

NORTHEAST UTILITIES



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

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May 18, 1988

Docket No. 50-336
B12907

Re: CRDR

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Correction of Human Engineering Discrepancies

In a letter dated September 30, 1986,⁽¹⁾ Northeast Nuclear Energy Company (NNECO) submitted to the NRC Staff the Summary Report for the Control Room Design Review (CRDR) for Millstone Unit No. 2. Included in the Summary Report was a schedule which identified the refueling outage in which the corrective action for each Human Engineering Discrepancy (HED) would be completed. In a letter dated July 31, 1987,⁽²⁾ NNECO submitted a revised schedule for HED resolution. This revised schedule did not affect the overall commitment to complete all of the HED corrections by the end of the Cycle 10 refueling outage (scheduled for 1991), nor did it reduce the number of HEDs or alter their disposition.

The first phase enhancements and corrections of the program to correct HEDs have been completed. All revisions to Operations Procedures will be complete by the end of 1988. A detailed review of remaining HED work has shown that a revision to the existing schedule is required. The present schedule requires Main Control Panel C06 (horizontal section) to be modified during the upcoming Cycle 9 outage, and the remaining panels (C02, C03, C04, and C05) to be reworked during the following (Cycle 10) outage. The revised schedule calls for modifying the main control panels (C02, C03, C04, and C05) during the Cycle 9 outage, and the main control panel (C06) during the following (Cycle 10) outage. This interchange of scheduled modifications does not affect the overall commitment for completion, nor does it substantially change

(1) J. F. Opeka letter to A. C. Thadani, "Control Room Design Review Summary Report," dated September 30, 1986.

(2) E. J. Mroczka letter to U.S. Nuclear Regulatory Commission, "Control Room Design Review Addendum Report," dated July 31, 1987.

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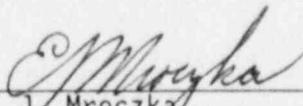
the amount or priority breakdown of the work to be performed during each of the outages, and is the result of a rearrangement of other priority work items to better fit the outage schedule.

Attachment 1 to this letter is an updated schedule for correction of HEDs.

Please contact us if you have any questions.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY


E. J. Mroczka
Senior Vice President

cc: W. T. Russell, Region I Administrator
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 2
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

Docket No. 50-336
B12907

Attachment 1

Millstone Nuclear Power Station
Unit No. 2

Schedule for Correction of
Human Engineering Discrepancies

May 1988

DATA SET MP2 HED SUMMARY FOR CRDR (SORT BY IMPLEMENTATIO

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EXPLANATORY SECTION FOR HED DISPOSITION CODES ()=0737 NR

- A= MEETS HFE GUIDELINES ORIGINALLY OR AS IMPROVED
- B= MINOR DEVIATION, BUT SATISFIES GUIDELINE PRINCIPLES
- C= MEETS GUIDELINES THRU A COMBINATION OF SOLUTIONS
- D= DOES NOT MEET GUIDELINES; CORRECTION MAY INCREASE POTE
- E= DOES NOT MEET GUIDELINES; ACCEPTABLE FOR REASONS STATE

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EXPLANATORY SECTION FOR HED DISPOSITION NO.'S

- DUPLICATE HED=01 NON-HED=02 NON SIGNIF
- ENHANCEMENTS=04 CORRECTIONS=05 JUSTIFIABL
- PROCEDURE CORRECTION=07 ADMINISTRATIVE CONTROL=08
- TRAINING RECOMMENDATION=0

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EXPLANATORY SECTION FOR HED IMPLEMENTATION

- 01= BY END OF THE REFUEL IN 1988
- 01A= BY END OF CALENDER YEAR 1988
- 02= BY END OF THE REFUEL IN 1989
- 03= BY END OF THE REFUEL IN 1991

