TMI DOCUMENTS

DOCUMENT NO: TM-0651

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P.J.H.
Supervisor, Document Control, NRC

7906180711

770 334

295

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED _____ SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO. 2301-3D1

DEPT RESP - _____

TASK NO. - _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CO(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD.	ACT.	COMPONENT NUMBER: SYS.	COMP. TYPE	COMP. ID.	LP	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
400	A	TMI	2301	3D	1	0360	02	TS2301-3D1	79087

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39): 03 (MONTH) 28 (DAY) 79 (YEAR)

CHECK ONE ONLY
- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 00000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06065 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05844 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) _____ SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(33)

(61)

404A (1) DUPLICATE AS ABOVE (5-38)

(39)

(61)

402 (1) DUPLICATE AS ABOVE (5-38)

ASSISTING DEPARTMENTS

CODE (39)

HOURS (44)

CODE (50)

HOURS (55)

229 335

rcs1

DATE: 3/28, 70 REACTOR COOLANT LEAKAGE TEST
TIME: 1:28: 1 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACT. M MUST BE NEG
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

INTERVAL (1-8 HOURS)

ERA OR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
303.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1)-(GPM)
0.0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0.0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1:34:13:	557.070	605.961	557.641	605.906	581.641	220.302	72.907	74.402
2:34:13:	556.844	605.883	557.508	605.805	581.500	220.637	69.886	70.020

GROSS LEAK RATE (<30 GPM): 6.9438 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 4.9926 GPM 6.93

NET UNIDENTIFIED LEAK RATE (<1 GPM): 1.9512 GPM .01

OPERATOR: Craig C Faust

APPROVED: J Miller

229 336

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level changes were ma[de]

[Rec]ord RCDT temperature (from computer pt 1032) 70.0

Calculate density (in $\frac{lb}{ft^3}$) of water in RCDT. Use line A, an assumed pressure of 15 psia, and Table 1. Interpolate.

	0 psia		500 psia	
50 °F	.016024	.0000212	.015998	.00000216
70. °	.0160664	~~.0160656~~ .0160656(?)	.0160412	~~.000108~~
100 °F	.016130	.0	.016106	.0

~~.000216~~
.00000000504(?)

(Density $[\frac{lb}{ft^3}] = \frac{1}{v}\ [\frac{1}{ft^3/lb}]$)

Density = 62.24695(?) $\frac{lb}{ft^3}$

2) Calculate density of RC. Use average Tave and Figure 1.

Density = 44.560698 $\frac{lb}{ft^3}$

3) Convert identified leak rate, collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print-out) 4.9926 × $\frac{\text{Density of RCDT line A: } 62.24}{\text{Density of RCS line C: } 44.56}$ 1.390

RC equivalent Identified Leak Rate = 6.93 gpm.

4) Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

229 337

Attachment 1A cont.

Total Leak Rate	6.94	gpm
− Equiv Ident Leak Rate	6.93	gpm
Net Ident Leak Rate	.01	gpm.

Except Criteria

Total Leak Rate must be. < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Identified Leak Rate must be < 1 gpm.

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Added 303 to MUT

2. Time Operation Started: 0145

Time Operation Completed: 0147

3. Calculations:

4. Total change to RCS inventory: 303 gal.

NOTE 1: If change is to RCDT enter in section 7 of Data Sheet 1 Line 25 or Data Sheet 2 Line 38.

NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY C. Craig C. Faust DATE 3/28/79

APPROVED BY J. Miller DATE 3-28-79

229 339

STOP 0

!rcsflow
RCS FLOW DETERMINATION
DATE: 3/27/73
TIME: 23:51: 0

NOTE: RC AND PZ PRESS ARE ASSUMED VALUES

	TEMPERATURE	PRESSURE	ENTHALPY
THA	605.898	2150.	622.367
THB	606.172	2150.	622.766
TCA	557.523	2150.	556.701
TCB	557.551	2150.	556.797
TSA	595.104	923.103	1254.047
TSB	594.133	920.789	1253.455
TFA	464.160	1000.	446.445
TFB	460.465	1000.	442.273

AVERAGE RC TCOLD = 557.52 DENSITY= 46.203

LOOP A FDW FLOW (KPPH)= 5770.13
LOOP B FDW FLOW (KPPH)= 5757.06

RC FLOW VALUES

LOOP A(MPPH)	LOOP B(MPPH)	TOTAL(MPPH)	MEASURED(MPPH)
71.147	70.783	141.938	138.357

RCS FLOW(GPM)=302344.

PERCENT OF DESIGN FLOW = 108.619

*** TECH SPEC GPM (CORRECTED) =378608.

AVERAGE CORE THERMAL POWER (MW 2716.

DOES FLOW FOR PRESENT POWER/PUMPS MEET SPEC YES X NO ---

PERFORMED BY Craig Faust

APPROVED BY T. J. Schaeffer

STOP 0

!

229 340

cal

DATA SHEET #1 (2302-S1)

CALIBRATE OUT-OF-CORE DETECTORS

DATE: 3/27/79
TIME: 23:19:26

	NI5	NI6	NI7	NI8	CORE THERMAL OUTPUT	INCORE IMBALANCE
VALUE (%)	97.525	97.288	97.477	97.320	97.563	-2.046
ELP (%)	-0.038	-0.275	-0.087	-0.243		
IMBAL (%)	-2.912	-3.469	-3.205	-3.137		
O.S. (%) ERROR	-0.323	-0.087	-0.783	-0.579		
C.F. LA1	1.001	1.005	1.002	1.003		
C.F. LA2	1.000	1.001	1.000	1.002		
CONSOLE INDICATOR (%)	96.7	96.7	97.5	96.3		

IS THE ABSOLUTE VALUE OF ELP EQUAL TO OR LESS THAN 2 % FOR ALL CHANNELS ? X YES --- NO

IS THE ABSOLUTE VALUE OF O.S. ERROR EQUAL TO OR LESS THAN 3.5 % FOR ALL CHANNELS ? X YES --- NO

IS EACH CONSOLE INDICATOR WITHIN 2 % OF CORE THERMAL POWER ? X YES --- NO

ACCEPTANCE CRITERIA : ALL ANSWERS YES

VOLTMETER MODEL AND SERIAL # ---------------

LAST CAL ---------------

DUE DATE ---------------

OPERATOR: Craig C Faust

APPROVED: [signature]

229 341

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ____________

REFERENCE MANUAL ____________

PROCEDURE NO.
2301-3D1

DEPT RESP - ____________

TASK NO. - ____________

WORK ORDER NO. - ____________

ACCOUNT NO. - ____________

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - ____________

COMPONENT NO. - ____________

COMPONENT DESC - ____________

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY ________ COMPONENT STATUS ________

SPECIFIC DAY ________ INTERFERENCE ________

PRIORITY ________

COMP. LOCATION - BDG ____ LVL ____ GRID ____

DEPENDENT TASKS ____________

ASSIST DEPT ____________

SHIFT FOREMAN APPROVAL TO COMMENCE WORK ____________ SIGNATURE ____ DATE ____ RWP NO ____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) ____________ SIGNATURE ____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) ____________ SIGNATURE ____ DATE

TXN. CD. (1-3)	ACT. (4)	COMPONENT NUMBER: SYS. (5)	COMP. TYPE	COMP. ID.	Ln (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33)
400	A	TMI	230	13D	1	036002	TS	2301-3D1	79 C84 M

RESULTS (51) **COMPLETE THIS SECTION (401A)** DATE PERFORMED (39) MONTH 08 DAY 25 YEAR 79

CHECK ONE ONLY
- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 00000.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06063 SIGNATURE - ____________

APPROVED BY EMPLOYEE NUMBER (65) 05844 SIGNATURE - ____________

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ____________

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

LOL1 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44) .

CODE (50)

HOURS(55) .

404A (1) DUPLICATE AS ABOVE (5-38)

LOL1 (39)

(61)

229 342

TMI-105 12/78

"TEMPORARY CHANGE" File

AP 1001

Figure 1001-5

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

SIDE 1

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

TCN NO. 2-79-070 (From TCN Log Index)

Unit No. 2

Date 3/16/79

1 Procedure 2301-3A1 (No.) RCS Inventory (Title)

2 Change (Include page numbers, paragraph numbers, and exact wording of change.)

see attached.

3. Reason for Change:

To more accurately account for RCS leakage collected in the drain tank.

4 Recommended by JE Mineck 3/16/79 (Date) 5. JE Mineck (Supervisor's Signature) 3/16/79 (Date)

6. Duration of TCN - No longer than ninety days from effective date of TCN or as in (a) or (b) below whichever occurs first.

(a) TCN will be cancelled by a procedure revision issued as a result of a Procedure Change Request to be submitted by PORC (Supervisor Submitting TCN) (Submit PCR as soon as possible) ☒

(b) TCN is not valid after _____ (fill in circumstances which will result in TCN being cancelled) ☐

7. (a) Is the procedure on the Nuclear Safety Related Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes ☒ No ☐

(b) Is the procedure on the Environmental Impact Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Environmental Evaluation. (Side 2 of this Form) Yes ☐ No ☒

(c) Does the change effect the intent of the original procedure? Yes ☐ No ☐

NOTE: If all answers are "no" the change may be approved by the Shift Sup[illegible] .c) is answered "yes", the change must be reviewed by the PORC and approval by the Station/Unit Superintendent prior to implementation. If the answer to question (c) is "no" the change may be approved by two members of the plant management staff at least one of whom holds a senior reactor operators license on the unit affected in accordance with paragraph 3.6.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"

Approved [illegible] (Shift Supervisor/Foreman) 3/16/79 (Date)

Reviewed JE Mineck 3/16/79

Members of PORC: [illegible] 3/16/79; RW Borsum 3/16/79

Contacted PORC Members RF Wilson 3/16/79 (Date)

Approved [illegible] (Unit Superintendent) (Date)

Block (c) "no"

Approved _____ (SRO License) _____ (Date)

_____ (Member Plant Mng. Staff) _____ (Date)

Reviewed _____ (Chairman of PORC) _____ (Date)

Approved _____ (Unit Superintendent) _____ (Date)

NOTE: The block (c) "Yes" review and approval chain may be followed at anytime.

9. Approval

Manager, Generation Quality Assurance _____ Date _____

NOTE: MGQA approval required only on certain Administrative Procedures listed in Enclosure 7 of AP 1001

10. TCN is Cancelled _____ (Shift Supervisor/Shift Foreman) _____ (Date)

229 343

"EVALUATION"

Three Mile Island Nuclear Station

SIDE 2

[illegible] 100 . 4

Nuclear Safety/Environmental Impact Evaluation

1. Procedure 2301-3D1 (No.) RCS Inventory (Title) 0 (Temporary Change Notice No.)

2. Nuclear Safety Evaluation

Does the attached procedure change:

* (a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . . yes☐ no☑

* (b) create the possibility for an accident or malfunction of a different [illegible] than any evaluated previously in the safety analysis report? . . . . . . yes☐ no☑

* (c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . . yes☐ no☑

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Change more accurately takes into account RC leakage collected and cooled in the RCDT. Change does not affect [illegible] operating conditions, and has no effect on nuclear safety.

Evaluation By T E Norck Date 3/16/79

3. Environmental Impact Evaluation

Does the attached procedure change:

(a) possibly involve a significant environmental impact? . . . . . . yes☐ no☐

(if 3(a) is "yes", answer questions (b) and (c) and fill in "Details of Evaluation" below. If "no", state why by filling in the [illegible] below) . . . . . . yes☐ no☐

* (b) have a significant adverse effect on [illegible] . . . . . . yes☐ no☐

* (c) involve a significant environmental matter or question not previously reviewed and evaluated by the N.R.C. . . . . . . yes☐ no☐

Details of Evaluation (Attach additional pages if required)

N/A

Evaluation By ______________ Date ______

4. Unit Superintendent requests PORC review ☐ Check if YES.

5. Approval

Evaluation Accompanying PCR

[signature] 3/16/79
Unit Superintendent Date

Evaluation Accompanying TCN

Approval ______________ (SRO Licensee) ______ (Date)

Reviewed ______________ (Member of Plant Staff) ______ (Date)

Approval ______________ (Unit Superintendent) ______ (Date)

229 344

[illegible] The Evaluation "Accompanying a PCR" evaluation and approval chain may be followed at anytime.

