

APPROVED:

STOP 0
rcs1
!

DATE: 1/ 2/79
TIME: 1: 2:54

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

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

DESIRED INTERVAL (1-8 HOURS)

1
0.0 ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

0.0 ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

-0.2 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0.0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1: 3:24:	559.398	602.664	560.016	602.367	581.109	265.695	87.720	76.101
2: 3:24:	559.578	602.867	560.344	602.531	581.328	267.086	87.724	76.350

GROSS LEAK RATE (<30 GPM):

0.0724 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.5235 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.4511 GPM

OPERATOR:

APPROVED:

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PC59050

STOP

0

rcl

DATE: 1/ 4/79
TIME: 2:57:16

REACTOR COOLANT LEAKAGE TEST
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
Interrupt at location 00001211
execution terminated

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rcl

DATE: 1/ 4/79
TIME: 3: 2:32

REACTOR COOLANT LEAKAGE TEST
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)
0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0.0
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)
3: 2:54:	558.047	604.156	558.734	604.078	581.250	265.750	69.153	76.464
4: 2:54:	558.297	604.500	559.000	604.430	581.555	266.688	68.982	76.745

GROSS LEAK RATE (<30 GPM): 0.5630 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.3510 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.2121 GPM

OPERATOR:

APPROVED:

H 53 51

rcl

DATE: 1/ 5/78 REACTOR COOLANT LEAKAGE TEST
TIME: 2:54: 0 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGATIVE,
...YOU MUST ENTER DEC. FT. 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)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
2:54:25:	558.719	604.484	559.375	604.352	581.727	260.953	70.599	76.297
3:54:25:	558.563	604.359	559.313	604.219	581.609	260.893	68.499	76.805

GROSS LEAK RATE (<30 GPM): 1.2239 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.6348 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5892 GPM

OPERATOR: *C. H. Faust*

APPROVED: *F. J. Schumann*

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WC59054

STOP

0

rcl

DATE: 1/ 5/79

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

TIME: 17:22:53

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)

1.0

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)

MJTK LVL
(IN)

RCDT LVL
(INCHES)

17:23:17: 558.891 605.305 559.742 604.969 582.219 222.789 88.424 77.649

18:23:17: 559.070 604.953 559.766 604.563 582.086 225.893 85.369 78.031

GROSS LEAK RATE (<30 GPM):

1.1307 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.4740 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.6567 GPM

OPERATOR:

APPROVED:

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HC59055

STOP

0

rcl

DATE: 1/ 6/79 REACTOR COOLANT LEAKAGE TEST
TIME: 19:19:52 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) _____
1.0
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)
0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)
0.0
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)	MJTK LVL (IN)	RCDT LVL (INCHES)
19:20:17:	558.953	604.453	559.781	604.367	581.883	226.629	72.148	77.718
20:20:17:	558.103	604.031	558.789	603.805	581.180	224.463	69.190	78.102

GROSS LEAK RATE (<30 GPM): 1.0910 GPM
TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.4710 GPM
NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.6200 GPM
OPERATOR: *Phillips*
APPROVED: *C. Adams*

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STOP 0

W059057

rcl

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DATE: 1/ 6/79 REACTOR COOLANT LEAKAGE TEST
TIME: 2:46:43 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)

0.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0.
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
2:47: 5:	557.688	604.086	558.516	603.742	581.000	225.746	75.403	76.061
3:47: 5:	558.297	604.656	558.977	604.453	581.594	229.346	75.615	76.547

GROSS LEAK RATE (<30 GPM): 0.1054 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.6083 GPM

WC59158

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.5029 GPM

OPERATOR:

APPROVED:

SCHED. DATE _____

2301-3D1

TASK NO. _____

COMP. LOCATION - BDG _____ LVL _____ GRID _____

DATE _____

SIGNATURE															DATE																				
TXN. CD.		A C T.	COMPONENT NUMBER						LOCATION/UNIT				TYPE TASK	TASK IDENTIFICATION				SCHEDULE NUMBER																	
1	2		3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20														
4	0	0	A	T	M	I	2	3	0	1	3	D	1		0	3	6	0	0	2	T	S	2	3	0	1	-	3	0	1	7	9	0	0	6

LA11 MONTH LA6 DAY L7L9 YEAR

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L L I
L L I

LOL 00821

SIGNATURE _____

LOL5L8L7L31

SIGNATURE -

L L L L L I

SIGNATURE -

L L L L L

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

RESULTS DESCRIPTION

ASSISTING DEPARTMENTS

[illegible][illegible]

CODE (39) L L L L L I

34A (1) DUPLICATE AS ABOVE (5-38)

HOURS(44) L L L L L I.W059060

[illegible]

CODE (50) L L L L L I

L I (61)

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

rcl

DATE: 1/ 6/79
TIME: 10:28:33

REACTOR COOLANT LEAKAGE TEST
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)

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 (E)	THB (E)	TAVE (E)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
10:29:38:	558.852	604.539	559.539	604.430	581.836	229.381	71.091	76.718
11:29:38:	558.563	604.352	559.297	604.250	581.609	227.930	69.107	77.089

GROSS LEAK RATE (<30 GPM): 1.3359 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.4639 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8720 GPM

OPERATOR: *Coleman*

APPROVED: *A Miller*

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STOP

0

HC57064

STOP 0

trcs1

DATE: 1/10/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:48:22 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 RCOT FROM DS 4 (2301-3D1)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

-0.0

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)	MJTK LVL (IN)	RCOT LVL (INCHES)
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1:48:44:	566.531	597.453	566.859	597.000	581.961	225.066	85.433	77.431
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2:48:44:	566.297	597.571	566.874	597.000	581.961	225.066	85.433	77.431
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GRAND LEAK RATE (<30 GPM):

1.3680 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.5330 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.8350 GPM

OPERATOR: CFM

APPROVED: *[Signature]*

WC59065

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STOP

0

rcl

DATE: 1/ 8/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:21: 9 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)
0.0 ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0
ENTER IDENTIFIED LEAKAGE FROM DS 5 (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)
3:21:33	557.945	604.320	558.641	604.164	581.266	225.512	80.670	75.949
4:21:33	558.130	604.617	558.930	604.438	581.539	225.504	81.907	76.229

GROSS LEAK RATE (<30 GPM): -0.1943 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.3448 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.5391 GPM

OPERATOR: CF M

APPROVED:

Handwritten signature

HC59066

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rcsl

DATE: 1/ 7/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:41:20 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)

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)
3:41:42:	558.203	604.359	558.836	604.125	581.375	225.234	79.216	76.655
4:41:42:	558.211	604.461	558.789	604.219	581.414	226.818	78.323	76.995

GROSS LEAK RATE (<30 GPM):

0.2034 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.4242 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.2208 GPM

OPERATOR:

APPROVED:

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HC59067

STOP

0

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: addition of
200 gal of Demin H₂O to MR-T-1

2. Time Operation Started: 2229

Time Operation Completed: 2230

3. Calculations:

NA

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 and Data Sheet 2 Line 25.

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 20.

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

PERFORMED BY

Coleman

DATE

1/11/79

APPROVED BY

Amick

DATE

1-11-79

WU59069

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ADD TABLE 1 AND TABLE 2

2301-301
Revision 0
08/19/77

DATA SHEET 3
RCS LEAK RATE
IDENTIFIED LEAKAGE

1. Source of Leakage
(Describe in detail, attach drawing if necessary)

MA-R-4

2. Method used to determine leak rate
(Describe briefly)

Calibrated beaker

3. Identified Leak Rate: *0.1585* gpm
(For use in Step 7.c of Data Sheet 1 or 2)

Performed by

D. G. Tilley

Date *12-1-78*

4. Possible Safety Implications
(Shift Supervisor Check One)

☐ Yes (Initiate necessary action)

☒ No Explain *VALVE IS LEAKING BY 4*
H IS designed to LIFT LEAKING
IS NOT enough to cause a failure

HA Tilley
Shift Supervisor

12/6/78
Date *HC59C70*

DATE: 1/11/79
TIME: 21:52:48

REACTOR COOLANT LEAKAGE TEST
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)

200.0

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

-.1585

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
21:53:28:	557.789	604.234	558.383	603.914	581.070	222.439	77.304	75.933
22:53:28:	558.680	604.875	559.266	604.578	581.844	227.756	81.345	76.410

