HSA

Historical Site Assessment

MYAPC

HSA ID# 50

50

DECOM

5-2-47452

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 33-88 RWST Siphon Heater Return Line Leak
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	4/26/88
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

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Rev. 7
Page 1 of 3

File O.K.

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: RWST Siphon Heater Return Line Leak

B. DATE/TIME OF EVENT: 0830 4/26/88

C. DATE/TIME UOR COMPLETED: 1330 4/26/88

2. PLANT CONDITIONS AT TIME OF OCCURRENCE

A. OPERATING CONDITION (1-7) 7 B. REACTOR POWER (%) 100

C. TAVE 576 D. PZR. PRESSURE 2230 E. PZR. LEVEL 58

PLANT TRIP YES / (NO) (Circle one)

NOTIFICATION

A. IS NRC NOTIFICATION REQUIRED? YES / (NO) (Circle one)
(Justify "NO" answer in Discussion Section.)

B. HAS PROCEDURE 2.50.0 BEEN CONSULTED? YES / (NO) (Circle one)

B.1. EMERG CONDITION DECLARED N/A
B.2. DATE/TIME OF DECLARATION _____

C. NRC NOTIFIED BY N/A (Individual) USING _____ (Method)

C.1. DATE/TIME _____

D. NRC RESIDENT NOTIFIED BY E. Jameson (Individual)

D.1. DATE/TIME 4/26/88 1030

E. DUTY CALL OFFICER (DCO) NOTIFIED BY E. Jameson (Individual)

E.1. DATE/TIME 4/26/88 1030

(DCO WILL NOTIFY PM AND MOO if occurrence requires NRC notification)

F. AMOD NOTIFIED BY E. Jameson (Individual)

F.1. DATE/TIME 4/26/88 0900

NOTE: AMOD notify MOD
PSS notify MOD if AMOD not available

0084f

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

- 10/24/87 A leak was identified on the RWST Siphon Heater return line (ref UOR 159-87 attached). This leak was subsequently evaluated and patched. A drain bucket was placed under the patch to catch any further leakage and collect it in a barrel (see attached figure).

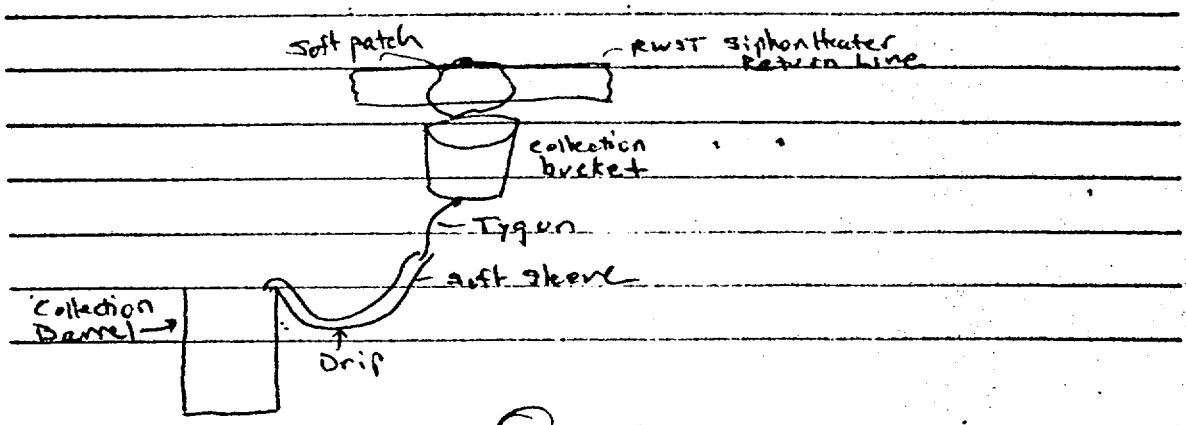
- 0830 4/26/88 The Secondary AO indentified a drip from the leak collection apparatus. The leak had created a 2-3 sq. ft. wet spot on the asphalt below. Not enough liquid had accumulated to flow to the storm drain. Radcon was notified and surveyed the area. The amount of leakage was insignificant and contained within a Radiologically Controlled Area.

- No offsite release occurred.

- The drip was due to a leak in the soft sleeving running from the bucket Tygon to the barrel. The leak was immediately stopped by replacing the soft sleeving with Tygon tubing (see Fig).

- The soft patch will be repumped on 4/27/88.

- Since there was no off site release, this event is not reportable.



CONTINUATION SHEETS ATTACHED YES / (NO) (Circle one)

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

- At ~9AM the Primary AO identified leakage on the RWST heater return line. The leakage, a slow dripping, had wetted a small area of the tank base but did not extend to the ground. The AO placed a bucket under the pipe to collect leakage (un-isolable section of pipe)

- After Maintenance cleaned & inspected the pipe, a crack 1/2 to 1 inch long was identified. The crack is in the 4" pipe between the spool piece flanges at the heater return line connection to the RWST (1:00 position on pipe). Leakage was measured at 5 drops per minute. Maintenance is fabricating a soft patch.

- The effects of this crack on RWST seismic integrity have not been formally evaluated but do not appear significant. No release of radioactive materials was involved. No reporting is required IAW OP 1-26-1 or 10CFR50.73.

CONTINUATION SHEETS ATTACHED YES / NO (Circle one)

5. IMMEDIATE CORRECTIVE ACTIONS

- Collection bucket placed under leak.

- Maintenance fabricating patch to stop leakage.

0084f

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

- Evaluate long term effect of the pipe crack on tank operability.
- Determine if there is a better way to repair the line than the installed soft patch without having to drain the tank.

Submitted by RMA (NSE)

Approved by T Dales (PSS)

Noted by _____ (NOD)

Distribution:

NOD (JCF)
ANOD (RHH)
PM (JHG)
APM (ETB)
NOO (DG for CDF)
PSS
SOS
RO (2 copies)
NRC Resident (CFH)
NSE Section Head (RHH)
Manager, Maintenance (REP)
Operator Training Section Head (HDE)
Specialty Training Section Head (RFB)
PED Section Head
Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

10841

HSA ID# 51

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	VOR 21-88 RWST Siphon Heater Return Line Isolation Valve Leak
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	2/24/88
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

File D.K.

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Page 1 of 3

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: RWST Siphon Heater Return Line Isolation Valve Leak.

B. DATE/TIME OF EVENT: 0955 hrs on 24 February 1988

C. DATE/TIME UOR COMPLETED: 1020 hrs on 24 February 1988.

2. PLANT CONDITIONS AT TIME OF OCCURRENCE

A. OPERATING CONDITION (1-7) 7 B. REACTOR POWER (%) 100%

C. TAVE 576°F D. PZR. PRESSURE 2234 psig. E. PZR. LEVEL 58%

PLANT TRIP YES / (NO) (Circle one)

3. NOTIFICATION

A. IS NRC NOTIFICATION REQUIRED? YES / (NO) (Circle one)
(Justify "NO" answer in Discussion Section.)

B. HAS PROCEDURE 2.50.0 BEEN CONSULTED? YES / (NO) (Circle one)

B.1. EMERG CONDITION DECLARED NA.
B.2. DATE/TIME OF DECLARATION

C. NRC NOTIFIED BY ~~UOR~~ NA (Individual) USING (Method)

C.1. DATE/TIME

D. NRC RESIDENT NOTIFIED BY Copy of UOR (Individual)

D.1. DATE/TIME

E. DUTY CALL OFFICER (DCO) NOTIFIED BY Copy of UOR. (Individual)

E.1. DATE/TIME

(DCO WILL NOTIFY PM AND MOO if occurrence requires NRC notification)

F. AMOD NOTIFIED BY J. Wiest (Individual)

F.1. DATE/TIME 2/24/88 1000

NOTE: AMOD notify MOD
PSS notify MOD if AMOD not available

0084f

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

0155 • A plant Auxiliary Operator notified the Control Room that the RWST siphon heater return line isolation valve (CS-81) was leaking at a very slow rate (approx. one drop every 15 seconds). Boron precipitate was present on the valve.

• The leak was noticed after an Electrical Maintenance worker removed lagging from the siphon heater return line to work on its heat tracing.

• A drip pan was placed under CS-81 to contain the leak.

• The drip appears to be from the inlet flanged connection between the return line and CS-81.

• The leak has been contained and no water reached any storm drains. This condition is not considered reportable per OP 1-26-1 or 10 CFR 50.73.

CONTINUATION SHEETS ATTACHED YES / (NO) (Circle one)

0084f

2547.2.4

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

5. IMMEDIATE CORRECTIVE ACTIONS

- Collect leakage until maintenance can effect repairs.
- Conduct radio-chemical analysis to confirm leak is at same activity as RWST water.
- remove the insulation/lagging on the remaining pipe to verify no other leakage is present.

6. PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

During the next refueling the siphon heater and its piping should be refurbish. This should help eliminate leaks caused by the pounding when the siphon heater is in use. The siphon heater should be piped like the PWST siphon heater.

Submitted by SENichols (NSE)

Approved by [signature] (PSS)

Noted by [signature] (MOD)

Distribution:

- * MOD (JCF)
- * AMOD (RHB)
- * PM (JHG)
- * APM (ETB)
- * MOO (DG for CDF)
- * PSS
- * SOS
- * RO (2 copies

- * NRC Resident (CFH)
- * NSE Section Head (RHN)
- Manager, Maintenance (RFP)
- Operator Training Section Head (MDE)
- Specialty Training Section Head (RLB)
- PED Section Head
- Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

0084f

HSA ID# 52

52

Proc. No. 0-17-2
Rev. No. 4

DECOM

2547.1.782

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE UOR 20-88 RWST Siphon Heater Flange Leak	
2. DOCUMENT TYPE Report	3. DOCUMENT FORM M
4. DOCUMENT LOCATION	5. RETENTION PERIOD
6. TECHNICAL FILE NUMBER 11.14.6 1.8.4.2	
7. DOCUMENT NUMBER	
8. REVISION NUMBER 9. DATE 2/23/88	10. CLASSIFICATION TYPE D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	16. COMPONENT CODE
17. CYCLE NUMBER	
18. ORIGINATOR OPS	
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

1015 • Maintenance notified the control room that the RWST siphon heater flange at the west side of the RWST was leaking once again. See UOR 159-87 for ealier occurrence.

• Upon notification of the leak (approx. 200ml/min), a bucket was placed to contain the leak. The spilled water was limited to the area beneath the flange and no water had reached any storm drains. The areas at and around the leak are being cleaned to remove any contamination.

• Radio-chemistry analysis of a leak sample confirmed it to be RWST water.

• Following the October 1987 leak (UOR 159-87), Maintenance contracted Leak Repair Co. to provide a temporary repair of the flange. Permanent repairs will be made when the RWST is drained.

• Leak Repair Co. has been contacted and will be on site by 1600 hrs today to correct the repair.

• This event is not considered reportable per OP 1-26-1 or 10CFR 50.73.

CONTINUATION SHEETS ATTACHED YES / (NO) (Circle one)

0084f

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

5. IMMEDIATE CORRECTIVE ACTIONS

Contain leak and clean area of any contamination.

6. PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

See UOR 159-87

Submitted by SE Nichols (NSE)

Approved by [signature] (PSS)

Noted by [signature] (MOD)

Distribution:

* MOD (JCF)
* AMOD (RHB)
* PM (JHG)
* APM (EIB)
* MOO (DG for CDF)
* PSS
* SOS
* RO (2 copies
* NRC Resident (CFH)
* NSE Section Head (RHN)
Manager, Maintenance (RFP)
Operator Training Section Head (MDE)
Specialty Training Section Head (RLB)
PED Section Head
Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

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MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

2547.1.786

Counter N/A Inst. Type & No. — Date 2-24-88

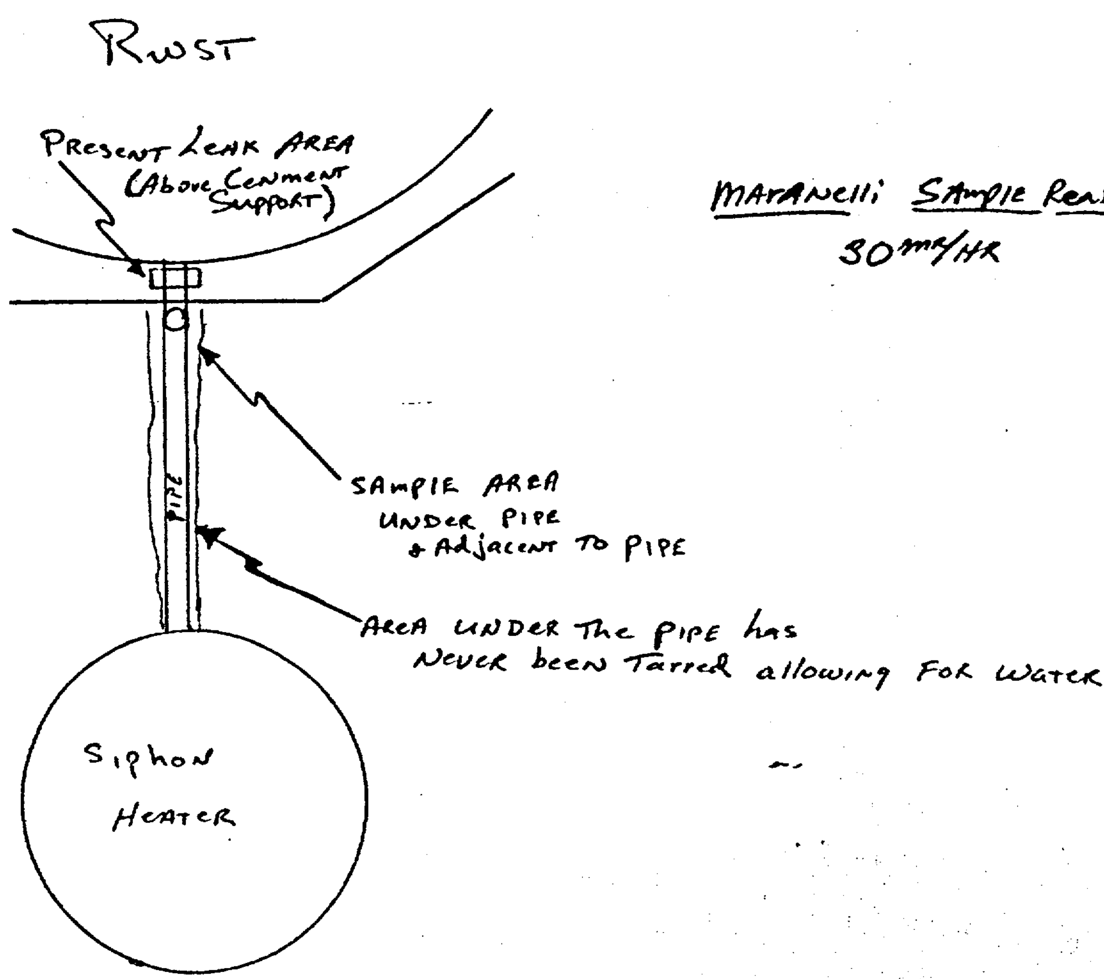
ROZA #1983

Eff. Time 1235

Bkg. Tech. CAY

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item RWST Siphon Heater



MARANELLI SAMPLE READ
30 mr/HR

HSA ID# 53

53

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 159-87 RWST Heater Return Line Crack
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	U.O.R. 87-159
8. REVISION NUMBER	
9. DATE	10-24-87
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

- At ~9AM the Primary AO identified leakage on the RWST heater return line. The leakage, a slow dripping, had wetted a small area of the tank base but did not extend to the ground. The AO placed a bucket under the pipe to collect leakage (un-isolable section of pipe)

- After Maintenance cleaned & inspected the pipe, a crack ½ to 1 inch long was identified. The crack is in the 4" pipe between the spool piece flanges at the heater return line connection to the RWST (1:00 position on pipe). Leakage was measured at 5 drops per minute. Maintenance is fabricating a soft patch.

- The effects of this crack on RWST seismic integrity have not been formally evaluated but do not appear significant. No release of radioactive materials was involved. No reporting is required IAW OP 1-26-1 or 10CFR50.73.

CONTINUATION SHEETS ATTACHED YES / NO (Circle one)

5. IMMEDIATE CORRECTIVE ACTIONS

- Collection bucket placed under leak.

- Maintenance fabricating patch to stop leakage.

DR 6672-87

0084f

2545.14.4

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

- Evaluate long term effect of the pipe crack on tank operability.
- Determine if there is a better way to repair the line than the installed soft patch without having to drain the tank.

Submitted by RMcA (NSE)

Approved by T Wiles (PSS)

Noted by J C Fruthingham (MOD)

stribution:

MOD (JCF)
AMOD (RHB)
PM (JHG)
APM (ETB)
MOO (DG for CDF)
PSS
SOS
RO (2 copies)
NRC Resident (CFH)
NSE Section Head (RHH)
Manager, Maintenance (RFP)
Operator Training Section Head (HDE)
Specialty Training Section Head (RLB)
PED Section Head
Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

084f

HSA ID# 54

55

DECOM

8545.4.4

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE UOR 153-87 RWST Siphon Heater Leakage	
2. DOCUMENT TYPE Reports	3. DOCUMENT FORM M
4. DOCUMENT LOCATION	5. RETENTION PERIOD
6. TECHNICAL FILE NUMBER 11.14.6 1.8.4.2	
7. DOCUMENT NUMBER UOR 87-153	
8. REVISION NUMBER 9. DATE 10-11-87	10. CLASSIFICATION TYPE D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	16. COMPONENT CODE
17. CYCLE NUMBER	
18. ORIGINATOR OPS	
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

- At about 2115 on 10/11/82 the primary AO reported steam and a water level in the RWST heater sump (water ~6" below ground level)
- 2130 samples of this water indicated 2100 ppm Boron and 1.1×10^{-4} uci/ml
- At 2145 the RWST heater was isolated.
- Since this system is open to atmosphere there are no entrapped gasses, also no liquid release offsite is involved (sump did not overflow)
- A review of RWST level data from the computer does not indicate any significant change in the past 10 days.
- No Reporting IAW OP 1-26-1 is required

CONTINUATION SHEETS ATTACHED YES (NO) (Circle one)

5. IMMEDIATE CORRECTIVE ACTIONS

- Isolation of the RWST heater and sampling of sump water.

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OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

- Pump water out of heater pit and repair leak
- Determine if leak is similar to past leaks, to see if this is a reoccurring problem that maybe more permanently corrected.

Submitted by R M'Dr A (NSE)

Approved by T. Wiles (PSS)

Noted by J. C. Featherstone (MOD)

Distribution:

MOD (JCF)
AMOD (RHB)
PM (JHG)
* APH (ETB)
* MOO (DG for CDF)
* PSS
* SOS
* RO (2 copies)
* NRC Resident (CFH)
* NSE Section Head (RHH)
Manager, Maintenance (RFP)
Operator Training Section Head (HDE)
Specialty Training Section Head (RTB)
PED Section Head
Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

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HSA ID# 55

55

DECOM

2545.2.1

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR For Oil Spill
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	3/29/83
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

U.S. Department of Transportation
United States Coast Guard

Commander (mpe)
First Coast Guard District

150 Causeway Street
Boston, MA 02114
Staff Symbol:
Phone: (617) 223-6915

Sent to John Arnold on 10/11/83 REA

04 OCT 1983

REGISTERED/CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Maine Yankee Atomic Company
Rural Rt. #2, Box 3270
Wiscasset, ME 04578

Case # 1P35041
Ref: MAINE YANKEE POWER

Coast Guard Case Officer:
LCDR L.P. MINOTT Jr., USCG

My letter of 9 June 1983 alleges a violation of United States law over which the U.S. Coast Guard exercises jurisdiction. This letter constitutes my findings in the captioned case. It also provides an explanation of the civil penalty proceedings.

The civil penalty proceeding in the above matter has been completed. Inasmuch as you and/or your representative did not respond within the alloted time you have waived your right to a hearing. Your appellate grounds are limited to any issue as to U.S. Coast Guard jurisdiction in this matter. In the matter of the alleged violation: The discharge of about 40 gallons of waste oil from the MAINE YANKEE ATOMIC CO. into the waters of Back River (Montsweag Bay), Wiscasset, ME. on 28 March 1983, I have found that there was evidence presented to prove the allegation. As a result of the finding of proved, I am assessing a civil penalty of $500.00, that amount is due and payable to the U.S. Coast Guard.

In accordance with federal laws and regulations, civil penalty proceedings in the above captioned case have been conducted. As the U.S. Coast Guard Hearing Officer, I have made determinations and have found that a violation has been established and I have found that there is evidence in the record to prove the alleged violations. You may petition to reopen the hearing prior to final Coast Guard action, on the basis of newly discovered evidence. Procedures for reopening the case are controlled by 33 Code of Federal Regulations Subpart 1.07.

A decision that a violation is established may be appealed to the Commandant of the Coast Guard. You must submit your appeal and any supporting brief/evidence to me via the CASE OFFICER, named above, within 30 days of your receipt of this decision. The grounds upon which you may appeal are limited to those listed above. Failure to have raised an issue in a written statement submitted in lieu of a hearing or at a hearing itself waives the issue(s) as grounds for appeal. Failure to submit an appeal within the prescribed time will result in the penalty becoming final and due.

If you do not wish to appeal, forward your check or money order, in the amount of the total penalty assessed, made out to the U.S. Coast Guard. Please enclose a copy of this letter with your remittance and mail to:

Commander (fac-2)
First Coast Guard District
150 Causeway
Boston, MA 02114
(ATTN: Collection Clerk)

DO NOT SUBMIT PAYMENT TO ME OR MY OFFICE

An assessed penalty must be paid, or an appeal made within 30 days of your receipt of this decision. Failure will result in the case being forwarded to the U.S. Attorney for collection.

Sincerely,

Kirk R. Kellogg
Captain, U.S. Coast Guard
Hearing Officer

Copy: CCGD1 (fac-2)
MSO PORTLAND

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-3639 (Rev. 5-74)

WATER POLLUTION VIOLATION REPORT

INSTRUCTIONS: *Prepare in triplicate. Retain one copy for case file. Submit original and one copy to District Commander(m).*

REPORTING UNIT	DATE OF VIOLATION	CASE NUMBER
U. S. Coast Guard Marine Safety Office, Portland, ME	28 March 1983	1P35041

PART I - DISCHARGE DATA

1. TIME OF OCCURRENCE	2. LOCATION	3. WATER BODY
1100R	Wiscasset, Maine	Back River (Montsweag Bay)
4. SOURCE		**5. CAUSE**
Waste oil tank		Overflow via vent pipe
6. MATERIAL	**7. QUANTITY**	**8. DISCHARGER**
Waste oil	40 gallons	Maine Yankee

9. REMARKS

Of the estimated 40 gallons spilled approximately 35 gallons were cleaned-up

PART II - REPORTING DATA

1. NAME OF PERSON REPORTING DISCHARGE (First, middle, last) ☒ MR. ☐ MISS ☐ MRS.	2. ADDRESS OF PERSON REPORTING DISCHARGE
ROBERT E. ARSENAULT	Rural Rt.#2, Box 3270 Wiscasset, ME 04578
3. GOVERNMENT AGENCY RECEIVING REPORT	**4. TIME/DATE OF REPORT**
CG MSO PORTLAND, ME	1545R / 29 March 1983

5. WAS THE PERSON REPORTING THE INCIDENT EMPLOYED BY OR ACTING IN BEHALF OF THE SUSPECTED VIOLATER? ☒ YES ☐ NO

6. REMARKS

PART III - FACILITY DATA

1. NAME OF ONSHORE [redacted] FACILITY	2. ADDRESS OF ONSHORE [redacted] FACILITY
Maine Yankee Atomic Co.	Rural Rt. #2, Box 3270 Wiscasset, ME 04578
3. TYPE OF FACILITY	**4. PERSON-IN-CHARGE**
Nuclear Power Plant	Robert E. Arsenault
5. NAME OF OWNER(S)/OPERATOR(S)	**6. ADDRESS OF OWNER(S)/OPERATOR(S)**
SAME AS ITEM #1	SAME AS ITEM #2

7. REMARKS

PART IV - VESSEL DATA

1. NAME OF VESSEL	2. NATIONALITY	3. CALL SIGN/OFFICIAL NO.
N/A	N/A	N/A
4. HOMEPORT	**5. TYPE OF VESSEL**	
N/A	N/A	
6. NAME OF OWNER(S)/OPERATOR(S)	**7. ADDRESS OF OWNER(S)/OPERATOR(S)**	
N/A	N/A	
8. NAME OF LOCAL AGENT	**9. ADDRESS OF LOCAL AGENT**	
N/A	N/A	
10. NAME OF INSURANCE UNDERWRITER	**11. ADDRESS OF INSURANCE UNDERWRITER**	
N/A	N/A	
12. NAME OF MASTER	**13. LICENSE/DOCUMENT NO.**	**14. NAME OF PERSON-IN-CHARGE**	**15. LICENSE/DOCUMENT NO.**
N/A	N/A	N/A	N/A
16. CERTIFICATE OF FINANCIAL RESPONSIBILITY DATED	**17. CERTIFICATE NUMBER**	
N/A	N/A	

18. REMARKS

SUMMARY OF EVENTS

1. On 29 March 1983 at 1545R MSO Portland received a call from Mr. ROBERT E. ARSENAULT of Maine Yankee, via N.R.C. reporting approxmiately 40 gallons of oil had appeared on their facility and that an oil sheen was observed in the Back River.