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: add water to MU-T-1

2. Time Operation Started: 0600

   Time Operation Completed: 0608

3. Calculations:

4. Total change to RCS inventory: 301 gal.

   NOTE 1: If change is to RCDT enter in section 7 of Data Sheet 1 Line 8 or Data Sheet 2 Line 38.

   NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY [signature] DATE 3/25/79

APPROVED BY [signature] DATE 3/25/79

229 345

DATE: 3/25/79 REACTOR COOLANT LEAKAGE TEST
TIME: 5:24:15 SP 2301-3O1

NOTE: IF OPERATOR ACTION DECREASES RCS VALUE THE DATA ENTRY FOR THAT VALUE MUST BE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3O1)
0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3O1)
301.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3O1) (GPM)
0.0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0.0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
5:25:12:	557.797	606.430	558.403	6[illegible].780	582.[illegible]	2[illegible].[illegible]75	70.[illegible]00	74.740
6:25:12:	557.009	606.32[illegible]	5[illegible]8.[illegible]01	606.2[illegible]7	582.140	2[illegible]1.075	71.937	78.3[illegible]5

GROSS LEAK RATE (<[illegible] GPM): 6.5967 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 4.4230 GPM 6.16 49063

NET UNIDENTIFIED LEAK RATE (<1 GPM): 2.1737 GPM .43179370

OPERATOR: E.M. Frederick

APPROVED: F. Scheimann

POOR ORIGINAL

STOP 0
!

229 346

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ______

REFERENCE MANUAL ______

PROCEDURE NO. 2301-3D1

DEPT RESP - ______

TASK NO. - ______

WORK ORDER NO. - ______

ACCOUNT NO. - ______

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - ______

COMPONENT NO. - ______

COMPONENT DESC - ______

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY ______ COMPONENT STATUS ______

SPECIFIC DAY ______ INTERFERENCE ______

PRIORITY ______

COMP. LOCATION - BDG ______ LVL ______ GRID ______

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK ______ SIGNATURE ______ DATE ______ RWP NO ______ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) ______ SIGNATURE ______ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) ______ SIGNATURE ______ DATE

TXN C. (1-3)	ACT. (4)	COMPONENT NUMBER (5-)	COMP. ID.	Lp (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
400	A	TMI 200 1	3D	1	036002	TS	2301-3D1	790813 M

RESULTS (51) **COMPLETE THIS SECTION (401A)**

DATE PERFORMED (39) 03 MONTH 24 DAY 79 YEAR

CHECK ONE ONLY
- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06088 SIGNATURE - ______

APPROVED BY EMPLOYEE NUMBER (65) 06301 SIGNATURE - ______

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ______

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38) 229 347

RESULTS DESCRIPTION

01 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS (44)

404A (1) DUPLICATE AS ABOVE (5-38)

01 (39)

(61)

CODE (50)

HOURS (55)

TMI-105 12-78

rcsl

DATE: 3/24/79 REACTOR COOLANT LEAKAGE TEST
TIME: 5:40:13 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-4 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
206.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0.0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0.0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
5:40:44:	557.242	606.204	557.701	606.15[illegible]	58[illegible]	225.1[illegible]	75.[illegible]01	76.532
6:40:44	5[illegible]	606.280	557.[illegible]43	606.[illegible]	581.[illegible]	230.[illegible]53	69.174	80.378

*TCN Connections

GROSS LEAK RATE (<30 GPM): 6.5519 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 4.5775 GPM 6.3919 gpm

NET UNIDENTIFIED LEAK RATE (<1 GPM): 1.0744 GPM 0.160 gpm

OPERATOR: J.W. Congdon

APPROVED: C.O. Adams

STOP 0

!

229 348

This attachment is not valid if operator caused RCDT level changes were

A) Record RCDT temperature (from computer pt 1032) 72.0°F

B) Calculate density (in lb/ft³) of water in RCDT. Use line A, an assumed pressure of 15 psia, and Table 1. Interpolate

	0 psia	50 psia
50°F	.016024	.015998
100°F	.016130	.016106

(Density [lb/ft³] = 1/v [1/(ft³/lb)]) Density = 62.2354 lb/ft³

C) Calculate density of RC. Use average Tave and Figure 1.
Density: 44.570 lb/ft³

D) Convert identified leak rate, collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print-out) 4.5776 × (Density of RCDT line B 62.2354) / (Density of RCS line C 44.570)

RC equivalent Identified Leak Rate = 6.3919 gpm

E) Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

229 348

Attachment 1A cont.

Total Leak Rate	6.5519	gpm
− Equivalent Leak Rate	6.3919	gpm
Net Unident Leak Rate	0.160	gpm.

Accept Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

Performed [signature]

Approved Cadar

229 350

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED _____ SCHED. DATE _____

REFERENCE MANUAL _____ DEPT RESP - _____

PROCEDURE NO. 2301-3D1 _____ TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____ _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO _____

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ TE _____

TXN. CD.	ACT.	COMPONENT NUMBER: SYS.	COMP TYPE	COMP. NO.	LP	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NBR
1	4	3			16	17 — 22	23-24	25 — 32	1
400	A	TMI	2301	3D	1	036002	TS	2301-3D1	7191

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) L03 MONTH L22 DAY L7L9 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0L9L0L1.L5

ACTION TAKEN CODE (52) L L I

REASON NOT PERFORMED (54) L L I

PERFORMED BY EMPLOYEE NUMBER (60) L0L6L4L0L2 SIGNATURE - _____ _____

APPROVED BY EMPLOYEE NUMBER (65) L0L5L4L5L1 SIGNATURE - _____ _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L L L I SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L I

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L I (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L I (61)

ASSISTING DEPARTMENTS

CODE (39) L L L L L I

HOURS(44) L L L L L I.L I

CODE (50) L L L L L I

HOURS(55) L L L L L I.L I

229 351

TMI-105 12-78

rcs1

DATE: 3/22/79 REACTOR COOLANT LEAKAGE TEST
TIME: 2:59:52 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASED RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-301)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)
200.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPH)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPH)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
3: 0:10:	556.[illegible]4	[illegible]	557.430	600.048	581.344	224.125	77.220	76.235
4: 0:10:	556.703	[illegible]	[illegible]477	600.750	581.422	225.047	72.235	79.001

GROSS LEAK RATE (<30 GPH): 0.7274 GPH

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPH): 4.4006 GPH

NET UNIDENTIFIED LEAK RATE (<1 GPH): 2.3268 GPH — COLLECTED .5807 gpm

OPERATOR: [signature]

APPROVED: [signature]

STOP 0

229 352

Attachment 1A

- Note: This attachment is not valid if operator caused RCDT level changes were mc

Record RCDT Temperature (from computer pt 1032) 75

② Calculate density (in $\frac{lb}{ft^3}$) of water in RCDT. Use Line A, an assumed pressure of 15 psia, and Table 1. Interpolate

	0 psia	500 psia
50 °F	.016024	.015198
100 °F	.016130	.016106

(Density $\left[\frac{lb}{ft^3}\right] = \frac{1}{v}\left[\frac{1}{ft^3/lb}\right]$) Density = 62.227 $\frac{lb}{ft^3}$

③ Calculate density of RC. Use average Tave and Figure 1.

Density = 44.55 $\frac{lb}{ft^3}$

④ Convert identified leak rate, collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print out) 4.4006 × $\frac{\text{Density of RCDT Line B}}{\text{Density of RCS Line C}}$ $\frac{62.227}{44.55}$

RC equivalent Identified Leak Rate = 6.1467 gpm.

⑤ Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

229 353

Attachment 1A cont.

Total Leak Rate	6.7274	gpm	3.9946
− Equiv Ident Leak Rate	6.1467	gpm	2.8136
Net Ident Leak Rate	.5807	gpm.	1.116

Accept Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: ADDED 200 gal DEMIN H_2O TO MU-T-1

2. Time Operation Started: 0351

   Time Operation Completed: 0352

3. Calculations:

4. Total change to RCS inventory: 200 gal.

   NOTE 1: If change is to RCDT enter in section 4 of Data Sheet 1 Line 25 or Data Sheet 2 Line 38.

   NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY Hal McLaurin DATE 3-22-79

APPROVED BY C. Guthrie DATE 3-22-79

229 355

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO. 2301-3D1

DEPT REF - _____

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HC(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO _____

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE _____

TXN. CD. (1-3)	ACT. (4)	COMPONENT NUMBER SYS. (5-8)	COMP. TYPE (9-12)	COMP. ID (13-22)	LOCATION/UNIT (23-24)	TYPE TASK (25)	TASK IDENTIFICATION (26-32)	SCHEDULE NUMBER (33-38)
400	A	TM1	2301	3D 1	03	6	2TS2391-3D1	79 080 M

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) MONTH 03 DAY 21 YEAR 79

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06424 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05451 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) _____ SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

LOLI (39)

(61)

404A (1) DUPLICATE AS ABOVE (5-38)

LOLI (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

CODE (50)

HOURS(55) 229.1356

TMI-105 12-78

rcs1

DATE: 3/21/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:14:33 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASED RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGA
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUE...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCST FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
207.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUT LVL (IN)	RCDT LVL (INCHES)
[illegible]	556.03[illegible]	605.7[illegible]	557.04[illegible]	605.727	581.[illegible]	2[illegible]5.3[illegible]	75.73[illegible]	78.[illegible]
2:14.[illegible]	556.041	605.555	557.4[illegible]	6[illegible]5.51[illegible]	581.201	22[illegible].1[illegible]	71.4[illegible]	79.[illegible]

GROSS LEAK RATE (<30 GPM): 6.0519 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 4.1831 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 1.8680 GPM

OPERATOR: Earl O. Hemmings

APPROVED: C. Guthrie

CORRECTED — .22 GPM

229 357

STOP 0

"TEMPORARY CHANGE" working

AP 1001

Figure 1001 - 5

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

SIDE 1

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

TCN NO. 2-79-[illegible] (From TCN List...)

Unit No. 2

Date 3/16/79

1. Procedure 2301-3D1 (No.) RCS Inventory (Title)

2. Change (Include page numbers, paragraph numbers, and exact wording of change.)

see attached

3. Reason for Change:

To more accurately account for RCS leakage collected in the drain tank.

4. Recommended by J E Marck 3/16/79 (Date) 5. J E Marck (Supervisor's Signature) 3/16/79 (Date)

6. Duration of TCN - No longer than ninety days [illegible] effective date of TCN or as [illegible] (a) or (b) below whichever occurs first.

(a) TCN will be cancelled by a procedure revision issued as a result of a Procedure Change Request to be submitted by MORCK (Supervisor Submitting TCN) (Submit PCR as soon as possible) [X]

(b) TCN is not valid after ______ (fill in circumstances which will result in TCN being cancelled) [ ]

7. (a) Is the procedure on the Nuclear Safety Related Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes [X] No [ ]

(b) Is the procedure on the Environmental Impact Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Environmental Evaluation. (Side 2 of this Form) Yes [ ] No [X]

(c) Does the change effect the intent of the original procedure? Yes [X] No [ ]

NOTE: If all answers are "no" the change may be approved by the Shift Supervisor. If question (c) is answered "yes", [illegible] than, must be reviewed by the PORC and approval by the Station/Unit Superintendent prior to implementation. If the answer to question (c) is "no" the change may be approved by two members of the plant management staff at least one of whom holds a senior reactor operators license on the unit affected in accordance with paragraph 3.6.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"			Block (c) "no"		
Approved	[signature] (Shift Supervisor/Foreman)	3/16/79 (Date)	Approved	(SRO License)	(Date)
Reviewed	J E Marck; [illegible]	3/16/79; 3/16/79		(Member Plant Mrg. Staff)	(Date)
Members	[signature]	3/16/79			
Of PORC	RW [illegible]	3/18/79	Reviewed	(Chairman of PORC)	(Date)
Contacted	[signature] (PORC Members)	3/16/79 (Date)	Approved	(Unit Superintendent)	(Date)
Approved	[signature] (Unit Superintendent)	[illegible] (Date)			

NOTE: The block (c) "Yes" review and approval chain may be followed at anytime.