GROSS LEAK RATE (<30 GPM):

0.5817 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.7505 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.1688 GPM

OPERATOR:

Coleman

APPROVED:

A Miller

1059072

STOP

0

rcl

DATE: 1/13/79
TIME: 9:37:33

REACTOR COOLANT LEAKAGE TEST
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)

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
9:37:56:	558.438	604.742	559.094	604.555	581.703	225.980	67.475	77.654
10:37:56:	558.609	605.008	559.180	604.711	581.867	228.410	65.716	78.125

GROSS LEAK RATE (<30 GPM): 0.8417 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 0.5778 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.2639 GPM

OPERATOR: *[Signature]*

APPROVED: *KR Hojo*

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W059074

STOP

0

rcsl

DATE: 1/15/79
TIME: 0:24: 6

REACTOR COOLANT LEAKAGE TEST
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)

1.0

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)
0:24:30:	534.992	536.828	535.250	536.313	535.944	105.212	84.307	76.729
1:24:30:	535.336	537.130	535.656	536.695	536.211	105.992	82.295	77.298

GROSS LEAK RATE (<30 GPM):

1.6087 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.7121 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.9367 GPM

OPERATOR: *M. J. Lopez*

APPROVED: *C. Adams*

HC59076
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STOP

0

rcl

DATE: 1/30/79
TIME: 22: 5:13

RFACTOR COOLANT LEAKAGE TEST
SP 2301-301

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 (2301-301)

0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0
ENTER PRIMARY TO SECONDARY UTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
22: 0:59:	531.273	532.781	531.195	532.250	531.867	99.308	75.433	74.471
23: 0:59:	531.227	532.695	531.156	531.844	531.727	99.734	72.606	75.166

GROSS LEAK RATE (<30 GPM):

1.5111 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.8107 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.7003 GPM

OPERATOR:

J. Blessing

1-30-79

2300

APPROVED:

KR Hoy

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STOP

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HC59078

SCHED. DATE _____

2301-3D1

TASK 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 _____

SHIFT FOREMAN APPROVAL TO COMMENCE
WORK

QC NOTIFIED BEFORE STARTING WORK
(IF APPLICABLE ONLY)

COMPONENT RETURNED TO SERVICE
(SHIFT FOREMAN)

SIGNATURE

DATE _____

RWP NO	TAG NO
1	1
2	2
3	3
4	4
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SIGNATURE

DATE _____

SIGNATURE

DATE _____

TXN. CD.		ACT.	COMPONENT NUMBER					LOCATION/UNIT	TYPE TASK	TASK IDENTIFICATION	SCHEDULE NUMBER																							
1	2		3	4	5	6	7																											
4	00	A	T	M	I	2	3	0	1	3	D	1	0	3	6	0	0	2	T	S	2	3	0	1	-	3	D	1	7	9	0	0	3	M

RESULTS (51) COMPLETE THIS SECTION (401A) DATE PERFORMED (39)

DATE PERFORMED (39)

102 102 1791
MONTH DAY 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)
ACTION TAKEN CODE (52)
REASON NOT PERFORMED (54)

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PERFORMED BY EMPLOYEE NUMBER (60)

APPROVED BY EMPLOYEE NUMBER (65)

WITNESSED BY EMPLOYEE NUMBER (70)

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

ASSISTING DEPARTMENTS

[illegible]

L L L L L L L L L L L L L L L L L L I

(61)

104A (1) DUPLICATE AS ABOVE (5-38)

[illegible]

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

CODE (39) L L L L L L

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

65.05 (50) 1 1 1 1 1 1 1

CODE (50) L L L L L L

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

WC59079

rcsl

DATE: 2/ 2/79 REACTOR COOLANT LEAKAGE TEST
TIME: 0:55: 8 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTRE 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)
0:55:33:	558.648	604.742	559.422	604.781	581.898	223.439	66.949	76.130
1:55:33:	558.531	604.648	559.406	604.719	581.820	222.100	64.753	77.042

GROSS LEAK RATE (<30 GPM): 1.8296 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.0783 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.7513 GPM

OPERATOR: *G. Blessey*

APPROVED: *K.R. Hoyt*

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WC59080

STOP

0

1 fcs1.

DATE: 2/ 2/79
TIME: 14:31:35

REACTOR COOLANT LEAKAGE TEST
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)

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)
14:31:59:	558.703	605.680	559.383	606.117	582.461	225.414	67.021	76.090
15:31:59:	558.578	605.617	559.328	606.055	582.391	225.477	66.816	76.950

GROSS LEAK RATE (<30 GPM):

0.1246 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.0752 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.9506 GPM

OPERATOR:

Craig C Faust 2/2/79

APPROVED:

F. Schuman

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STOP

0

W059082

4rcs1

DATE: 2/ 3/79 REACTOR-COOLANT-LEAKAGE TEST
TIME: 5:17:24 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUSTBE NEGATIVE,
...YOU MUST ENTER DEC. FT. 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)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
5:17:50:	558.820	605.586	559.445	606.055	582.469	226.025	73.611	78.123
6:17:50:	558.836	605.797	559.555	606.281	582.609	225.492	72.812	79.020

GROSS LEAK RATE (<30 GPM):

0.7515 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.0457 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.2942 GPM

OPERATOR: *Neil M. Simon*

APPROVED: *C. Guthrie*

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WC59084

STOP

0

rcsl

DATE: 2/ 3/79
TIME: 10:31:53

REACTOR COOLANT LEAKAGE TEST
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)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)
10:32:18:	558.047	605.336	558.867	605.852	582.016	224.395	74.157	80.525
11:32:18:	558.570	605.625	559.305	606.133	582.398	225.826	73.373	81.509

GROSS LEAK RATE (<30 GPM): 0.0750 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.0651 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.9894 GPM

OPERATOR:

CFMEL

APPROVED:

[Signature]

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WC59086

STOP

0

!rcs1

DATE: 2/ 3/79
TIME: 23:49: 8

REACTOR COOLANT LEAKAGE TEST
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)

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
23:49:33:	558.906	605.820	559.672	606.313	582.672	227.061	66.366	75.691
0:49:33:	558.672	605.719	559.516	606.172	582.516	228.580	63.541	76.775

GROSS LEAK RATE (<30 GPM): 1.5035 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.3285 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.1750 GPM

OPERATOR: *Earl D. Hemmels*

APPROVED: *C. Guthrie*

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H059088

rcl

DATE: 2/4/79
TIME: 14:44:39

REACTOR COOLANT LEAKAGE TEST
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
0 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)
14:45: 2:	558.453	605.445	559.070	605.883	582.203	225.914	62.258	76.082
15:45: 2:	558.867	605.781	559.492	606.273	582.594	226.564	60.595	76.903

-GROSS LEAK RATE (<30 GPM): 0.9670 GPM

-TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.0274 GPM

-NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.0604 GPM

OPERATOR: *C. J. T. 2/4/79*

APPROVED: *J. Schumann 2/4/79*

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WC59090

lrcsl

DATE: 2/ 5/79
TIME: 8:35:21

REACTOR COOLANT LEAKAGE TEST
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)

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
8:35:44:	558.398	605.227	559.109	605.727	582.109	226.172	62.595	76.815
:35:44:	558.664	605.422	559.258	605.930	582.313	226.936	59.965	77.723

GROSS LEAK RATE (<30 GPM): 1.6180 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.1342 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.4838 GPM

OPERATOR:

APPROVED:

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WC53493

RCS1

DATE: 2/ 5/79
TIME: 18:36:56

REACTOR COOLANT LEAKAGE TEST
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)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)
18:37:27	558.391	604.938	559.094	605.367	581.945	225.725	68.100	79.256
1 :37:27	556.789	604.492	557.500	604.969	580.938	224.752	63.187	80.270

GROSS LEAK RATE (<30 GPM):

1.3236 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.1607 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.1629 GPM

OPERATOR:

APPROVED:

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STOP

0

HC59094

rcsl

DATE: 2/ 5/79
TIME: 3:12:16REACTOR COOLANT LEAKAGE TEST
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)0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
3:12:56:	558.016	604.867	558.547	605.359	581.695	224.436	66.849	77.178
4:12:56:	558.617	605.414	559.359	605.922	582.328	228.273	65.299	78.087