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| HED NO. | DIS NO. | DISPOS. | PRI0 | DIS CODE | IMP SCHED | MP2-CRDR DIS DOC |
|---------|---------|------------|------|----------|-----------|------------------|
| 6.2.001 | 05 | CORRECT | 4 | A | 1 | 86-031 |
| 6.2.002 | 05 | CORRECT | 4 | A | 1 | 86-031 |
| 6.2.004 | 05 | CORRECT | 1 | A | 1 | 86-031 |
| 6.2.005 | 05 | CORRECT | 1 | A | 1 | 86-031 |
| 6.3.017 | 08 | ADMIN CNTL | 4 | A | 1 | 86-032 |
| 6.3.020 | 05 | CORRECT | 2 | A | 1 | 86-031 |
| 6.4.009 | 08 | ADMIN CNTL | 3 | C | 1 | 86-032 |
| 6.5.012 | 05 | CORRECT | 1 | B | 1 | 86-038 |
| 6.5.013 | 08 | ADMIN CNTL | 1 | C | 1 | 86-032 |
| 6.6.001 | 04 | ENHANCE | 3 | A | 1 | 86-031 |
| 6.6.008 | 08 | ADMIN CNTL | 4 | A | 1 | 86-032 |
| 6.6.009 | 08 | ADMIN CNTL | 4 | A | 1 | 86-032 |
| 6.6.013 | 04 | ENHANCE | 2 | A | 1 | 86-031 |
| 6.6.026 | 04 | ENHANCE | 4 | A | 1 | 86-031 |
| 6.8.001 | 04 | ENHANCE | 2 | A | 1 | 86-031 |
| 6.8.002 | 04 | ENHANCE | 1 | A | 1 | 86-031 |
| 6.8.003 | 04 | ENHANCE | 2 | A | 1 | 86-031 |
| 6.8.004 | 04 | ENHANCE | 1 | A | 1 | 86-031 |
| 6.8.012 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| 6.8.013 | 04 | ENHANCE | 4 | A | 1 | 86-031 |
| 6.8.014 | 04 | ENHANCE | 2 | A | 1 | 86-031 |
| 6.9.001 | 04 | ENHANCE | 2 | A | 1 | 86-031 |
| ER-003 | 05 | CORRECT | 4 | A | 1 | 86-031 |
| ER-020 | 05 | CORRECT | 4 | A | 1 | 86-039 |
| TA-003 | 09 | TRAINING | 1 | T | 1 | 86-033 |
| TA-007 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-022 | 07 | PROCEDURE | 3 | A | 1A | 86-032 |
| TA-028a | 09 | TRAINING | 1 | C | 1 | 86-040 |
| TA-031 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-033 | 09 | TRAINING | 1 | C | 1 | 86-033 |

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| TA-042 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-048 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-051 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-056 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| 7.063 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-069 | 04 | ENHANCE | 1 | A | 1 | 86-031 |
| TA-075 | 07 | PROCEDURE | 1 | A | 1A | 86-031 |
| TA-082 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-083 | 05 | CORRECT | 1 | A | 1 | 86-038 |
| TA-087 | 07 | PROCEDURE | 1 | A | 1A | 86-039 |
| TA-092 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-096 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| TA-111 | 09 | TRAINING | 1 | A | 1 | 86-033 |
| TA-114 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-117 | 09 | TRAINING | 1 | A | 1 | 86-033 |
| TA-118 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-119 | 09 | TRAINING | 1 | A | 1 | 86-033 |
| TA-121 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-128 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-130 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-131 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-139 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-140 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-144 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-148 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-152 | 09 | TRAINING | 1 | A | 1 | 86-033 |
| TA-154 | 07 | PROCEDURE | 1 | A | 1A | 86-032 |
| TA-167 | 07 | PROCEDURE | 1 | B | 1A | 86-032 |
| TA-173 | 07 | PROCEDURE | 1 | B | 1A | 86-032 |
| TA-174 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| TA-176 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| TA-189 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| TA-191 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| TA-192 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| TA-193 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| TA-204 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| TA-206 | 09 | TRAINING | 1 | C | 1 | 86-033 |
| TA-207 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| TA-208 | 09 | TRAINING | 1 | B | 1 | 86-033 |
| 6.4.006 | 04 | ENHANCE | 3 | A | 1,2 | 86-031 |
| ER-015 | 05 | CORRECT | 4 | A | 1,2 | 86-031 |
| TA-015 | 07 | PROCEDURE | 1 | C | 1A | 86-032 |
| 6.1.004 | 05 | CORRECT | 1 | A/B | 1,2,3 | 86-031 |
| 6.5.004 | 04 | ENHANCE | 1 | A | 1,2,3 | 86-031 |
| 6.5.005 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| 6.5.006 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| 6.5.020 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| 6.5.022 | 04 | ENHANCE | 4 | A | 1,2,3 | 86-031 |
| 6.6.002 | 04 | ENHANCE | 3 | A | 1,2,3 | 86-031 |
| 6.6.003 | 04 | ENHANCE | 3 | A | 1,2,3 | 86-031 |
| 6.6.004 | 04 | ENHANCE | 3 | A | 1,2,3 | 86-031 |
| 6.6.005 | 04 | ENHANCE | 4 | B | 1,2,3 | 86-031 |
| 6.6.010 | 04 | ENHANCE | 3 | A | 1,2,3 | 86-031 |
| 6.6.012 | 04 | ENHANCE | 4 | A | 1,2,3 | 86-031 |
| 6.6.016 | 04 | ENHANCE | 4 | A | 1,2,3 | 86-031 |