9. Approval

Manager, Generation Quality Assurance ______ Date ______

NOTE: M.G.Q.A. approval required only on certain Administrative Procedures listed in Enclosure 7 of AP 1001

10. TCN is Cancelled ______ (Shift Supervisor/Shift Foreman) ______ (Date)

 [illegible]-56 Rev. 8/77

"EVALUATION"

10-81

Three Mile Island Nuclear Station

SIDE 2

Form 1001-4

Nuclear Safety/Environmental Impact Evaluation

1. Procedure 2301-3D1 (No.) RCS Inventory (Title) (Temporary Change Notice No.)

2. Nuclear Safety Evaluation

Does the attached procedure change:

*(a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . yes ☐ no ☒

*(b) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report? . . . . . yes ☐ no ☒

*(c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . yes ☐ no ☒

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Change more accurately takes into account RC leakage, collected and held in the RCDT. Change does not affect any operating conditions, and has no effect on nuclear safety.

Evaluation By J E Mouck Date 3/11/79

3. Environmental Impact Evaluation

Does the attached procedure change:

(a) possibly involve a significant environmental impact? . . . . . yes ☐ no ☐
(if 3(a) is "yes", answer questions (b) and (c) and fill in "Details of Evaluation" below.
If "no", state why by filling in the "Details of Evaluation" below) . . . . . yes ☐ no ☐

* (b) have a significant adverse effect on the environment? . . . . . yes ☐ no ☐

* (c) involve a significant environmental matter or question not previously reviewed and evaluated by the N.R.C . . . . . yes ☐ no ☐

Details of Evaluation (Attach additional pages if required)

Evaluation By _____ Date _____

4. Unit Superintendent requests PORC review ☐ Check if YES.

5. Approval

Evaluation Accompanying PCR

_____ (Unit Superintendent) 3/12/79 (Date)

Evaluation Accompanying TCN

Approval _____ (SRO Licensee) _____ (Date)

Reviewed _____ (Member of Plant Staff) _____ (Date)

Approval _____ (Unit Superintendent) _____ (Date)

* The Evaluation Accompanying a PCR evaluation and approval chain may be followed at anytime.

229 359

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level changes were

Record RCDT Temperature (from computer pt 1032) 65

(A) Calculate density (in $\frac{lb}{ft^3}$) of water in RCDT. Use line A, an assumed pressure of 15 psig, and Table 1. Interpolate.

	0 psig	500 psig
50°F	.016024	.015998
100°F	.016130	.016106

(Density $\left[\frac{lb}{ft^3}\right] = \frac{1}{v}\left[\frac{1}{ft^3/lb}\right]$.) Density = 62.1 $\frac{lb}{ft^3}$

(C) Calculate density of RC. Use average Tave and Figure 1.

Density = 44.57 $\frac{lb}{ft^3}$

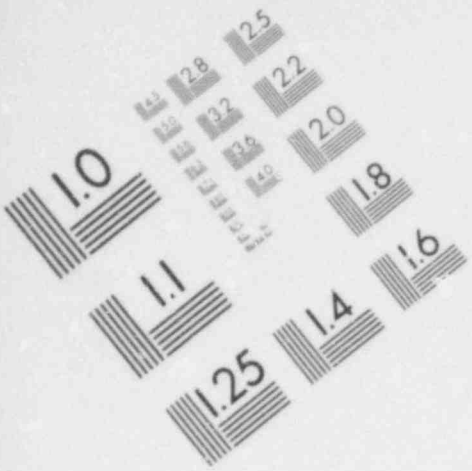
(D) Convert identified leak rate collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate 4.1839 (from print-out) $\times$ $\frac{\text{Density of RCDT line A}}{\text{Density of RCS line C}}$ $\frac{62.1}{44.57}$

RC equivalent Identified Leak Rate = 5.8294 gpm.

(E) Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

229 360



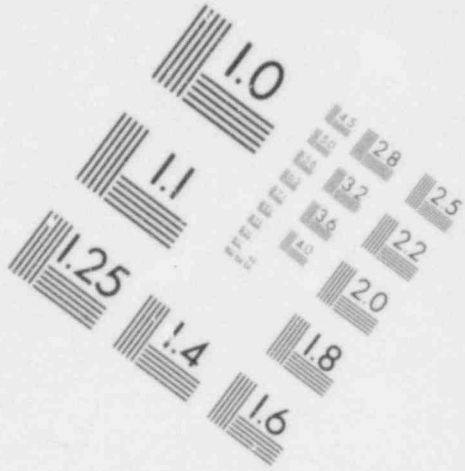
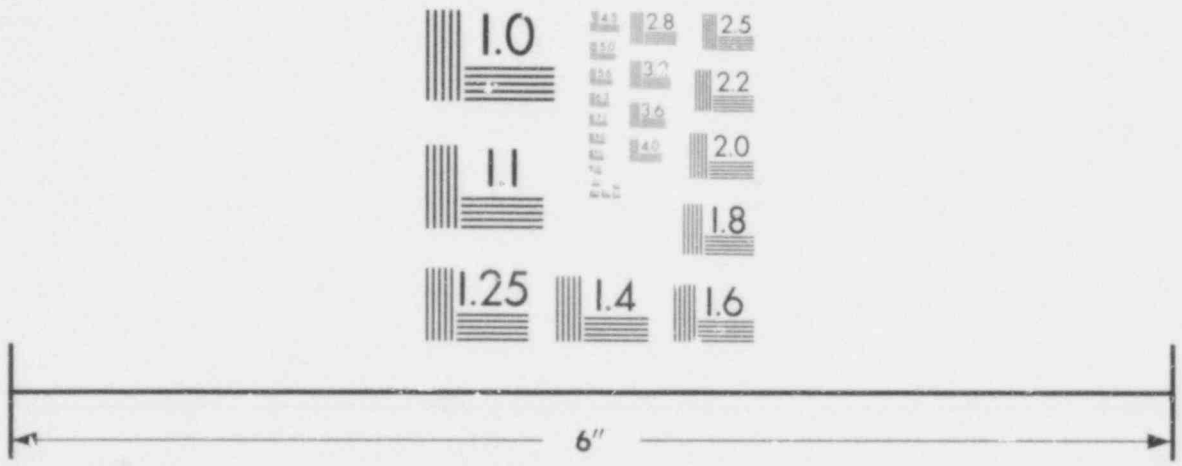
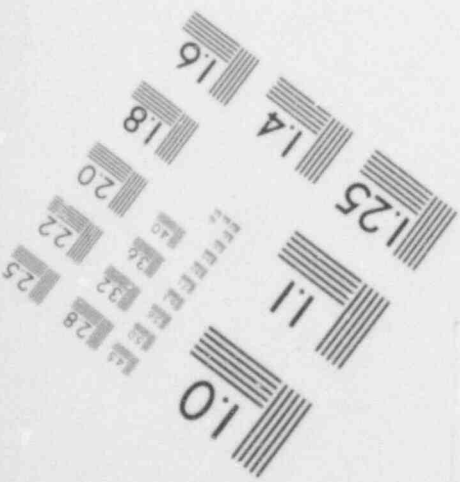
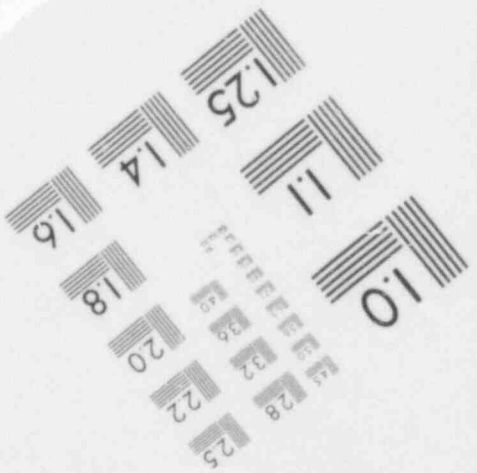
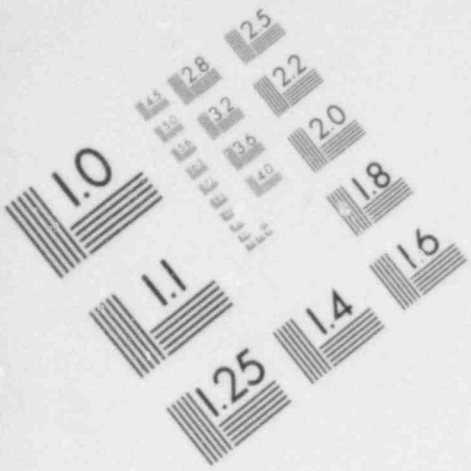


IMAGE EVALUATION TEST TARGET (MT-3)









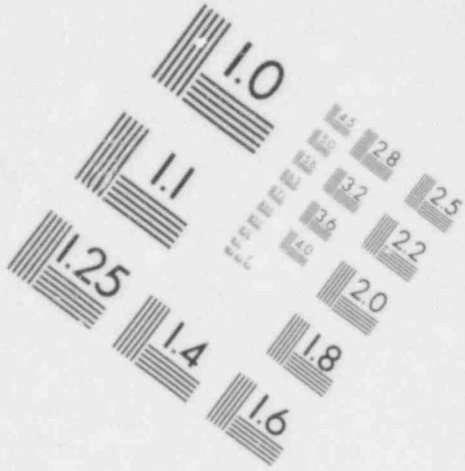
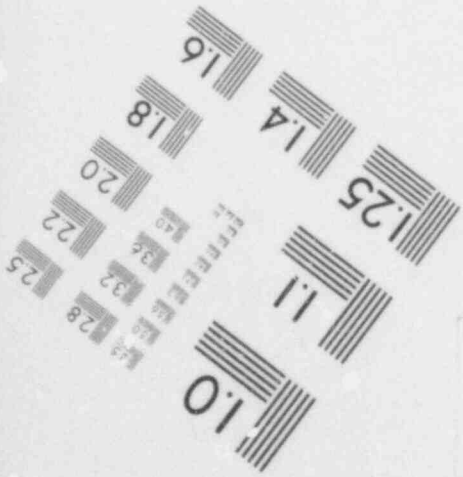
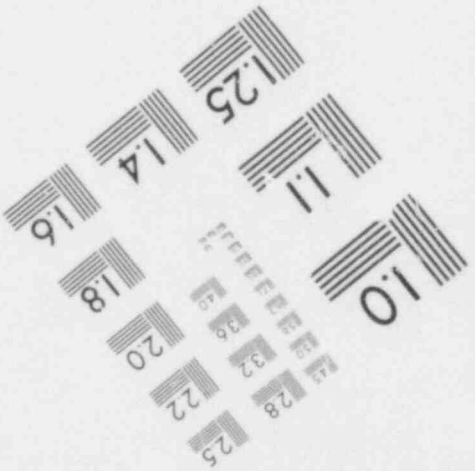
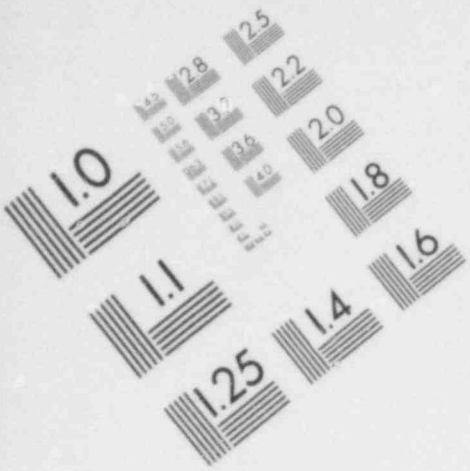


IMAGE EVALUATION TEST TARGET (MT-3)