2. On 30 March 1983 at 1100R Petty Officer HOWARD and Fireman DUKE of CG Station Boothbay Harbor arrived on scene and observed a small amount of oil in Back River in the area of the drainage system for Maine Yankee. The oil was creating a visible sheen upon the water known as Back River (Montsweag Bay) which is a navigable water of the United States.

3. Investigation revealed a waste oil tank at Maine Yankee had overflowed via the vent pipe and entered the facility drainage system which leads to the Back River. The tank consisted of an overflow system which when operating properly was to prevent an overflow by way of the vent pipe. Prior to the discharge the tank was 98% full. The waste oil pump came on and a surge occurred inside the tank. The overflow pipe was 2" in diameter and did not return the oil quick enough to the sump area. The oil volume exceeded the capacity of the tank's overflow system allowing the oil to be discharged through the vent pipe and into the drainage system.

4. Maine Yankee accepted responsibility for the oil spill and effected cleanup. Of the 40 gallons of oil which spilled approximately 35 gallons were recovered. Maine Yankee has installed a high level shut-off switch to tank's pump.

Paul V. Willmott

P. V. WILLMOTT, BM1, USCG

Encl: (1) Maine DEP report
(2) Statement by Maine Yankee Personnel
(3) " " " Petty Officer HOWARD
(4) " " " Fireman DUKE
(5) Diagram

MSO

OIL SPILL REPORT FORM

Spill Case # P 74 for 1983

Spillor and Location Maine Yankee Atomic Power Wiscasset

Person Reporting Spill Robert Arsenault

Amount and Type of Product Approx. 20 gallons waste oil

Date and Time of Spill Unknown Reported 3/29/83

Cause of Spill Tank overfilled - flowed out roof vent P or A A

Total Amount of Oil Recovered appr. 5-10 gals. Methods Boom, rags, sorbents

Oils - Recycleable 0 Liquids - Non-Recycleable 0

Solids - Combustible Appr. 3 yds. Solids - Non-Combustible 0

Weather Conditions Varied

Water Course Affected Back River

Investigator(s) J. Daye, D. Gleason Incident Code A-W-L

REMARKS - RECOMMENDATIONS

On March 29, 1983, Doug Gleason and I went to Maine Yankee Atomic Power Plant in response to a report of an oil spill. Mr. Robert Arsenault of Maine Yankee reported a sheen eminating from their 24" outfall pipe, but stated that they did not know what the source was at that time.

When Doug and I arrived at Maine Yankee, we met with Mr. Don Stevenson who informed us at that time that their waste oil tank had apparently overfilled and spilled out of the vent pipe onto the roof. From there, it went down the drain pipe and into the storm drain system, and ultimately into the Back River.

Doug and I examined the roof vent, the waste oil tank and the storm drains, then spoke with Mr. Stevenson again. Mr. Stevenson informed us that they intended to examine the waste oil tank to try and find the reason for the overflow, since there is an overflow pipe at the top of the tank designed to preclude spilling from the vent.

During a subsequent conversation with Mr. Stevenson a few days later, I was told that the waste oil pump which fills the tank had been fitted with a cut-out switch to avoid the possibility of another over-flow. This cut-out switch seems to be an adequate solution and I recommend no further action at this time.

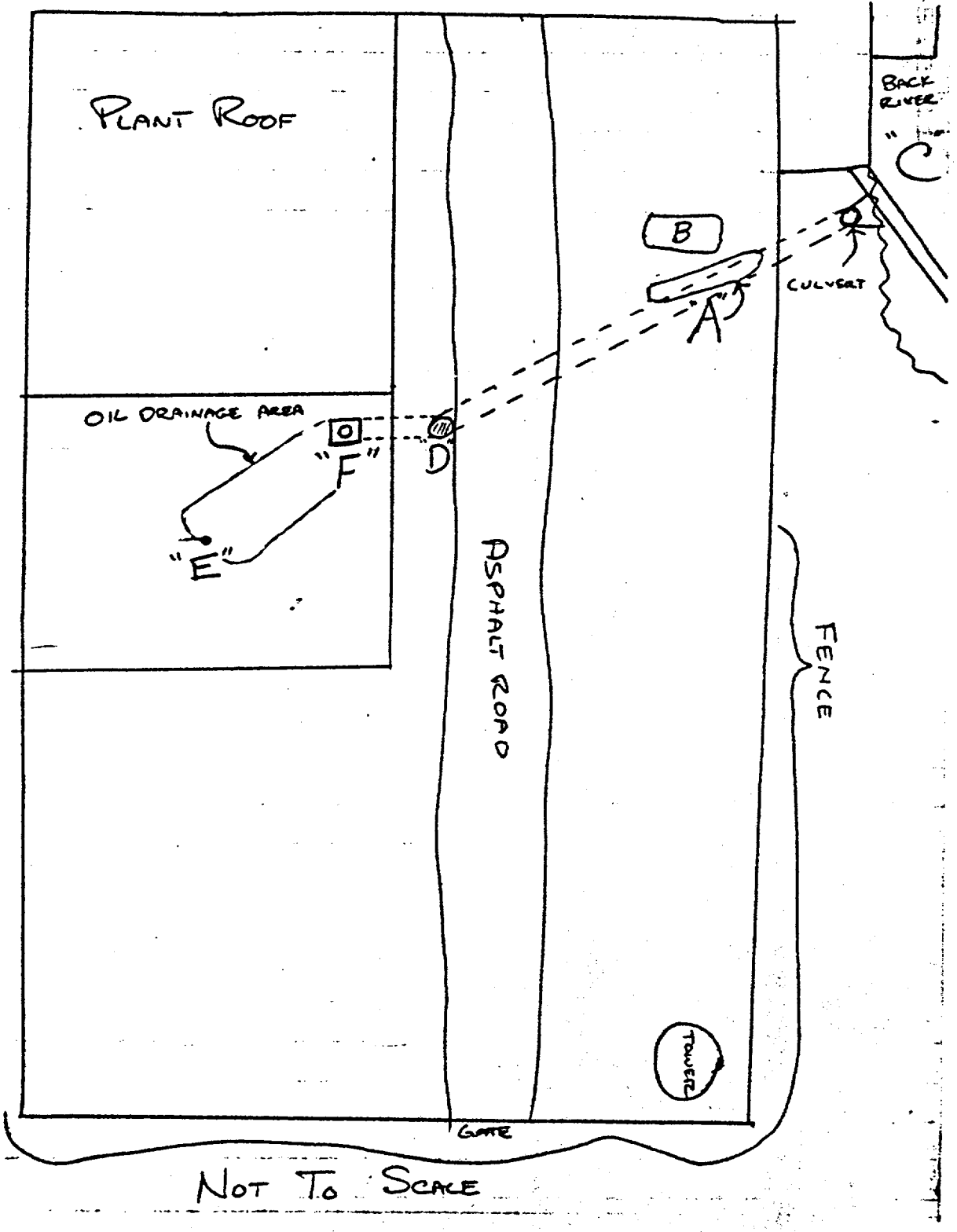
James C. Daye

James C. Daye
Oil & Hazardous Materials Specialist I

kb

IV

1



NOT TO SCALE

3/29/83

To DEA;
Subject - oil spill

An investigation of the roof area above the lube oil storage room, shows evidence of an oil spill from the vent on the waste oil storage tank.

The oil came out of the vent and ran along the roof, to the north, to a roof drain which probably ties into the storm sewer, and discharges under the fish house sluice way.

We have installed oil absorbing materials in this pipe outside the security fence, and also around the roof drain above the lube oil storage room.

There is no rain forecasted for tonight or tomorrow, so there will be no further oil release to the storm sewer via the roof drain. This will have to be cleaned up and the condition of the vent + tar roof covering checked.

The fuel gauge for TR-75 has been M+D for calibration.

Bud Jameson

3/29/83

TO: R.E. ARSENAULT
FROM: W.L. BAXTER

SUBJECT: OIL SHEEN BY FISHWAY

INVESTIGATION STARTED ABOUT 1000 3/28/83. AN OIL SLICK WAS REPORTED TO OPS SUPERVISOR BY CIRC HOUSE. I CHECKED THE AREA OUTSIDE THE CIRC HOUSE AND NOTICED A LONG SLICK ~~#~~ THAT WAS BEING BROKEN UP BY THE HIGH SPEED TIDE ~~FO~~ FLOWING BY THE TRASH BOOM TO THE NORTH. THE OIL SLICK WAS GOING IN FROM THE BAY AND WAS TRAVELING TO THE CIRC HOUSE FROM SE DIRECTION. COLOR OF OIL GLOBS AND FOAM WAS BROWN INDICATING THAT IT WAS A HEAVY OIL. I CHECKED ALL DRAINS AND FOUND NO OIL. L. THORNBURG DREW GRAB SAMPLES ON THE ~~DIFFUSER~~ OUTFALL AND FOUND NO OIL. THORNBURG ALSO CHECKED THE STORM DRAINS AND FOUND NO OIL.
AN A.O. WAS SENT TO FOX BIRD ISLAND TO CHECK THAT NO OIL WAS VISIBLE FROM THE DIFFUSER AREA. A.O. (A. PALLANG) REPORTED THAT WEIR AREA WAS OIL FREE AND NO OIL VISIBLE IN BAY ~~AREA~~ AREA BY DIFFUSER.

3/29/83 AN OIL SHEEN WAS AGAIN VISIBLE BY CIRC HOUSE AND FISHWAY. AN INVESTIGATION REVEALED THAT SOME AMOUNT OF LIGHT FUEL OIL WAS DRAINING FROM THE AREA OF THE STORM DRAIN. FOUND FUEL OIL SATURATED GROUND IN AN ADJACENT AREA OF SAND. SAND IS SATURATED TO A DEPTH OF 18 INCHES, POSSIBLY MORE. STORM DRAINS WERE CHECKED AGAIN. THE STORM DRAIN BY HOSE HOUSE AT ~~SO~~ SE CORNER OF TURBINE HALL HAD SOME OIL ON SURFACE OF WATER. THE STORM DRAIN OUTSIDE NEW CLEAN SHOP HAD GLOBS OF OIL ON SURFACE. NO OBVIOUS SOURCES OF THIS OIL WERE VISIBLE. NO LEAKING DRUMS OR BARRELS WERE FOUND. NO OTHER STORM DRAINS IN THE

SITE AREA HAD ANY VISIBLE OIL.

OIL ABSORPTION MATRIAL IS BEING APPLIED TO MOP UP OIL FROM STORM DRAINS AND OUTFALL AREA

WLBeck

STATEMENT BY BM3 CHARLES H. HOWARD, 527-02-4281 CONCERNING OIL SPILL AT MAINE YANKEE POWER PLANT, BAILEY POINT, BACK RIVER, WISCASSET ME.

ON 30 MARCH 1983 FN MARTIN DUKE & MYSELF WERE DIRECTED TO MAINE YANKEE POWER PLANT TO INVESTIGATE AN OIL SPILL & OIL SHEEN IN THE WATER.

UPON ARRIVAL WE WERE ESCORTED TO THE LOT ON THE EAST SIDE OF THE PLANT WHERE SOME SOIL HAD BEEN EXCAVATED BY BACKHOE & PUT IN A DUMP TRUCK TO BE HAULED AWAY.

SOIL IN AREA "A" HAD BEEN DUG OUT ABOUT Ø4 FOOT DEEP & SOIL IN AREA "B" WAS ABOUT Ø3 FEET DEEP. I TOOK SAMPLES FROM AREA "B" AS THE SOIL IN THIS AREA WAS STRONGER IN ODOR. THE SOIL FROM THESE TWO SITES WAS IN A DUMP TRUCK WHICH DEPARTED DURING THE TIME WE WERE THERE.

FN DUKE & I WERE THEN SHOWN THE OIL ~~SLICK~~ SHEEN IN AREA "C". WE WERE THEN TAKEN ALONG THE STORM DRAIN SYSTEM TO DRAIN COVER "D" WHERE WE SAW A SLIGHT ~~SLICK~~ SHEEN THROUGH THE GRATING. WE WERE THEN TAKEN TO THE ROOF VENT "E" FROM WHICH AN OBVIOUS PATH OF OIL HAD PROCEED TO STORM DRAIN "F" ON THE SAME ROOF. THE OIL ON THE ROOF BETWEEN VENT "E" & DRAIN "F" HAD BEEN CLEAN UP & THE LOOSE GRAVEL IN THAT AREA HAD BEEN REMOVED & THE MAINE YANKEE PERSONNEL SAID THEY WERE GOING TO RESURFACE THE ROOF.

WE WERE THEN ESCORTED TO THE OIL STORAGE ROOM DIRECTLY BELOW VENT "E". WE WERE SHOWN THE WASTE OIL TANK WHICH WAS DIRECTLY UNDER & CONNECTED TO VENT "E". WE WERE ALSO SHOWN THE OVERFLO

SYSTEM FOR THE WASTE OIL TANK. THIS SYSTEM HAD APPARENTLY FAILED TO DRAIN THE OVERFLOW FROM THE WASTE OIL TANK & THIS OVERFLOW WAS REDIRECTED OUT THE VENT "E" ONTO THE ROOF, ACROSS THEROOF TO THE STORM DRAIN SYSTEM & ULTIMATELY OUT TO THE BACK RIVER. THE PERSONNEL AT MAINE YANKEE SAID THEY WERE GOING TO TAKE THE OVERFLOW SYSTEM APART TO FIND OUT WHAT WENT WRONG.

THIS OIL SPILL FROM VENT "E" COULD HAVE HAPPENED ANYTIME PRIOR TO MONDAY 28 MARCH 1983. THE WASTE OIL TANK WAS DRAINED ON THIS DATE. ON 28 & 29 MARCH 1983 RAIN WASHED THE OIL OFF THE ROOF INTO THE RIVER VIA THE STORM DRAIN SYSTEM.

I TOOK SAMPLES FROM THE OIL SHEEN & CULVERT. THE CULVERT HAD OIL RETAINING PLASTIC STRIPS PLACED AT THE OPENING TO HELP SLOW THE FLOW OF OIL FROM THE STORM DRAIN SYSTEM. THIS MATERIAL WAS PLACED THERE BY THE MAINE YANKEE PERSONNEL.

THE ONLY EXPLANATION MAINE YANKEE PERSONNEL COULD COME UP WITH CONCERNING THE PETROLEUM PERMEATED GROUND AT AREAS A & B WAS A POSSIBLE FUEL SPILL BY A PRIVATE CONTRACTOR DURING THE RECENT WORK ON THE PLANT.

BM3 Charles H. Howard
30 MAR 83

3-30-83
14:00 R

STATEMENT FROM FN MARTIN DUKE, USCG, 029-42-0
U.S. COAST GUARD SAR STATION BOOTHBAY HBR MAINE
REGARDING OIL SPILL IN FRONT OF MAINE YANKEE
NUCLEAR POWER PLANT IN THE AREA OF BAILY PO
BACK RIVER - ON THE EAST SIDE OF PLANT.

UPON OUR ARRIVAL AND AFTER BEING CHECKED
IN WE WERE ESCORTED TO A GRAVLE LOT
WERE PERSONNEL WERE DIGGING WITH A BACK HOE
AND DISCOVERING THAT THE GRAVLE APP. ONE
FOOT BELOW THE SURFACE HAD A FAINT SMELL
OF SOME TYPE OF PETROLEUM WHICH WE TOOK
A SAMPLE OF. WE WERE THEN ESCORTED THROUGH
THE PLANT TO THE TOP OF A ROOF ABOVE THE
WASTE OIL TANK WHERE THE TANK VENT WAS
LOCATED, WERE THE SPILL ALLEGEDLY OCCURED
IN THE FOLLOWIN MANNER: THE WASTE OIL TANK
HAS A OVERFLOW PIPE LEADING OUT FROM THE
TOP AND DOWN TO ANOTHER OVERFLOW SUMP TANK
PERSONNEL FROM MAINE YANKEE STATED
THAT WHAT THEY THINK HAPPENED IS THE
OVERFLOW PIPE TO THE SUMP TANK IS
CLOGED, THERE FOR CAUSEING THE TANK
TO FILL TO THE POINT OF GOING OUT THE
VENT ON THE ROOF AND WHEN IT RAINED
WASHED THE OIL DOWN THE RAIN DRAIN LOCATE
APP. 5 to 10 FEET FROM THE VENT AND
DRAINING DOWN TO THE RIVER. WE THEN
PROCEDED TO THE CULVERT WHERE THIS
ROOF DRAIN GOES TO THE WATER IN BACK RIVE
TOOK A SAMPLE FROM THE CULVERT AND
FROM THE RIVER. THEN GOT A STATEMENT
FROM MAINE YANKEE PERSONNEL AND RETURNED
TO BOOTHBAY STATION.

FN Martin H. Duke

PORTLAND REGIONAL OFFICE OIL SPILL REPORT FORM

This form should be filled out by the spillor and returned to the Department of Environmental Protection within ten (10) days. Please mail to: D.E.P., Division of Oil Conveyance Services, 17 Commercial Street, Portland, Maine 04101.

DATE & TIME OF SPILL: 1100 3/29/83

NAME & ADDRESS OF PARTIES INVOLVED: Maine Yankee Atomic Power Co.

EXACT LOCATION OF SPILL: Bailey Point Wiscasset Maine

Storm Drain outfall pipe area south of fish house.

AMOUNT AND TYPE OF OIL DISCHARGED: >10 but <50 gals of light distillate oil

COMPLETE DESCRIPTION OF CIRSUMSTANCES CAUSING DISCHARGE: Oil appeared to be seepage from saturated gravel above storm drain grade line and in line with storm drain. Saturated gravel has been removed authorized disposal and burial site. Additionally oil also appeared in the same storm drain from a roof drain above oil room. The oil appeared to have come from a vent on the WOCT (waste oil collecting tank). WOCT was emptied 1400 3/28/83)

AMOUNT OF OIL RECOVERED: _____ METHOD: _____

LOCATION AND METHOD OF OILY DEBRIS DISPOSAL: Taken to authorized disposal and burial site.

NAME AND ADDRESS OF ANY PERSON, FIRM OR CORPORATION SUFFERING DAMAGES: _____

PROCEDURES, METHOD, AND PRECAUTIONS INSTITUTED TO PREVENT A SIMILAR OCCURRENCE FROM RECURRING:

Frequent use of gravel area for equipment fueling.

Add high level cutoff to WOCT supply pump

ADDITIONAL COMMENTS: _____

REPORT PREPARED BY: WB - Approved by R.E. Hilliard Operations Dept. Head 3/31/83

MEMORANDUM

Bob Brainard

TO E. C. Wood _____ Company or Location _____ April 4, 1983

FROM R. F. Prouty _____ Company or Location _____ FILE 14,8,2-5,3,4

SUBJECT Waste Oil Collection Tank Overflow

Reference: Attached Sketch

Discussion:

An oil slick on the water near the circulating water intake structure was observed on 3/30/83. The source of the oil was traced to the roof area under the waste oil collection tank (TK-75) vent. Heavy rains had washed the oil down the adjacent roof drain and ultimately into the bay.

The probable cause was as follows:

On Monday, 3/28/83, the tank level gauge indicated 99% full. The tank's oil was sampled prior to shipment off site. The oil collection sump suction valve was closed and tank suction valve opened (reference attached sketch). The sump pump was run for approximately one hour as necessary to collect a representative sample. Considering the piping configuration, the discharge capacity of the sump pump and a full tank of oil, it is reasonable to conclude that a level surge occurred during the above evolution resulting in overflow. This conclusion was drawn after eliminating other probabilities. It is our estimate that 3 to 5 gallons of oil discharged into bay waters.

Corrective Action - Short Term:

The oil spillage has been removed to the extent reasonably achievable.

Maintenance Department will request oil removal when the tank (TK-75) is 80% full.

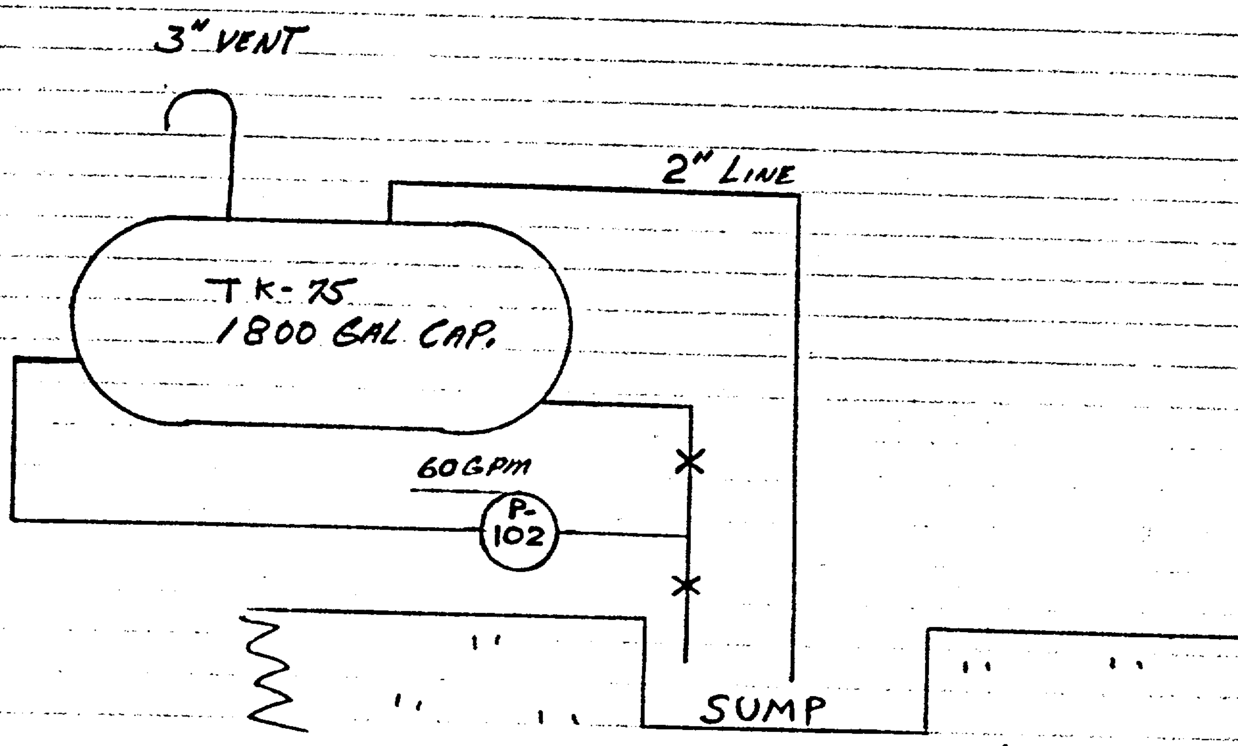
Instrumentation will accomplish verification of oil level gauge accuracy.

Corrective Action - Long Term:

Instrumentation and Controls Department will provide input to a Conceptual Project Authorization request as necessary to provide an alarm at the water treatment panel at a preset tank level. The sump pump motor electrical circuit will open, precluding sump pump operation upon high tank level alarm.

R. F. Prouty
Maintenance Dept. Head

c: REA
RLR



3" VENT
2" LINE
TK-75
1800 GAL CAP.
60GPM
P-102
SUMP

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-3639 (Rev. 5-74)

WATER POLLUTION VIOLATION REPORT

INSTRUCTIONS: *Prepare in triplicate. Retain one copy for case file. Submit original and one copy to District Commander(m).*

REPORTING UNIT	DATE OF VIOLATION	CASE NUMBER
U. S. Coast Guard Marine Safety Office, Portland, ME	28 March 1983	1P35041

PART I - DISCHARGE DATA

1. TIME OF OCCURRENCE	2. LOCATION	3. WATER BODY
1100R	Wiscasset, Maine	Back River (Montsweag Bay)
4. SOURCE		**5. CAUSE**
Waste oil tank		Overflow via vent pipe
6. MATERIAL	**7. QUANTITY**	**8. DISCHARGER**
Waste oil	40 gallons	Maine Yankee

9. REMARKS

Of the estimated 40 gallons spilled approximately 35 gallons were cleaned-up

PART II - REPORTING DATA

1. NAME OF PERSON REPORTING DISCHARGE (First, middle, last) ☒ MR. ☐ MISS ☐ MRS.	2. ADDRESS OF PERSON REPORTING DISCHARGE
ROBERT E. ARSENAULT	Rural Rt.#2, Box 3270 Wiscasset, ME 04578
3. GOVERNMENT AGENCY RECEIVING REPORT	**4. TIME/DATE OF REPORT**
CG MSO PORTLAND, ME	1545R / 29 March 1983

5. WAS THE PERSON REPORTING THE INCIDENT EMPLOYED BY OR ACTING IN BEHALF OF THE SUSPECTED VIOLATER? ☒ YES ☐ NO

6. REMARKS

PART III - FACILITY DATA

1. NAME OF ONSHORE [redacted] FACILITY	2. ADDRESS OF ONSHORE [redacted] FACILITY
Maine Yankee Atomic Co.	Rural Rt. #2, Box 3270 Wiscasset, ME 04578
3. TYPE OF FACILITY	**4. PERSON-IN-CHARGE**
Nuclear Power Plant	Robert E. Arsenault
5. NAME OF OWNER(S)/OPERATOR(S)	**6. ADDRESS OF OWNER(S)/OPERATOR(S)**
SAME AS ITEM #1	SAME AS ITEM #2

7. REMARKS

PART IV - VESSEL DATA

1. NAME OF VESSEL	2. NATIONALITY	3. CALL SIGN/OFFICIAL NO.
N/A	N/A	N/A
4. HOMEPORT	**5. TYPE OF VESSEL**	
N/A	N/A	
6. NAME OF OWNER(S)/OPERATOR(S)	**7. ADDRESS OF OWNER(S)/OPERATOR(S)**	
N/A	N/A	
8. NAME OF LOCAL AGENT	**9. ADDRESS OF LOCAL AGENT**	
N/A	N/A	
10. NAME OF INSURANCE UNDERWRITER	**11. ADDRESS OF INSURANCE UNDERWRITER**	
N/A	N/A	
12. NAME OF MASTER	**13. LICENSE/DOCUMENT NO.**	**14. NAME OF PERSON-IN-CHARGE**	**15. LICENSE/DOCUMENT NO.**
N/A	N/A	N/A	N/A
16. CERTIFICATE OF FINANCIAL RESPONSIBILITY DATED	**17. CERTIFICATE NUMBER**	
N/A	N/A	

18. REMARKS

HSA ID# 56

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 59-87 Chromated Water Spill from Tanker
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	UOR87-059
8. REVISION NUMBER	
9. DATE	5-11-87
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	16. COMPONENT CODE
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

4. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS
(Use bulletized short statements in preference to narrative. Use additional pages as necessary including applicable drawings/attachments to assist explanation at Morning Management Meeting.)

