System: monitors Plant ID No.: ZS200,201, 402,404 Component: Accelerometer Manufacture: Endevco Model Number: 2273AM20 Function: Post accident monitoring Accuracy: Service: Porv discharge line monitoring Location: CTMT C-5 | Operating Time | Continuous | Continuous | P | Ref. 1 | Simultaneous Test | |
| | Temperature (°F) | Profile 16,18 | Profile 41 | D | Ref. 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 16,19 | Profile 42 | D | Ref. 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100% | 100% | D | Ref. 1 | Simultaneous Test | |
| | Chemical Spray | 2400 PPM Boron | 3000 PPM Boron | F | Ref. 1 | Simultaneous Test | |
| | Radiation | 1.5 x 10 ⁸ R | 2 x 10 ⁸ R | K | Ref. 1. | Sequential Test | |
| | Aging | 40 yrs. | 40 yrs. | Plant Design Life | Ref. 1 | Sequential Test | |
| Flood Level Elev:(-)14'4" Above Flood Level: Yes X No | Submergence | | | | | | |

*Documentation References:

- Technology for Energy Corporation (TEC)
General Description - Acoustic Valve Position
Indicator Systems for nuclear power plants - 1E
Qualified - Rev. 3. Dated: 1/1/82 517-TR-01 thru 05.

Notes:

12/30/83

SCEWS No. 17-C
1983 TER No. 33
Date: 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION
SER/TER REVIEW
Millstone Unit 2
Docket No. 50-336

I) Summary of new information on SCEW sheet.

Added Reference 1, revised qualified life

II) SER concerns: Equipment in NRC Category I.B
Response:

Same as III

III) TER concerns: Equipment qualification pending modification
Response: See Item I) above

IV) Proposed corrective action and schedule.

N/A

V) Justification for continued operation.

N/A

_____ Reaffirmed

_____ Revised

_____ New

Facility: 11stone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|----------------------|-------------------------|-----------------------|--------------------|--------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| PZR relief valve System: monitors Plant ID No.: ZS-200,201, 402,404 Component: Coaxial Hard-line Cable Assembly Manufacture: Endevco Model Number: 3075M6 Function: Post accident monitoring Accuracy: Service: Porv discharge line monitoring Location: CTMT C-5 | Operating Time | Continuous | Continuous | P | Ref. 1 | Simultaneous Test | |
| | Temperature (°F) | Profile 16,18 | Profile 41 | D | Ref. 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 16,19 | Profile 42 | D | Ref. 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100% | 100% | D | Ref. 1 | Simultaneous Test | |
| | Chemical Spray | 2400 PPM Boron | 3000 PPM Boron | F | Ref. 1 | Simultaneous Test | |
| | Radiation | 1.5 x 10 ⁸ R | 2 x 10 ⁸ R | K | Ref. 1 | Sequential Test | |
| | Aging | 40 yrs. | 40 Yrs. | Plant Design Life | Ref. 1 | Sequential Test | |
| Flood Level Elev(-)14'4" Above Flood Level: Yes X No | Submergence | | | | | | |

*Documentation References:

1. Technology for Energy Corporation (TEC)
General Description - Acoustic Valve Position
Indicator Systems for nuclear power plants - 1E qualified
Rev. 3. Dated: 1/1/82 517-TR-01 thru 05.

Notes:

12/30/83

SCEWS No. 18-C
1983 TER No. 69
Date: 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

I) Summary of new information on SCEW sheet.

Add qualification reference, revised qualified life. Revised component description.

II) SER concerns: Equipment in NRC Category I.B
Response: Same as III

III) TER concerns: Equipment qualification pending modification.
Response: See I above.

IV) Proposed corrective action and schedule.

N/A

V) Justification for continued operation.

_____ Reaffirmed N/A
_____ Revised
_____ New

Facility: Millstone Nuclear Pr. Sta.
 Unit: Two
 Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|---|-----------------------|-------------------------|-----------------------|--------------------|--------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| PZR relief valve System: monitors Plant ID No.: ZS-200,201 402,404 Component: Preamplifier Manufacture: TEC Model Number: 504E Function: Post accident monitoring Accuracy: Service: Porv discharge line monitoring Location: CTMT C-5 Flood Level Elev. (-) 14'4" Above Flood Level: Yes X No | Operating Time | Continuous | Continuous | P | Ref. 1 | Simultaneous Test | |
| | Temperature (°F) | Profile 16,18 | Profile 41 | D | Ref. 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 16,19 | Profile 42 | D | Ref. 1 | Simultaneous Test | |
| | Relative Humidity (%) | 100% | 100% | D | Ref. 1 | Simultaneous Test | |
| | Chemical Spray | 2400 PPM Boron | 3000 PPM Boron | F | Ref. 1 | Simultaneous Test | |
| | Radiation | 1.5 x 10 ⁸ R | 2 x 10 ⁸ R | K | Ref. 1 | Sequential Test | |
| | Aging | 40 yrs. | 40 Yrs. | Plant Design Life | Ref. 1 | Sequential Test | |
| | Submergence | | | | Ref. 1 | | |

*Documentation References:

- Technology for Energy Corporation (TEC)
 General Description - Acoustic Valve Position
 Indicator Systems for Nuclear Power Plants
 1E Qualified - Rev. 3. Dated: 1/1/82
 517-TR-01 thru 05

Notes:

12/30/83

SCEWS No. 19-C
1983 TER No. 32
Date: 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION

SER/TER REVIEW

Millstone Unit 2

Docket No. 50-336

- I) Summary of new information on SCEW sheet.
Revised to reflect fully qualified equipment installed.
- II) SER concerns: Equipment in NRC Category I.B
Response: Same as III
- III) TER concerns: Equipment qualification pending modification.
Response: See Item I) above.
- IV) Proposed corrective action and schedule. N/A
- V) Justification for continued operation. N/A
_____ Reaffirmed
_____ Revised
_____ New

Facility: Illstone Nuclear Pr. Sta.
Unit: Two
Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|---|----------------------|-------------------------|-----------------------|--------------------|--------|-------------------|-------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: PZR relief valve monitors Plant ID No.: ZS-200,201 402,404 Component: Transient Shield Manufacture: TEC Model Number: 160-2 Function: Post accident monitoring Accuracy: Service: Porv discharge line monitoring Location: CTMT C-5 | Operating Time | Continuous | Continuous | P | Ref. 1 | Simultaneous Test | |
| | Temperature (°F) | Profile 16,18 | Profile 41 | D | Ref. 1 | Simultaneous Test | |
| | Pressure (PSIA) | Profile 16,19 | Profile 42 | D | Ref. 1 | Simultaneous Test | |
| | Relative Humidity(%) | 100% | 100% | D | Ref. 1 | Simultaneous Test | |
| | Chemical Spray | 2400 PPM Boron | 3000 PPM Boron | F | Ref. 1 | Simultaneous Test | |
| | Radiation | 1.5 x 10 ⁸ R | 2 x 10 ⁸ R | K | Ref. 1 | Sequential Test | |
| | Aging | 40 yrs. | 40 Yrs. | Plant Design Life | Ref. 1 | Sequential Test | |
| Flood Level Elev:(-)14'4" Above Flood Level: Yes X No | Submergence | | | | Ref. 1 | | |

*Documentation References:

- Technology for Energy Corporation (TEC)
General Description - Acoustic Valve Position Indicator Systems for Nuclear Power Plants - 1E Qualified - Rev. 3. Dated: 1/1/82 517-TR-01 thru 05.

Notes:

SCEWS No. 20-C
1983 TER No. -
Date: 12/30/83

EQUIPMENT ENVIRONMENTAL QUALIFICATION
SER/TER REVIEW
Millstone Unit 2
Docket No. 50-336

- I) Summary of new information on SCEW sheet.
Revised to reflect fully qualified equipment installed.

II) SER concerns: None
Response:

III) TER concerns: None
Response:

IV) Proposed corrective action and schedule.
N/A

V) Justification for continued operation.
N/A
_____ Reaffirmed
_____ Revised
_____ New

Facility: Millstone Nuclear Pr. Sta.

Unit: Two

Docket: 50-336

SYSTEM COMPONENT EVALUATION WORK SHEET

| EQUIPMENT DESCRIPTION EE 413 | ENVIRONMENT | | | DOCUMENTATION REF* | | QUAL. METHOD | OUTSTANDING ITEMS |
|--|----------------------|----------------------------------|-------|--------------------|-------|-----------------|-----------------------|
| | Parameter | Spec. | Qual. | Spec. | Qual. | | |
| System: Radiation Monitor Plant ID No.: C86, C87 | Operating Time | Continuous | | P | | | see Summary Sheet 22C |
| Component: H ₂ Analyzer | Temperature (°F) | | | | | | |
| Manufacture: Bechtel | Pressure (PSIA) | | | | | | |
| Model Number: 7604-M-442 | Relative Humidity(%) | | | | | | |
| Function: Monitor H ₂ Concentration | Chemical Spray | | | | | | |
| Accuracy: ±5% of Scale | | | | | | | |
| Service: | Radiation | less than 9 X 10 ⁶ | | M | | | see Summary Sheet 22C |
| Location: Aux. Bldg. Elev. 14' 6" Fire Zone: A26 | Aging | 40 yrs. | | PDL | | | see Summary Sheet 22C |
| Flood Level Elev: N/A Above Flood Level: Yes No | Submergence | | | | | | |

*Documentation References:

Notes:

Reviewed By J. S. Nicosia Date 4/4/84

_____ Millstone Unit 1 x Millstone Unit 2 _____ Connecticut Yankee

CATEGORY 1 EQUIPMENT CHECKLIST

LOCATION: Aux. Bldg. Elev. 14' 6", Fire Zone A26

| | |
|--------------------------------------|--|
| <u> </u> LOCA | Ia) Will failure of this equipment |
| <u> </u> MSLB Inside Ctmt. | prevent satisfactory accomplish- |
| <u> </u> MSLB Outside Ctmt. | ment of safety functions defined |
| <u> </u> HELB Inside Ctmt. | in 10CFR50.49 paragraph b |
| <u> </u> HELB Outside Ctmt. | (1)i, ii, iii. |
| | <u> </u> Yes <u> </u> X <u> </u> No |

- VI) If answer is NO to all the above, provide justification below.

SEE ATTACHED

- VI) This equipment is required to sample containment atmosphere for analysis as part of the Hydrogen Analyzers.

This equipment was assembled by Bechtel during plant construction and consists of solenoid valves, metal bellows pump and a refrigeration unit. The radiation sensitive electronics have been relocated to a mild environment.

This equipment which remains in a harsh radiation (only) environment is of good quality commercial grade.

This resolution to the hydrogen analyzer qualification problem, was approved by NRC in response to NNECO's NUREG-0737 Submittal and is currently reflected in the R.G. 1.97 summary. Consequently, SCEWS 22-C is being removed from NNECO's 10CFR50.49 list of equipment requiring environmental qualification.

(Formerly SCEWS 22-C)