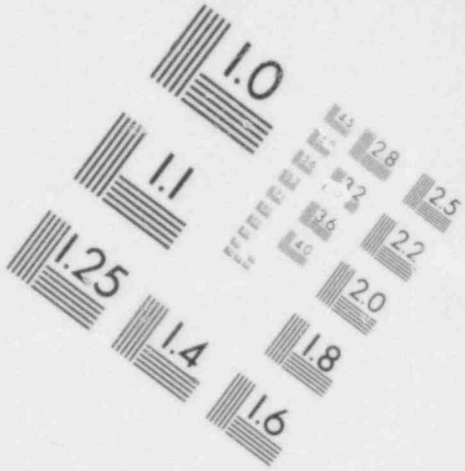
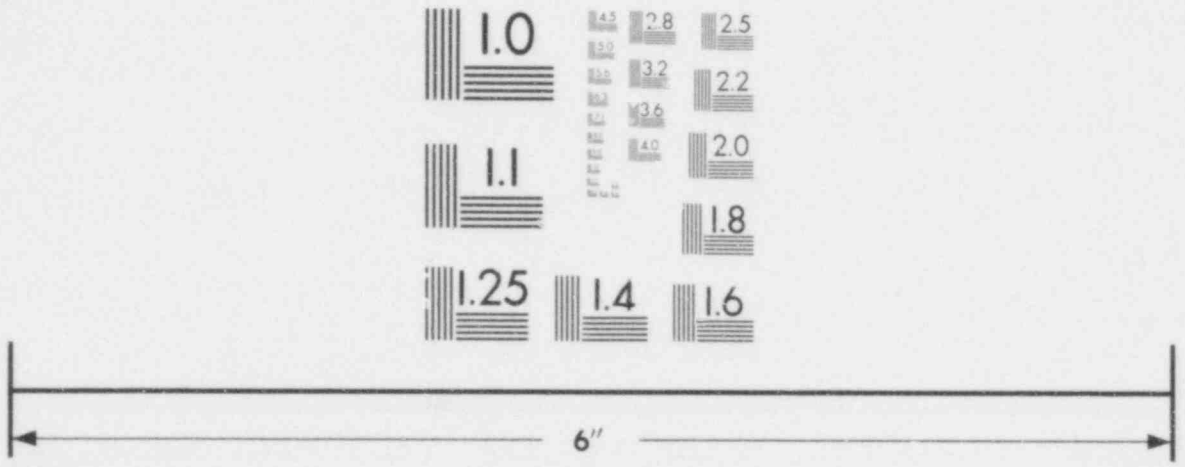
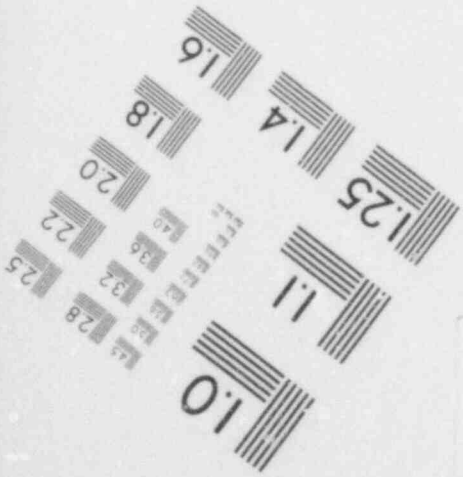
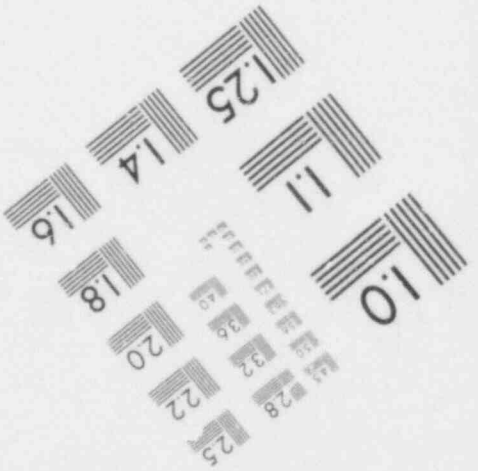
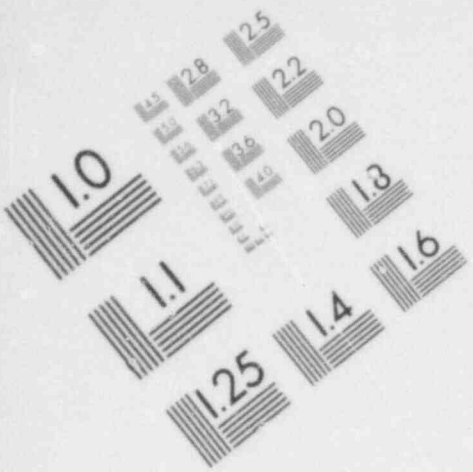


IMAGE EVALUATION TEST TARGET (MT-3)









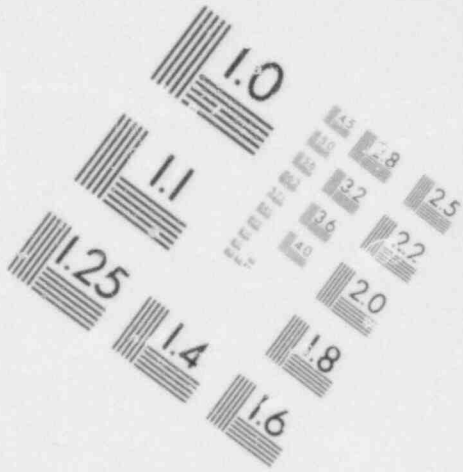
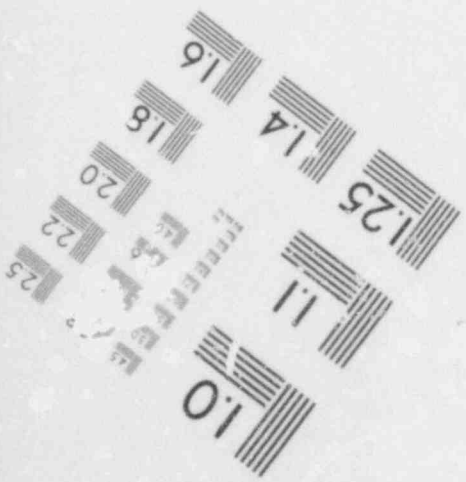
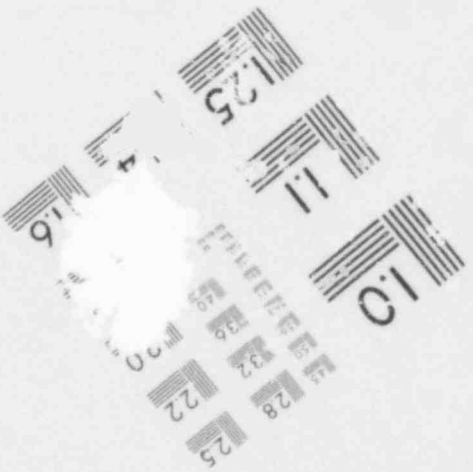


IMAGE EVALUATION TEST TARGET (MT-3)





Attachment 1A cont.

Total Leak Rate	6.0519	gpm
- Equiv Identified Leak Rate	5.8294	gpm
= Unidentified Leak Rate	.2225	gpm

3.0394 L
2.8136
1.116

Accept Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO.
2301-3D1

DEPT RESP - _____

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN.	AC	COMPONENT NUMBER: SYS.	COMP. TYPE	COMP. ID.	LP	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
1	3				16 17	22	23-24	25 32	33 38
400	A	TMI	2301	3D	1	03600	2T	2301-3D1	790785

RESULTS (51), COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) MONTH L03I DAY L19I YEAR L79I

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0L9Q0L0I.L5I

ACTION TAKEN CODE (52) L L I

REASON NOT PERFORMED (54) L L I

PERFORMED BY EMPLOYEE NUMBER (60) L06H02I SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) L05L45 5I SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L I L I SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L I

403A (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L I (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L I (61)

402 (1) DUPLICATE AS ABOVE (5-38)

ASSISTING DEPARTMENTS 230 002

CODE (39) L L L L L I

HOURS(44) L L L L L I.L I

CODE (50) L L L L L I

HOURS(55) L L L L L I.L I

TMI-105 12-78

efpd
EFPD: 86.327

!rcs1

DATE: 3/19/79 REACTOR COOLANT LEAKAGE TEST
TIME: 0:58:10 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME AND DATA ENTRY [illegible]
...YOU MUST ENTER DEC. BY. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
200.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (IN)
0:58:43:	556.953	605.005	557.72[illegible]	605.773	581.555	223.403	74.807	[illegible]
1:58:45:	556.453	605.383	557.[illegible]	605.414	581.979	220.879	68.057	81.255

GROSS LEAK RATE (<30 GPM): 5.3520 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.9601 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 1.3920 GPM Collected Equivalent -.185

OPERATOR: Hugh McGowan
APPROVED: C Guthrie

POOR ORIGINAL

230 003

"TEMPORARY CHANGE" Working

AP 1001

Figure 1001-5

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

SIDE 1

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

TCN NO. 2-79-0?? (From TCN List Index)

Unit No. 2

Date 3/16/79

1. Procedure 2301-3D1 (No) RCS Inventory (Title)

2. Change (... te page numbers, paragraph numbers, and exact wording of change.)

See attached.

3. Reason for Change:

To more ~~acc~~ accurately account for RCS leakage collected in the drain tank.

4. Recommended by JE Morck 3/16/79 (Date) 5. JE Morck (Supervisor's Signature) 3/16/79 (Date)

6. Duration of TCN — No longer than ninety days from effective date of TCN or as in (a) or (b) below whichever occurs first.

(a) TCN will be cancelled by a procedure revision issued as a result of a Procedure Change Request to be submitted by MORCK (Supervisor Submitting TCN) (Submit PCR as soon as possible) [X]

(b) TCN is not valid after ______ (fill in circumstances which will result in TCN being cancelled) [ ]

7. (a) Is the procedure on the Nuclear Safety Related Procedure List? (Sec. AP 1001 — Appendix B) If "Yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes [X] No [ ]

(b) Is the procedure on the Environmental Impact Procedure List? (See AP 1001 — Appendix B) If "Yes", complete Environmental Evaluation. (Side 2 of this Form) Yes [ ] No [X]

(c) Does the change affect the intent of the original procedure? Yes [X] No [ ]

NOTE: If all answers are "no" the change may be approved by the Shift Supervisor. If question (c) is answered "yes", the change must be reviewed by the PORC and approval by the Station/Unit Superintendent prior to implementation. If the answer to question (c) is "no" the change may be approved by two members of the plant management staff at least one of whom holds a senior reactor operators license on the unit affected in accordance with paragraph 3.6.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"			Block (c) "no"		
Approved	[signature] (Shift Supervisor/Foreman)	3/16/79 (Date)	Approved	(SRO License)	(Date)
Reviewed	JE Morck	3/16/79		(Member Plant Mrg. Staff)	(Date)
	[signature]	3/16/79			
Members	[signature]	3/16/79			
Of PORC	RW Brown	3/16/79	Reviewed	(Chairman of PORC)	(Date)
Contacted	[signature] (PORC Members)	3/16/79 (Date)	Approved	(Unit Superintendent)	(Date)
Approved	[signature] (Unit Superintendent)	[illegible] (Date)			

NOTE: The block (c) "Yes" review and approval chain may be followed at anytime.

9. Approval

Manager, Generation Quality Assurance ______ Date ______

NOTE: M.G.Q.A. approval required only on certain Administrative Procedures listed in Enclosure 7 of AP 1001.

230 004

10. TCN is Cancelled ______ (Shift Supervisor/Shift Foreman) ______ (Date)

"EVALUATION"

Three Mile Island Nuclear Station

SIDE 2

1001-4

Nuclear Safety/Environmental Impact Evaluation

Procedure 2301-3D1 (No.) RCS Inventory (Title) (Temporary Change Notice No.)