- GROSS LEAK RATE (<30 GPM): 0.5525 GPM

- TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.1232 GPM

- NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5766 GPM

OPERATOR:

L. Sanner

APPROVED:

C. Guthrie

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WC59C96

rcl

DATE: 2/ 6/79
TIME: 0: 4:19

REACTOR-COOLANT-LEAKAGE TEST
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 ROOT 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)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	WTRK LVL (IN)	ROOT LVL (INCHES)
0:25:40:	557.891	605.141	558.641	605.602	581.813	226.385	74.440	78.007
1:25:40:	558.586	605.117	559.328	605.602	582.156	229.674	70.933	79.101

GROSS LEAK RATE (<30 GPM):

1.8431 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.1830 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.6601 GPM

OPERATOR:

Shugh M. [Signature]

APPROVED:

C. Guthrie

WC59098

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CS1

DATE: 2/ 7/79 REACTOR COOLANT LEAKAGE TEST
TIME: 1:50:10 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE
...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)
1:50:35:	560.398	602.805	561.195	602.844	581.805	218.949	77.420	78.247
2:50:35:	560.742	602.969	561.320	603.000	582.000	217.857	75.665	79.326

GROSS LEAK RATE (<30 GPM): 2.1020 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.2594 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8426 GPM

OPERATOR: *Earl S. Hemmels*

APPROVED: *C. Guthrie*

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WC59100

STOP 0

rcsl

DATE: 2/ 7/79 REACTOR COOLANT LEAKAGE TEST
TIME: 13:52:31 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)

1.0

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)
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13:52:55:	560.094	603.156	560.719	603.141	581.773	218.572	63.641	77.748
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14:52:55:	560.148	603.445	560.813	603.375	581.945	217.873	62.249	78.845
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GROSS LEAK RATE (<30 GPM):

1.6521 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.3000 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.3520 GPM

OPERATOR:

APPROVED:

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WC59102

STOP

0

rcs7

DATE: 2/ 8/79
TIME: 0:59:56

REACTOR COOLANT LEAKAGE TEST
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)

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0 ENTER PRIMARY TO SECONDARY DTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1: 0:44:	558.742	604.367	559.375	604.383	581.711	218.615	79.287	77.102
2: 0:44:	558.984	604.445	559.680	604.477	581.891	219.658	75.345	78.130

GROSS LEAK RATE (<30 GPM):

2.1981 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.2746 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.9235 GPM

OPERATOR:

Lenner

APPROVED:

C. Duthie

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STOP

0

W050104

STOP

0

!rcsl

DATE: 2/ 8/79

REACTOR COOLANT LEAKAGE TEST

TIME: 20:49:27

SP 2301-301

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 RCOT FROM DS 4 (2301-301)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

0.0

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (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)	MJTK LVL (IN)	RCOT LVL (INCHES)
20:50:10:	559.031	603.914	559.828	604.383	581.781	222.771	74.287	80.144
21:50:10:	559.445	604.180	560.117	604.633	582.086	223.439	72.212	81.257

GROSS LEAK RATE (<30 GPM):

1.7943 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.2065 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.5878 GPM

OPERATOR:

C. May

APPROVED:

Manaway

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W059106

rcl

DATE: 2/ 9/79
TIME: 2:19:40

REACTOR COOLANT LEAKAGE TEST
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)

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)
2:20: 3:	559.195	604.195	559.969	604.609	581.992	217.932	71.725	76.799
3:20: 3:	559.438	604.383	560.156	604.844	582.203	222.826	66.586	77.810

GROSS LEAK RATE (<30 GPM):

2.0268 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.2634 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.7634 GPM

OPERATOR:

Hugh M. Lane

APPROVED:

CAD

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STOP

0

WC59108

rcsl

DATE: 2/10/79 REACTOR COOLANT LEAKAGE TEST
TIME: 8:40:44 SP 2301-301

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

DESIRED INTERVAL (1-8 HOURS)

1.0

ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-301)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

0.0

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (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)
8:41:16:	567.070	575.039	568.781	575.461	571.586	225.881	71.854	76.888
9:41:16:	567.758	575.484	569.344	575.797	572.034	225.842	70.211	78.010

GROSS LEAK RATE (<30 GPM):

2.1705 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.4028 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.7677 GPM

OPERATOR: *J. Longden*

APPROVED: *Cade*

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WC59110

STOP

-0-

rcl

DATE: 2/11/79
TIME: 2:40:43

REACTOR COOLANT LEAKAGE TEST
SP 2301-301

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 (2301-301)

0.0 ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

0.0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0.0 ENTER PRIMARY TO SECONDARY JTSG 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)
2:41: 5	560.852	602.234	561.406	602.664	581.781	225.961	69.382	76.100
3:41: 5	560.648	602.141	561.353	602.586	581.680	225.586	66.661	76.956

GROSS LEAK RATE (<30 GPM): 1.8183 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.0573 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.7610 GPM

OPERATOR: *[Signature]*

APPROVED: *[Signature]*

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HC58112

rcl

DATE: 2/11/79
TIME: 18: 8:26

REACTOR COOLANT LEAKAGE TEST
- SP 2301-301

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 RODS FROM DS 4 (2301-301)

0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

0.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0.0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RODT LVL (INCHES)
18: 8:48:	558.945	504.250	559.656	604.633	581.867	225.534	75.582	73.333
19: 8:48:	558.477	604.211	559.047	604.680	581.602	224.386	75.220	73.226

GROSS LEAK RATE (<30 GPM): -0.1926 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): -0.1322 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.0603 GPM

OPERATOR: C.F. M. B.

APPROVED: *[Signature]*

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STOP

0

WC59114

rcsl

DATE: 2/12/79 REACTOR COOLANT LEAKAGE TEST
TIME: 21:19:46 SP 2301-301

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 RODS FROM DS 4 (2301-301)

0

ENTER OPERATOR CAUSED 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)	MOTR LVL (IN)	RCDT LVL (INCHES)
21:20:19:	557.367	603.797	558.063	603.898	580.773	224.054	65.570	75.802
22:20:19:	557.805	603.961	558.344	603.961	581.010	225.070	65.050	75.440

GROSS LEAK RATE (<30 GPM):

0.4843 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

-0.4140 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.8984 GPM

OPERATOR:

APPROVED:

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W055116

STOP

0

STOP 0

PCB1

DATE: 2/13/79 REACTOR COOLANT LEAKAGE TEST
TIME: 18:42: 5 SP 2301-301

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

DESIGNED INTERVAL (1-8 HOURS)

1
ENTER OPERATOR CAUSED CHARGE TO THE RODS FROM DS 4 (2301-301)

0.0
ENTER OPERATOR CAUSED CHARGES FROM DS 4 (2301-301)

0.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GRM)

0.0
ENTER PRIMARY TO SECONDARY LOSS TIME LEAK (GRM)

0.0

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRER LVL (IN)	ROTA LVL (IN)	RCS LVL (INCHES)
18:42:20	557.539	604.250	550.219	604.048	581.164	224.893	73.402	75.512
19:42:20	557.025	604.250	558.117	604.048	581.155	225.445	70.330	75.028

GROSS LEAK RATE (<30 GRM): 2.0404 GRM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GRM): 1.3533 GRM

NET UNIDENTIFIED LEAK RATE (<1 GRM): 0.6864 GRM

OPERATOR: *H. J. [signature]*

APPROVED: *[signature]*

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STOP 0

WC50118

WDL-V-1118 *closed*

lrcsl

DATE: 2/13/79
TIME: 12:35:46

REACTOR COOLANT LEAKAGE TEST
SP 2301-301

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 RODS FROM DS 4 (2301-301)
0

ENTER OPERATOR CAUSED 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)	PRER LVL (IN)	MTR LVL (IN)	ROD LVL (INCHES)
12:36: 9:	558.133	604.070	558.727	604.125	581.258	226.717	66.241	75.405
13:36: 9:	557.891	603.844	558.492	603.859	581.015	224.695	63.282	76.606

GROSS LEAK RATE (<30 GPM): 2.1928 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.3824 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8104 GPM

OPERATOR:

APPROVED:

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W059120

TCS1

DATE: 2/14/79
TIME: 20:45:28

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

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

DESIRED INTERVAL (1-8 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)