- 0440 - Operator found a barrel by SCC tanker in yard overflowing chromated water onto ground.
  - Hose from tanker outlet was draped into barrel with a cover partially on the barrel.
  - Tanker outlet valve was leaking by, causing barrel to overflow.

- Friday, 8 May, Afternoon - RCP Motor being moved to CTMT
  - Hose from SCC tanker into plant to fill SCC was laying across road.
  - To allow RCP to pass, hose connection was broken, plant side blanked off, tanker side draped into barrel.

CONTINUATION SHEETS ATTACHED YES / (NO) (Circle one)

5. IMMEDIATE CORRECTIVE ACTIONS

- Secured leakage by pinching off hose
- Notified Hazardous Waste Coordinator

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

6. PRELIMINARY RECOMMENDATIONS FOR LONG TERM CORRECTIVE ACTION
(Procedure changes, PED evalute, repairs, plant changes, training, PIR, LER, etc.) (PSS Complete)

Ops - Secure Chromated Work at Tank Truck.
Ops - Evaluate methods for better control of use of hoses.

Submitted by _____ (NSE)
Approved by _____ (PSS)
Noted by _____ (MOD)

- Developing OP-memo on hose discipline (done: 9-6-5)
- Discussed with each crew.

Distribution:

* MOD (JCF)
* AMOD (RHB)
* PM (JHG)
* APM (ETB)
* MOO (DG for CDF)
* PSS
* SOS
* RO (2 copies)
* NRC Resident (CFH)
* NSE Section Head (RHN)
Manager, Maintenance (RFP)
Operator Training Section Head (MDE)
Specialty Training Section Head (RLB)
PED Section Head
Required Reading System (before shift)

* Distributed promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

OP MEMO 9-L-5, Rev. 0 EXPIRATION DATE: 5/11/89

MEMORANDUM

TO Operations Dept. Personnel _____ May 11, 1987
Company or Location

FROM J. C. Frothingham _____ FILE 11.2.2
Company or Location

SUBJECT Installation, Control and Removal of Temporary Hoses

1) There have been three recent incidents where failures by the Operations Department to maintain proper control of temporary hoses have caused lost time, ground contamination and a technical specification violation. During an outage we use many temporary hose setups to fill and drain systems for maintenance and for hydrostatic/leak tests. Failure to maintain a close control of temporary hoses can lead to spills, contamination, DEP violations, equipment damage, lost time and other hazardous situations.

   a. (UOR 55-87) A hose used to drain the remnants of RWST water to the spray building sump was run through a fire door without providing the compensatory measures required by T.S. 3.23. This situation existed for 9.5 days.

      1. The individual who ran the hose ignored the fire door or did not understand its significance.

      2. The hose had not been needed for several days and should have been removed.

      3. AO watchstanders are evidently not sensitive to fire door requirements since the hose was ignored for 9.5 days.

   b. (UOR 58-87) A 3/4 inch "garden" hose connected to the PW supply (PW 85) in containment was left connected with the uncapped end in the upender pit. Plant facilities people had used the hose for pit decon and had told the PSS that they would leave it to assist him in subsequent pit refill. The PSS concurred. Between 0300 on Sunday and 0430 on Monday the pit overflowed to the cavity, water flowed into the instrument well and on "ICI pump start" alarm was received in control. This was the first indication that the operators had of a problem. Operator discovered PW-85 (on charging floor by seal table) open.

      1. Hose was not removed when it was no longer needed. It remained on accident waiting to happen.

      2. Plant personnel in containment were not observant enough to detect water on the containment floor or in the upender pit.

   c. (UOR 59-87) Outage Coordinator requested PSS break SCC hose connection in yard to allow passages of heavy load. Hose was attached to tanker truck that had been used to provide storage of chromated water during system drain. It was still being used intermittently to provide make-up to the SCC system after it had been restored to service.

AO broke hose connection as requested, clamped the hose (1-1/2" fire hose) on the plant side, drained the truck-side hose to a 55 gallon drum and left the open hose end in the drum. The stop valve at the truck subsequently leaked by, the drum overflowed resulting in a spill of chromated water into the yard area.

1. Personnel breaking hose connection did not cap or clamp both hose ends to minimize possibility of a spill.

2. Hose was not reconnected after passage of the heavy load.

3. Condition of the hose was not passed onto the subsequent shifts during turnover.

2) We use various hoses to perform system filling and draining, these include: Firehouse 1-1/2" and 2-1/2", 3/4" garden hose, 1" red rubber hoses, green hard suction hose and tygon tubing of various diameters. We have various administrative controls available to us to insure that hoses are necessary, that they are removed when no longer required, that spills are avoided, that equipment and personnel are protected and that we comply with regulations. These include but are not limited to:

a. T.S. 3.23 governs routing through fire doors.

b. Security Manual governs routing through accessed and alarmed doors.

c. Temporary Modification Procedure governs mechanical "jumpers".

d. MYOIN governs special operating procedures.

e. Danger Tag Procedure governs special system line-ups affecting personnel/equipment safety.

f. Operating procedures.

3) ACTION

I want all operators to use good judgment in applying GOOD ENGINEERING PRACTICES to control these potentially hazardous operations. These (again) include but are not limited to:

a. Insure that routing of hose avoids work and right of way interference, where possible, and that protection is provided to prevent hose breakage where required (e.g., protective ramps, etc.). Inspection should verify lack of kinks, leaks and potential for siphoning. Require a walkdown inspection of the routing before use.

b. Insure that routing through any door is acceptable from a safety/regulatory perspective. Provide compensatory measures where required.

c. Consider using yellow tags unless installation and removal is covered in an approved procedure.

d. For those hoses not yellow tagged, maintain in the turnover a list of hoses by type, length, purpose, location (from and to) and in-service status.

e. Remove and store hose <u>immediately</u> after it is no longer needed.

f. If a hose is temporarily placed out of service, but further use is likely, ensure that the hose is properly secured with hose caps, or hose clamps to prevent inadvertant draining, siphoning or spillage.

J. C. Frothingham
Manager, Operations Dept.

HSA ID# 57

57 DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 055-85 Mercury Spill in Aux. Boiler Room
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2 1.8.4.2
7. DOCUMENT NUMBER	UOR 85-55
8. REVISION NUMBER	
9. DATE	8-14-85
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

055-85

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

MY-U-3-76
Page 1 of 2
Rev. No. 4

DATE 14 August 1985

TIME ~~after~~ 1800

1. PLANT CONDITIONS AT TIME OF OCCURRENCE

% POWER	74% %	STEADY STATE	—
TAVE	529 °F	SHUTDOWN	
PZR. PRESS	2230 psig	TRANSIENT	
PZR. LEVEL	34 %	OTHER	

PLANT TRIP YES ____ NO ✓

2. NOTIFICATION

DOES OCCURANCE REQUIRE NRC NOTIFICATION YES ____ NO ✓
(if No, explain why in Discussion).

HAS PROCEDURE 7.50.0, "DECLARATION AND CATEGORIZATION OF EMERGENCY CONDITION" BEEN CONSULTED? YES ____ NO ____

NRC NOTIFIED BY NA TIME/DATE NA / NA

WHAT METHOD RED PHONE NA NET PHONE NA OTHER NA

NSE NOTIFIED & ~~INVOLVED~~ Mel Hess

* DUTY CALL OFFICER NOTIFIED BY KEmly DATE/TIME 8/14/85 2010

NRC RESIDENT INSPECTOR NOTIFIED (if applicable) BY NA

DATE/TIME NA

* DUTY CALL OFFICER WILL NOTIFY THE PLANT MANAGER & THE MANAGER OF OPERATIONS (MOO)

NSE - NUCLEAR PLANT RELIABILITY DATA SYSTEM NPRDS - ROUTED TO ENGINEERING SUPPORT GROUP YES ____ NO ✓

DISCUSSION:

At approximately 1530 on 14 August 1985 an estimated 14 pounds of Mercury was spilled in the auxiliary boiler room. Bailey

personnel were calibrating the B1B steam flow indication and had drained the mercury from the reservoir into a plastic pail. While lifting the pail the handle gave way spilling the mercury on the floor. I&C personnel informed the control room of the spill. The auxiliary boiler room door's were barricaded and personnel kept far from the area. The PISE was contacted. At 1600 the PISE sampled the atmosphere in the aux boiler room no mercury vapor was detected. The PISE insured that the Mercury Spill Procedure was initiated and that the Bailey Co. Personnel used the clean up kit to cleanup the spill. At 1700 the spill was cleaned up and a second atmospheric sample of the aux boiler room was taken. The second sample detected no mercury vapor

DATA ATTACHED YES____ NO ✓

Report Prepared By K. Eurbey

PSS Review G. [illegible]

Original Copy to Operations Department Head J. C. Fotheringham

Copies for the following:

PSS
SOS
RO (2 copies)
PM
APM

HSA ID# 58

DECOM

1.8.4.2

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 042-85 X1A oil Safety Lift
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2 1.8.4.2
7. DOCUMENT NUMBER	U.O.R. 85-042
8. REVISION NUMBER	
9. DATE	7-6-85
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

042-85

2.6.5h52

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

MY-U-3-76
Page 1 of 2
Rev. No. 4

DATE 6 July 85

TIME 2307

1. PLANT CONDITIONS AT TIME OF OCCURRENCE

% POWER 92.5 %

TAVE 559 °F

PZR. PRESS 2235 psig

PZR. LEVEL 48 %

PLANT TRIP YES ____ NO X

STEADY STATE X

SHUTDOWN ____

TRANSIENT ____

OTHER ____

2. NOTIFICATION

DOES OCCURANCE REQUIRE NRC NOTIFICATION YES ____ NO X
(if No, explain why in Discussion).

HAS PROCEDURE 2.50.0, "DECLARATION AND CATEGORIZATION OF EMERGENCY CONDITION" BEEN CONSULTED? YES X NO ____

NRC NOTIFIED BY N/A TIME/DATE — /

WHAT METHOD RED PHONE ____ NET PHONE ____ OTHER ____

NSE NOTIFIED & INVOLVED J. M. Taylor

* DUTY CALL OFFICER NOTIFIED BY J. Lehouillier DATE/TIME 2255 6 July 85

NRC RESIDENT INSPECTOR NOTIFIED (if applicable) BY N/A

DATE/TIME —

* DUTY CALL OFFICER WILL NOTIFY THE PLANT MANAGER & THE MANAGER OF OPERATIONS (MOO)

NSE - NUCLEAR PLANT RELIABILITY DATA SYSTEM NPRDS - ROUTED TO ENGINEERING SUPPORT GROUP YES ____ NO X

DISCUSSION:

At 2234 the Main/Aux Transformer off normal fan alarm (2G section) illuminated and the alarm screen and alarm printer registered a sudden pressure alarm for X1A.

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

2545.8

The secondary AO was sent to investigate. On the transformer alarms optical isolation junction box both a low transformer gas pressure and sudden gas pressure alarm were indicated. The AO reported that the safety had lifted and oil had spilled on the transformer and surrounding area. After inspecting the transformer, noting the safeties closed and ensuring oil level and temperature normal, the PSS decided that there was no danger. Arrangements were made to have CMP repairmen inspect the transformer. All of the oil was contained and no PCB's were involved. A faulty pressure gage is suspected because operators have (in the past 24 hours) added large amounts of N_2 via the bypass, thinking that a leak existed which was causing the pressure to drop to zero.

{ wh-is? } PCB? What kind?

DATA ATTACHED YES X NO ___

Report Prepared By J. M. Taylor

PSS Review [signature]

Original Copy to Operations Department Head [signature]

Copies for the following:

PSS
SOS
RO (2 copies)
PM
APM

The operator informed control that cylinder pressure was 2100# + transformer pressure was .75#. He then cracked open the bypass valve for ~1/2 hour. Transformer pressure read 0# and cylinder pressure was 1700#. The operator then opened the regulator bypass fully. Shortly thereafter, the control room received a computer alarm of "X-1A Sudden Pressure". The A.O. was immediately told to secure N_2 to the transformer.

Transformer pressure still read 0#. Verification of the alarm in the computer room showed that both the "Sudden Pressure" and "Low Pressure" alarms were in on X-1A. The A.O. then reported that there was oil around the transformer. The dispatcher was notified and he sent a crew to the site to investigate. The area was roped off while it was verified that the oil did not contain PCB's and that it was all contained in the gravel surrounding the transformer.

HSA ID# 59

59

DECON

ATTACHMENT B
ATLAS DOCUMENT INPUT FORM

1. TITLE: UOR for RWST Leak
2. DOCUMENT TYPE: Reports 3. DOCUMENT FORM M
4. DOCUMENT LOCATION 5. RETENTION PERIOD: 99
6. TECHNICAL FILE NUMBER: 1.8.4.2 and 11.14.6
7. DOCUMENT NUMBER:
8. REVISION NUMBER 9. DATE: 3/30/84 10. CLASSIFICATION TYPE D
11. TOPICAL INDUSTRY ISSUE
12. KEYWORDS
13. SUBJECT
14. REFERENCE DOCUMENT
15. SYSTEM CODE 16. COMPONENT CODE
17. CYCLE NUMBER
18. ORIGINATOR Operations
19. RECEIVER
20. VENDOR CODE
21. ACCESSION NUMBER
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

MY-0-3-76
Page 1 of 2
Rev. No. 2

DATE 30 March 1984

TIME 0237

1. PLANT CONDITIONS AT TIME OF OCCURRENCE

% POWER 84 %

TAVE 543 °F

PZR. PRESS 2240 psig

PZR. LEVEL 29 %

PLANT TRIP YES ___ NO X

STEADY STATE X

SHUTDOWN ___

TRANSIENT ___

OTHER ___

2. NOTIFICATION

DOES OCCURANCE REQUIRE NRC NOTIFICATION YES X NO ___
(if No, explain why in Discussion).

NRC NOTIFIED BY J. Taylor.

TIME/DATE of NOTIFICATION 0348 30March84

WHAT METHOD RED PHONE X NET PHONE ___ OTHER ___

- NSE NOTIFIED & INVOLVED J. Taylor
- DUTY CALL OFFICER NOTIFIED BY B. Baxter DATE/TIME 0250 30March84

NRC RESIDENT INSPECTOR NOTIFIED (if applicable) BY B. Baxter

DATE/TIME 0405 30March84

- DUTY CALL OFFICER WILL NOTIFY THE PLANT MANAGER & THE MANAGER OF OPERATIONS (MOO)
- NSC - NUCLEAR PLANT [illegible] FACILITY DATA SYSTEM [illegible] ENGINEERING SUPPORT [illegible] YES ___ NO X

DISCUSSION:

0237 A security guard reported observing a leak start at the RWST. / at 0245 investigation revealed a leaking flange on the return line from the RWST steam heater. Leak rate ≈ 25-35 gpm / at 0250 the DCO was called / at 0250 it was noted that ≈ 1000 gal had been lost from the RWST. / between 0240

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

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Page 2 of 2
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and 0300 the PSS (W. Baxter) called in personnel from maintenance, health physics and chemistry / at 0315 the H.P. tech reported a gross γ of 10 (W. Barton) uci/ml. / at 0348 the NSE called the NRC on the ENS (red) phone and provided the basic information excepting quantative information on radioactivity. J. Taylor promised he would call back when numerical information became available / at 0359 Gary Cochrane arrived at plant / at 0404 the PSS made the decision to direct flow of RWST water to the storm drain as much as possible in order to reduce the risk of contaminating the entire area and to dilute the release with service water discharge / at 0405 B. Baxter called the resident NRC inspector and informed him of the situation. (Cont'd)

DATA ATTACHED YES X NO ____

Original Copy to Operations Department Head R E Bickford

Copies to RO & SOS R E Bickford

Report Prepared By J. M. TAYLOR

PSS Review J. W. East

at 0410 the release rate was estimated to be ~ 45 gpm / at 0417 Pete Radabey arrived / at 0418 Ed. Greenman of the NRC called NY requesting information. B. Carter informed Mr. Greenman of the problem - that she had lost approximately 5000 gal, grass activity of 10^{-4} uci/cc, a loss rate of approximately 30 gpm and to expect a return call in 30-45 min with a quantitative evaluation of activity / at 0423 Mr. Shonbakey of the NRC called requesting information on activity. / at 0432 Ed. Greenman of the NRC called again requesting release information, he was told the state would be notified as soon as a chemistry evaluation was completed. He was also told that the P.R. dose would be based on the chemistry analysis. Mr. Greenman recommended calling C. Trujyle and E. Wood if they had not already been notified / at 0446 results of the chemical analysis shown below were passed to the NRC along with an estimated loss at that time of 4000 gal.

	NRC	Before Dil uCi/ml	After Dil uci/ml
Co 58	9 E-05	1.20 E-05	1.06 E-09 (1 E-04)
Co 60	3 E-05	1.72 E-05	1.52 E-09 (5 E-05)
Cs 137	2 E-05	2.69 E-05	2.37 E-09 (2 E-05)
Nb 97	9 E-04	2.54 E-06	2.24 E-10 (9 E-04)
Sb 124	2 E-05	1.58 E-05	1.39 E-09 (2 E-05)
Sb 125	1 E-04	1.83 E-04	1.61 E-08 (1 E-04)

values in parentheis are limits from 10 CFR 20 Appendix B Table II Column 2. Technical Specifications 3.16 A 3 cites these limits On this basis and calculations of total release this incident was not considered reportable as a liquid release under 10 CFR 50.72 (b)(2)(IV). It is instead reportable under 50.72 (B)(2)(VI) because a news release was required by Maine law. /0500 The NRC called B. Baxter and were given the chemistry results. /0500 Pete Radsky calculated an estimated release of .0071 ci excluding tritium. /0510 gas samples taken in the area of the RWST leak showed activity < MDA. /0514 maintenance personnel report that the leak has been reduced to approximately 1-2 gpm /0530 after inspecting the leak with the resident NRC inspector the PSS called the NRC operations center and informed them the leak was under control and provisions for a no leak rate fix were being made. /0630 After including tritium in calculations and assuming a loss of 2000 gal Pete Radsky calculated a release of 0.25 ci from the spill. All personnel who went to the leak site were directed to get whole body counts.

2515.5

INITIAL DRAFT

MAINE YANKEE
LIQUID RADIOACTIVE RELEASE PERMIT

MAINE YANKEE ATOMIC POWER CO. NO. ~~0000~~

DATE 3-30-84

SOURCE	LEVEL BEFORE	LEVEL AFTER	TOTAL GALLONS	TOT. MILLILITERS	PROP. SAMPLE
TEST TANK	*	*			
OTHER RWST LEAK			7000.	2.65E+07	70.

DILUTION FLOW			RELEASE RATE	
CIRC. H₂O DILUTION FLOW	400000. GPM		TEST TANK	
SERVICE H₂O DILUTION FLOW	20000. GPM		OTHER	37. GPM
TOTAL DILUTION FLOW	420000. GPM			

T.S. OBS FLOW PERMISSIBLE TO 242 GPM

	GROSS BETA GAMMA	GROSS GAMA	TRITIUM	ALPHA
SPECIFIC ACTIVITY IN μci/ml	β·γ= < 1.00E-06	γ= 3.49E-04	H³= 8.66E-03	α= < 1.00E-06
ACTIVITY AFTER DILUTION IN μci/ml	β·γ= 0.00E-01	γ= 3.07E-08	H³= 7.63E-07	α= 0.00E-01
TOTAL ACTIVITY DISCHARGED IN μci	β·γ= 0.00E-01	γ= 9.24E+03	H³= 2.29E+05	α= 0.00E-01
RADIATION MONITOR READING *	CPM X	=	μCi/ml	

ISOTOPE IDENTIFICATION (IF NECESSARY)

ISOTOPE	M P C	SPECIFIC ACTIVITY in μci/cc BEFORE DILUTION	SPECIFIC ACTIVITY in μci/cc AFTER DILUTION
CO-58	9.E-05	1.20E-05	1.06E-09
CO-60	3.E-05	1.72E-05	1.52E-09
CS-137	2.E-05	2.69E-05	2.37E-09
NB-97	9.E-04	2.54E-06	2.24E-1
SB-124	2.E-05	1.58E-05	1.39E-0
SB-125	1.E-04	1.83E-04	1.61E-08
SUM OF RATIOS ▶			

CHEM.		START	FINISH
H.P.	RELEASE TIME ▶	.0225	.0530
SHIFT SUPV. INADVERTENT RELEASE	RELEASE DATE ▶	3/30/84	3/30/84

TOTAL ACTIVITY RELEASE THIS QUARTER _____ ci

TOTAL ACTIVITY RELEASE YEAR TO DATE _____ ci

SET RMS _____ CPM ABOVE BACKGROUND

REMARKS:

APPROX 0500 LEAK DOWN TO 2 TO 3 GPM

CONTAINED FLOW < 1 GPM AT APPROX 0530

NOTE: LESS THAN (<) VALUES INDICATE NO ACTIVITY WAS DETECTED AND REPRESENTS THE LOWER LIMITS OF DETECTION FOR THIS ANALYSIS

C

LIQREL--TYPE <R> TO REPRINT PERMIT, <C> TO CANCEL RELEASE PERMIT PROCESSING, OR <RETURN> TO CONTINUE NORMALLY ...: C

* TO BE FILLED IN BY OPERATIONS DEPARTMENT

CHEMISTRY COPY

FX

NRC Form 366
(9-83)

U.S. Nuclear Regulatory Commission
Approved OMB No. 3150-0104
Expires: 8/31/85

LICENSEE EVENT REPORT (LER)

Facility Name(1)	Docket Number(2)	Page(3)
Maine Yankee Atomic Power Company	0 5 0 0 0 3 0 9	1 of 0 12

Title(4)
Refueling Water Storage Tank Siphon Heater Return Line Leak

Event Date(5)			LER Number(6)			Report Date(7)			Other Facilities Involved(8)	
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)
0 3	3 0	8 4	8 4	- 0 0 4	- 0 0	0 4	3 0	8 4		0 5 0 0 0

Operating Mode (9): 7
Power Level (10): 0 8 4

This Report is Submitted Pursuant to the Requirements of 10 CFR § (Check one or more of the following) (11)

_ 20.402(b)	_ 20.405(c)	_ 50.73(a)(2)(iv)	_ 73.71(b)
_ 20.405(a)(1)(i)	_ 50.36(c)(1)	_ 50.73(a)(2)(v)	_ 73.71(c)
_ 20.405(a)(1)(ii)	_ 50.36(c)(2)	_ 50.73(a)(2)(vii)	X Other (Specify in Abstract below and in Text, NRC Form 366A) Voluntary Report
_ 20.405(a)(1)(iii)	_ 50.73(a)(2)(i)	_ 50.73(a)(2)(viii)(A)	
_ 20.405(a)(1)(iv)	_ 50.73(a)(2)(ii)	_ 50.73(a)(2)(viii)(B)	
_ 20.405(a)(1)(v)	_ 50.73(a)(2)(iii)	_ 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	Telephone Number
James M. Taylor, Nuclear Safety Engineer	Area Code 2 0 7 8 8 2 6 3 2 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

Cause	System	Component	Manufacturer	Reportable to NPRDS	Cause	System	Component	Manufacturer	Reportable to NPRDS
X	B	Q	S E A L	X 9 9 9	N					

Supplemental Report Expected (14)

_ Yes (If yes, complete Expected Submission Date)
X No

Expected Submission Date(15): Month | Day | Year

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

While at 84% power a gasket failed in the siphon heater return line to the refueling water storage tank. Slightly radioactive water from the tank spilled onto the ground, ran into a nearby storm drain, and mixed with circulating water leaving the plant. Immediate radiological controls confined contamination to the leak site and ground leading to the storm drain. Within three hours the leakage had been reduced to less than 1.0 gpm and channeled into a temporary tank for processing in the liquid waste management system. A permanent repair was accomplished by gasket replacement. This report is not reportable under the requirements of Title 10 of the Code of Federal Regulations. This report is submitted on a voluntary basis for informational purposes only.

NRC Form 366A
(9-83)

U.S. Nuclear Regulatory Commission
Approved OMB No. 3150-0104
Expires: 8/31/85

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Facility Name(1)	Docket Number(2)	LER Number (6)			Page(3)
		Year	Sequential Number	Revision Number	
Maine Yankee Atomic Power Company	0 5 0 0 0 3 0 9	8 4	- 0 0 4	- 0 0	02 of 012

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The plant was operating at 84% power during coastdown in preparation for a refueling outage. At 0220 on 30 March 1984, a security guard heard a noise near the Refueling Water Storage Tank (BQ) and observed water and steam spraying from a pipe at the base of the tank. He immediately called the Control Room. After evaluating the leak the Plant Shift Superintendent called additional Maintenance, Chemistry and Health Physics Personnel to the plant site to deal with the problem. Blizzard conditions made travel hazardous and working conditions at the leak difficult. The health physics technician on shift took a preliminary sample of the spill and established radiological controls.