2 Nuclear Safety Evaluation

Does the attached procedure change:

*(a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . yes ☐ no ☑

*(b) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report? . . . . . yes ☐ no ☐

*(c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . yes ☐ no ☐

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Change more accurately takes into account RC leakage collected and cooled in the RCDT. Change does not affect any operating conditions, and has no effect on margin of safety

Evaluation By J E Morck Date 3/11/79

3 Environmental Impact Evaluation

Does the attached procedure change:

(a) possibly involve a significant environmental impact? . . . . . yes ☐ no ☐

(if 3(a) is "yes", answer questions (b) and (c) and fill in "Details of Evaluation" below. "no" [illegible] by filling in the "Details of Evaluation" below) . . . . . yes ☐ no ☐

*(b) have a significant adverse effect on the environment? . . . . . yes ☐ no ☐

*(c) involve a significant environmental matter or question not previously reviewed and evaluated by the N.R.C. . . . . yes ☐ no ☐

Details of Evaluation (Attach additional pages if required)

Evaluation By _____ Date _____

4 Unit Superintendent requests PORC review ☐ Check if YES.

5 Approval

Evaluation Accompanying PCR

[signature] (Unit Superintendent) 3/12/79 (Date)

Evaluation Accompanying TCN

Approval _____ (SRO Licensee) _____ (Date)

Reviewed _____ (Member of Plant Staff) _____ (Date)

Approval _____ (Unit Superintendent) _____ (Date)

* The Evaluation Accompanying a PCR evaluation and approval chain may be followed at anytime

230 005

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level changes were not recorded

RCDT Temperature (from computer pt 1032) 72

(B) Calculate density (in $\frac{lb}{ft^3}$) of water in RCDT. Use line A, assumed pressure of 15 psia, and Table 1. Interpolate

	0 psia	500 psia
50°F	.016024	.015998
100°F	.016130	.016106

(Density $\left[\frac{lb}{ft^3}\right] = \frac{1}{v}\left[\frac{1}{ft^3/lb}\right]$.) Density = 62.3 $\frac{lb}{ft^3}$

(C) Calculate density of RC. Use average Tave and Figure 1.

Density = 44.55 $\frac{lb}{ft^3}$

(D) Convert identified leak rate, collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print-out) 3.9601 × $\frac{\text{Density of RCDT line B}}{\text{Density of RCS line C}}$ $\frac{62.3}{44.55}$

RC equivalent Identified Leak Rate = 5.5379 gpm.

(E) Subtract Typical 1 Identified Leak Rate from Total Leak Rate to get Unidentified.

 230 006

Attachment 1A cont.

Total Leak Rate	5.3523	gpm	3.9396
Equiv Ident Leak Rate	5.5379	gpm	2.8136
Net Ident leak Rate	-.1351	gpm.	1.116

Accept Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: ADDED D.W. TO MAKEUP TK

2. Time Operation Started: 0150

   Time Operation Completed: 0152

3. Calculations:

4. Total change to RCS inventory: 200 gal.

   NOTE 1: If change is to RCDT enter in section 7 of Data Sheet 1 Line 25 or Data Sheet 2 Line 38.

   NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY [signature] DATE [illegible]

APPROVED BY [signature] DATE 3-19-79

230 008

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO.
2301-3D1

DEPT RESP - _____

TASK NO. - _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ [illegible] _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO _____

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE _____

TXN. CD. (1-3)	ACT. (4)	COMPONENT NUMBER: SYS. (5)	COMP. TYPE	COMP. ID.	LD (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	EDULE (33)
400	A	TMI	2301	3D	1	036002	TS	2301-3D1	1

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39): 03 MONTH | 17 DAY | 79 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06404021 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05545551 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(39)

(61)

402 (1) DUPLICATE AS ABOVE (5-38)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

(39)

(61)

CODE (50)

HOURS(55)

230 009

TMI-105 12-78

rcs1

DATE: 3/17/7[illegible]
TIME: 2:47:43

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASED RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE,
...YOU MUST ENTER NEG. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
207.
ENTER IDENTIFIED LEAKAGE FROM DS 4 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY GROSS TUBE LEAK (G
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
2:40:13:	557.010	600.148	557.736	600.234	581.781	228.330	69.241	76.192
3:40:13:	557.305	600.551	558.031	600.515	582.034	230.623	67.500	79.300

GROSS LEAK RATE (<30 GPM): 4.4207 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.8700 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5491 GPM

OPERATOR: Hugh W. Thomas

APPROVED: C Guthrie

230 010

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Adding H_2O To MU-T-1

2. Time Operation Started: 0340

   Time Operation Completed: 0345

3. Calculations:

4. Total change to RCS inventory: 207 , gal.

   NOTE 1: If change is to any other part of the system, enter in section 7 of Data Sheet 1 Line 25 or Data Sheet 2 Line 38.

   NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY [illegible] DATE 3-17-79

APPROVED BY C Guthrie DATE 3-17-79

"TEMPORARY CHANGE" Sheet

AP 1001

Form 1001-5

SIDE 1

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

TCN NO. 2 79-037
(From TCN List Index)

Unit No. 2

Date 3/16/79

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

1. Procedure 2301-3A.1 (No) RCS Inventory (Title)

2. Change (Include page numbers, paragraph numbers, and exact wording of change.)

See attached.

3. Reason for Change:

To more accurately account for RCS leakage collected in the drain tank.

4. Recommended by J E Mecke 3/16/79 (Date)

5. J E Mecke (Supervisor's Signature) 3/16/79 (Date)

6. Duration of TCN - No longer than ninety days from effective date of TCN or as in (a) or (b) below whichever occurs first.

(a) TCN will be cancelled by a procedure revision issued as a result of a Procedure Change Request to be submitted by PORC (Supervisor Submitting TCN) (Submit PCR as soon as possible) ☒

(b) TCN is not valid after _____ (Fill in circumstances which will result in TCN being cancelled) ☐

7. (a) Is the procedure on the Nuclear Safety Related Procedure List? (Sec. AP 1001 - Appendix B) If "Yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes ☒ No ☐

(b) Is the procedure on the Environmental Impact Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Environmental Evaluation. (Side 2 of this Form) Yes ☐ No ☒

(c) Does the change effect the intent of the original procedure? Yes ☒ No ☐

NOTE: If all answers are "no" the change may be approved by the Shift Supervisor. If question (c) is answered "yes", the change must be reviewed by the PORC and approval by the Station/Unit Superintendent prior to implementation. If the answer to question (c) is "no" the change may be approved by two members of the plant management staff at least one of whom holds a senior reactor operators license on the unit affected in accordance with paragraph 3.6.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"

Approved _____ (Shift Supervisor/Foreman) 3/16/79 (Date)

Reviewed J E Mecke 3/16/79

Members Of PORC _____ 3/16/79

_____ _____ 3/16/79

Contacted _____ (PORC Members) 3/16/79 (Date)

Approved _____ (Unit Superintendent) _____ (Date)

Block (c) "no"

Approved _____ (SRO License) _____ (Date)

_____ (Member Plant Mgt. Staff) _____ (Date)

Reviewed _____ (Chairman of PORC) _____ (Date)

Approved _____ (Unit Superintendent) _____ (Date)

NOTE: The block (c) "Yes" review and approval chain may be followed at anytime.

9. Approval

Manager, Generation Quality Assurance _____ Date _____

NOTE: MGQA approval required only on certain Administrative Procedures listed in Enclosure 7 of AP 1001

10. TCN is Cancelled _____ _____ (Shift Supervisor/Shift Foreman) _____ (Date)

230 012

EMI-SR Rev. 8.1

EVALUATION

Three Mile Island Nuclear Station

SIDE 2

1001-4

Nuclear Safety/Environmental Impact Evaluation

1. Procedure 2301-3D1 (No) RCS Inventory (Title) (Temporary Change Notice No.)

2. Nuclear Safety Evaluation

Does the attached procedure change:

*(a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . yes ☐ no ☒

*(b) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report? . . . . . yes ☐ no ☒

*(c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . yes ☐ no ☒

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Change more accurately takes into account RC leakage entering and cooled in the RCDT. Change does not affect any operating conditions, and has no effect on nuclear safety.

Evaluation By J E Morck Date 3/16/77

3. Environmental Impact Evaluation

Does the attached procedure change:

(a) possibly involve a significant environmental impact? . . . . . yes ☐ no ☐
(if 3(a) is "yes", answer questions (b) and (c) and fill in "Details of Evaluation" below.
If "no", state why by filling in the "Details of Evaluation" below) . . . . . yes ☐ no ☐

*(b) have a significant adverse effect on the environment? . . . . . yes ☐ no ☐

*(c) involve a significant environmental matter or question not previously reviewed and evaluated by the N.R.C. . . . . yes ☐ no ☐

Details of Evaluation (Attach additional pages if required)

Evaluation By _____ Date _____

4. Unit Superintendent requests PORC review ☐ Check if YES.

5. Approval

Evaluation Accompanying PCR

_____ (Unit Superintendent) _____ (Date)

Evaluation Accompanying TCN

Approval _____ (SRO Licensee) _____ (Date)

Reviewed _____ (Member of Plant Staff) _____ (Date)

Approval _____ (Unit Superintendent) _____ (Date)

*The Evaluation Accompanying a PCR evaluation and approval chain may be followed at anytime.

230 013

attachment is not valid if operator caused RCDT level changes were ...ord

RCDT Temperature (from computer pt 1032) 58.1

② Calculate density (in $\frac{lb}{ft^3}$) of water in RCDT. Use line A, an assumed pressure of 15 psia, and Table 1. Interpolate.

	0 psia	500 psia
50°F	.016024	.015998
100°F	.016130	.016106

(Density $\left[\frac{lb}{ft^3}\right] = \frac{1}{v}\left[\frac{1}{ft^3/lb}\right]$.) Density = 62.31 $\frac{lb}{ft^3}$

③ Calculate density of RC. Use average Tare and Figure 1.

Density = 44.55 $\frac{lb}{ft^3}$

④ Convert identified leak rate in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print-out) 3.8798 × $\frac{\text{Density of RCDT (line B)}}{\text{Density of RCS (line C)}}$ $\frac{62.31}{44.58}$

RC equivalent Identified Leak Rate = 5.4264 gpm.

⑤ Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

Total Leak Rate	4.4297	gpm
− Equiv Ident Leak Rate	5.4264	gpm
Net Unident Leak Rate	−.9967	gpm.

Report Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

DEPT RESP - _____

PROCEDURE NO. 2301-3D1

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(0) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD.	ACT.	COMPONENT NUMBER: SYS.	COMP. TYPE	COMP. ID.	LP	LOCATION	TYPE	TASK IDENTIFICATION	SCHEDULE NUMBER
1 2	4	3			16 17			32	33 38
400	A	TMI	2301	3D	1	0360	2	2301-3D1	79 075

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) 103 MONTH 16 DAY 79 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06065 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05984 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

CODE (50)

HOURS(55)

404A (1) DUPLICATE AS ABOVE (5-38)

(39)

(61)

230 016 TMI-105 12-78

!rcs1

DATE: 3/16/7[illegible] REACTOR COOLANT LEAKAGE TEST
TIME: 20: 8:44 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
204.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
.0
ENTER PRIMARY TO SECONDARY DIRECT TUBE LEAK (GPM)
.0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
20: 9: 7:	[illegible]	[illegible]000	557.033	606.000	581.602	220.300	62.301	76.182
21: 9: 7:	556.713	606.000	557.500	606.000	581.500	220.000	59.020	79.480

GROSS LEAK RATE (<3) GPM): 4.8614 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<1) GPM): 4.0099 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8514 GPM

OPERATOR: Craig C Faust

APPROVED: F J Scheuman

230 017

"TEMPORARY CHANGE"

AP 1001
Figure 1001 - 5

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

SIDE 1

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

TCN NO. 2-79-070 (From TCN Log Index)
Unit No. 2
Date 3/16/79

1. Procedure 2301-3A1 (No.) RCS Inventory (Title)

2. Change (Include page numbers, paragraph numbers, and exact wording of change.)
see attached.

3. Reason for Change:
To more accurately account for RCS leakage collected in the drain tank.

4. Recommended by JE Marck 3/16/79 (Date)

5. JE Marck (Supervisor's Signature) 3/16/79 (Date)

6. Duration of TCN - No longer than ninety days from effective date of TCN or as in (a) or (b) below whichever occurs first.