0.0

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)	PPZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
20:46: 1:	557.813	604.313	558.453	604.398	581.242	227.338	73.053	75.713
21:46: 1:	557.727	604.266	558.414	604.313	581.172	227.279	70.987	76.864

GROSS LEAK RATE (<30 GPM):

1.3165 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.4160 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.0996 GPM

OPERATOR:

APPROVED:

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HC59122

SCHED. DATE _____

WC59123 MI-105 12-78

rcs1

DATE: 2/14/79 REACTOR COOLANT LEAKAGE TEST
TIME: 5:30:23 SP 2301-301

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 (2301-301)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

206.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0.0

ENTER PRIMARY TO SECONDARY STOP TUBE LEAK (GPM)

0.0

TIME	TEMP (F)	PRV (F)	THB (F)	THC (F)	TAKE (F)	PRSR LVL (IN)	PRTK LVL (IN)	RCDT LVL (INCHES)
5:30:40:	557.570	604.047	558.156	604.477	581.055	226.853	75.462	77.131
6:30:46:	557.703	604.234	558.484	604.656	581.266	225.936	73.716	78.341

GROSS LEAK RATE (<30 GPM): 1.2404 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.4842 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.2438 GPM

OPERATOR:

APPROVED:

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W059124

—rcsl

—DATE: - 2/15/79 — REACTOR COOLANT-LEAKAGE TEST
—TIME: 20:25:34 — 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)

1.0

—ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)

0.0

—ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

—ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0.0

—ENTER PRIMARY TO SECONDARY GTSG 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)
20:26: 0:	557.680	604.023	558.398	604.391	581.117	226.025	73.486	78.345
21:26: 0:	557.898	604.133	558.563	604.469	581.266	226.141	70.482	79.659

GROSS LEAK RATE (<30 GPM):

2.4653 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.5340 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.9313 GPM

OPERATOR: *M. Coyn*

APPROVED: *Cadams*

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STOP

0

W050125

rcs1

DATE: 2/16/79 REACTOR COOLANT LEAKAGE TEST
TIME: 2:53:11 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)
2:53:39:	557.945	604.203	558.703	604.633	581.367	225.307	65.891	79.295
3:53:39:	558.078	604.266	558.852	604.648	581.453	225.797	62.574	80.666

GROSS LEAK RATE (<30 GPM): 2.4021 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.5442 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8579 GPM

OPERATOR:

Hugh M. Brown

APPROVED:

C. Guthrie

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WC59128

r
!rcsl

DATE: 2/16/79
TIME: 12: 2:30

REACTOR COOLANT LEAKAGE TEST
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)

204.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
12: 3:32:	557.711	603.984	558.336	604.336	581.086	226.588	76.295	76.346
13: 3:32:	558.125	604.375	558.750	604.820	581.516	227.650	79.565	77.727

GROSS LEAK RATE (<30 GPM): 1.7745 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.7263 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.0482 GPM

OPERATOR:

D. Olson

APPROVED:

A Miller

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HC59130

STOP

0

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: _____

2. Time Operation Started: 1250
Time Operation Completed: 1255
3. Calculations:

4. Total change to RCS inventory: 204 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 D. Olson

APPROVED BY Amille

DATE 2-16-79

DATE 2-16-79

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HC59131

TCS1.

DATE: 2/17/79 REACTOR COOLANT LEAKAGE TEST
TIME: 4:11: 3 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)

0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0.0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
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4:11:27:	557.328	604.680	558.078	604.797	581.219	226.840	67.878	77.219
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5:11:27:	557.344	604.438	558.031	604.516	581.078	225.852	63.816	78.906
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GROSS LEAK RATE (<30 GPM): 2.8772 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.0345 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.8427 GPM

OPERATOR: *H. Ellis*

APPROVED: *[Signature]*

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WC59133

STOP

0

rcl

DATE: 2/19/79 REACTOR COOLANT LEAKAGE TEST
TIME: 0: 1:17 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)

0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0
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)	MJTK LVL (IN)	RCDT LVL (INCHES)
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0: 1:40:	557.477	604.188	558.195	604.547	581.094	224.566	75.232	79.443
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1: 1:40:	557.789	604.617	558.563	604.734	581.422	227.245	71.541	81.233
----------	---------	---------	---------	---------	---------	---------	--------	--------

GROSS LEAK RATE (<30 GPM): 2.5415 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 1.9857 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5558 GPM

OPERATOR:

APPROVED:

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W059135

STOP

0

SCHED. DATE _____

TMI-105 12-78

rcs1

DATE: 2/19/79
TIME: 1:36:5

REACTOR COOLANT LEAKAGE TEST
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)

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1:36:30:	557.406	604.297	558.063	604.359	581.031	226.170	63.091	75.845
2:36:30:	557.680	604.555	558.273	604.633	581.281	227.264	59.391	77.379

GROSS LEAK RATE (<30 GPM):

2.8931 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

1.9053 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.9878 GPM

OPERATOR:

APPROVED:

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STOP

0

WC59137

STOP

0

rcsl

DATE: 2/19/79
TIME: 21:28:17REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1NCTE: 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)

1.0
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-3D1)0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)0.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)0.0
ENTER PRIMARY TO SECONDARY OTSG TURE LEAK (GPM)
0.0

TIME	TCA (F)	THA (F)	TCB (F)	THR (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
21:28:47:	557.625	603.867	558.344	604.313	581.031	226.486	72.636	78.727
22:28:47:	557.758	603.961	558.484	604.297	581.125	224.770	69.665	80.489

GROSS LEAK RATE (<30 GPM): 2.9283 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.0162 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.9121 GPM

OPERATOR: *M V Cooper*APPROVED: *Cade*

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STOP

0

HC59139

rcsl

DATE: 2/21/79
TIME: 8:36:10

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

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 (1-8 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)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
8:36:36	557.539	604.117	558.398	604.086	581.031	221.318	72.520	77.178
9:36:36	557.883	604.438	558.531	604.320	581.289	221.287	70.095	78.861

GROSS LEAK RATE (<30 GPM): 2.3788 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.0325 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.3463 GPM

OPERATOR:

APPROVED:

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HC591-11

STOP

0

rcl

DATE: 2/23/79
TIME: 11: 7:27

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

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

DESIRED INTERVAL (1-8 HOURS)

1

ENTER OPERATOR CAUSED CHANGES TO THE RCOT 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)	TCR (F)	THR (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCOT LVL (INCHES)
11: 7:59:	558.422	604.164	559.234	604.234	581.508	224.479	70.041	75.973
12: 7:59:	558.133	603.984	559.039	604.094	581.305	228.807	66.782	75.998

GROSS LEAK RATE (<30 GPM):

0.3512 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

0.0295 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.3217 GPM

OPERATOR: *H. H. H.*

APPROVED: *K. R. H.*

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HC59142

rcl

DATE: 2/25/79 REACTOR COOLANT LEAKAGE TEST
TIME: 20: 2:17 SP 2301-3D1

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE NEGA
...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)

150.

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)	MJTK LVL (IN)	RCDT LVL (INCHES)
20: 2:41:	558.242	604.273	558.992	603.977	581.367	226.104	79.545	75.935
21: 2:41:	558.164	604.031	558.836	603.828	581.211	226.287	78.207	77.863

GROSS LEAK RATE (<30 GPM):

2.9979 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

2.4058 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.5921 GPM

OPERATOR:

Coleman

APPROVED:

A Miller

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W059144

STOP

0

rcsl

DATE: 2/26/79
TIME: 16:36:41

REACTOR COOLANT LEAKAGE TEST
SP 2301-301

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

DESIRED INTERVAL (1-2 HOURS)

ENTER OPERATOR CAUSED CHANGES TO THE RCPT FROM DS 4 (2301-301)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

154.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MIXK LVL (IN)	RCPT LVL (INCHES)
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16

39

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7:	557.813	604.039	558.648	604.172	581.164	227.053	72.915	77.069
----	---------	---------	---------	---------	---------	---------	--------	--------

19:39: 7:	558.016	604.195	558.867	604.266	581.328	227.945	72.095	79.143
-----------	---------	---------	---------	---------	---------	---------	--------	--------

GROSS LEAK RATE (<30 GPM): 3.2577 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.4963 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.7614 GPM

OPERATOR: *Coleman*

W059146

APPROVED: *A Miller*

rcs1

DATE: 2/26/79 REACTOR COOLANT LEAKAGE TEST
TIME: 0:38:24 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 LEAKAGE VALUES.