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| 6.6.017 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| 6.6.029 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| TA-001 | 05 | CORRECT | 1 | A | 1,2,3 | 86-031 |
| 6.8.011 | 04 | ENHANCE | 1 | A | 1,3 | 86-031 |
| ER-001 | 05 | CORRECT | 3 | A | 1,3 | 86-031 |
| 6.1.003 | 05 | CORRECT | 4 | A | 2 | 86-038 |
| 6.1.015 | 05 | CORRECT | 3 | A | 2 | 86-038 |
| 6.2.003 | 05 | CORRECT | 2 | A | 2 | 86-031 |
| 6.3.001 | 05 | CORRECT | 2 | A | 2 | 86-031 |
| 6.3.006 | 05 | CORRECT | 3 | A | 2 | 86-031 |
| 6.3.018 | 05 | CORRECT | 3 | A | 2 | 86-031 |
| 6.3.021 | 05 | CORRECT | 2 | A | 2 | 86-031 |
| 6.4.016 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| 6.4.020 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| 6.4.022 | 05 | CORRECT | 3 | A | 2 | 86-031 |
| 6.5.014 | 05 | CORRECT | 4 | A | 2 | 86-038 |
| 6.5.025 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| 6.5.026 | 05 | CORRECT | 2 | A | 2 | 86-031 |
| 6.5.027 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| 6.5.028 | 05 | CORRECT | 3 | A | 2 | 86-031 |
| 6.6.007 | 04 | ENHANCE | 4 | A | 2 | 86-031 |
| 6.6.011 | 04 | ENHANCE | 3 | A | 2 | 86-031 |
| 6.6.018 | 04 | ENHANCE | 4 | A | 2 | 86-031 |
| 6.6.025 | 04 | ENHANCE | 3 | A | 2 | 86-031 |
| 6.6.028 | 04 | ENHANCE | 3 | A | 2 | 86-031 |
| 6.8.005 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| 6.8.008 | 04 | ENHANCE | 1 | C | 2 | 86-031 |
| ER-008 | 05 | CORRECT | 2 | A | 2 | 86-031 |
| ER-016 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| ER-019 | 05 | CORRECT | 1 | A | 2 | 86-038 |
| ER-021 | 05 | CORRECT | 2 | A | 2 | 86-038 |
| ER-022 | 05 | CORRECT | 2 | A | 2 | 86-038 |
| TA-008a | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-009 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-012 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-017 | 05 | CORRECT | 1 | B | 2 | 86-031 |
| TA-023a | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-025 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-026 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-027 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-028 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-032 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-034 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-044 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-052 | 05 | CORRECT | 1 | C | 2 | 86-031 |
| TA-055 | 05 | CORRECT | 1 | C | 2 | 86-031 |
| TA-058 | 05 | CORRECT | 1 | A/B | 2 | 86-031 |
| TA-059 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-078 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-081 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-090 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-097 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-098 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-100 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-105 | 05 | CORRECT | 1 | A | 2 | 86-031 |

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|---------|----|---------|---|-----|-----|-----------|
| TA-078 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-081 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-090 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-097 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-098 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-100 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-105 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-106 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-110 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-143 | 05 | CORRECT | 1 | A | 2 | 86-031 |
| TA-146 | 04 | ENHANCE | 1 | A | 2 | 86-031 |
| TA-190 | 05 | CORRECT | 4 | A | 2 | 86-031 |
| TA-203 | 05 | CORRECT | 1 | A | 2 | 86-038 |
| 6.4.011 | 05 | CORRECT | 1 | A/C | 2,3 | 86-031/33 |
| 6.5.002 | 05 | CORRECT | 1 | A | 2,3 | 86-031 |
| 6.6.006 | 04 | ENHANCE | 3 | A | 2,3 | 86-031 |
| 6.6.020 | 04 | ENHANCE | 4 | A | 2,3 | 86-031 |
| 6.6.023 | 04 | ENHANCE | 3 | A | 2,3 | 86-031 |
| 6.6.024 | 04 | ENHANCE | 3 | A | 2,3 | 86-031 |
| TA-011 | 05 | CORRECT | 1 | C | 2,3 | 86-031 |
| 6.5.007 | 05 | CORRECT | 1 | A | 3 | 86-031 |
| 6.6.019 | 04 | ENHANCE | 4 | A | 3 | 86-031 |
| 6.8.007 | 04 | ENHANCE | 3 | A | 3 | 86-031 |
| 6.9.002 | 04 | ENHANCE | 3 | B | 3 | 86-031 |
| TA-049 | 05 | CORRECT | 1 | A | 3 | 86-031 |
| TA-050 | 05 | CORRECT | 1 | A | 3 | 86-031 |
| TA-053 | 04 | ENHANCE | 1 | B | 3 | 86-031 |
| TA-066 | 05 | CORRECT | 1 | A | 3 | 86-031 |
| TA-067 | 04 | ENHANCE | 1 | A | 3 | 86-031 |
| TA-070 | 05 | CORRECT | 1 | C | 3 | 86-031 |
| TA-072 | 04 | ENHANCE | 1 | A | 3 | 86-031 |
| TA-091 | 05 | CORRECT | 1 | B | 3 | 86-031 |
| TA-115 | 05 | CORRECT | 1 | A | 3 | 86-031 |
| TA-124 | 05 | CORRECT | 1 | C | 3 | 86-031 |