Based on changes in tank level from the control board level indicator, the spill rate was estimated to be 30-40 gpm. Removal of insulation from the siphon heater return line to the refueling water storage tank revealed the leak was in a flange. Water from this leak dropped onto the ground, mixed with snow, and flowed into a nearby storm drain. Water from the storm drain flows to a sealpit where it mixes with circulating and service water (NN) discharge. The circulating and service water then flows through a forebay and a diffuser system to unrestricted waters. Activity at the seal pit forebay area was below minimum detectable activity. A gaseous activity sample taken at the spill site was less than minimum detectable activity.

Tightening bolts on the leaking flange and installing a rubber sleeve reduced flow to 1.0 gpm. This leakage was subsequently channeled into a storage drum for transfer to the liquid waste management system (WD). Less than three hours was required to bring the leak under control.

An initial, undiluted sample of tank contents revealed two nuclide activities greater than MPC limits specified in 10CFR20 Appendix B, Table II, Column 2. The NRC was notified within one hour of discovery in accordance with 10CFR50.72 (b)(2)(iv)(b). Further sample evaluation, however, proved that the initial sample evaluation was incorrect. This subsequent evaluation verified that the release to unrestricted waters was no more than two percent of MPC for all nuclides. Within an hour after the original report the NRC was notified of the sample evaluation mistake and that further analysis showed the release was insignificant and well below any reporting thresholds. The total release including Tritium was calculated to be less than 0.25 Ci.

As a source of borated water for emergency core cooling, the refueling water storage tank is required to maintain a level of 300,000 gal. During this event, the level was maintained well above the minimum level required. Leakage at the controlled rate of 1.0 gpm was not a threat to tank operability. More aggressive patching techniques available to stop or reduce leakage were not used since the leak was contained and the plant entered refueling shutdown later that day.

Removal of the failed gasket and another in the same line showed both to be made of rubber in a degraded condition. They had become hard and brittle due to elevated temperatures, thermal cycling, oxidation, and lower pH water (approximately 5.5) in the line.

During this refueling outage, gaskets will be replaced with compressed asbestos type material on all flanges close to or on the tank. Associated unisolable valves will be refurbished. A visual inspection of welds in lines close to the tank will be made for adverse indications. Associated welded valves were placed on a preventive maintenance cycle for repacking.

DETAILS

1. Individuals Contacted

Principal Licensee Employees

*J. Brinkler, Assistant Plant Manager
*J. Bickford, Assistant Operations Department Head
P. Radsky, Chemistry Section Head
R. Forrest, Maintenance Section Head

*Denotes those present at the exit interview.

2. Purpose of Inspection

On March 30, 1984, a flange seal on the Refueling Water Storage Tank (RWST) failed, resulting in loss of water from the tank. The released water drained into the storm sewer system which drains into the discharge canal. The purpose of this inspection was to investigate the causes of the occurrence, the licensee's action, the releases to the discharge canal, and potential future preventative action.

Upon arrival at the site, the inspectors met with the resident inspector and observed the location of the RWST and examined the piping and flange from which the leak occurred. The inspectors also examined the storm drain into which the leaked water drained.

3. Review of Licensee Actions

The inspectors examined the RWST level indicators in the control room and control room records relating to this occurrence. The tank level is logged once per shift. At 12 midnight it was logged. At 2:30 a.m., when the control room was notified of the leak by the security guard, the level indicators were monitored at a higher frequency. Records indicate that between 12 midnight and 2:30 a.m., the tank lost approximately 2,000 gallons and between 2:30 a.m. and 5:00 a.m., the tank lost approximately 5,000 gallons.

It was estimated that the original leak rate from the tank was about 40 gpm. Once the licensee learned of the leak, prompt mitigating action was taken. By 5:30 a.m., the leak was slowed to a few gpm and reduced to a small dripping by 8:30 a.m. A drum was placed under the flange to catch the dripping thereby stopping the release to the discharge canal.

4. Analysis of Releases

The inspectors met with Mr. P. Radsky, Chemistry Section Head, to discuss sampling methodology and analysis of contents of the RWST. Table I lists the concentrations of nuclides in the RWST and the total activity released based on a release volume of 7,000 gallons.

Table I

RWST Isotopic Concentration		Activity Released
Isotope	µCi/ml	mCi
Ag-110m	1.34E-6	.035
Ba-140	3.36E-6	.089
Co-58	1.30E-5	.34
Co-60	1.54E-5	.41
Cs-137	2.85E-5	.76
Mn-56	1.06E-5	.28
Sb-124	1.50E-5	.40
Sb-125	1.82E-4	4.8
Sr-91	8.11E-6	.21
H-3	8.84E-3	230.

Total Activity released - 7.3E-3 curies.
Also released - 0.23 curies of tritium.

Table II lists the concentrations that would be expected in the environment after dilution in the discharge canal. These concentrations were determined based upon a circulating water flow of 420,000 gpm. Also listed in Table II are the unrestricted area maximum permissible concentration (MPC) from 10 CFR 20, Appendix B. The release concentrations are significantly smaller than the MPC, which indicates negligible exposure to the public due to these releases.

Table II

RWST Concentrations in the Environment Compared to MPC Values

Isotope	Diluted µCi/ml	MPC µCi/ml
Ag-110m	1.18E-10	3E-5
Ba-140	2.96E-10	2E-5
Co-58	1.15E-9	9E-5
Co-60	1.36E-9	3E-5
Cs-137	2.51E-9	2E-5
Mn-56	9.34E-10	1E-4
Sb-124	1.32E-9	2E-5
Sb-125	1.60E-8	1E-4
Sr-91	7.14E-10	5E-5
H-3	7.79E-7	3E-3

5. Licensee Follow-up

The inspectors met with Mr. D. Forrest of the Maintenance Department to discuss prevention of future occurrences of this type. Mr. Forrest stated that isolated failures are reviewed by maintenance and recommendations are forwarded to PORC. Recommendation could include a preventive maintenance program. He said that it might be appropriate in this case to check or replace the flange gasket every other refueling.

6. Exit Interview

The inspectors met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on March 31, 1984, and summarized the purpose and scope of the inspection and the inspection findings. At no time during this inspection was written material provided to the licensee by the inspectors.

HSA ID# 60

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

MY-O-S-76
Page 1 of 2
Rev. No. 2

DATE 2/27/1984

TIME 2200

1. PLANT CONDITIONS AT TIME OF OCCURRENCE

% POWER	97 %	STEADY STATE	✓
TAVE	561 °F	SHUTDOWN	
PZR. PRESS	2250 psig	TRANSIENT	
PZR. LEVEL	51 %	OTHER	

PLANT TRIP YES ____ NO ✓

2. NOTIFICATION

DOES OCCURANCE REQUIRE NRC NOTIFICATION YES ____ NO ✓
(if No, explain why in Discussion).

NRC NOTIFIED BY NA

TIME/DATE of NOTIFICATION NA

WHAT METHOD RED PHONE NA NET PHONE NA OTHER NA

NSE NOTIFIED & INVOLVED S La Flamme / K Embry

* DUTY CALL OFFICER NOTIFIED BY _____ DATE/TIME _____

NRC RESIDENT INSPECTOR NOTIFIED (if applicable) BY _____

DATE/TIME _____

* DUTY CALL OFFICER WILL NOTIFY THE PLANT MANAGER & THE MANAGER OF OPERATIONS (MOO)

NSE - NUCLEAR PLANT RELIABILITY DATA SYSTEM (PRDS - ROUTED TO ENGINEERING SUPPORT GROUP YES ____ NO ✓

DISCUSSION:

At 1117 on 27 February 1984 control was informed of a potential release of radioactive liquid to the storm sewer. Davis Electric contractors were using a contaminated wet vac

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT

MY-O-3-76
Page 2 of 2
Rev. No. 2

and barrel to collect water used in drilling operations ~~in~~ the Aux feed pump room area. A member of plant services saw a sudden rush of water from the direction of the Aux feed pump go into the storm sewer. His description of the water flow would tend to indicate that the barrel had been tipped over. Davis Electric personnel contend that the barrel overflowed. Samples obtained by HP and chemistry personnel varied in activity from 1000 dpm at the storm sewer to 12500 dpm near the aux feed pump room. The total activity released when averaged over an hour period is less than 2 times MPC

DATA ATTACHED YES ✓ NO ____

Original Copy to Operations Department Head ____

Copies to RD & SOS ____

Report Prepared By ____

PSS Review Jel Matthews

```
ALPHA   ANALYSIS
****************


ACTIVITY OR MDA INSERTION ?..: MDA
INPUT MDA VALUE...:1E-7
TOT. CIRC. & SERVICE WATER AVAILABLE FOR DILUTION.
CIRC. WATER ? ..: 400000
SERV. WATER ? ..: 20000
THE MAXIMUM RELEASE RATE THAT WILL NOT EXCEED ONE
TECH SPEC OBJECTIVE IS..:      66.GPM.

IF THE MAX RELEASE RATE IS>120 GPM
THEN RELEASE AT 120 GPM
ENTER RELEASE RATE IN GPM.:40
INPUT PH ..:6
TEMPERATURE..:35
DO YOU WISH TO INCLUDE THE RESULTS OF THE INDIVIDUAL GAMMA EMITTERS ?..:YES
# OF NUCLIDES (MAXIMUM OF 12)  ?..:5
NUCLIDE #  1 INCLUDING '-'..:CO-58
NUCLIDE ACTIVITY IN UCI/CC..:5.3E-4
NUCLIDE #  2 INCLUDING '-'..:CO-60
NUCLIDE ACTIVITY IN UCI/CC..:8.75E-4
NUCLIDE #  3 INCLUDING '-'..:CS-134
NUCLIDE ACTIVITY IN UCI/CC..:2.15E-3
NUCLIDE #  4 INCLUDING '-'..:CS-137
NUCLIDE ACTIVITY IN UCI/CC..:2.63E-3
NUCLIDE #  5 INCLUDING '-'..:MN-54
NUCLIDE ACTIVITY IN UCI/CC..:2.91E-4
REPORT TO LINE PRINTER ?N



********************************* PRELIMINARY REPORT ********************************
*************************************************************************************
**RECORD OF RADIOACTIVE LIQUID BATCH RELEASE AT MAINE YANKEE ATOMIC POWER CO.**
*************************************************************************************
*************************************************************************************



RELEASED FROM..: VAC SPIL ON..: 2-27-84   PERMIT #..: 9998  BY
AT  40.GPM.  PH= 6.00 AND  TEMPERATURE AT DISCHARGE TIME ..: 35.0 C
TOTAL GALLONS RELEASED..:      40. PROPORTIONAL SAMPLE SAVED..:  0. CC



BETA    ANALYSIS
*****************
                    NOT ANALYZED
THE NET COUNTS FOR THIS ANALYSIS DO NOT EXCEED
THE MINIMUM DETECTABLE ACTIVITY; MINIMUM SENSITIVITY FOR
THIS ANALYSIS WAS=<  1.00E-08 UCI/CC


GAMMA   ANALYSIS
*****************

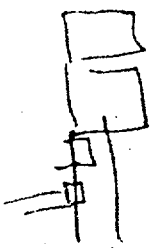

NET COUNTS + OR - 1 SIGMA=   201473.    + OR -    450. COUNTS
CPM + OR - 1 SIGMA       =  201473.0    + OR -    0.22 %
ACTIVITY BEFORE DILUTION =  1.27E-02    + OR -    2.84E-05 UCI/CC
ACTIVITY AFTER DILUTION  =  1.21E-06    + OR -    2.70E-09 UCI/CC
ACTIVITY RELEASED        =  1.92E+03    + OR -    4.30E+00 UCI
```

TRITIUM ANALYSIS
********** NOT ANALYZED

THE NET COUNTS FOR THIS ANALYSIS DO NOT EXCEED
THE MINIMUM DETECTABLE ACTIVITY; MINIMUM SENSITIVITY FOR
THIS ANALYSIS WAS=< 1.00E-06 UCI/CC

ALPHA ANALYSIS
********** NOT ANALYZED

THE NET COUNTS FOR THIS ANALYSIS DO NOT EXCEED
THE MINIMUM DETECTABLE ACTIVITY; MINIMUM SENSITIVITY FOR
THIS ANALYSIS WAS=< 1.00E-07 UCI/CC



********** PRELIMINARY REPORT **********
****
**RECORD OF RADIOACTIVE LIQUID BATCH RELEASE AT MAINE YANKEE ATOMIC POWER CO.*
****
****

PAGE 2 PERMIT # ..: 9998

****
GAMMA ACTIVITIES RATIOED TO MPC
****

ISOTOPE	ACT. AFTER DILUTION UCI/CC	M.P.C. IN UCI/CC	RATIO	CURIES RELEASED
CO-58	5.05E-08	9.E-05	5.61E-04	8.02E-05
CO-60	8.33E-08	3.E-05	2.78E-03	1.32E-04
CS-134	2.05E-07	9.E-06	2.28E-02	3.26E-04
CS-137	2.50E-07	2.E-05	1.25E-02	3.98E-04
MN-54	2.77E-08	1.E-04	2.77E-04	4.41E-05
UNIDENTIFIED	5.93E-07	3.E-07	1.98E+00	9.43E-04
			2.02E+00	1.92E-03

****
WARNING
****

RATIO OF DILUTED ACTIVITIES TO MPC VALUES INDICATE
THIS RELEASE WILL EXCEED THE LIMITS SPECIFIED IN
TABLE 2,COLUMN 2 OF APPENDIX B , 10CFR20
****
PERMIT TO LINE PRINTER ? N

Based on 40 gal lost in 1 min down the storm drain

2515.5

AT THIS POINT CHANGE THE PAPER IN THE LA-120 OR LA-180 TO THE RELEASE FORM.
LINE FEED AND ADJUST THE FIRST FORM SO THAT THE TOP OF THE SECOND FORM
COMES EVEN WITH THE TOP OF THE PRINTER HEAD !!!
<CR> WHEN READY

9998
2-27-84
11:51:52

VAC SPIL 40. 1.51E+05 q.

400000.
20000. 40.
420000.

Gross γ

< 1.00E-08	1.27E-02 μCi/ml	< 1.00E-06	< 1.00E-07
0.00E-01	1.21E-06	0.00E-01	0.00E-01
0.00E-01	1.92E+03	0.00E-01	0.00E-01

	MPC	Act. 2[Dil	Act After
CO-58	9.E-05	5.30E-04	5.05E-08
CO-60	3.E-05	8.75E-04	8.33E-08
CS-134	9.E-06	2.15E-03	2.05E-07
CS-137	2.E-05	2.63E-03	2.50E-07
MN-54	1.E-04	2.91E-04	2.77E-08

NOTE: LESS THAN (<) VALUES INDICATE NO ACTIVITY WAS DETECTED AND
REPRESENTS THE LOWER LIMITS OF DETECTION FOR THIS ANALYSIS
CCCC
MCR>C\C\ABO LIQ

11:51:39 Task "...LIQ" terminated
Aborted via directive or CLI
And with pending I/O requests
"...

>

HSA ID# 61

61

MY-HP-5
Rev. 3
File 19.20.11.3

MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

COUNTER Eberline Model 3 60-69 / 16078+ INST. TYPE & NO. N/A

EFF. 10% / 10%

BKG. 700-2800 CPM / 700-2800 CPM

DATE 7-25-89

TIME 0700 - 1530

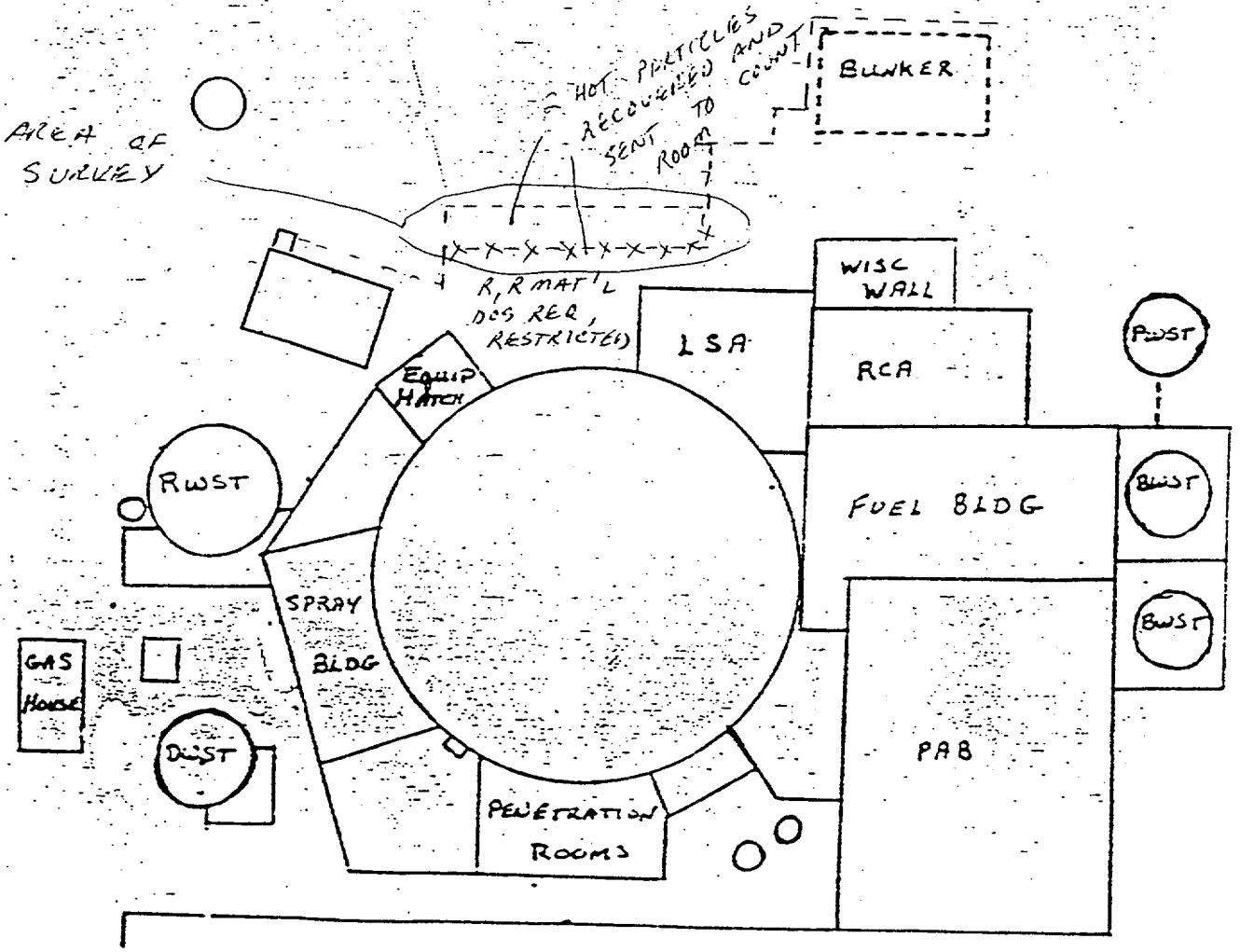
TECH. Maines / Bourbeau

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - Boundary as found

-x-x-x- Boundary as left

NOTE: Area released by direct frisk. All area released < 500 CCPM. 2 hot particles removed and sent to count room.



MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

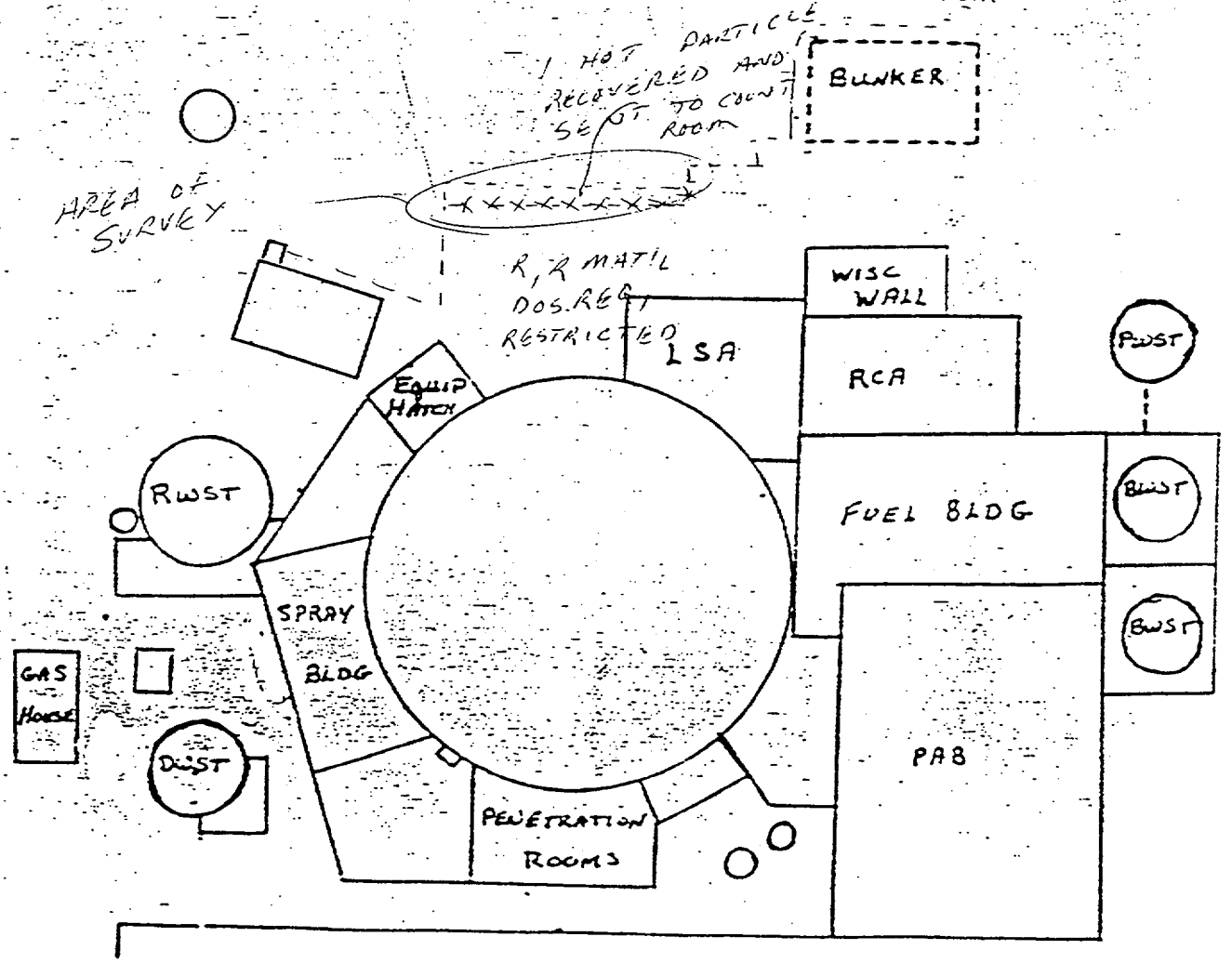
EBERLINE
MODEL 3
COUNTER 60769 / 60781 INST. TYPE & NO. N/A
EFF. ~~10%~~ / 10%
BKG. ~~800-3500~~ / 800-3500 CPM

DATE 7-21-89
TIME 0700 - 1230
TECH. BOUDREAU

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - BOUNDARY AS FOUND
-X-X-X- BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK. ALL AREA RELEASE 2500 CPM. 1 HOT PARTICLE RECOVERED AND SENT TO COUNT ROOM



MY-HP-5
Rev. 3
File 19.20.11.3

MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

EVALUM MODEL 3

COUNTER 60769 / 60781 INST. TYPE & NO. N/A

EFF. 10% / 10%

BKG. 800-1500 / 800-1500 cpm

DATE 7-19-89

TIME 0700-1530

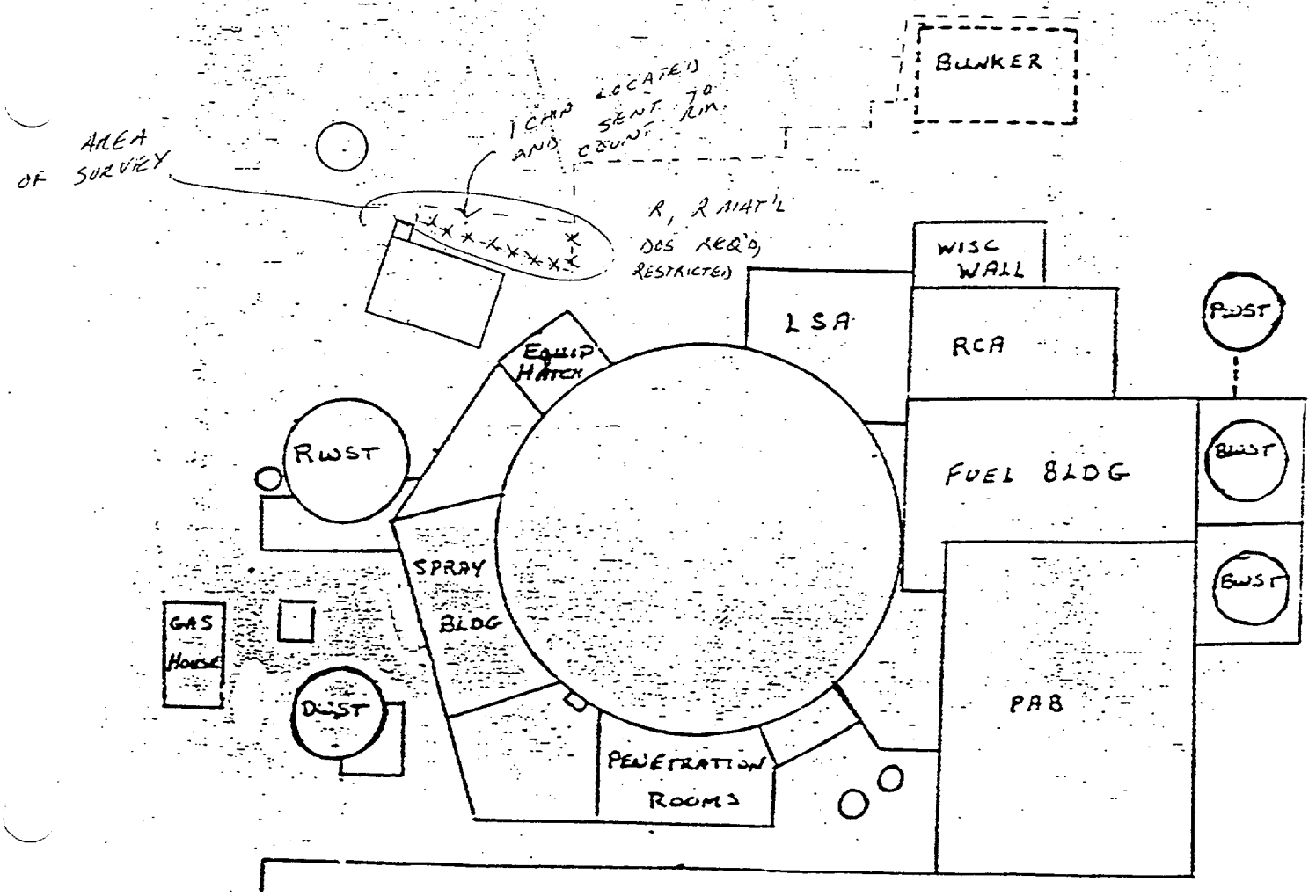
TECH. BOUDREAU / MAINES

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - BOUNDARY AS FOUND

X-X-X- BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK, ALL AREA RELEASED < 500 CPM & 1 HOT PARTICLE COLLECTED AND SENT TO COUNT ROOM.



MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

Counter BC-4 132 Inst. Type & No. N/A Date 7-24-89

Eff. 22% Time 1500

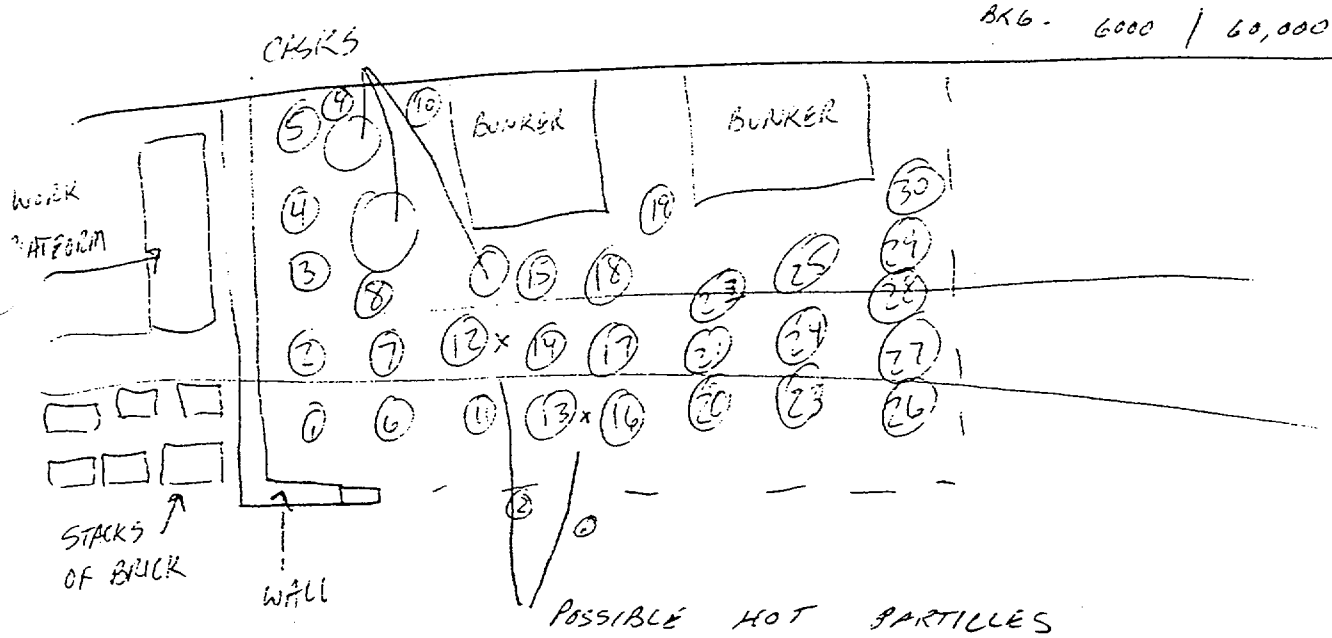
Bkg. 57 Tech. BOUDREAU/[illegible]

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item USC: WALL

AREA DIRECT FRISKED WITH LUDLUM MODEL 3 WITH BACKGROUND VARIATION FROM 6000 CPM TO 40000 CPM.

LUDLUM MODEL 3
SN 60769 / 60781
EFF. 10% / 10%
BKG. 6000 / 60,000 CPM



POSSIBLE HOT PARTICLES

① 25,000 CPM BKG, 60,000 CPM ON X

② 20,000 CPM BKG, 45,000 ON X

SMEAR RESULTS All smears <1K DPM 100 cm/2

MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

COUNTER EBERLINE MODEL 3 68769 / 60787 INST. TYPE & NO. N/A

EFF. 10% / 10%

BKG. 800-1500 / 800-1500 CPM

DATE 7-19-89

TIME 0700-1530

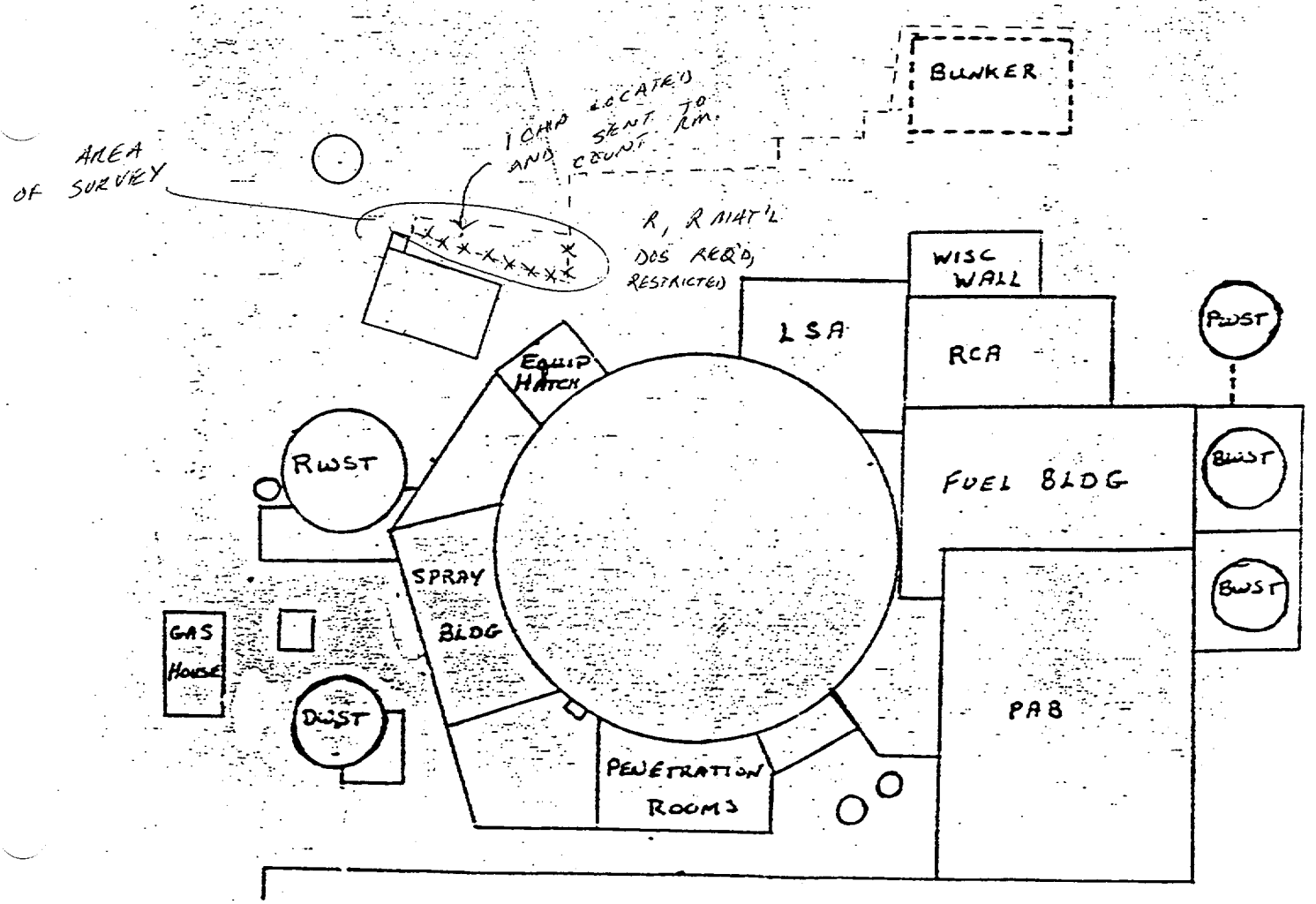
TECH. BOUDREAU / MAINES

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - BOUNDARY AS FOUND

-X-X- BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK, ALL AREA RELEASED < 500 CPM. 1 HOT PARTICLE COLLECTED AND SENT TO COUNT ROOM.



MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

EBERLINE
MODEL 3

COUNTER 60769 / 60781 INST. TYPE & NO. N/A

EFF. 10% / 10%

BKG. 800-3500 / 800-3500 CPM

DATE 7-21-89

TIME 0700 - 1230

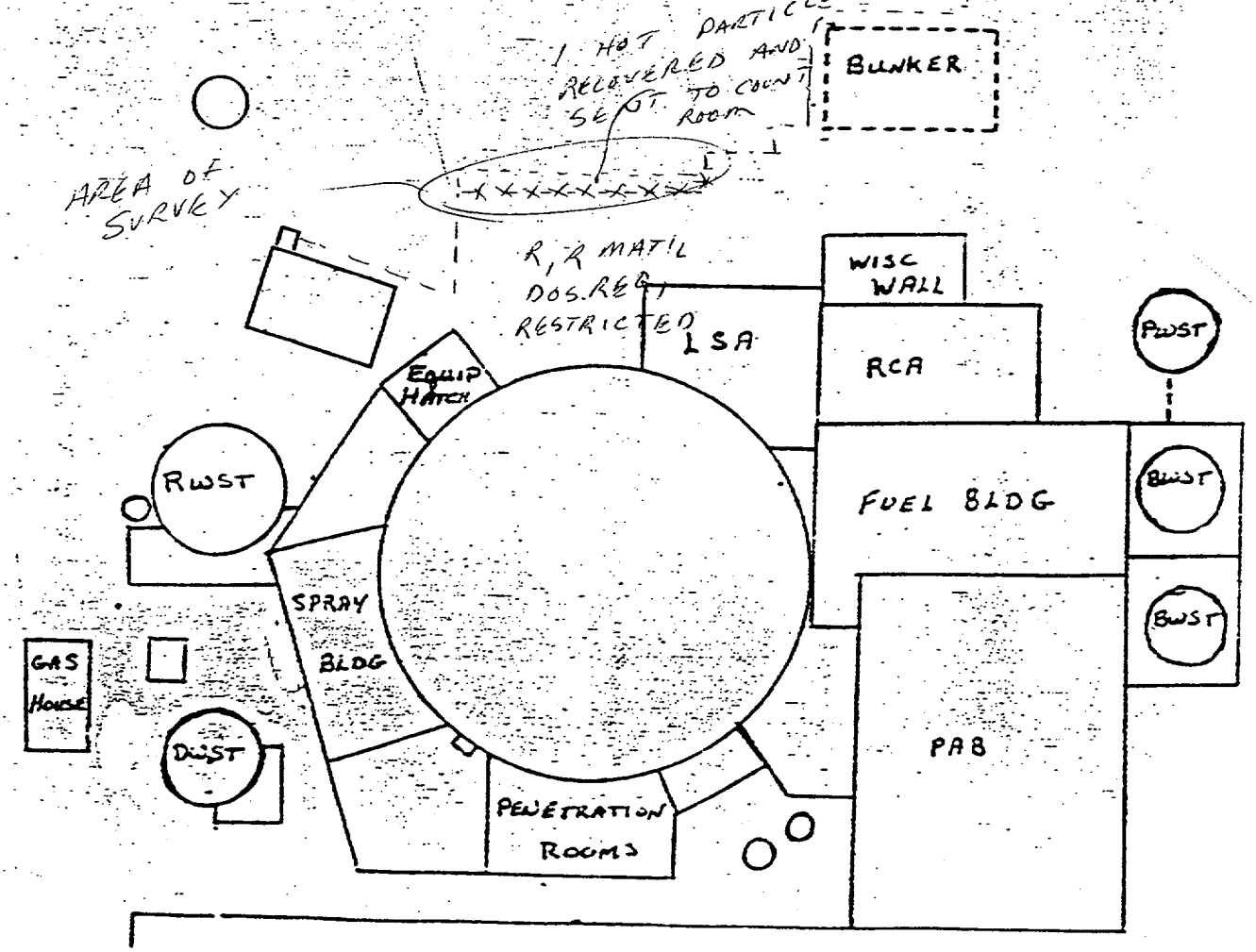
TECH. BOUDREAU

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - BOUNDARY AS FOUND

-X-X-X- BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK. ALL AREA RELEASE <500 CCPM. 1 HOT PARTICLE RECOVERED AND SENT TO COUNT ROOM



MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

COUNTER LaBcum MODEC 12 / 65223 / 65238 INST. TYPE & NO. N/A

EFF. ≈ 70% / ≈ 10%

BKG. 800 - 3000 / 800 - 3000 cpm

DATE 8-2-89

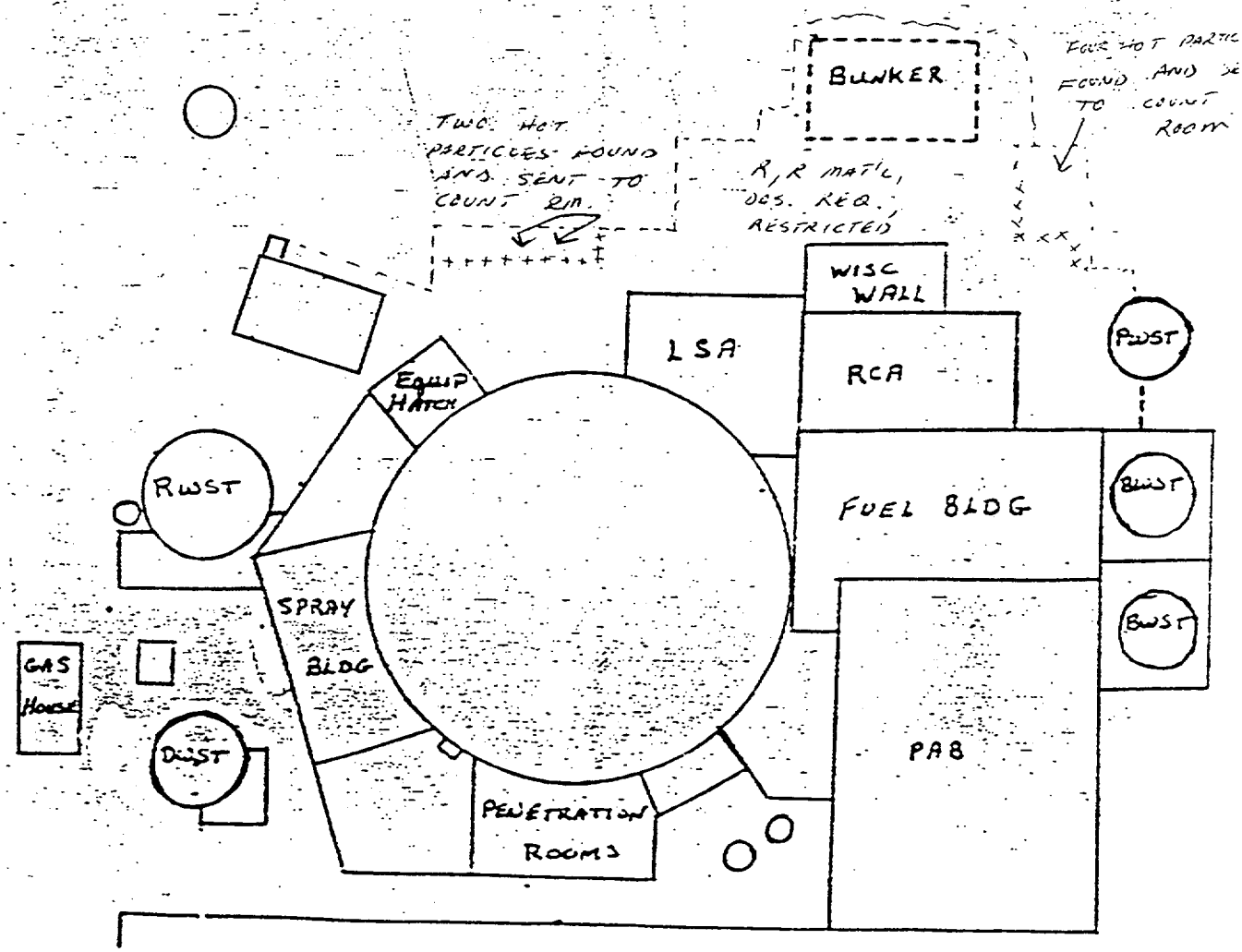
TIME 0700 - 1530

TECH. BOUDREAU / HAINES

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

---- BOUNDARY AS FOUND
XXXX BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK. ALL AREA (RELEASED) < 300 cpm. SIX HOT PARTICLES COLLECTED AND SENT TO COUNT ROOM.



MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

LUDLUM MODEL 12

COUNTER 65823 / 65254 INST. TYPE & NO. N/A

EFF. ≈ 10% / ≈ 10%

BKG. 500-1500 / 500-1500 CPM

DATE 8-1-89

TIME 0700-1530

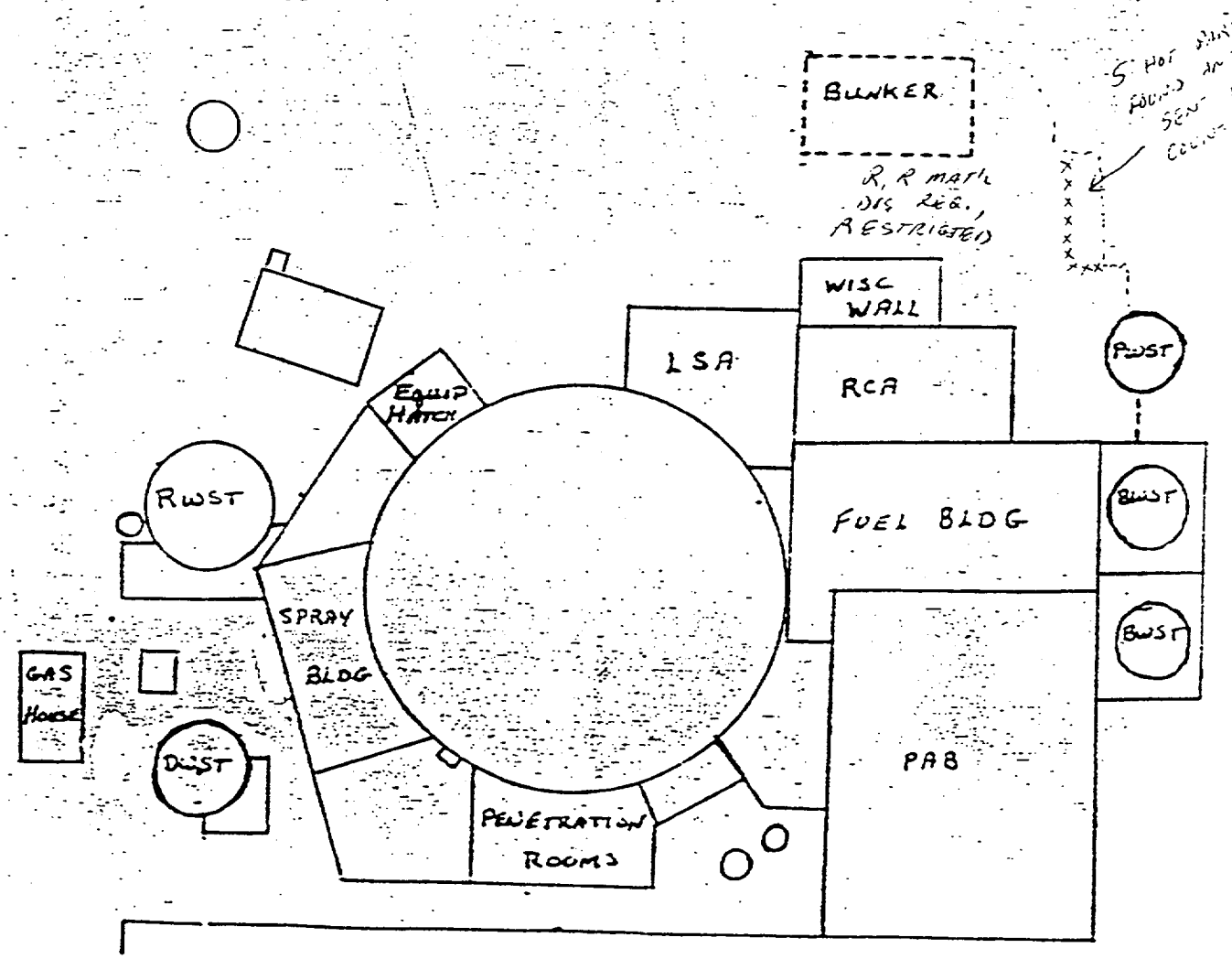
TECH. BOUDREAU / HAINES

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - - BOUNDARY AS FOUND

xxxxx BOUNDARY AS LEFT

NOTE: AREA SURVEYED BY DIRECT FRISK. ALL PREW READINGS < 200 CCPM. FIVE HOT PARTICLES FOUND AND SENT TO COUNT ROOM.



MAINE YANKEE ATOMIC POWER COMPANY

OUTSIDE CONTROL AREA

LUDLUM MODEL 3

COUNTER 60769 / 60781 INST. TYPE & NO. N/A DATE 7-25-89

EFF. 10% / 10% TIME 0700 - 1530

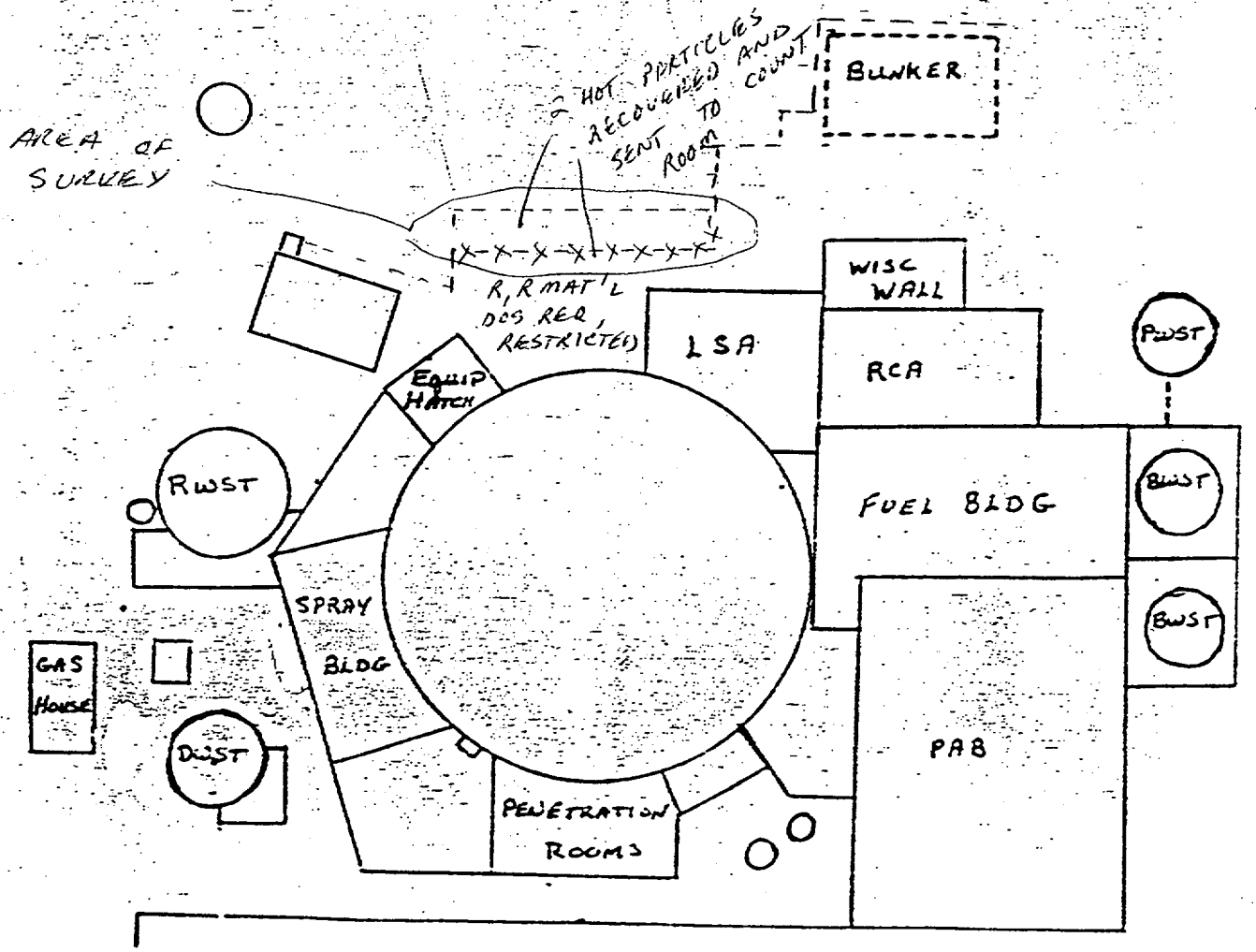
BKG. 700-2800 / 700-2800 CPM TECH. MAINES / BOURREAU

NOTE: All Dose Rates in MR/HR. All Contamination Readings in DPM/100cm^2.