DESIRED INTERVAL (1-8 HOURS)

1

ENTER OPERATOR CAUSED CHANGES TO THE RCOT FROM DS 4 (2301-3D1)

0.0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

0.0

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)	RCOT LVL (INCHES)
0:38:48:	557.984	604.180	558.758	603.977	581.219	228.871	65.107	78.456
1:38:48:	558.133	604.266	558.914	604.016	581.328	227.813	62.032	80.592

GROSS LEAK RATE (<30 GPM): 2.8253 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.4424 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.3828 GPM

OPERATOR:

Joseph R. Congdon

APPROVED:

Cade

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STOP

0

HC59148

rcl

DATE: 2/27/79

REACTOR COOLANT LEAKAGE TEST

TIME: 21:50:34

SP 2301-301

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 (2301-301)

-0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

162.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0

ENTER PRIMARY TO SECONDARY DTSG TUBE LEAK (GPM)

-0 -

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MATX LVL (IN)	RCDT LVL (INCHES)
21:50:58	556.578	605.742	557.211	605.883	581.344	227.104	73.907	76.327
22:50:58	556.625	605.898	557.305	606.078	581.469	227.135	73.428	78.253

GROSS LEAK RATE (<30 GPM):

3.3372 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

2.3864 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.9507 GPM

OPERATOR:

Coleman

APPROVED:

Miller

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STOP

0

W059150

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Make up to
make up tank

2. Time Operation Started: 2145
Time Operation Completed: 2147
3. Calculations:

4. Total change to RCS inventory: 162 gal 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 D. Olson

DATE 2-27-79

APPROVED BY A. Miller

DATE 2-27-79

WC59151

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rcsl

DATE: 2/28/79 REACTOR COOLANT LEAKAGE TEST
TIME: 19: 8:41 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)

100.

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)	TH3 (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
19: 9: 4:	556.352	605.467	557.125	605.555	581.117	227.117	74.628	76.846
20: 9: 4:	556.563	605.742	557.289	605.831	581.367	228.020	72.853	78.983

GROSS LEAK RATE (<30 GPM):

3.2534 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

2.5899 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.6635 GPM

OPERATOR:

Dennis Olson

APPROVED:

A Miller

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WC59153

STOP

0

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: 2003
Time Operation Completed: 2005
3. Calculations:

4. Total change to RCS inventory: 100 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 2-28-79

APPROVED BY Amell

DATE 2-28-79

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HC53154

rcsl

DATE: 3/ 1/79
TIME: 0:40:32

REACTOR COOLANT LEAKAGE TEST
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)

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)
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0:41: 5:	556.617	605.953	557.391	606.117	581.516	227.549	68.243	77.042
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1:41: 5:	556.719	605.891	557.359	606.000	581.492	228.770	63.404	79.194
----------	---------	---------	---------	---------	---------	---------	--------	--------

GROSS LEAK 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:

APPROVED:

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STOP

0

W059156

rcsl

DATE: 3/ 2/79
TIME: 1:37: 2

REACTOR COOLANT LEAKAGE TEST
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 ROOT 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 DTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	ROOT LVL (INCHES)
1:46:41:	556.391	605.547	557.039	605.656	581.156	227.834	68.207	76.574
2:46:41:	556.484	605.570	557.148	605.680	581.211	227.127	65.537	78.827

GROSS LEAK RATE (<30 GPM): 3.6966 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 2.7476 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.9490 GPM

OPERATOR:

M. Coyle

APPROVED:

Caden

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W059158

STOP

0

DATE: 3/ 2/79
TIME: 19:34:57

REACTOR COOLANT LEAKAGE TEST
SP 2301-301

NOTE: IF OPERATOR ACTION DECREASES RCS VOLUME THE DATA ENTRY FOR THAT ACTION MUST BE RECORDED... 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)

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0 ENTER PRIMARY TO SECONDARY DTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTR LVL (IN)	RCDT LVL (INCHES)
19:35:31:	556.352	605.281	557.023	605.375	581.016	226.727	66.641	75.457
20:35:31:	556.831	605.783	557.576	605.837	581.523	228.750	62.853	78.627

GROSS LEAK RATE (<30 GPM):

3.2666 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

2.6511 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.6055 GPM

OPERATOR:

J. Blessing

APPROVED:

E. R. Hoyt

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STOP

0

HC5S160

rcsl

DATE: 3/ 3/79

REACTOR COOLANT LEAKAGE TEST

TIME: 2:36:13

SP 2301-301

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 RCOT FROM DS 4 (2301-301)

0

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

152.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

0

TIME	TCA (F)	TMA (F)	TCD (F)	TIB (F)	TAVE (F)	PRZR LVL (IN)	MOTR LVL (IN)	RCOT LVL (INCHES)
2:38:36:	557.073	605.164	557.781	605.324	531.750	227.023	79.433	79.257
3:38:36:	556.984	606.211	557.828	606.008	531.750	226.301	79.503	79.250

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
H.R. Hitz

APPROVED:

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W059162

STOP

0

rcsl

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 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)

238.

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1:42:30:	557.313	606.336	557.914	606.453	582.000	224.564	84.433	76.005
2:42:30:	556.766	605.797	557.523	605.914	581.492	224.162	84.443	73.177

GROSS LEAK RATE (<30 GPM): 2.8368 GPM

TOTAL IDENTIFIED PG LEAK RATE (<10 GPM): 2.8576 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): -0.0308 GPM

OPERATOR: Coleman

APPROVED: Miller

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W05S164

STOP

0

PG. 1

DATE: 5/ 5/73 REACTOR COUNT LEAKAGE TEST
TIME: 3:13:26 SP 2301-S01

NOTE: IF OPERATOR ACTION INCREASES REG VALUE THE DATA ENTER FOR THAT ACTION MUST BE REACTIVE.
...YAU LIST ENTER DEC. PT. WITH LEAKAGE VALUE...

TESTED INTERVAL (1-8 HOURS)

1 ENTER OPERATOR CALLED CHANGES TO THE REGOT FROM DS 4 (2301-S01)

0 ENTER OPERATOR CALLED CHANGES FROM DS 4 (2301-S01)

128 ENTER IDENTIFIED LEAKAGE FROM: DS 3 (2301-S01) (C21)

0 ENTER PRIMARY TO SECONDARY DTS: TUBE LEAK (GP1)

0

TIME	TCA (F)	TMA (F)	TCD (F)	TIB (F)	TAVE (F)	PRIN LVL (IN)	MATE LVL (IN)	REG LVL (IN)
3:20: 0:	556.922	606.133	557.594	805.871	581.633	226.025	69.187	76.271
4:20: 0:	557.051	606.297	557.813	806.031	581.781	224.733	67.241	76.521

3.2
6159.7122
2.4
60
6341.4241

0 LEAK RATE (C/D GP1): 3.634 GP1

TOTAL IDENTIFIED REG LEAK RATE (C/D GP1): 2.7689 GP1

NET UNIDENTIFIED LEAK RATE (C/D GP1): 0.8655 GP1

APPROVED: D Olan
APPROVED: AMiller

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W059166

STOP 0

180

rcsl

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 LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)

ENTER OPERATOR CAUSED CHANGES TO THE RCOT FROM DS 4 (2301-3D1)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

ENTER IDENTIFIED LEAKAGE FROM DS-3 (2301-3D1) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCOT LVL (INCHES)
3:21:47:	557.563	606.625	558.190	606.438	582.105	223.740	79.229	76.235
4:21:47:	557.086	606.359	557.805	606.100	581.852	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 G.M.):

0.7744 GPM

OPERATOR:

APPROVED:

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H059168

STOP

0

rcs1

DATE: 3/ 8/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3: 5:53 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 ROOT FROM DS 4 (2301-3D1)

0 ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

228.