(a) TCN will be cancelled by a procedure revision issued as a result of a Procedure Change Request to be submitted by MORCK (Supervisor Submitting TCN) (Submit PCR as soon as possible) [X]

(b) TCN is not valid after _____ (fill in circumstances which will result in TCN being cancelled) [ ]

7. (a) Is the procedure on the Nuclear Safety Related Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes [X] No [ ]

(b) Is the procedure on the Environmental Impact Procedure List? (Sec. AP 1001 – Appendix B) If "Yes", complete Environmental Evaluation. (Side 2 of this Form) Yes [ ] No [X]

(c) Does the change effect the intent of the original procedure? Yes [X] No [ ]

NOTE: If all answers are "no" the change may be approved by the Shift Supervisor. If question (c) is answered "yes", the change must be reviewed by the PORC and approval by the Station/Unit Superintendent prior to implementation. If the answer to question (c) is "no" the change may be approved by two members of the plant management staff at least one of whom holds a senior reactor operators license on the unit affected in accordance with paragraph 3.6.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"

Approved _____ (Shift Supervisor/Foreman) 3/16/79 (Date)

Reviewed JE Marck 3/16/79
JK Thompson

Members _____ 3/16/79
Of PORC RW Borer 3/16/79

Contacted RF Wilson (PORC Members) 3/16/79 (Date)

Approved _____ (Unit Superintendent) _____ (Date)

Block (c) "no"

Approved _____ (SRO License) _____ (Date)

_____ (Member Plant Mgr. Staff) _____ (Date)

Reviewed _____ (Chairman of PORC) _____ (Date)

Approved _____ (Unit Superintendent) _____ (Date)

NOTE: The block (c) "Yes" review and approval chain may be followed at anytime.

9. Approval
Manager, Generation Quality Assurance _____ Date _____
NOTE: MGQA approval required only on certain Administrative Procedures listed in Enclosure C of AP 1001

10. TCN is Cancelled _____ (Shift Supervisor/Shift Foreman) _____ (Date)

230 018

TMI-56 Rev. [illegible]

AP 1001 | Three Mile Island Nuclear Station | SIDE 2

Figure 1001-4

Nuclear Safety/Environmental Impact Evaluation

1. Procedure 2301-3D1 (No.) RCS Inventory (Title) (Temporary Change Notice No.)

2. Nuclear Safety Evaluation

Does the attached procedure change:

*(a) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety? . . . . . yes ☐ no ☑

*(b) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report? . . . . . yes ☐ no ☑

*(c) reduce the margin of safety as defined in the basis for any technical specification? . . . . . yes ☐ no ☑

Details of Evaluation (Explain why answers to above questions are "no". Attach additional pages if required.)

Change more accurately takes into account RC leakage entering and exiting the RCDT. Change does not affect any operating conditions, and has no effect on margin of safety.

Evaluation By DE Morck Date 3/16/79.

3. Environmental Impact Evaluation

Does the attached procedure change:

(a) possibly involve a significant environmental impact? . . . . . yes ☐ no ☐

(if 3(a) is "yes", answer questions (b) and (c) and fill in "Details of Evaluation" below. If "no", state why by filling in the "Details of Evaluation" below) . . . . . yes ☐ no ☐

*(b) have a significant adverse effect on the environment? . . . . . yes ☐ no ☐

*(c) involve a significant environmental matter or question not previously reviewed evaluated by the N.R.C. . . . . yes ☐ no ☐

Details of Evaluation (Attach additional pages if required)

Evaluation By _____ Date _____

4. Unit Superintendent requests PORC review ☐ Check if YES.

5. Approval

Evaluation Accompanying PCR

_____ (Unit Superintendent) _____ (Date)

Evaluation Accompanying TCN

Approval _____ (SRO Licensee) _____ (Date)

Reviewed _____ (Member of Plant Staff) _____ (Date)

Approval _____ (Unit Superintendent) _____ (Date)

*(5) The Evaluation "Accompanying a PCR" evaluation and approval chain may be followed at anytime.

230 019

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level [illegible] ges were ma[illegible]

(A) Record RCDT temperature (from computer pt 1032) 100

(B) Calculate density (in lb/ft³) of water in RCDT. Use line A, an assumed pressure of 15 psia, and Table 1. Interpolate

	0 psia	500 psia
50°F	.016024	.015998
100°F	.016130	.016106

(Density $[\frac{lb}{ft^3}] = \frac{1}{v} [\frac{1}{ft^3/lb}]$) Density = 61.99628 ~~.016130~~ lb/ft³.

(C) Calculate density of RC. Use average Tave and Figure 1.

Density = 44.286195 ~~.0225804~~ lb/ft³.

(D) Convert identified leak [illegible], collected in RC drain tank, to equivalent RC gallons.

Ident Leak Rate (from print-out) ~~[illegible]~~ 4.0049 × (Density of RCDT line B: 61.99628) / (Density of RCS line C: 44.286195)

RC equivalent Identified Leak Rate = 5.613 gpm.

(E) Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified.

230 020

POOR ORIGINAL

Attachment 1A cont.

Total Leak Rate	4.561 H	gpm
− Equiv Ident Leak Rate	5.6136795	gpm
Net Ident Leak Rate	-.7522	gpm.

Acceptance Criteria

Total Leak Rate must be < 30 gpm.
Total Identified Leak Rate must be < 10 gpm.
Net Unidentified Leak Rate must be < 1 gpm.

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ______

REFERENCE MANUAL

PROCEDURE NO. 2301-3D1

DEPT RESP - ______

TASK NO. - ______

WORK ORDER NO. - ______

ACCOUNT NO. - ______

QC CODE - ______

COMPONENT NO. - ______

COMPONENT DESC - ______

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(5) HS(3) LR(1)

FREQUENCY ______ COMPONENT STATUS ______

SPECIFIC DAY ______ INTERFERENCE ______

PRIORITY ______

COMP. LOCATION - BDG ____ LVL ____ GRID ____

PART NO | QUAN | SPEC EQUIPMENT

DEPENDENT TASKS | ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK ______ SIGNATURE ______ DATE ______ RWP NO ______ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) ______ SIGNATURE ______ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) ______ SIGNATURE ______ DATE

TXN. CD.	A C T	COMPONENT NUMBER (SYS. ... P. ID.)	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
400	A	TMI230130 1	036002	TS	2301-3D1	79 074

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) 03 MONTH 15 DAY 79 YEAR

CHECK ONE ONLY

(X) 1 PERFORMED OK
( ) 2 EXCEPTIONS
( ) 3 DEFICIENCIES
( ) 4 BOTH E S AND D S
( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 054587 SIGNATURE - ______

APPROVED BY EMPLOYEE NUMBER (65) 029558 SIGNATURE - ______

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ______

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1 (39)

(61)

CODE (50)

HOURS(55)

TMI-105 12-78

230 022

rcs1

DATE: 3/15/79 REACTOR COOLANT LEAKAGE TEST
TIME: 4:50: 8 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
4:50:32:	557.209	605.659	557.992	605.828	581.734	220.777	71.702	75.578
5:50:32:	557.508	605.945	558.250	[illegible].945	581.906	220.108	66.386	70.052

CROSS LEAK RATE (<30 GPM): 3.0098 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.7510 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.0502 GPM

OPERATOR: [signature]

APPROVED: [signature]

230 023

STOP 0

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____

_____

DEPT RESP - _____

TASK NO. - _____

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK

_____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY)

_____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN)

_____ SIGNATURE _____ DATE

TXN. CD. (1-3)	ACT. (4)	COMPONENT NUMBER: SYS. (5-8)	COMP. TYPE	COMP. ID.	Lo (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
400	A	TMI	230	13D	1	036092	TS	2301-3D1	79 C73 M

RESULTS (51) **COMPLETE THIS SECTION (401A)**

DATE PERFORMED (39) 03 (MONTH) 14 (DAY) 79 (YEAR)

CHECK ONE ONLY
- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 000005.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 05461 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05864 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

401A (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(39)

(61)

404A (1) DUPLICATE AS ABOVE (5-38)

(39)

(61)

402 (1) DUPLICATE AS ABOVE (5-38)

ASSISTING DEPARTMENTS

CODE (39)

HOURS (44)

CODE (50)

HOURS (55)

TMI-105 12-78

DATE: 3/14/73 REACTOR COOLANT LEAKAGE TEST
TIME: 12: 5: 3 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCS FROM DS 4 (2301-3D1)
500.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MIXTK LVL (IN)	RCDT LVL (INCHES)
12: 5:23:	557.130	606.117	557.836	606.141	581.813	227.461	72.741	76.738
13: 5:23:	556.703	605.737	557.438	605.950	581.445	228.302	79.833	73.222

GROSS LEAK RATE (<30 GPM): -6.7468 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): -6.4372 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.2436 GPM

OPERATOR:

APPROVED:

STOP 0
!

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

DEPT RESP - _____

PROCEDURE NO. 2301-3D1

TASK NO. - _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(5) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK

_____ SIGNATURE _____ DATE _____ EMP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY)

_____ SIGNATURE _____ DATE _____ _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN)

_____ SIGNATURE _____ DATE

TXN. CD.	ACT.	COMPONENT NO. SYS.	COMP.	TYPE	CO	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
1 2	4 5						22	23-24 25	32 33 38
4 0 0	A	TMI	2301	3D		1 1 0 3 6 0 9	2	TS2391-3D1	7 9 0 7 2 11

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) 0 3 MONTH | 1 3 DAY | 7 9 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 0 0 0 0 0 1 . 5

ACTION TAKEN CODE (52) _____

REASON NOT PERFORMED (54) _____

PERFORMED BY EMPLOYEE NUMBER (60) 0 9 5 4 7 9 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 0 4 5 8 7 3 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) _____ SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) _____

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

0 0 1 _____ (39)

_____ (61)

ASSISTING DEPARTMENTS

CODE (39) _____

HOURS (44) _____

CODE (50) _____

HOURS (55) _____

404A (1) DUPLICATE AS ABOVE (5-38)

0 0 1 _____ (39)

_____ (61)

230 026

TM-135 12-79

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Increase MU Tank level

2. Time Operation Started: 1155

   Time Operation Completed: 1200

3. Calculations:

4. Total change to RCS inventory: 305 gal.

   NOTE 1: If change is to RCDT enter in section 7 of Data Sheet 1 Line 25 or Data Sheet 2 Line 38.

   NOTE 2: If change is to any other part of the system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY Dennis Olson DATE 3/13/79

APPROVED BY A Miller DATE 3-13-79

230 027

rcs1

DATE: 3/13/79 REACTOR COOLANTLEAKAGE TEST
TIME: 10:59: 4 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGAT
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTEROPERATOR CAUSEDCHANGESTO THERCDTFROM DS 4 (2301-3D1)
0
ENTEROPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
305.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK(GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
11: 5: 6:	557.630	606.635	558.500	606.672	582.383	228.885	71.736	76.760
12: 5: 6:	557.523	606.688	558.219	606.719	582.281	229.846	72.361	77.337

GROSS LEAK RATE (<30 GPM): 4.3188 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.7934 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5104 GPM

OPERATOR: D. Olson
APPROVED: A Miller

230 028

STOP 0

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____

_____

DEPT RESP - _____

TASK NO. - _____

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO _____

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE _____

TXN. CD. (1-2)	ACT. (4)	COMPONENT NUMBER: SYS. (5-8)	COMP. TYPE	COMP. ID.	LD (16)	LOCATION/UNIT (17-23)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
40	A	TMI	230	13D	1	0360	02	TS2301-3D1	79C72

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39): MONTH L2 L3 I; DAY L1 L3 I; YEAR L7 L9 I

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0 L0 L0 L0 L1. L5 I

ACTION TAKEN CODE (52) L L I

REASON NOT PERFORMED (54) L L I

PERFORMED BY EMPLOYEE NUMBER (60) L0 L6 L0 L8 L7 I SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) L0 L5 L4 L9 L3 I SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L L L I SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L I

403A (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0 L1 L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L L L I (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0 L1 L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L L L I (61)

402 (1) DUPLICATE AS ABOVE (5-38)

ASSISTING DEPARTMENTS

CODE (39) L L L L L I

HOURS (44) L L L L L I. L I

CODE (50) L L L L L I

HOURS (55) L L L L L I. L I

230 029

TMI-105 12-78

rcs1

DATE: 3/13/79 REACTOR COOLANT LEAKAGE TEST
TIME: 2: 0: 6 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1