- - - - BOUNDARY AS FOUND

-X-X-X- BOUNDARY AS LEFT

NOTE: AREA RELEASED BY DIRECT FRISK. ALL AREAS RELEASED < 500 CCPM. 2 HOT PARTICLES REMOVED AND SENT TO COUNT ROOM.



HSA ID# 62

62

SAND GRAVEL AND SLUDGE SAMPLE DATA SHEET

Sample Obtained From: Water From Vacuum Cleaner Spill (REENACTMENT) original in LSA Sump

Tech Name: Miskimen Sample Time: Date:

Dose Rate or CCPM: BKG

Meter Used and Serial No. GM-4 #5595

Container Description/Geometry: 20 ml VIAL

Dispostion of Item Sampled:

Supervisor Approval: Date:

20 Smears taken 15 in S.S.A Building <1000 dpm/100cm$_2$ (Wet) 5 On and around outside drain <1000 dpm/100cm$_2$
Dose Rate around area <2mR/HR

Most of the orignal water when into S.S.A. Building. Which was cleaned into S.S.A. Sump. About ½ gallon of water when into Outside Drain/per J. Dunick

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                                                                    *
       G A M M A   S P E C T R U M   A N A L Y S I S                *
                                                                    *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

ERRA SPECTRAN-F V4.1
                                                  16-NOV-89  12:20:00
E YANKEE

              A N A L Y S I S   P A R A M E T E R S

Unit Number:     2      /      ADC Unit Number:   4.0
ctor Number:     4      /      Geometry Number:     3
trum Size:   4096 channels from MCA Region FULL
t channel for Search:        0
r of Smoothing Function:   5
er of Background Channels:  4 on each side of peak.
 Confidence Factor: 75.0%
iplet Sensitivity:   3
tification Energy Window: +- 1.00 keV.
r Quotation: 1.00 sigma uncertainty.

ronmental Background Subtracted.
Calculation Performed.
ured Energy Differences Listed.
iplet Analysis Performed.

     Output.
       data read directly from Multichannel Analyzer AN1
    , by:         RS

ple Description: VAC SPILL WATER
metry Description:  20 ML LIQUID IN SCINT VIAL
ple Size:   2.0000E+01 ML        / Conversion Factor: 1.0000E+00
ndard Size: 1.0000E+00 EA
lysis Library file: ANL000

LECT started on 16-NOV-89 at 11:57:52

LECT Live Time:     1000. seconds
     Real Time:     1317. seconds
     Dead Time:     24.07 %

cayed to       0. days,  0.0167 hours BEFORE the start of COLLECT

rgy Calibration performed 15-NOV-89
iciency Calibration performed 10-JUL-89
```

MAINE YANKEE 16-NOV-89 12:20:00

Sample: VAC SPILL WATER
Data collected on 16-NOV-89 at 11:57:52
Decayed to 0. days, 0.0167 hours BEFORE the start of COLLECT.

R A D I O N U C L I D E A N A L Y S I S R E P O R T

Nuclide	Activity Concentration in uCi/ML				Energy Comparison (keV)	
	Measured	Error	Decay corrected	Error	Expect	Diff
AG-110M	LLD<1.38E-05		LLD<1.38E-05		657.74	
AR-41	LLD<1.32E-05		LLD<1.33E-05		1293.60	
BA-139	LLD<2.17E-05		LLD<2.19E-05		165.85	
BA-140	LLD<3.54E-05		LLD<3.54E-05		537.33	
BA-141	LLD<6.69E-06		LLD<6.95E-06		190.33	
BE-7	LLD<6.20E-05		LLD<6.20E-05		477.59	
BR-84	LLD<1.73E-05		LLD<1.74E-05		881.59	
CD-109	LLD<1.72E-04		LLD<1.72E-04		88.04	
CE-139	LLD<4.72E-06		LLD<4.72E-06		165.85	
CE-141	LLD<8.66E-06		LLD<8.66E-06		145.44	
CE-144	LLD<4.39E-05		LLD<4.39E-05		133.53	
CO-57	LLD<6.02E-06		LLD<6.02E-06		122.06	
CO-58	LLD<1.15E-05		LLD<1.15E-05		810.76	
CO-60	1.52E-04	+- 1.71E-05	1.52E-04	+- 1.71E-05	1332.46	-0.08
					1173.21	-0.14
CR-51	LLD<6.13E-05		LLD<6.13E-05		320.08	
CS-134	LLD<1.33E-05		LLD<1.33E-05		795.81	
CS-136	LLD<9.79E-06		LLD<9.79E-06		818.50	
CS-137	1.57E-05	+- 9.01E-06	1.57E-05	+- 9.01E-06	661.64	0.20
CS-138	LLD<2.42E-05		LLD<2.48E-05		1435.79	
I	LLD<4.85E-06		LLD<4.98E-06		511.01	
F 9	LLD<2.99E-05		LLD<2.99E-05		1099.22	
HG-203	LLD<6.88E-06		LLD<6.88E-06		279.19	
I-131	LLD<8.01E-06		LLD<8.01E-06		364.46	
I-132	LLD<1.55E-05		LLD<1.56E-05		667.68	
I-133	LLD<9.30E-06		LLD<9.31E-06		529.89	
I-134	LLD<1.42E-05		LLD<1.44E-05		847.02	
I-135	LLD<4.29E-05		LLD<4.30E-05		1260.41	
K-40	4.70E-04	+- 1.71E-04	4.70E-04	+- 1.71E-04	1460.73	0.12
KR-85	LLD<2.35E-03		LLD<2.35E-03		514.00	
KR-85M	LLD<6.08E-06		LLD<6.10E-06		151.18	
KR-87	LLD<1.65E-05		LLD<1.67E-05		402.58	
KR-88	LLD<1.27E-05		LLD<1.28E-05		196.10	
KR-89	LLD<1.20E-04		LLD<1.49E-04		220.90	
LA-140	LLD<1.72E-05		LLD<1.72E-05		1596.60	
LA-142	LLD<2.16E-05		LLD<2.18E-05		641.26	
MN-54	1.44E-05	+- 8.88E-06	1.44E-05	+- 8.88E-06	834.83	0.02
MN-56	LLD<1.25E-05		LLD<1.25E-05		846.60	
MO-99	LLD<4.93E-06		LLD<4.93E-06		140.51	
NA-24	LLD<1.03E-05		LLD<1.03E-05		1368.60	
NB-95	LLD<1.06E-05		LLD<1.06E-05		765.79	
NB-97	LLD<1.46E-05		LLD<1.47E-05		658.17	
NP-239	LLD<2.10E-05		LLD<2.10E-05		106.40	
RB-88	LLD<5.70E-05		LLD<5.93E-05		1836.02	
RB-89	LLD<3.32E-05		LLD<3.47E-05		1031.94	
106	LLD<1.11E-04		LLD<1.11E-04		621.80	
RU 103	LLD<7.39E-06		LLD<7.39E-06		497.08	
S 22	LLD<1.33E-05		LLD<1.33E-05		564.10	
SB-124	LLD<9.99E-06		LLD<9.99E-06		602.71	
SB-125	LLD<2.48E-05		LLD<2.48E-05		427.86	
SE-75	LLD<9.18E-06		LLD<9.18E-06		264.67	

N-113	LLD<9.90E-06		LLD<9.90E-06	391.69	
R-85	LLD<1.04E-05		LLD<1.04E-05	514.00	
R-91	LLD<4.48E-05		LLD<4.49E-05	1024.27	
R-92	7.15E-06	+- 9.41E-06	7.18E-06 +- 9.45E-06	1386.00	-0.40
C-99M	LLD<5.95E-06		LLD<5.96E-06	140.51	
E-131	LLD<5.81E-06		LLD<5.97E-06	149.80	
[illegible]1M	LLD<2.41E-05		LLD<2.41E-05	773.70	
E[illegible]2	LLD<5.28E-06		LLD<5.28E-06	228.30	
E-133M	LLD<1.40E-05		LLD<1.42E-05	912.58	
E-134	LLD<1.54E-05		LLD<1.57E-05	79.50	
-187	LLD<2.84E-05		LLD<2.85E-05	685.72	
E-127	LLD<6.41E-06		LLD<6.41E-06	202.84	
E-131M	LLD<2.44E-04		LLD<2.44E-04	163.98	
E-133	LLD<1.74E-05		LLD<1.74E-05	81.00	
E-133M	LLD<4.52E-05		LLD<4.52E-05	233.19	
E-135	LLD<5.42E-06		LLD<5.43E-06	249.74	
E-135M	LLD<1.33E-05		LLD<1.39E-05	526.80	
E-138	LLD<2.33E-05		LLD<2.42E-05	258.30	
-88	LLD<1.52E-05		LLD<1.52E-05	898.02	
-91M	LLD<1.65E-05		LLD<1.67E-05	555.62	
-92	LLD<1.05E-04		LLD<1.05E-04	934.00	
-93	LLD<9.71E-05		LLD<9.72E-05	267.00	
-94	LLD<4.84E-05		LLD<5.01E-05	920.00	
N-65	LLD<3.45E-05		LLD<3.45E-05	1115.50	
R-95	LLD<1.98E-05		LLD<1.98E-05	756.71	
R-97	LLD<1.28E-05		LLD<1.28E-05	743.41	
Total	6.60E-04	+- 1.73E-04	6.60E-04 +- 1.73E-04		

Standard Deviation = 0.22

EBAR = 2.29 MeV/Disintegration
Max Permissable Activity = 0.00E-01 uCi/ML
Total Measured Activity = 1.90E-04 (+-2.32E-05) uCi/ML

Error Quotation at 1.00 Sigma
LLD Confidence Level at 75.0%

HSA ID# 63

63

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

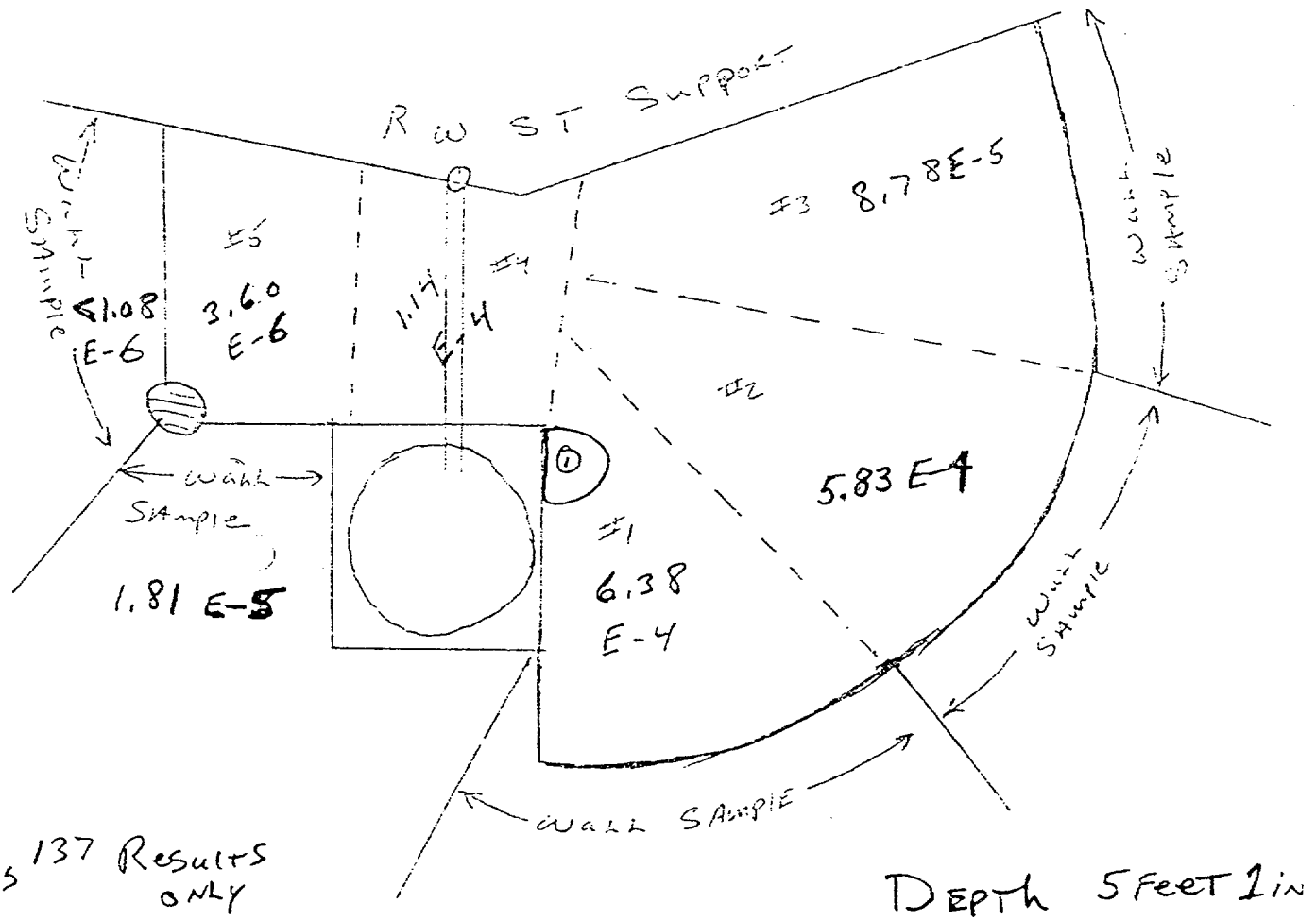
Counter GeLI Inst. Type & No. — Date 6-7-88

Eff. / Time 1500

Bkg. / Tech. CAY/SAC

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item RWST AREA



Cs^{137} Results only

Depth 5 Feet 1 in

① Rock Sample Location.
Depth ≈ 6' ~~6~~"
1.12E-4

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*                                                                        *
*         G A M M A   S P E C T R U M   A N A L Y S I S                  *
*                                                                        *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

CANBERRA SPECTRAN-F V2.00  SOFTWARE

MAINE-YANKEE                                          07-JUN-88  15:17:43

              A N A L Y S I S   P A R A M E T E R S

MCA UNIT NUMBER:   2 / DETECTOR NUMBER:    3 / GEOMETRY NUMBER:   4
ADC UNIT NUMBER: 3.0
SPECTRUM SIZE:  4096 CHANNELS
ORDER OF SMOOTHING FUNCTION:     5
NUMBER OF BACKGROUND CHANNELS:  4 ON EACH SIDE OF PEAK
PEAK CONFIDENCE FACTOR: 95.0%
IDENTIFICATION ENERGY WINDOW: +- 1.00 KEV
ERROR QUOTATION: 1.00 SIGMA UNCERTAINTY

ENVIRONMENTAL BACKGROUND SUBTRACTED
LLD CALCULATION PERFORMED
MEASURED ENERGY DIFFERENCES LISTED
MULTIPLET ANALYSIS PERFORMED


 ICTRAL DATA READ DIRECTLY FROM MULTICHANNEL ANALYZER AN1:
 MPLE DESCRIPTION: RWST SAND AREA #1
ANALYZED BY:        CAY
SAMPLE SIZE:   1.0000E+03 CC        / CONVERSION FACTOR: 1.0000E+00
STANDARD SIZE: 1.0000E+00 EA
ANALYSIS LIBRARY FILE: ANL000

COLLECT STARTED ON  7-JUN-88 AT 15:09:06

COLLECT LIVE TIME:      500. SECONDS
        REAL TIME:      509. SECONDS
        DEAD TIME:      1.77 %

 DECAYED TO       0. DAYS,  0.0167 HOURS BEFORE THE START OF COLLECT

ENERGY CALIBRATION PERFORMED  7-JUN-88
EFFICIENCY CALIBRATION PERFORMED 19-JAN-87
```

ALL DETECTED PEAKS WERE USED IN THE ANALYSIS

MAINE-YANKEE 07-JUN-88 15:17:45

SAMPLE:

MAXIMUM PERMISSIBLE CONCENTRATION

NUCLIDE	ACTIVITY (UC/CC)	MPC (UC/CC)	MPC-HR/HR
CO-60	6.04E-06	9.00E-09	671.16
CS-134	6.09E-06	1.00E-08	609.43
CS-137	6.38E-04	1.00E-08	63787.98
		TOTAL	65068.59

MPC VALUES FOR AIR 40HR/WK
MPC UNITS CONVERSION FACTOR = 1.00E+00

NO DOSE EQUIVALENT I-131 VALUES LISTED FOR IDENTIFIED NUCLIDES.

GAMMA SPECTRUM ANALYSIS

CANBERRA SPECTRAN-F V2.00 SOFTWARE

MAINE-YANKEE 07-JUN-88 15:42:16

ANALYSIS PARAMETERS

MCA UNIT NUMBER: 2 / DETECTOR NUMBER: 3 / GEOMETRY NUMBER: 4
ADC UNIT NUMBER: 3.0
SPECTRUM SIZE: 4096 CHANNELS
ORDER OF SMOOTHING FUNCTION: 5
NUMBER OF BACKGROUND CHANNELS: 4 ON EACH SIDE OF PEAK
PEAK CONFIDENCE FACTOR: 95.0%
IDENTIFICATION ENERGY WINDOW: +- 1.00 KEV
ERROR QUOTATION: 1.00 SIGMA UNCERTAINTY

ENVIRONMENTAL BACKGROUND SUBTRACTED
LLD CALCULATION PERFORMED
MEASURED ENERGY DIFFERENCES LISTED
MULTIPLET ANALYSIS PERFORMED

SPECTRAL DATA READ DIRECTLY FROM MULTICHANNEL ANALYZER AN1:
SAMPLE DESCRIPTION: RWSTFLOOR #2
ANALYZED BY: SAC
SAMPLE SIZE: 1.0000E+03 ML / CONVERSION FACTOR: 1.0000E+00
STANDARD SIZE: 1.0000E+00 EA
ANALYSIS LIBRARY FILE: ANL000

COLLECT STARTED ON 7-JUN-88 AT 15:33:38

COLLECT LIVE TIME: 500. SECONDS
REAL TIME: 509. SECONDS
DEAD TIME: 1.77 %

DECAYED TO 0. DAYS, 0.5606 HOURS BEFORE THE START OF COLLECT

ENERGY CALIBRATION PERFORMED 7-JUN-88
EFFICIENCY CALIBRATION PERFORMED 18-JAN-87

MAINE-YANKEE 07-JUN-88 15:42:16

SAMPLE:

MAXIMUM PERMISSIBLE CONCENTRATION

NUCLIDE	ACTIVITY (UC/ML)	MPC (UC/CC)	MPC-HR/HR
CS-134	6.98E-06	1.00E-08	697.86
CS-137	5.83E-04	1.00E-08	58327.76
		TOTAL	59025.62

MPC VALUES FOR AIR 40HR/WK
MPC UNITS CONVERSION FACTOR = 1.00E+00

NO DOSE EQUIVALENT I-131 VALUES LISTED FOR IDENTIFIED NUCLIDES.

GAMMA SPECTRUM ANALYSIS

CANBERRA SPECTRAN-F V2.00 SOFTWARE

MAINE-YANKEE 07-JUN-88 17:46:30

ANALYSIS PARAMETERS

ADA UNIT NUMBER: 2 / DETECTOR NUMBER. 3 / GEOMETRY NUMBER: 1
ADC UNIT NUMBER: 2.0
SPECTRUM SIZE: 4096 CHANNELS
ORDER OF SMOOTHING FUNCTION: 3
NUMBER OF BACKGROUND CHANNELS: 4 ON EACH SIDE OF PEAK
PEAK CONFIDENCE FACTOR: 75.0%
IDENTIFICATION ENERGY WINDOW: +- 1.00 KEV
ERROR QUOTATION: 1.00 SIGMA UNCERTAINTY

ENVIRONMENTAL BACKGROUND SUBTRACTED
LLD CALCULATION PERFORMED
MEASURED ENERGY DIFFERENCES USED
MULTIPLET ANALYSIS PERFORMED

SPECTRAL DATA READ DIRECTLY FROM MULTICHANNEL ANALYZER ANI:
SAMPLE DESCRIPTION: RWST SAND AREA #4
ANALYZED BY: CAY
SAMPLE SIZE: 1.0000E+03 CC / CONVERSION FACTOR: 1.0000E+00
STANDARD SIZE: 1.0000E+00 EA
ANALYSIS LIBRARY FILE: ANL000

COLLECT STARTED ON 7-JUN-88 AT 17:37:56

COLLECT LIVE TIME: 500. SECONDS
REAL TIME: 502. SECONDS
DEAD TIME: 0.40 %

DECAYED TO 0. DAYS, 0.0167 HOURS BEFORE THE START OF COLLECT

ENERGY CALIBRATION PERFORMED 7-JUN-88
EFFICIENCY CALIBRATION PERFORMED 18-JAN-87

MAINE-YANKEE 07-JUN-88 17:46:30

'LE:

MAXIMUM PERMISSIBLE CONCENTRATION

NUCLIDE	ACTIVITY (UC/CC)	MPC (UC/CC)	MPC-HR/HR
CS-137	1.14E-04	1.00E-08	11418.35
K-40	2.44E-05	3.00E-09	8145.67
SB-125	1.50E-05	3.00E-08	499.72
		TOTAL	20063.74

MPC VALUES FOR AIR 40HR/WK
MPC UNITS CONVERSION FACTOR = 1.00E+00

NO DOSE EQUIVALENT I-131 VALUES LISTED FOR IDENTIFIED NUCLIDES.