0 ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	ROOT LVL (INCHES)
3: 6:12:	557.523	606.398	558.273	606.085	582.063	227.242	73.466	76.250
4: 6:18:	557.398	606.336	553.305	606.094	582.031	227.814	73.508	78.789

GROSS LEAK RATE (<30 GPM): 3.5766 GPM

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

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.4679 GPM

OPERATOR:

Dennis Olson

APPROVED:

A Miller

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HC59170

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 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 D. Olson

DATE 3-8-79

APPROVED BY A. Miller

DATE 3-8-79

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WC5S171

18/
rcsl

DATE: 3/ 9/79 REACTOR COOLANT LEAKAGE TEST
TIME: 3:20:58 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)

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)	MOTR LVL (IN)	RCDT LVL (INCHES)
3:23:42:	557.344	606.766	558.172	606.531	582.203	228.734	67.793	75.849
4:23:42:	557.313	606.734	558.125	606.477	582.155	228.260	66.153	78.692

GROSS LEAK RATE (<30 GPM):

4.3402 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

3.4851 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.8551 GPM

OPERATOR: *LO W. Hall*

APPROVED: *HA Hg*

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STOP 0

W059173

efpd
EFPD: 78.591

lrcsl

DATE: 3/12/79
TIME: 1:32:14

REACTOR COOLANT LEAKAGE TEST
SP2301-3D1

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 OTHER CDT 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 TSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZRLVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
1:32:38:	557.055	606.211	557.789	606.063	581.773	228.141	71.912	76.147
2:32:38:	556.594	605.961	557.398	605.781	581.430	227.215	65.520	79.156

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:

APPROVED:

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WC59175

rcl

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 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)

0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MJTK LVL (IN)	RCDT LVL (INCHES)
3:51:23:	557.344	606.555	558.031	606.250	582.030	225.498	81.360	76.563
4:51:23:	557.719	606.766	558.414	606.516	582.352	223.070	74.915	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: *Detritman*

APPROVED: *K.R. Hoyt*

BEST COPY AVAILABLE

STOP

0

HC59177

rcl

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)

ENTER OPERATOR CAUSED CHANGES TO THERCOT FROM DS 4 (2301-3D1)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

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	64.982	75.608
3: 0:28:	557.508	606.766	558.313	606.414	582.242	227.449	60.174	79.629

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: *Hickman*

APPROVED: *YR Hoyt*

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W059179

rcs i

DATE: 3/13/79 REACTOR COOLANT LEAKAGE TEST
TIME: 10:59: 4 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 THERCOT FROM DS 4 (2301-3D1)

3
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

305.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

3
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
11: 5: 6:	557.680	606.695	558.500	606.672	582.383	228.885	71.736	76.769
12: 5: 6:	557.523	606.688	558.219	606.719	582.281	229.826	72.361	79.937

GROSS LEAK RATE (<30 GPM): 4.3188 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.7994 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5194 GPM

OPERATOR: *D. Olson*

APPROVED: *A Miller*

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WC59181

STOP 0

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Increase mv 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

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W059182

SCHED. DATE _____

TMI-105 12-78

DATE: 3/14/73
TIME: 12: 5: 3

REACTOR COOLANT LEAKAGE TEST
SP 2301-3D1

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 ROD 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)	MJTK LVL (IN)	RCOT LVL (INCHES)
------	------------	------------	------------	------------	-------------	------------------	------------------	----------------------

12: 5:28:	557.180	606.117	557.836	606.141	581.813	227.461	72.341	75.738
-----------	---------	---------	---------	---------	---------	---------	--------	--------

13: 5:28:	556.703	605.797	557.438	605.859	581.445	228.302	79.833	73.222
-----------	---------	---------	---------	---------	---------	---------	--------	--------

GROSS LEAK RATE (<30 GPM):

-6.7468 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

-6.4972 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

-0.2435 GPM

OPERATOR:

APPROVED:

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STOP

0

HC59104

rcsl

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 MUST BE NEGATIVE,
...YOU MUST ENTER DEC. FT. WITH LEAKAGE VALUES...

DESIRED INTERVAL (1-8 HOURS)

ENTER OPERATOR CAUSED CHANGES TO THE RCOT FROM DS 4 (2301-3D1)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-3D1)

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-3D1) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZP LVL (IN)	MJTK LVL (IN)	RCOT LVL (INCHES)
4:50:32:	557.289	605.859	557.992	605.828	581.734	226.777	71.782	75.578
5:50:32:	557.508	605.945	558.250	605.945	581.906	226.188	66.386	70.652

CROSS LEAK RATE (<30 GPM): 3.8098 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.7536 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.0562 GPM

OPERATOR: *Booker*

APPROVED: *Smith*

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W059186

STOP

0

IFCS:

DATE: 3/16/79 REACTOR COOLANT LEAKAGE TEST
TIME: 20: 8:44 SP 2301-3D1

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 ROD 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 OTSG TUBE LEAK (GPM)

.0

TIME	TCA (F)	TIA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RODT LVL (INCHES)
20: 9: 7:	556.783	606.000	557.633	606.008	581.602	228.396	62.391	76.182
21: 9: 7:	556.713	605.363	557.553	606.000	581.563	228.982	59.920	79.483

GROSS LEAK RATE (<30 GPM):

4.8614 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

4.0099 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

0.8514 GPM

OPERATOR:

Chris C Faust

APPROVED:

F. Schemm

WC59188

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"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 2301-3D1 RCS Inventory
No. 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 Morck 3/16/79 5. JE Morck 3/16/79
Date Supervisor's Signature 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 (Submit PCR as soon as possible)

Supervisor Submitting TCN

(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 3.5.4.2 of AP 1001.

8. Review and Approval

Block (c) "yes"

Approved

[Signature]
Shift Supervisor/Foreman

3/16/79
Date

Block (c) "no"

Approved

SRO License Date

Reviewed

JE Morck
JR Langley
Members

3/16/79
Date

Reviewed

Member Plant Mng. Staff Date

Members

JE Morck
RW Bonnell
Of PORC

3/16/79
Date

Reviewed

Chairman of PORC Date

Of PORC

JE Morck
APORC Members

3/16/79
Date

Approved

Unit Superintendent Date

Contacted

JE Morck
Unit Superintendent

3/16/79
Date

Approved

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

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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

"EVALUATION"

Form 1001

Three Mile Island Nuclear Station

SIDE 2

Form 1001-4

Nuclear Safety/Environmental Impact Evaluation

1 Procedure 2301-3D1 RCS Inventory
No. 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, corrects and corrects in the RC DT. Change does not affect any operating conditions, and has no effect on nuclear safety.

Evaluation By JE 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 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.

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5 Approval

Evaluation Accompanying PCR

Evaluation Accompanying TCN

[Signature] 3/16/79
Unit Superintendent Date

Approval _____
SRO License #05S190 Date

Reviewed _____
Member of Plant Staff Date

Approval _____
Unit Superintendent Date

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

Attachment 1A

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

① Record RCDT temperature (from computer pt 1032) 100

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.

$$\frac{50^\circ F}{\quad} \quad \frac{0 \text{ psia}}{.016024}$$

$$\frac{500 \text{ psia}}{.015198}$$

$$\frac{100^\circ F}{\quad} \quad .016130$$

$$.016106$$

$$61.99628$$

$$\left(\text{Density} \left[\frac{lb}{ft^3} \right] = \frac{1}{v} \left[\frac{ft^3}{lb} \right] \right) \quad \text{Density} = \frac{.016130}{\frac{1}{61.99628}}$$

③ Calculate density of RC. Use ~~average~~ ^{44.286195} Tave and Figure 1. Density = .0225804 $\frac{lb}{ft^3}$.

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

$$\text{Ident Leak Rate (from print-out)} \frac{.2614}{\quad} \times \frac{\text{Density of RCDT line C} \quad 61.99628}{\text{Density of RCs line C} \quad 44.286195}$$

$$\text{RC equivalent Identified Leak Rate} = \underline{5.613} \text{ gpm.}$$

⑤ Subtract Equivalent Identified Leak Rate from Total Leak Rate to get Unidentified. **BEST COPY AVAILABLE**

W05S191

Attachment 1A cont.

Total Leak Rate	<u>4.8614</u>	gpm
- Equiv Ident Leak Rate	<u>5.6136788</u>	gpm
Net Unident Leak Rate	<u>-0.7522</u>	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.