ENTEROPERATORCAUSEDCHANGESTO THERCDT FROM DS 4(2301-3D1)
0
ENTEROPERATORCAUSEDCHANGESFROMDS4 (2301-3D1)
0
ENTERIDENTIFIEDLEAKAGEFROMDS 3 (2301-3D1)(GPM)
0
ENTERPRIMARYTO SECONDARY OTSG TUBELEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
2: 0:28:	557.344	606.586	558.000	606.406	582.078	228.023	64.082	76.509
3: 0:28:	557.508	606.766	558.313	606.414	582.242	227.449	60.174	73.329

GROSS LEAK RATE (<30 GPM): 3.6252 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.6407 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.0155 GPM

OPERATOR: H Hartman

APPROVED: KR Hoyt

230 030

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

DEPT RESP - _____

PROCEDURE NO.
2301-3D1

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO | QUAN | SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) MS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS | ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD.	ACT	COMPONENT NO. SYS.	COMP. TYPE	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
1 2	3	5		22	23-24	25 32	33 38
400	A	TMI230I3D	1	1036002	TS	2301-3D1	79 07 1 M

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39): MONTH L1L2I DAY L1L2I YEAR L7L9I

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0L9L0L0I.L5I

ACTION TAKEN CODE (52) L L I

REASON NOT PERFORMED (54) L L I

PERFORMED BY EMPLOYEE NUMBER (60) L0L5L4L8L1I SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) L0L5L8L7L3I SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L L L L I SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L L I

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1L L L L L L L L L L L L L L L L L L L L I (39)

L L L L L L L L L L L L L L L L L L L L L I (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1L L L L L L L L L L L L L L L L L L L L I

L L L L L L L L L L L L L L L L L L L L L I (61)

ASSISTING DEPARTMENTS

CODE (39) L L L L L L I

HOURS(44) L L L L L L I.L I

CODE (50) L L L L L L I

HOURS(55) L L L L L L I.L I

TMI-105 12-78

230 031

efpd
EFPD: 78.531

!rcs1

DATE: 3/12/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:32:14 SP2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGATIVE
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTEROPERATORCAUSEDCHANGESTOTHERCDTFROMDS4(2301-3D1)
0
ENTEROPERATORCAUSED CHANGES FROM DS 4 (2301-3D1)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1)(GPM)
0
ENTERPRIMARYTO SECONDARYOTSG TUBE LEAK (GPM)
0

TIME	[illegible] (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZRLVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1:32:38:	557.055	606.211	557.783	606.063	581.773	228.141	71.912	76.147
2:32:38:	556.534	605.361	557.338	605.781	581.430	227.215	65.520	70.156

GROSS LEAK RATE (<30 GPM): 3.9384 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.6763 GPM

NET UNIDENTIFIED LEAK RATE(<1 GPM): 0.2620 GPM

OPERATOR: Raymond Gordon

APPROVED: A Miller

230 032

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____

_____

PROCEDURE NO.
2301-3D1

DEPT RESP - _____

TASK NO. - _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG ___ LVL ___ GRID ___

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD. (1-2)	ACT. (4)	COMPONENT NUMBER SYS. (3)	COMP. TYPE	COMP. ID.	LP (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
00	A	TMI	230	13D	!	036089	TS	2301-3D1	79 C69 M

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) MONTH 03 DAY 10 YEAR 79

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 0090.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06097 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05489 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) _____ SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

01 (39)

(61)

404A (1) DUPLICATE AS ABOVE (5-38)

01 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS (44)

CODE (50)

HOURS (55)

TMI-105 12-78

230 033

rcs1

DATE: 3/10/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:51: 0 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE
...YOU MUST ENTER DEC. PV. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
3:51:23:	557.344	606.555	558.031	606.250	582.030	220.408	81.366	76.563
4:51:23:	557.713	606.766	558.414	606.516	582.352	220.070	74.015	79.261

GROSS LEAK RATE (<30 GPM): 4.0724 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.2674 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8050 GPM

OPERATOR: [signature]

APPROVED: K R Hoyt

STOP 0

230 034

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED _____ SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO. 2301-3D1

_____ TASK NO. - _____

DEPT RESP - _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HO(4) CO(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD.	ACT.	COMPONENT NUMBER SYS.	COMP. TYPE	COMP. ID.	LP	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCH
400	A	TMI	230	13D	1	0360	02	TS230 91-3D1	79

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (33) 03 MONTH 09 DAY 79 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 05446 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 04776 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) _____ SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(33)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

CODE (50)

HOURS(55)

(39)

(61)

TMI-105 12-78

230 035

181

rcs1

DATE: 3/ 9/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:20:5S SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGAT
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
181.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
3:23:42:	557.344	606.756	558.172	606.531	582.203	228.734	67.793	73.849
4:23:42:	557.313	[illegible]	[illegible]	[illegible]77	582.153	228.260	66.153	78.602

GROSS LEAK RATE (<3) GPM): 4.3402 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.4851 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8551 GPM

OPERATOR: L. T. Wright

APPROVED: GA Kg

STOP 0

!

230 036

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ____________

REFERENCE MANUAL

DEPT RESP - ____________

TASK NO. - ____________

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - ____________

ACCOUNT NO. - ____________

PART NO — QUAN — SPEC EQUIPMENT

GC CODE - ____________

COMPONENT NO. - ____________

COMPONENT DESC - ____________

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY ______ COMPONENT STATUS ______

DEPENDENT TASKS — ASSIST DEPT

SPECIFIC DAY ______ INTERFERENCE ______

PRIORITY ______

COMP. LOCATION - BDG ____ LVL ____ GRID ____

SHIFT FOREMAN APPROVAL TO COMMENCE WORK — SIGNATURE — DATE — RWP NO — TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) — SIGNATURE — DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) — SIGNATURE — DATE

T... (1–3)	ACT. (A)	COMPONENT NUMBER	PE	COMP. ID.	LP (16)	LOCATION/UNIT (17–22)	TYPE TASK (23–24)	TASK IDENTIFICATION (25–32)	SCHEDULE NUMBER (33–38)
4 0 0	A	TMI 2 3 0	1	3D 1		0 3 6 0 0 2	T 5	2 3 0 1 - 3 D 1	7 9 C 6 7 M

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) MONTH 03 DAY 08 YEAR 79

CHECK ONE ONLY
(X) 1 PERFORMED OK
( ) 2 EXCEPTIONS
( ) 3 DEFICIENCIES
( ) 4 BOTH E S AND D S
( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 00000.5
ACTION TAKEN CODE (52)
REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 05479 SIGNATURE - ____________

APPROVED BY EMPLOYEE NUMBER (65) 05873 SIGNATURE - ____________

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ____________

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1 (39)

(61)

CODE (50)

HOURS(55)

230 037

rcsi

DATE: 3/ 8/79 REA[illegible] OR COOLANT LEAKAGE TEST
TIME: 3: 5:5 SP 2301-3D1

NOTE: IF OPE[illegible] ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
228.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (IN)
3: 6:10:	557.523	606.338	553.275	6[illegible].088	582.0[illegible]	227.[illegible]2	73.400	[illegible]
4: 6:10:	557.308	606.336	553.303	606.0[illegible]	582.051	227.014	73.[illegible]	78.730

GROSS LEAK RATE (<30 GPM): 3.5763 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.1087 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.4670 GPM

OPERATOR: Dennis Olson

APPROVED: A Miller

230 038

STOP 0

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Increase MUT Level

2. Time Operation Started: 0400

   Time Operation Completed: 0405

3. Calculations:

4. Total change to RCS inventory: 228 gal.

   NOTE 1: If change is to RCDT enter in section 7 of Data Sheet 1 Line 25 or Data Sheet 2 [illegible]

   NOTE 2: If change is to any other [illegible] system, enter in section 5 of Data Sheet 1 Line 20 or Data Sheet 2 Line 33.

   NOTE 3: SIGNS: Removals from the system have a negative (-) sign. Additions to the system have a positive (+) sign.

PERFORMED BY D. Olson DATE 3-8-79

APPROVED BY A Miller DATE 3-8-79

230 039

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ____________

REFERENCE MANUAL ____________

DEPT RESP - ____________

PROCEDURE NO. 2301-3D1

TASK NO. - ____________

WORK ORDER NO. - ____________

ACCOUNT NO. - ____________

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - ____________

COMPONENT NO. - ____________

COMPONENT DESC - ____________

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(5) HS(3) LR(1)

FREQUENCY ________ COMPONENT STATUS ________

SPECIFIC DAY ________ INTERFERENCE ________

PRIORITY ________

COMP. LOCATION - BDG ____ LVL ____ GRID ____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK ________ SIGNATURE ________ DATE ________ RWP NO ________ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) ________ SIGNATURE ________ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) ________ SIGNATURE ________ DATE

TXN. CD. (1-3)	ACT (4)	COMPONENT NUMBER SY / COMP (3-16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
400	A	TMI2301SU 1	03600 2	TS	2301-3D1	79 M

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) MONTH ___ DAY ___ YEAR 79

CHECK ONE ONLY
- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 00001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 05488 SIGNATURE - ____________

APPROVED BY EMPLOYEE NUMBER (65) 05573 SIGNATURE - ____________

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ____________

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

401 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

401 (39)

(61)

CODE (50)

HOURS(55)

TMI-105 12-78

230 040

18

rcs1

DATE: 3/ 6/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:21:24 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE
...YOU MUST ENTER DEC. PT. WITH NEGATIVE VALUE...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
190.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUT LVL (IN)	RCDT LVL (INCHES)
3:21:47:	557.563	606.625	558.130	606.438	582.195	223.749	79.227	76.235
4:21:47:	557.000	606.300	557.825	606.100	581.850	224.221	77.807	78.435

GROSS LEAK RATE (<30 GPM): 3.4874 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.7130 GPM

NET UNIDENTIFIED LEAK RATE (<1.0 GPM): 0.7744 GPM

OPERATOR: [signature]

APPROVED: A Miller

POOR ORIGINAL

230 041

STOP 0

!

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

DEPT RESP - _____

PROCEDURE NO. 2301-3D1

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO | QUAN | SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(. RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

DEPENDENT TASKS | ASSIST DEPT

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE | _____ DATE | _____ RWP NO | _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE | _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE | _____ DATE

TXN. CD. (1-2)	ACT. (4)	COMPONENT NUMBER: SYS. (5-8)	COMP. TYPE	COMP. ID.	LP (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
400	A	TMI2	30	13D	1	036002	TS	2301-3D1	79 06 81

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39): MONTH 03 | DAY 05 | YEAR 79

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 00000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 05479 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 05587 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44)

404A (1) DUPLICATE AS ABOVE (5-38)

(39)

(61)

CODE (50)

HOURS(55)

230 042

TMI-105 12-78

rcs1

DATE: 3/ 5/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:10:20 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGAT
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-301)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)
128.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
3:20: 0:	558.022	600.103	557.084	601.211	581.855	220.025	68.107	76.271
4:20: 0:	557.051	600.197	557.015	601.[illegible]	[illegible]	224.733	67.141	78.521

GROSS LEAK RATE (<30 GPM): 3.6804 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.7800 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.0000 GPM

OPERATOR: D Olson
APPROVED: A Mattha

STOP 0
!