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* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*                                                                       *
*              G A M M A   S P E C T R U M   A N A L Y S I S            *
*                                                                       *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

CANBERRA SPECTRAN-F V2.00  SOFTWARE

Maine Yankee Atomic Power (user Chem)                07-JUN-88  14:38:57

                    A N A L Y S I S   P A R A M E T E R S

MCA UNIT NUMBER:    2 / DETECTOR NUMBER:     3 / GEOMETRY NUMBER:    4
ADC UNIT NUMBER: 3.0
SPECTRUM SIZE:  4096 CHANNELS
ORDER OF SMOOTHING FUNCTION:      5
NUMBER OF BACKGROUND CHANNELS:  4 ON EACH SIDE OF PEAK
PEAK CONFIDENCE FACTOR: 95.0%
IDENTIFICATION ENERGY WINDOW: +- 1.00 KEV
ERROR QUOTATION: 1.00 SIGMA UNCERTAINTY

ENVIRONMENTAL BACKGROUND SUBTRACTED
LLD CALCULATION PERFORMED
MEASURED ENERGY DIFFERENCES LISTED
MULTIPLET ANALYSIS PERFORMED


SPECTRAL DATA READ DIRECTLY FROM MULTICHANNEL ANALYZER AN1:
SAMPLE DESCRIPTION: RWST SAND WALL #5
 NALYZED BY:          SAC
SAMPLE SIZE:    1.0000E+03 ML         / CONVERSION FACTOR: 1.0000E+00
STANDARD SIZE: 1.0000E+00 EA
ANALYSIS LIBRARY FILE: ANL000