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W05S192

rcl

DATE: 3/17/79 REACTOR COOLANT LEAKAGE TEST
TIME: 2:47:43 SP 2301-301

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)

ENTER OPERATOR CAUSED CHANGES TO THE ROOT FROM DS 4 (2301-301)

ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

207.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCB (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
2:48:13:	557.016	606.148	557.766	606.234	581.739	228.336	69.241	76.132
3:48:13:	557.305	606.531	558.031	606.523	582.034	230.623	67.500	79.389

GROSS LEAK RATE (<30 GPM): 4.4297 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 3.8798 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM): 0.5493 GPM

OPERATOR:

APPROVED:

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1001

Figure 1001-5

Three Mile Island Nuclear Station
Temporary Change Notice (TCN)

SIDE 1

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

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

1 Procedure 2301-3A1 RCS Inventory
No 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 March 3/16/79 & JE March 3/16/79
Date Supervisor's Signature Date

5 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 MOCK (Submit PCR as soon as possible)
Supervisor Submitting TCN

(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

JE March
Shift Supervisor/Foreman

3/16/79
Date

Block (c) "no"

Approved

SRO License Date

Reviewed

JE March
Shift Supervisor/Foreman

3/16/79
Date

Reviewed

Member Plant Mrg. Staff Date

Members

JE March
Shift Supervisor/Foreman

3/16/79
Date

Reviewed

Chairman of PORC Date

Of PORC

JE March
Shift Supervisor/Foreman

3/16/79
Date

Reviewed

Chairman of PORC Date

Contacted

JE March
Shift Supervisor/Foreman

3/16/79
Date

Approved

Unit Superintendent Date

Approved

JE March
Shift Supervisor/Foreman

3/16/79
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 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

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W059195 PM 5/1 Rev A

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, with
cooling in the RCS DT. Change does not affect any
operating conditions, and has no effect on nuclear
safety.

Evaluation By JE Morck Date 3/11/77

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.

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5. Approval

Evaluation Accompanying PCR

[Signature]
Unit Superintendent3/11/77
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.

W059196

~~attachment~~ attachment is not valid if operator caused RCDT level changes were
 did RCDT temperature (from computer pt 1033) 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	.015198
	.016043	
100°F	.016130	.016106

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

- 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 drum tank, to equivalent RC gallons.

$$\text{Ident Leak Rate} \frac{3.8798}{(\text{from print out})} \times \frac{\text{Density of RCDT} \frac{62.31}{\text{line RC}}}{\text{Density of RCs} \frac{44.58}{\text{line C}}} =$$

$$\text{RC equivalent Identified Leak Rate} = \underline{5.4264} \text{ gpm}$$

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

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W059197

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Adding H₂O 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 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 High M. Lauer

DATE 3-17-79

APPROVED BY C. Guthrie

DATE 3-17-79

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W059198

Attachment 1A cont.

Total Leak Rate	4.4297	
- Equiv. Ident Leak Rate	5.4264	gpm
Net Unident Leak Rate	<u>- .9967</u>	gpm
		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.

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WC59199

efpd
EFPD: 86.327

!rcsl

DATE: 3/19/73 REACTOR COOLANT LEAKAGE TEST
TIME: 0:58:19 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 ROOT FROM DS 4 (2301-301)

0 ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)
200.

ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0 ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	TIA (F)	TCD (F)	TH3 (F)	TAVE (F)	PRZR LVL (IN)	BLTR LVL (IN)	RCDT LVL (INCHES)
0:53:43:	556.953	605.805	557.713	605.773	581.555	223.403	74.807	77.760
1:58:43:	556.453	605.383	557.003	605.414	581.070	226.870	60.057	81.255

GROSS LEAK RATE (<30 GPM): 5.3528 GPM

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

NET UNIDENTIFIED LEAK RATE (<1 GPM): 1.3926 GPM

OPERATOR: *Alfred M. Shaw*

APPROVED: *E. G. Subbiah*

COLLECTED
Equivalent

- .185

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W059201

"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. 2-79-077
(From TCN List Index)

Unit No. 2

Date 3/16/79

1. Procedure 2301-3A1 RCS Inventory
No 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 March 3/16/79 E. JE March 3/16/79
Date Supervisor's Signature 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 MOCK (Submit PCR as soon as possible)
Supervisor Submitting TCN
(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"	Block (c) "no"
Approved <u>[Signature]</u> <u>3/16/79</u> Shift Supervisor/Foreman Date	Approved _____ SRO License Date
Reviewed <u>JE March</u> <u>3/16/79</u> Date	Reviewed _____ Member Plant Mrg. Staff Date
Members <u>[Signature]</u> <u>3/16/79</u> Date	Reviewed _____ Chairman of PORC Date
Of PORC <u>[Signature]</u> <u>3/16/79</u> Date	Approved _____ Unit Superintendent Date
Contacted <u>[Signature]</u> <u>3/16/79</u> Date	
Approved <u>[Signature]</u> <u>3/16/79</u> PORC Members Date	
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 MGOA approval required only on certain Administrative Procedures listed in Enclosure 7 of AP 1001

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

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HC59202

"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 now accurately takes into account RC leakage, collectible & cooled in the RCC DT. Change does not affect any operating conditions, and has no effect on nuclear safety.

Evaluation By J E 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 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.

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5 Approval

Evaluation Accompanying PCR

Evaluation Accompanying TCN

[Signature] 3/16/79
Unit Superintendent Date

Approval _____
SRO Licensee Date

Reviewed _____
Member of Plant Staff Date

Approval _____
Unit Superintendent

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

W059203

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level changes were not record RCDT temperature (from computer pt 1033) 72

- 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

$$\frac{50^\circ F}{\quad} \quad \frac{0 \text{ psia}}{.016024}$$

$$\frac{500 \text{ psia}}{.015198}$$

$$\frac{100^\circ F}{\quad} \quad .016130$$

$$.016106$$

$$\left(\text{Density} \left[\frac{lb}{ft^3} \right] = \frac{1}{\left[\frac{ft^3}{lb} \right]} \right) \quad \text{Density} = \frac{62.3}{\frac{lb}{ft^3}}$$

- ③ Calculate density of RC. Use average Tave and Figure 1. Density = $\frac{44.55}{\frac{lb}{ft^3}}$

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

$$\text{Ident Leak Rate} \frac{3.9601}{\text{(from print out)}} \times \frac{\text{Density of RCDT line A} \frac{62.3}{\frac{lb}{ft^3}}}{\text{Density of RCs line C} \frac{44.55}{\frac{lb}{ft^3}}}$$

$$\text{RC equivalent Identified Leak Rate} = \frac{5.5379}{\text{gpm}}$$

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

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W059204

Attachment 1A cont.

Total Leak Rate	<u>5.3528</u>	gpm	3.9296
Equival. Ident. Leak Rate	<u>5.5379</u>	gpm	2.8136
Net Unident. Leak Rate	<u>-.1851</u>	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.

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HC59205

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 J. M. L...

DATE 3-19-79

APPROVED BY C. J. Th...

DATE 3-19-79

BEST COPY AVAILABLE

W059206

rcsl

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 RELATIVE.
...YOU MUST ENTER DEC. PT. WITH LEAKAGE VALUE....

DESIGNED INTERVAL (1-8 HOURS)

1 ENTER OPERATOR CAUSED CHANGES TO THE ROOT 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)

TIME	TCA (F)	THA (F)	TCD (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTR LVL (IN)	RCDT LVL (INCHES)
1:14:50:	556.630	605.700	557.041	605.727	581.402	215.301	75.730	76.005
2:14:50:	556.041	605.555	557.430	605.510	581.221	225.106	71.462	79.440

GRASS LEAK RATE (<30 GPM): 6.0519 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM): 4.1833 GPM

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

OPERATOR: *Earl O. Hemmes*

APPROVED: *C. Smith*

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Collected - .22 GPM

STOP

0

W059208

"EVALUATION"

1001

1001-4

Three Mile Island Nuclear Station

SIDE 2

Nuclear Safety/Environmental Impact Evaluation

Procedure 2301-3D1

RCS Inventory

Title

Temporary Change Notice No.

1. 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, correct
as coded in the RC DT. Change does not affect any
operating conditions, and has no effect on nuclear
safety.

Evaluation By JE 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)
- * (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.