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____ _____

_____ _____

DEPT RESP - _____

TASK NO. - _____

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK

_____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY)

_____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN)

_____ SIGNATURE _____ DATE

TXN. CD.	ACT.	COMPONENT NUMBER	LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER
1 2	4	S. 3 CO ID. 15	17 22	23-24	25 32	33 38
4 0 0	A	TMI230130 1	0 3 6 0 0	2T	5 2 3 0 1 - 3 D 1	7 9 0 6 3

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) 1 0 3 MONTH 1 0 4 DAY 7 9 YEAR

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 0 0 0 0 0 1 . 5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (50) 0 6 0 5 5 4 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) 0 5 5 7 3 1 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

0 1 (39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS (44)

CODE (50)

HOURS (55)

404A (1) DUPLICATE AS ABOVE (5-38)

0 1 (39)

(61)

TMI-105 12-79

044

rcs1

DATE: 3/ 4/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:42: 7 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEG
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-0 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-301)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)
438.
ENTER IDENTIFIED LEAKAGE FROM DS 5 (4301-301) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR L/L (IN)	MUTK L/L (IN)	RCDT L/L (INCHES)
2:00:	557.315	606.338	557.314	606.403	582.000	224.384	84.433	76.805
2:42:30:	556.760	605.797	557.323	603.314	581.412	224.182	84.440	70.177

GROSS LEAK RATE (<50 GPM): 2.0000 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.0370 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.0300 GPM

OPERATOR: Coleman

APPROVED: A Miller

POOR ORIGINAL

STOP 0

230 045

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____

_____

DEPT RESP - _____

TASK NO.- _____

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - _____ _____

ACCOUNT NO. - _____

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK

_____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY)

_____ SIGNATURE _____ DATE _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN)

_____ SIGNATURE _____ DATE

TXN. CD. (1-3)	ACT. (4)	COMPONENT NUMBER: SYS. (5-8)	COMP. TYPE (9-12)	COMP. ID. (13-16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-38)
400	A	TMI	2301	3D 1	036002	75	2301-3D1	79 C62

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) MONTH L0L3L DAY L0L3L YEAR L7L9L

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0L0L0L0L1.L5L

ACTION TAKEN CODE (52) L L L

REASON NOT PERFORMED (54) L L L

PERFORMED BY EMPLOYEE NUMBER (60) L0L5L4L7L9L SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) L0L4L7L4L7L SIGNATURE _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L L L L SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L L

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1L L L L L L L L L L L L L L L L L L L L (39)

L L L L L L L L L L L L L L L L L L L L (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1L L L L L L L L L L L L L L L L L L L L (39)

L L L L L L L L L L L L L L L L L L L L (61)

ASSISTING DEPARTMENTS

CODE (39) L L L L L L

HOURS(44) L L L L L L.L L

CODE (50) L L L L L L

HOURS(55) L L L L L L.L L

TMI-105 12-78

rcs1

DATE: 3/ 3/73 REACTOR COOLANT LEAKAGE TEST
TIME: 2:30:13 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGATIVE,
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR GAGGED CHANGES TO THE RCDT FROM BB 4 (2301-301)
0
ENTER OPERATOR GAGGED CHANGES FROM BB 4 (2301-301)
152.
ENTER IDENTIFIED LEAKAGE FROM BB 3 (2301-301) (GPM)
0
ENTER PRIMARY TO SECONDARY BIGG TUBE LEAK (GPM)
0

TIME	TCA (F)	TMA (F)	TCB (F)	TMB (F)	TAVE (F)	PRZR LVL (IN)	MCTK LVL (IN)	RCDT LVL (INCHES)
2:30:30:	557.070	600.164	557.701	605.304	581.750	227.029		70.257
3:30:30:	556.304	600.211	557.828	607.100	581.750	228.304	7	230

GROSS LEAK RATE (<30 GPM): 2.7738 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.4577 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.3162 GPM

OPERATOR: D Olson
APPROVED: D R Hitz

STOP 0

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE ____________

REFERENCE MANUAL

DEPT RESP - ____________

TASK NO. - ____________

PROCEDURE NO.
2.301-3D1

WORK ORDER NO. - ____________

ACCOUNT NO. - ____________

PART NO	QUAN	SPEC EQUIPMENT

GC CODE - ____________

COMPONENT NO. - ____________

COMPONENT DESC - ____________

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY ____________ COMPONENT STATUS ____________

SPECIFIC DAY ____________ INTERFERENCE ____________

PRIORITY ____________

COMP. LOCATION - BDG ______ LVL ______ GRID ______

DEPENDENT TASKS

ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK ____________ SIGNATURE ____________ DATE ____________ RWP NO ____________ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) ____________ SIGNATURE ____________ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) ____________ SIGNATURE ____________ DATE

TXN. CD. (1–2)	ACT. (A)	COMPONENT NUMBER: SYS. (3)	COMP. TYPE	COMP. ID	LP (16)	LOCATION / UNIT (17–22)	TYPE TASK (24)	TASK IDENTIFICATION (25–32)	SCHEDULE NUMBER (33–38)
4 0 0	A	T M I	2 3 0	1 3 D - 1		0 3 6 0 0	2 5	2 3 0 1 - 3 D 1	7 9 0 6 1 - 1

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39) 03 MONTH 24 DAY 79 YEAR

CHECK ONE ONLY

- (X) 1 PERFORMED OK
- ( ) 2 EXCEPTIONS
- ( ) 3 DEFICIENCIES
- ( ) 4 BOTH E S AND D S
- ( ) 5 NOT PERFORMED

ACTUAL MANHOURS (45) 0 0 9 9 0 0 1.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 0 9 6 3 9 8 SIGNATURE - ____________

APPROVED BY EMPLOYEE NUMBER (65) 0 6 3 0 1 SIGNATURE - ____________

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - ____________

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38) 402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

ASSISTING DEPARTMENTS

L0L1 (39)

(61)

CODE (39)

HOURS (44)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1 (39)

(61)

CODE (50)

HOURS (55)

230 048

rcs1

DATE: 3/ 2/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:37: 2 SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THEN DATA ENTRY FOR THAT ACTION MUST BE NEGAT-
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM BS 4 (2301-301)
0
ENTER OPERATOR CAUSED CHANGES FROM BS 4 (2301-301)
0
ENTER IDENTIFIED LEAKAGE FROM BS 3 (2301-301) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	NUTK LVL (IN)	RCDT LVL (INCHES)
1:46:41:	550.301	605.347	557.030	605.000	581.158	227.034	68.207	70.574
[illegible] :	550.404	605.570	557.140	605.000	581.211	227.127	68.537	70.027

GROSS LEAK RATE (<30 GPM): 3.6000 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.7470 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.9400 GPM

OPERATOR: M. Cooper

APPROVED: C A Adam

STOP 0

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL _____

PROCEDURE NO. 2301-3D'

DEPT RESP - _____

TASK NO.- _____

WORK ORDER NO. - _____

ACCOUNT NO. - _____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

PART NO	QUAN	SPEC EQUIPMENT

DEPENDENT TASKS	ASSIST DEPT

SHIFT FOREMAN APPROVAL TO COMMENCE WORK _____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY) _____ SIGNATURE _____ DATE

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN) _____ SIGNATURE _____ DATE

TXN. CD. (1-2)	ACT. (4)	COMPONENT NUMBER SYS. (3)	COMP. TYPE	COMP. ID.	Lp (16)	LOCATION/UNIT (17-22)	TYPE TASK (23-24)	TASK IDENTIFICATION (25-32)	SCHEDULE NUMBER (33-36)	
4 0 0	A	TMI	2301	3D	1	0 3 6 0 0	2T	5 2 3 0 1 - 3 D 1	7 9 0 6 1	3 1

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) MONTH L0 2 3 1 DAY L0 2 2 1 YEAR L7 L9 1

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) L0 L0 L0 L0 L1 . L5 1

ACTION TAKEN CODE (52) L L 1

REASON NOT PERFORMED (54) L L 1

PERFORMED BY EMPLOYEE NUMBER (60) L0 6 L4 L7 L9 1 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (65) L0 5 L4 L7 L8 1 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) L L L L L 1 SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75) L L L L L 1

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

L0L1L L L L L L L L L L L L L L L L L L L L 1 (39)

L L L L L L L L L L L L L L L L L L L L 1 (61)

404A (1) DUPLICATE AS ABOVE (5-38)

L0L1L L L L L L L L L L L L L L L L L L L L 1 (39)

L L L L L L L L L L L L L L L L L L L L 1 (61)

ASSISTING DEPARTMENTS

CODE (39) L L L L L 1 2 3 0 0 5 0

HOURS(44) L L L L L 1 . L 1

CODE (50) L L L L L 1

HOURS(55) L L L L L 1 . L 1

TMI-105 12-78

DATE: 3/ 2/73 REACTOR COOLANT LEAKAGE TEST
TIME: 19:34:57 GP 2301-301.

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE MADE ...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CHARGED CHANGES TO THE RCDT FROM DS 4 (2301-301)
0
ENTER OPERATOR CHARGED CHANGES FROM DS 4 (2301-301)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK L/L (IN)	RCDT L/L (INCHES)
19:35:31:	556.352	605.401	557.000	605.375	581.016	220.727	60.041	78.457
20:35:31:	556.001	605.700	557.570	605.607	581.523	220.750	62.033	78.627

GROSS LEAK RATE (<30 GPM): 3.2663 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.6311 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.6055 GPM

OPERATOR: J Blessing
APPROVED: E R Hoyt

STOP 0

GENERATION MAINTENANCE SYSTEM
MANUAL PERFORMANCE FORM

DATE ISSUED

SCHED. DATE _____

REFERENCE MANUAL

_____

_____

DEPT RESP - _____

TASK NO. - _____

PROCEDURE NO.
2301-3D1

WORK ORDER NO. - _____

ACCOUNT NO. - _____

PART NO	Q'JAN	SPEC EQUIPMENT
_____	___	_____
_____	___	_____
_____	___	_____

GC CODE - _____

COMPONENT NO. - _____

COMPONENT DESC - _____

PLANT CONDITION (MODE) SU(2) OP(1) HD(4) CD(5) RF(6) HS(3) LR(1)

FREQUENCY _____ COMPONENT STATUS _____

SPECIFIC DAY _____ INTERFERENCE _____

PRIORITY _____

COMP. LOCATION - BDG ____ LVL ____ GRID ____

DEPENDENT TASKS	ASSIST DEPT
_____	_____
_____	_____
_____	_____

SHIFT FOREMAN APPROVAL TO COMMENCE WORK

_____ SIGNATURE _____ DATE _____ RWP NO _____ TAG NO

QC NOTIFIED BEFORE STARTING WORK (IF APPLICABLE ONLY)

_____ SIGNATURE _____ DATE _____ _____

COMPONENT RETURNED TO SERVICE (SHIFT FOREMAN)

_____ SIGNATURE _____ DATE

TXN. CD. 1-3	ACT. 4	COMPONENT NUMBER: SYS. 5-8	COMP. TYPE 9-10	COMP. ID. 11-15	LOCATION 16-17	TYPE TASK 18	TASK IDENTIFICATION 19-32	SCHEDULE NUMBER 33-38	
400	A	TMI2	30	13D	1	03	60	2T 2301-3D1	79 060 51

RESULTS (51) COMPLETE THIS SECTION (401A)

DATE PERFORMED (39) 03 (MONTH) 01 (DAY) 79 (YEAR)

CHECK ONE ONLY

(X)	1	PERFORMED OK
( )	2	EXCEPTIONS
( )	3	DEFICIENCIES
( )	4	BOTH E S AND D S
( )	5	NOT PERFORMED

ACTUAL MANHOURS (45) 000001.5

ACTION TAKEN CODE (52)

REASON NOT PERFORMED (54)

PERFORMED BY EMPLOYEE NUMBER (60) 06085 SIGNATURE - _____

APPROVED BY EMPLOYEE NUMBER (55) 06301 SIGNATURE - _____

WITNESSED BY EMPLOYEE NUMBER (70) SIGNATURE - _____

CORRECTIVE MAINTENANCE JOB TICKET NUMBER (75)

403A (1) DUPLICATE AS ABOVE (5-38)

402 (1) DUPLICATE AS ABOVE (5-38)

RESULTS DESCRIPTION

(39)

(61)

ASSISTING DEPARTMENTS

CODE (39)

HOURS(44) 230 052

404A (1) DUPLICATE AS ABOVE (5-38)

CODE (50)

HOURS(55)

(39)

(61)

TMI-105 12-79

rcs1

DATE: 3/ 1/79 REACTOR COOLANT LEAKAGE TEST
TIME: 0:40:32 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGATIV
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)
1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)
0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)
0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
0:41: 5:	556.617	605.953	557.391	606.117	581.516	227.549	68.240	77.042
1:41: 5:	556.719	605.891	557.359	606.003	581.492	228.770	63.404	79.104

AK RATE (<30 GPM): 2.9831 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.5787 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.4044 GPM

OPERATOR: Joseph R. Cayda

APPROVED: J Cador

POOR ORIGINAL

STOP 0

230 053

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