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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

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

W058209

Working

AP 1001

Form 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. 2-77-000
(From TCN List)
Unit No. 2
Date 3/16/79

1. Procedure 2301-3A1 RCS Inventory
No 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. Morck 3/16/79 5. J.E. Morck 3/16/79
Date Supervisor's Signature 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 (Submit PCR as soon as possible)
Supervisor Submitting TCN ☒
(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" Block (c) "no"
Approved [Signature] 3/16/79 Approved _____
Shift Supervisor/Foreman Date
Reviewed J.E. Morck 3/16/79 _____
SRO License Date
Members J.E. Morck 3/16/79 _____
Member Plant Mng. Staff Date
Of PORC [Signature] 3/16/79 Reviewed _____
Chairman of PORC Date
Contacted [Signature] 3/16/79 Approved _____
PORC Members Date
Unit Superintendent Date
Approved [Signature] 3/16/79 _____
Unit Superintendent Date

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

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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 W059210

Attachment 1A

Note: This attachment is not valid if operator caused RCDT level changes were recorded RCDT temperature (from computer 1032) 65

- 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.

$$\frac{50^\circ F}{0.016024}$$

$$\frac{500 \text{ psia}}{0.015198}$$

$$\frac{100^\circ F}{0.016130}$$

$$0.016106$$

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

- ③ Calculate density of RC. Use average Tave and Figure 1. Density = 44.57 $\frac{lb}{ft^3}$

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

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

$$\text{RC equivalent Identified Leak Rate} = \underline{5.8294} \text{ gpm.}$$

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

WC59211

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Attachment 1A cont.

Total Leak Rate	<u>6.0519</u>	
- Equiv. Ident Leak Rate	<u>5.8294</u>	gpm 3.9346
Net Unident Leak Rate	<u>.2225</u>	gpm 2.8136
		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.

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WC59212

FC51

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

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 (2301-301)

0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

200.
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (GPM)

0
ENTER PRIMARY TO SECONDARY OTSG TUBE LEAK (GPM)

TIME	TCA (F)	THA (F)	TCD (F)	THB (F)	TAVE (F)	PRZR LVL (IN)	MUTK LVL (IN)	RCDT LVL (INCHES)
3: 0:16:	556.664	605.664	557.430	605.648	581.344	224.125	77.220	76.235
4: 0:16:	556.703	605.700	557.477	605.750	581.422	225.047	72.225	79.801

GROSS LEAK RATE (<30 GPM): 6.7274 GPM

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

NET UNIDENTIFIED LEAK RATE (<1 GPM): 2.3268 GPM - COLLECTED .5807 gpm

OPERATOR: *H. M. A.*

APPROVED: *C. Guthrie*

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HC59214

STOP 0

Attachment 1A

- Note: This attachment is not valid if operator caused RCDT level changes were a
Record RCDT temperature (from computer pt 1033) 75

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

$$\frac{50^\circ F}{0.016024}$$

$$\frac{500 \text{ psia}}{0.015198}$$

$$\frac{100^\circ F}{0.016130}$$

$$0.016106$$

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

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

$$\text{Density} = \frac{44.55}{1} \frac{lb}{ft^3}$$

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

$$\text{Ident Leak Rate (from print out)} \frac{4.4006}{1} \times \frac{\text{Density of RCDT line A} \frac{62.227}{1}}{\text{Density of RCs line C} \frac{44.55}{1}}$$

$$\text{RC equivalent Identified Leak Rate} = \frac{6.1467}{1} \text{ gpm.}$$

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

HC59215
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Attachment 1A cont.

Total Leak Rate	<u>6.7274</u>	gpm	3.9396
- Equiv. Ident Leak Rate	<u>6.1467</u>	gpm	2.8136
Net Unident Leak Rate	<u>.5807</u>	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.

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WU59216

DATA SHEET 4

RCS LEAK RATE

OPERATOR CAUSED CHANGES TO RCS INVENTORY

1. Identify operation that caused change: Added 200 gal
DEMIN H₂O To MU-T.1

2. Time Operation Started: 0351
Time Operation Completed: 0353
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

Paul McLean

DATE

3-22-79

APPROVED BY

DeWitt

DATE

3-22-79

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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 (1-8 HOURS)

1

ENTER OPERATOR CAUSED CHANGES TO THE RCOT 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)	RCOT LVL (INCHES)
5:40:44:	557.242	606.234	557.781	606.150	581.852	225.100	75.661	70.532
6:40:44:	557.359	606.289	557.043	606.200	581.061	230.453	60.174	80.372

GROSS LEAK RATE (<30 GPM):

6.5513 GPM

TOTAL IDENTIFIED RCS LEAK RATE (<10 GPM):

4.5776 GPM

NET UNIDENTIFIED LEAK RATE (<1 GPM):

1.9744 GPM

OPERATOR:

APPROVED:

*TEN Corrections

6.3919 gpm

0.160 gpm

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STOP

0

WU59219

Attachment is not valid if operator caused RCDT level changes were
 RCDT temperature (from computer 1032) 72.0°

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

<u>50°F</u>	<u>0 psi</u> .016024	<u>500 psi</u> .015198
<u>100°F</u>	.016130	.016106

$$\left(\text{Density} \left[\frac{lb}{ft^3} \right] = \frac{1}{\frac{1}{\frac{lb}{ft^3}}} \right) \quad \text{Density} = \underline{62.2354 \frac{lb}{ft^3}}$$

- ② Calculate density of RC. Use average Tave and Figure 1.
 Density = 44.570 $\frac{lb}{ft^3}$

- ③ Convert identified leak rate, collected in RC drum tank, to equivalent RC gallons.

$$\text{Ident Leak Rate } \frac{4.5776}{\text{(from print out)}} \times \frac{\text{Density of RCDT } \frac{62.2354}{\text{line A}}}{\text{Density of RCs } \frac{44.570}{\text{line C}}}$$

$$\text{RC equivalent Identified Leak Rate} = \underline{6.3919 \text{ gpm.}}$$

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

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WU59220

Total Leak Rate	<u>6.5519</u>	gpm
- Equiv. Ident Leak Rate	<u>6.3919</u>	gpm
Net Unident Leak Rate	<u>0.160</u>	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

Approved

Cadde

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WC59221

DATE: 3/25/70
TIME: 5:24:15

REACTOR COOLANT LEAKAGE TEST
SP 2301-301

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-S. DURS)

1
ENTER OPERATOR CAUSED CHANGES TO THE RCDT FROM DS 4 (2301-301)

0.0
ENTER OPERATOR CAUSED CHANGES FROM DS 4 (2301-301)

301.0
ENTER IDENTIFIED LEAKAGE FROM DS 3 (2301-301) (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	558.469	600.398	582.208	206.805	76.000	74.740
6:25:12:	557.609	606.320	558.391	606.207	582.148	211.975	71.937	78.305

GROSS LEAK RATE (<30 GPM): 6.5967 GPM

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

6.1649063

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

.43179370

OPERATOR: *E. H. Keckler*

APPROVED: *F. Schuman*

STOP 0

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W059223

"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. 2-79-077
(From TCN Log Index)

Unit No. 2

Date 3/16/79

1. Procedure 2301-3A1 RCS Inventory
No. 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 Morsch 3/16/79 5. JE Morsch 3/16/79
Date Supervisor's Signature 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 (Submit PCR as soon as possible)
Supervisor Submitting TCN

(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"		Block (c) "no"	
Approved	<u>[Signature]</u> <u>3/16/79</u> Shift Supervisor/Foreman Date	Approved	_____ SRO License Date
Reviewed	<u>JE Morsch</u> <u>3/16/79</u> Date	Reviewed	_____ Member Plant Mng. Staff Date
Members	<u>[Signature]</u> <u>3/16/79</u> Date	Reviewed	_____ Chairman of PORC Date
Of PORC	<u>[Signature]</u> <u>3/16/79</u> Date	Approved	_____ Unit Superintendent Date
Contacted	<u>[Signature]</u> <u>3/16/79</u> Date		
Approved	<u>[Signature]</u> <u>3/16/79</u> Unit Superintendent Date		

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

BEST COPY AVAILABLE

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 HC59224

"EVALUATION"

Three Mile Island Nuclear Station

SIDE 2

Form 1001-4

Nuclear Safety/Environmental Impact Evaluation

1. Procedure 2301-301

PCS Inventory

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, collect & cooled in the RC DT. Change does not affect any operating conditions, and has no effect on nuclear safety.

Evaluation By JE 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 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.

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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 H059225
Unit Superintendent

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 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

ER Reden

DATE

3/25/79

APPROVED BY

J. Schumann

DATE

3/25/79

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