COLLECT STARTED ON  7-JUN-88 AT 14:30:30

COLLECT LIVE TIME:      500. SECONDS
        REAL TIME:      500. SECONDS
        DEAD TIME:    00.00 %

 DECAYED TO       0. DAYS,  1.5085 HOURS BEFORE THE START OF COLLECT

ENERGY CALIBRATION PERFORMED  7-JUN-88
EFFICIENCY CALIBRATION PERFORMED 18-JAN-87
```

SAMPLE:

MAXIMUM PERMISSIBLE CONCENTRATION

NUCLIDE	ACTIVITY (UC/ML)	MPC (UC/CC)	MPC-HR/HR
CS-137	1.81E-05	1.00E-08	1810.56
SB-125	9.91E-06	3.00E-08	330.42
		TOTAL	2140.97

MPC VALUES FOR AIR 40HR/WK
MPC UNITS CONVERSION FACTOR = 1.00E+00

NO DOSE EQUIVALENT I-131 VALUES LISTED FOR IDENTIFIED NUCLIDES.

MY-HP-161-83

QA 5/31/88 83

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

Counter BC4#132 Inst. Type & No. E520#3546 Date 27 MAY 88

Eff. 23.5 % Time 1100

Bkg. 52 cpm Tech. MKR

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/~~Item~~ RWST SIPHON HTR

REMOVED TWO LAYERS OF ASPHALT IN A STRIP ~ ONE FOOT WIDE UNDER SUPPLY/RETURN PIPING TO RWST SIPHON HTR. THIS WAS ~ 4" THICKNESS OF ASPHALT

A ONE ~~SPOTTED~~ LITER SOIL SAMPLE FROM THIS AREA STILL READS 20 MR/HR.

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

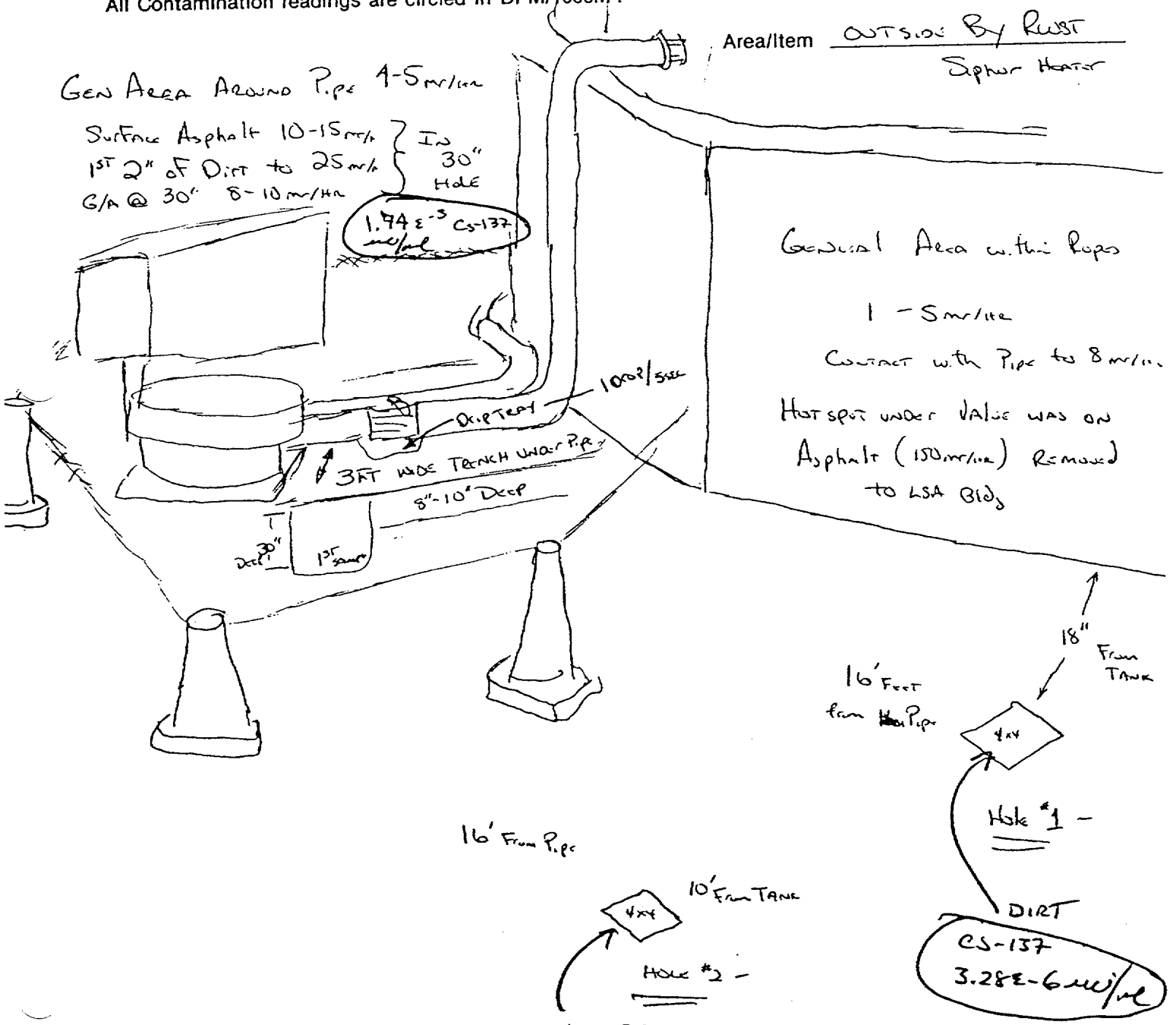
Counter N/A Inst. Type & No. E-520 #3546 Date 28 MAY 88

Eff. _____ Time 1400

Bkg. _____ Tech. SCHOPPMEYER
Sealing / Reading

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item OUTSIDE By RWST
Spent Heater



* *

G A M M A   S P E C T R U M   A N A L Y S I S

* *

CANBERRA SPECTRAN-F V2.00 SOFTWARE

MAINE YANKEE ATOMIC POWER COMPANY 28-MAY-88 14:15:36

A N A L Y S I S   P A R A M E T E R S

MCA UNIT NUMBER: 1 / DETECTOR NUMBER: 1 / GEOMETRY NUMBER: 1
ADC UNIT NUMBER: 1.1
SPECTRUM SIZE: 4096 CHANNELS
ORDER OF SMOOTHING FUNCTION: 5
NUMBER OF BACKGROUND CHANNELS: 4 ON EACH SIDE OF PEAK
PEAK CONFIDENCE FACTOR: 95.0%
IDENTIFICATION ENERGY WINDOW: +- 1.00 KEV
ERROR QUOTATION: 1.00 SIGMA UNCERTAINTY

ENVIRONMENTAL BACKGROUND SUBTRACTED
MEASURED ENERGY DIFFERENCES LISTED
MULTIPLET ANALYSIS PERFORMED

SPECTRAL DATA READ DIRECTLY FROM MULTICHANNEL ANALYZER ONLY
SAMPLE DESCRIPTION: RWST Soil @ 30" Below Grade
ANALYZED BY: MCR
SAMPLE SIZE: 1.4400E-01 GM / CONVERSION FACTOR: 1.0000E-00
STANDARD SIZE: 1.0000E+00 EA
ANALYSIS LIBRARY FILE: ANL000

COLLECT STARTED ON 28-MAY-88 AT 14:07:08

COLLECT LIVE TIME: 600. SECONDS
REAL TIME: 602. SECONDS
DEAD TIME: 0.40 %

DECAYED TO 1. DAYS, 0.0167 HOURS BEFORE THE START OF COLLECT

ENERGY CALIBRATION PERFORMED 27-MAY-88
EFFICIENCY CALIBRATION PERFORMED 07-JUN-86

YANKEE ATOMIC POWER COMPANY 28-MAY-88 14:15:08

PLE: RWST
A COLLECTED ON 28-MAY-88 AT 14:07:08
ECAYED TO 0. DAYS. 0.0167 HOURS BEFORE THE START OF COLLECT.

R A D I O N U C L I D E A N A L Y S I S R E P O R T

NUCLIDE	ACTIVITY CONCENTRATION IN UC/CM		DECAY CORRECTED		ENERGY (KEV)	
	MEASURED	ERROR	CORRECTED	ERROR	EXPECT	DIFF
CS-137	1.74E-03	+-2.5E-05	1.74E-03	+-2.5E-05	661.61	-0.15
TOTAL	1.74E-03	+-2.5E-05	1.74E-03	+-2.5E-05		

EBAR = 0.80 MEV/DISINTEGRATION
MAXIMUM PERMISSABLE ACTIVITY = 1.0E+02 UC/CM
TOTAL MEASURED ACTIVITY = 1.74E-03 (+-2.5E-05) UC/CM
% TECH. SPEC. = 0.00 (+-0.00

ERROR QUOTATION AT 1.00 SIGMA

ALL DETECTED PEAKS WERE USED IN THE ANALYSIS

MY-HP-131-33

63

MAINE YANKEE ATOMIC POWER COMPANY

GENERAL SURVEY FORM

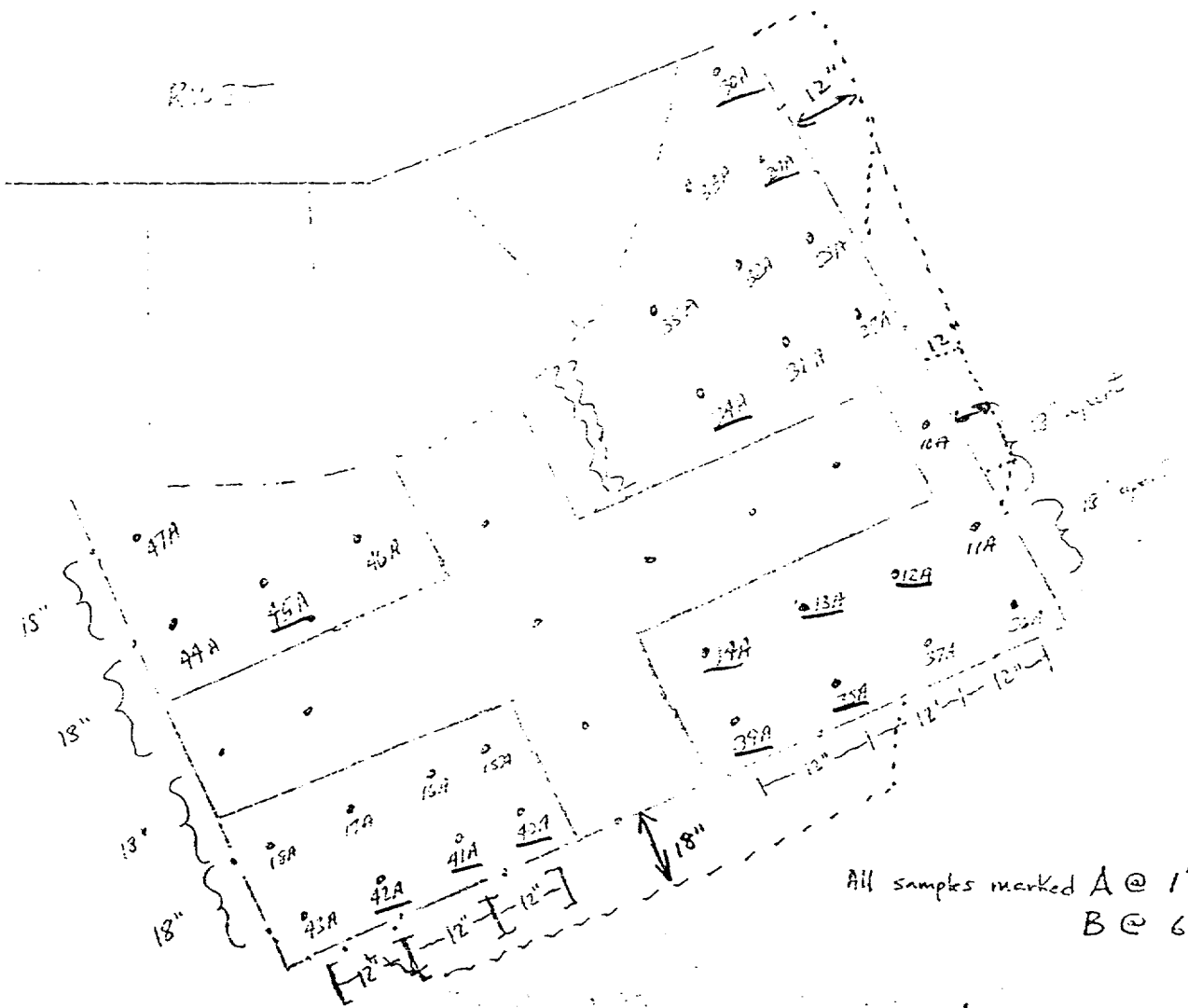
Counter _____ Inst. Type & No. _____ Date 24 June 83

Ent. _____ Time 0815-

Bldg. _____ Tech. S. CURTIS

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are stated in DPM/100cm²

Area/Item EAST MAIN SUMP



All of these "A" series sampled @ 1" below TAR

SAMPLE TIME	I.D. #	WEIGHT, g	GROSS ACTIVITY μCi/g	Cs-137	
8.	11 A	330	1.5E-5	1.5E-5	
830	12 A	900	5.99E-5	5.8E-5	*
30	13A	680	7.43E-5	7.2E-5	*
30	14A	667	9.2E-5	8.5E-5	*
300	15A ✓	747	3.0E-5	2.2E-5	
00	16A ✓	692	1.7E-5	1.4E-5	
803	17A ✓	800	6.8E-6	6.8E-6	
300	18A ✓	800	6.5E-6	4.1E-6	
	27A ✓	870	6.8E-5	2.0E-5	
	28A ✓	670	2.74E-5	7.8E-6	
	29A ✓	660	1.26E-4	8.8E-5	*
	30A ✓	660	1.14E-4	9.5E-5	*
	31A ✓	760	2.9E-5	1.4E-5	
	32A ✓	705	2.6E-5	1.1E-5	
	33A ✓	690	3.59E-5	1.8E-5	
	34A ✓	760	9.77E-5	7.2E-5	*
	35A ✓	660	1.2E-5	6.2E-6	
	36A ✓	920	5.4E-6	5.4E-6	
45	37A ✓	770	2.0E-5	2.0E-5	
	38A ✓	795	4.8E-5	4.6E-5	*
	39A ✓	740	3.0E-5	2.9E-5	*
	40A ✓	695	5.8E-5	5.2E-5	*
	41A ✓	750	2.7E-5	2.6E-5	*
	42A ✓	795	1.6E-4	1.6E-4	*
	43A ✓	750	1.8E-5	1.8E-5	
	44A ✓	790	1.4E-5	1.4E-5	
	45A ✓	850	5.5E-5	5.0E-5	*
	46A ✓	790	2.9E-5	2.1E-5	
	47A ✓	840			

Ave 3.74 μci/g.

n = 28

MY-HP-161-83

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

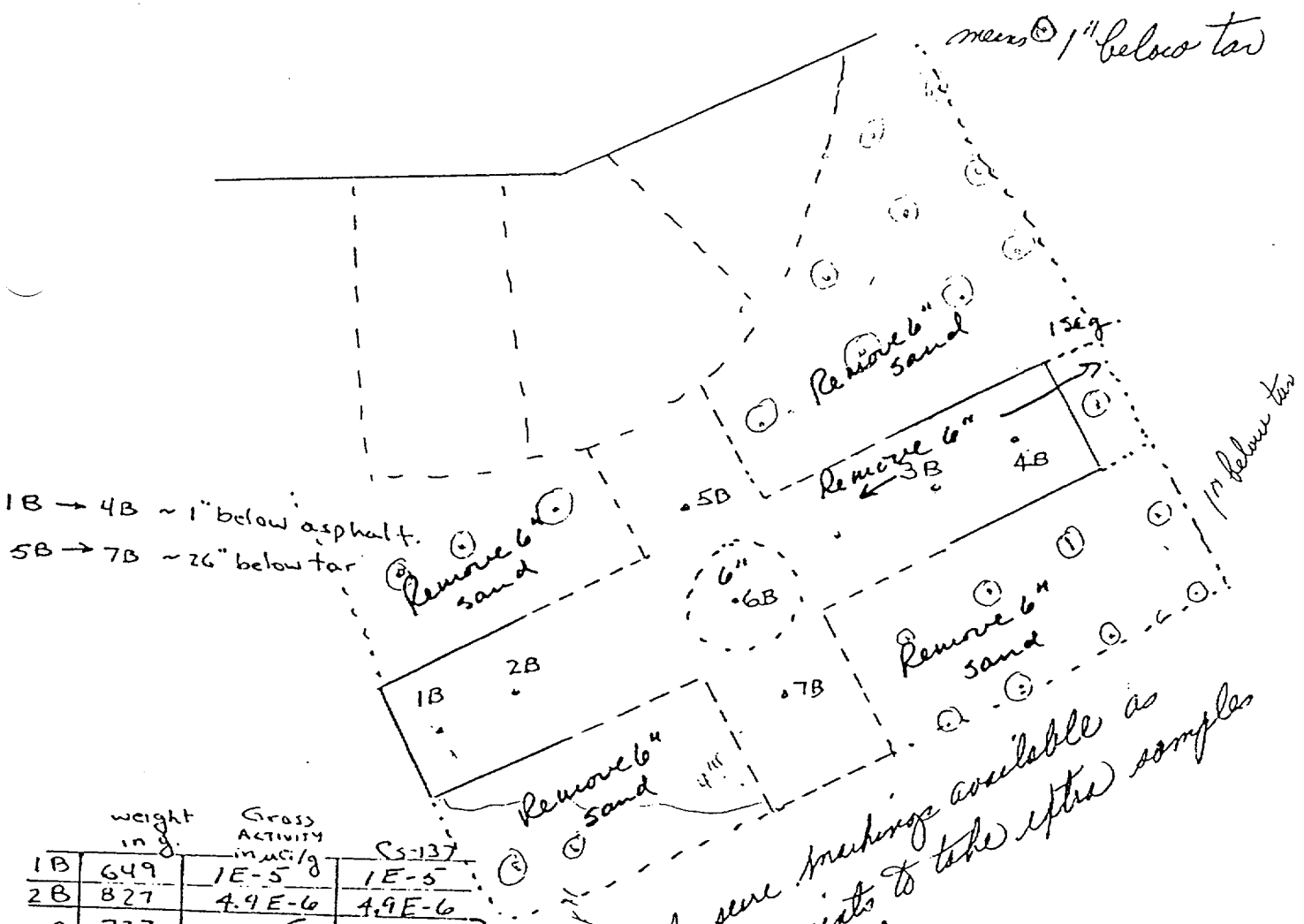
Counter NA Inst. Type & No. NA Date 6-22-88

Eff. NA Time 1430

Bkg. NA Tech. LANGDON

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item RWST SAND SAMPLES



	weight in g.	Gross Activity in μCi/g	Cs-137
1B	649	1E-5	1E-5
2B	827	4.9E-6	4.9E-6
3	727	3E-6	3E-6
4	686	3E-5	3E-5
5B	708	8.8E-6	8.8E-6
6B	690	5.5E-5	5E-5
7B	679	5E-6	5E-6

MY-HP-161-83

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

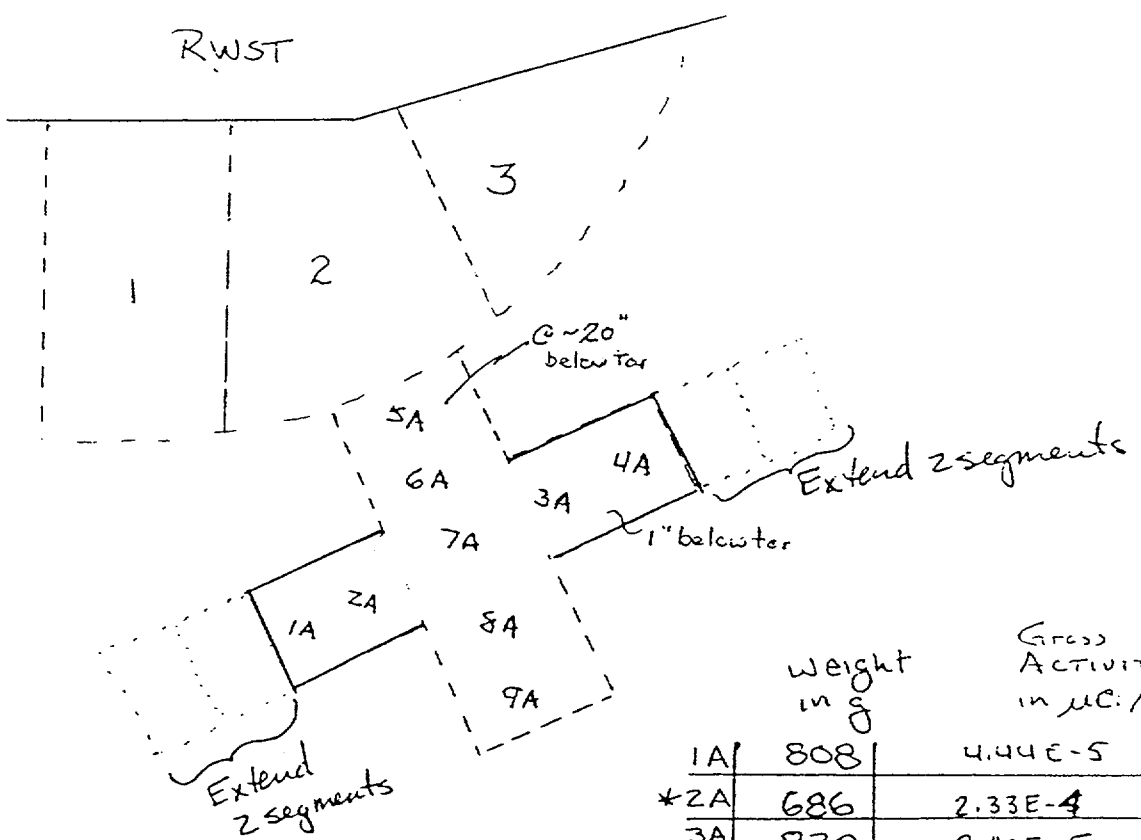
Counter NA Inst. Type & No. NA Date 6-21-88

Eff. NA Time 1330

Bkg. NA Tech. LANGDON

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item _____



	Weight in g	Gross Activity in μCi/g	Cs-137
1A	808	4.44E-5	3.7E-5
*2A	686	2.33E-4	2E-4
3A	830	9.40E-5	7.9E-5
4A	733	6.41E-5	6E-5
5A	790	2.5E-5	1.8E-5
*6A	811	1.69E-4	1.6E-4
*7A	684	9.6E-5	9E-5
*8A	797	2.6E-5	2.6E-5
9A	841	4.9E-6	4.9E-6

Remove 6", resample

MPC_w Cs-137 = 2E-5

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

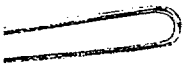
Counter N/A Inst. Type & No. N/A Date 6-20-88

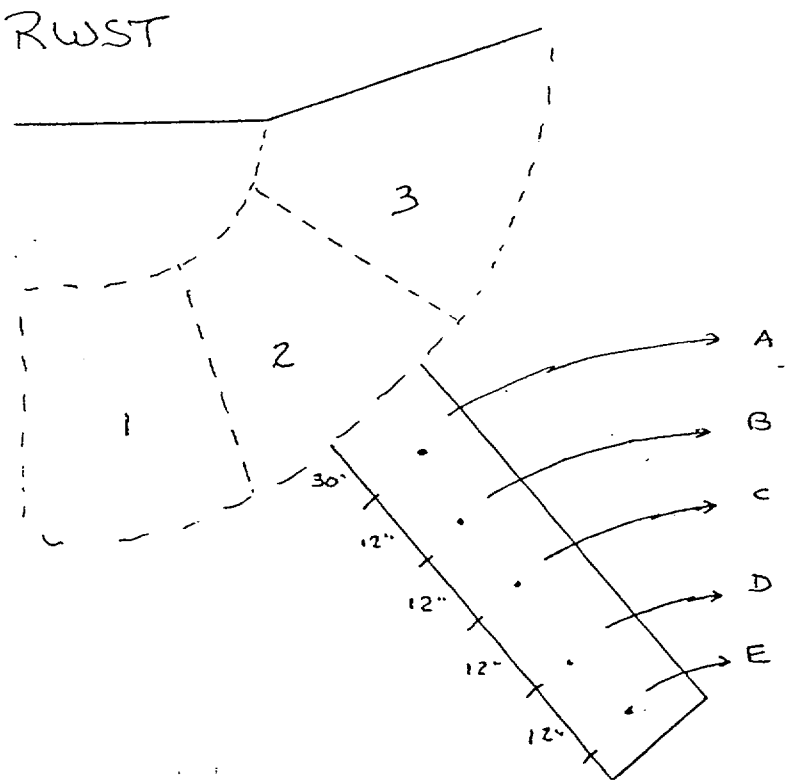
Eff. ↓ Time 1645

Bkg. Tech. LANGDON/ZICMAN

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item RWST SAND Samples @ ~ 13" below Tar.



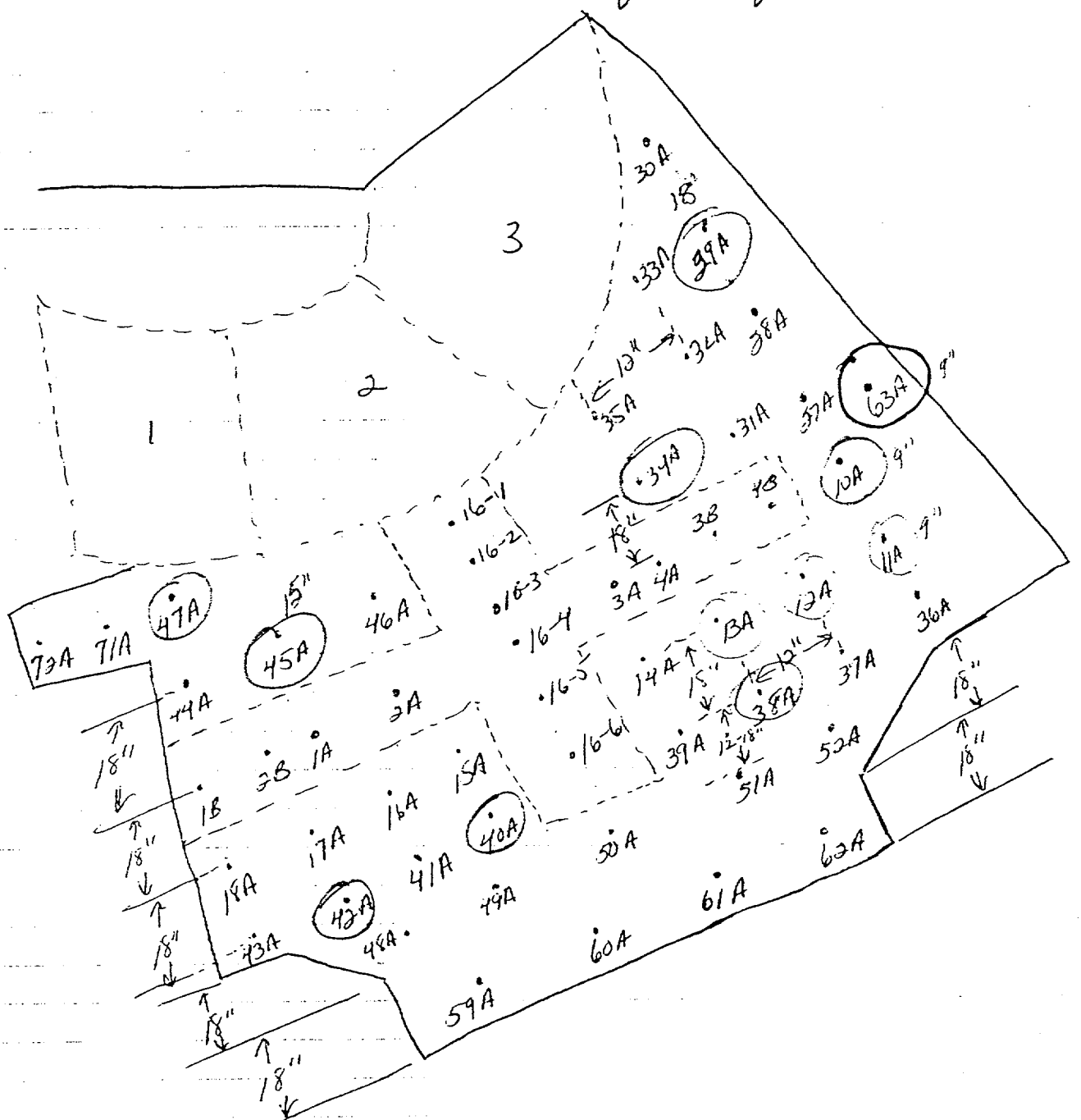


Weight in g.	Activity uCi/g Cs-137	Activity uCi/g Gross
695	1.05E-4	1.17E-4
706	4E-5	5.67E-5
767	9E-5	9.74E-5
712	4.4E-5	4.9E-5
812	1.79E-5	2.1E-5

All other nuclides are ≤ 1/10 MPC values except sample "A" for Co-60 (15%) and Cs-134 (11%).

MPC_w Cs-137 = 2E-5

7/5/88 Compilation of Sandpile Results



#	depth	wt (g)	gross μg/g	Cs-137 μC/g
42B	6"			
40B				
38B				
13B				
12B		944.9	7.36E-5	6.59E-5
11B				
10B		103.60		
34B				
39B				
45A	6"			
47A	"			

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

Counter _____ Inst. Type & No. Ge Li Date 7/6/88

Eff. _____ Time 1430

Bkg. _____ Tech. CBenar

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².
counted on Det #3 and Det #2

Area/Item dirt samples from RWST

#	depth (in)	wt (g)	gross (μCi/g)	Cs-137 (μCi/g)	
42B	6	966.3	4.91E-5	3.37E-5	*
- 40B	6	959.1	4.71E-5	6.21E-5	*
38B	6	825.2	3.12E-5	1.19E-5	
- 34B	6	985.6	1.37E-5	6.60E-6	
- 63B	9	944.1	2.25E-5	3.03E-6	
- 11B	9	999.2	2.17E-5	7.02E-6	
- 45B	15	941.4	~~941.4~~ C3 2.42E-5	1.79E-5	
- 29B	18	899	~~4.77E-5~~ 5.51E-5 MCR	~~2.23E-5~~ 2.21E-5 MCR	*
12B	6	944.9	7.36E-5	6.59E-5	*
13B	6	989.0	8.76E-5	7.48E-5	*
- 47B	6	1039.5	4.72E-5	2.23E-5	*
10B	9	1031.0	1.75E-5	4.86E-6	

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

Counter _____ Inst. Type & No. _____ Date 7/7/88

Eff. _____ Time _____

Bkg. _____ Tech. Bever

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item _____

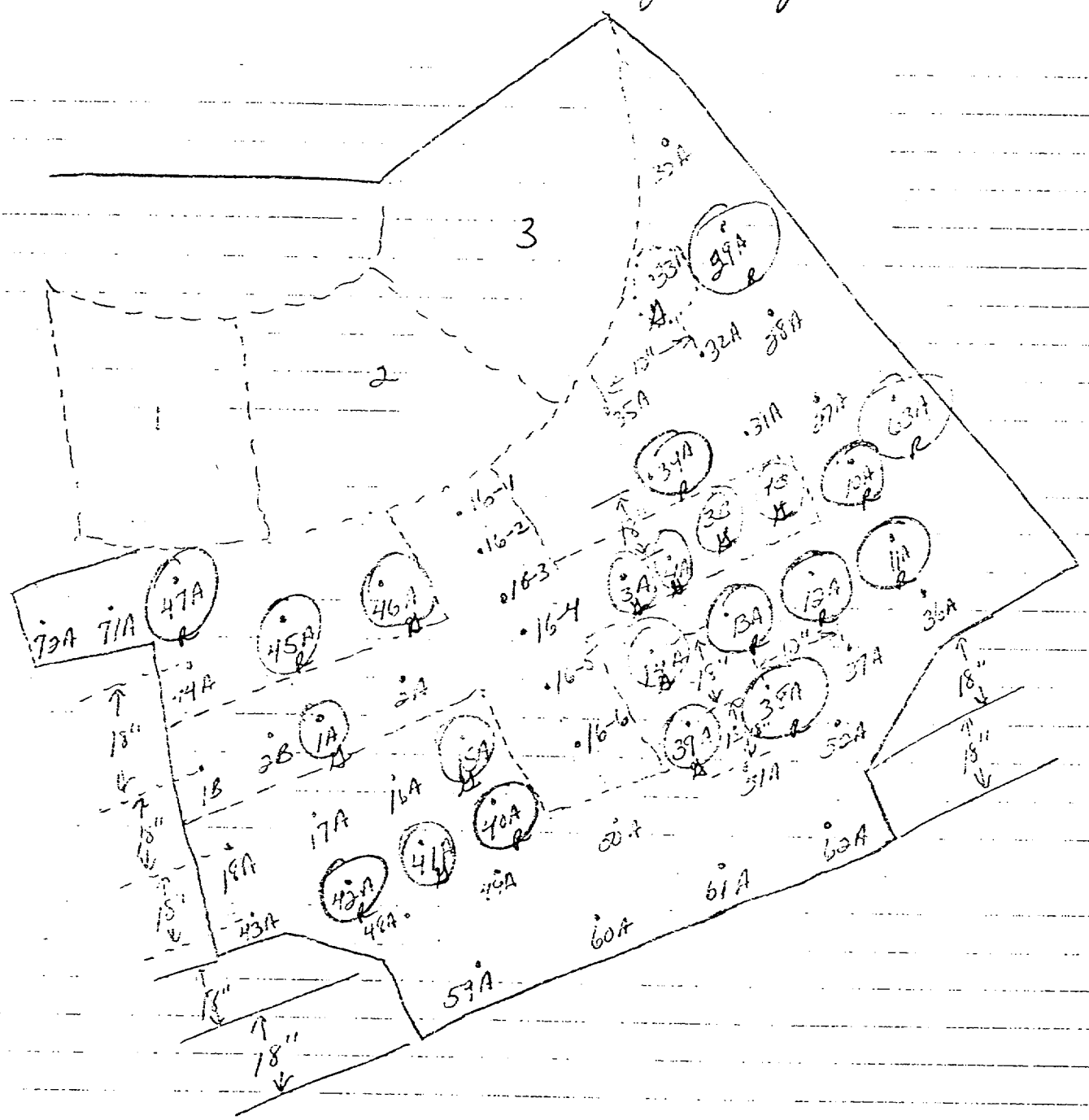
refer to sheet #1

#	wt(g)	gross(μC/g)	Cs-137 (μC/g)	Depth of
140C	754.3	2.00E-5	5.64E-6	18"
42C	726.3	1.52E-5	MDA	18"
47C	792.8	2.60E-5	MDA	18"
29C	871.0	1.33E-5	4.61E-6	30-34"
12C	951.2	1.27E-5	MDA	18"
13C	885.8	3.90E-6	3.9CE-6	15"
*4C	740.0	3.55E-5	2.83E-5	*6-9"
14C	803.2	5.13E-6	5.13E-6	18"
15C	828.0	2.10E-5	4.21E-6	18"
1C	746.6	1.74E-5	1.19E-5	18"
41C	879.6	1.76E-5	3.63E-6	18"
39C	753.6	1.76E-5	2.81E-6	18"
46C	767.3	1.02E-5	6.39E-6	18-20"
48C	793.8	1.97E-5	1.50E-6	6-9"
* 3C	855.3	3.64E-5	3.64E-5	*6-9"
38C	822.6	1.39E-5	4.31E-6	6-9"

refer to sheet #2 additional samples taken 7/8/88 1000

	wt(g)	gross(μC/g)	Cs-137(μC/g)	
4D	879.0	1.38E-5	MDA	~12"-15"
3D	912.9	MDA	MDA	~12"-15"
33D	930.1	7.10E-6	MDA	~26-30"

7/5/88 Compilation of Landfill Results



Series 16	results at 1" below tar	at 13" below tar	at 25" below tar
16-1	2.71E-5 uCi/gm	cave in	cave in
16-2	9E-4 " "	1.05E-4	1.8E-5
16-3	1.95E-3 " "	4E-5	1.60E-4
16-4	6.57E-3 " "	9E-5	9.0E-5
16-5	1.87E-3 " "	4.4E-5	2.6E-5
16-6	2.02E-4 " "	1.79E-5	4.9E-6

	at 26" below tar	at 30" below tar
16-3	8.8E-6 uCi/gm	
16-4	5E-5 uCi/gm	9.71E-6 uCi/gm
16-5	5E-6 uCi/gm	

Sample	at 1" below tar	Sample	at 1" below tar
1A	3.7E-5 uCi/gm	35A	6.2E-6 uCi/gm
2A	2 E-4 " "	36A	5.4E-6 " "
3A	7.9E-5 " "	37A	2.0E-5 " "
4A	6E-5 " "	38A	4.6E-5 " "
1B	1E-5 " "	39A	2.9E-5 " "
2B	4.9E-6 " "	40A	5.0E-5 " "
3B	3E-5 " "	41A	2.6E-5 " "
4B	3E-5 " "	42A	1.6E-4 " "
10A	3.15E-5 " "	43A	1.8E-5 " "
11A	1.5E-5 " "	44A	1.4E-5 " "
12A	5.8E-5 " "	45A	5.0E-5 " "
13A	7.2E-5 " "	46A	2.1E-5 " "
14A	8.5E-5 " "	47A	3.4E-5 " "
15A	3.2E-5 " "	48A	2.4E-5 " "
16A	1.4E-5 " "	49A	2.0E-4 " "
17A	6.8E-6 " "	50A	4.7E-5 " "
18A	4.1E-6 " "	51A	2.0E-5 " "
27A	2.0E-5 " "	52A	7.8E-6 " "
28A	7.8E-6 " "	59A	6.8E-7 " "
29A	8.8E-5 " "	60A	NDA " "
30A	9.5E-5 " "	61A	NDA " "
31A	1.4E-5 " "	62A	1.8E-6 " "
32A	1.1E-5 " "		
33A	1.8E-5 " "		
34A	7.2E-5 "		

Sample at 3" below asphalt

72A	1.58E-5 uCi/gm
71A	8.95E-5 " "

Sample at 6" below tar

53A	1.6E-6 uCi/gm
54A	2.2E-5 " "
55A	5.1E-6 " "
56A	5.4E-5 " "
57A	1.2E-5 " "
58A	1.1E-5 " "
63A	6.5E-5 " "
64A	8.6E-7 " "
65A	NDA " "
66A	NDA " "

Sample at 6" below tar

48B	9.9E-7
49B	2.7E-6
50B	1.6E-6

Sample at 9" below tar

71B	1.93E-5 uCi/gm
72B	1.73E-5 " "

Sample at 18" below tar

76B	1.70E-6

JUN 29 1988

Assumptions

1) Both Tables assume the occupancy time on mud flats is 334 hours/yr for worm diggers: MY ODCM Table A-1

2) R.G. 1.109 dose factors (Table E-6) for external exposure to an infinite plane source used via the "TRACES" code for both Tables.

3) Table B assumes that the distance from the outer edge of the residual contamination zone to the mad flats is 100 ft. which yield a first order estimate of ground water transport of radioactivity of 50 years (decay period) for the listed nuclides. Table A assumes that the area of residual radioactivity in soil extends already to near the mud flats.

It should be noted that Tech Spec. 3.16.B.1 limits the annual dose from liquid effluents to less than or equal to 3 mrem total body. Doses from any residual activity left in the soil after the removal of the bulk of the contamination should not exceed a small fraction of the 3 mrem. Other potential pathways of exposure (ingestion of shellfish and fish) are not expected to be controlling with respect to the direct ground plane exposure pathway, but should be evaluated as part of any complete assessment.

If you have any questions, please call.

Mark S. Strum
Lead Engineer
Radiological Engineering Group

MSS/lmf

cc: J. G. Robinson
P. S. Littlefield
George Pillsbury (MY) Wiscasset

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

Counter —— Inst. Type & No. —— Date 6-16-88

Eff. —— Time 1000-1130

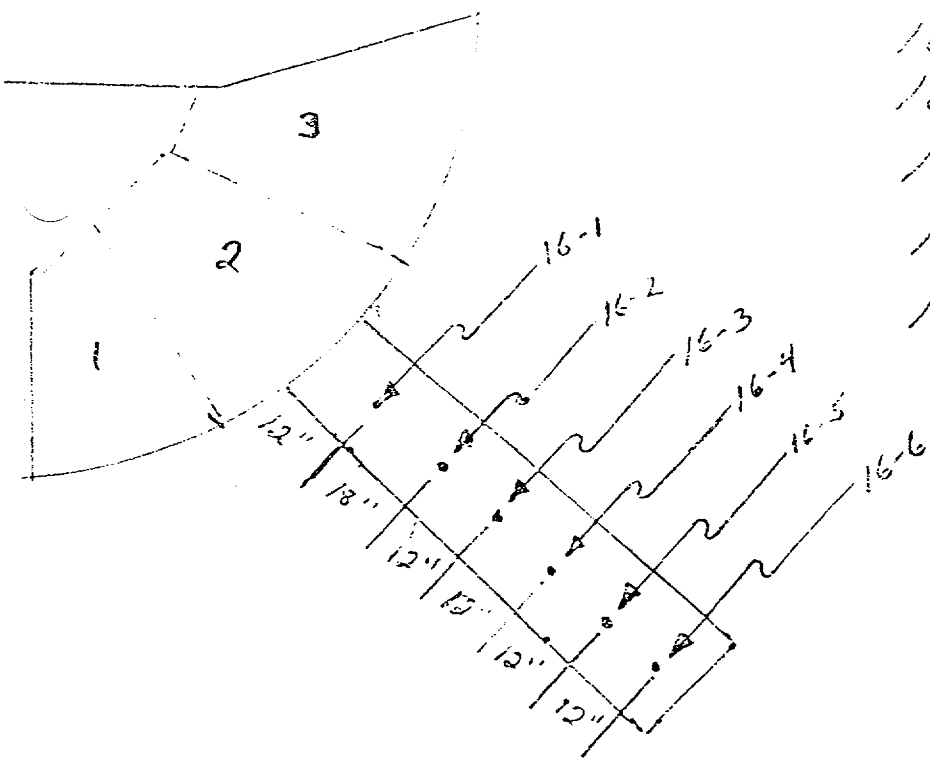
Bkg. —— Tech. CMY

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item [illegible] Samples

Cs137 Results

16-1	~~[illegible]~~ [illegible] E-5 [illegible]
16-2	[illegible]
16-3	[illegible] E-3
16-4	[illegible] E [illegible]
16-5	[illegible] E-3
16-6	[illegible]



All Samples Taken From ≈ 1" Below [illegible]

MY-HP-161-83

MAINE YANKEE ATOMIC POWER COMPANY
GENERAL SURVEY FORM

6/28/88

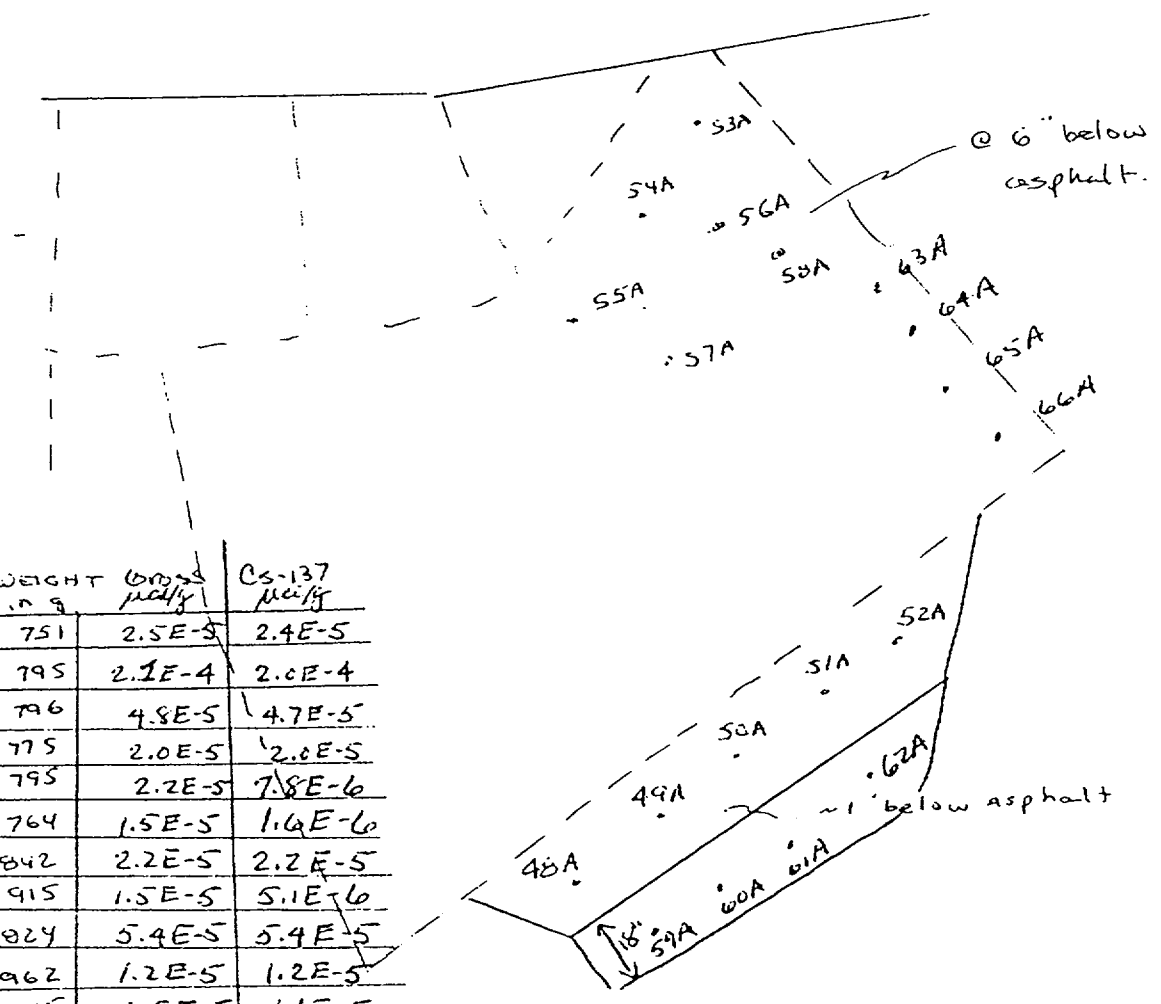
Counter _____ Inst. Type & No. _____ Date 6-29-88 6-27-88

Eff. _____ Time 1802

Bkg. _____ Tech. C Bevan LANGDON

NOTE: All Dose Rate readings in MR/HR.
All Contamination readings are circled in DPM/100cm².

Area/Item RUST SAND



SAMPLE NO.	WEIGHT in g	Gross μCi/g	Cs-137 μCi/g
48A	751	2.5E-5	2.4E-5
49A	795	2.1E-4	2.0E-4
50A	796	4.8E-5	4.7E-5
51A	775	2.0E-5	2.0E-5
52A	795	2.2E-5	7.8E-6
53A	764	1.5E-5	1.6E-6
54A	842	2.2E-5	2.2E-5
55A	915	1.5E-5	5.1E-6
56A	824	5.4E-5	5.4E-5
57A	962	1.2E-5	1.2E-5
58A	845	1.5E-5	1.1E-5
47A	840	3.4E-5	3.4E-5
59A	947	6.8E-7	6.8E-7
60A	876	NDA	NDA
61A	815	NDA	NDA
62A	897	1.8E-6	1.8E-6
63A	898	8.0E-5	6.5E-5
64A	912	7.5E-6	8.6E-7
65A	901	NDA	NDA
66A	921	NDA	NDA

2. On March 30, 1984, a flange seal on the Refueling Water Storage Tank (RWST) failed. Before the leak could be contained, over a five hour period, 7000 gallons of radioactive water were released into the storm sewer which drains into the discharge canal. 9.24E-3 Ci gross gamma activity and 2.34E-1 Ci of tritium were estimated to have been released. This data and that of the specific nuclides involved have been included in Tables 2A and 2B. The incident was previously reported in Licensee Event Report 84-004 and investigated by the Nuclear Regulatory Commission (Inspection Report 84-08). During the refueling outage that flange was repaired, and all similar flanges on the tank received preventive maintenance.

3. While in the process of draining the secondary volume of steam generator No. 1 in conjunction with the refueling outage on April 2, 1984, an auxiliary operator noted a decrease in the level of Test Tank B. Since the test tank and steam generator discharges share common piping, the steam generator discharge was immediately secured. An investigation found that leakage had occurred past a valve isolating the test tank from the discharge line. 620 gallons of processed liquid waste had been released. This amounted to 8.01E-6 Ci gross gamma activity, and 1.13E-2 Ci tritium. These values are included in Tables 2A and 2B. The valve was repaired, and no further problems were encountered.

b. Gaseous

There were four abnormal gaseous effluent releases during the reporting period. Details on each are as follows:

1. The condenser air ejector radiation monitor alarmed at 0800 hours on February 16, 1984, and remained in alarm status for 15 minutes. During this period of indicated increased activity, a gas sample was drawn and analyzed, and the presence of radioactive noble gas identified. After the radiation monitor returned to normal, follow-up sampling indicated no detectable activity. At the time, no other secondary system samples showed activity. It was estimated that the total release was 1.83E-5 Ci. This value and the specific nuclides involved have been included in Tables 1A and 1B. Subsequent controlled testing was performed, with an attempt to duplicate plant operational activities at the time of the release. The tests were unsuccessful in reproducing the release.

2. On February 24, 1984, when the primary vent stack continuous filters were removed for the weekly analysis, short half-life, fission product Rb-88 was detected. Noble gas activity was also detected in the stack in a follow-up sample. An investigation to determine the source revealed a leak from a primary system sampling valve (PS-51). This valve is used in the lineup for normal pressurizer degassing. The leak was stopped after the valve was repaired. Since the release concentrations were only slightly above the lower limits of detection, there were no radiation monitor alarms in conjunction with the release.

1 63

MEMORANDUM

YANKEE ATOMIC - FRAMINGHAM

To P. L. Anderson

From M. S. Strum

Subject RESIDUAL RADIOACTIVITY IN SOIL ASSOCIATED WITH THE RWST

Date June 24, 1988
Group # REG 123/88
W.O. #
I.M.S. # MY NO2.03.04

Per your request, I have scoped out a quick method to bound the potential offsite radiological environmental impact associated with residual radioactive material in soil in the area of the RWST.

The following two tables indicate the resulting whole body annual dose to an individual due to direct radiation from ground plane exposure over the mud flats in Bailey's Cove. Both Tables assume that the residual soil activity is at the 10CFR20, Appendix B Table II, Column 2 MPC values for each nuclide identified. Annual dose estimates can be made by rationing the actual measured soil activity concentration near the RWST to the MPC values for each nuclide, multiplying the annual doses listed in the Tables by the ratio, and adding the contribution from each nuclide together.

The use of either Table A or Table B depends on whether ther spread of residual soil contamination extends to near the mud flats (no decay in Table A) or falls off to small fractions of MPC beyond 100 ft. of the edge of the mud flats (Table B).

TABLE A

No Decay in Transport to Bailey's Cove

Nuclide	MPC µCi/ml	Annual Dose mrem/yr
Cs-137	2.0E-5	0.71
Cs-134	9.0E-6	0.92
Co-60	3.0E-5	4.3

TABLE B

Decay During Transport via Ground Water Movement to Bailey's Cove

Nuclide	MPC µCi/ml	Annual Dose mrem/yr
Cs-137	2.0E-5	2.3E-1
Cs-134	9.0E-6	4.9E-8
Co-60	3.0E-5	6.5E-3

MEMORANDUM

YANKEE ATOMIC - FRAMINGHAM

To P. L. Anderson

From M. S. Strum

Subject RESIDUAL RADIOACTIVITY IN SOIL ASSOCIATED WITH THE RWST

Date June 24, 1988

Group # REG 123/88

W.O. #

I.M.S. # MY N02.03.04

Per your request, I have scoped out a quick method to bound the potential offsite radiological environmental impact associated with residual radioactive material in soil in the area of the RWST.

The following two tables indicate the resulting whole body annual dose to an individual due to direct radiation from ground plane exposure over the mud flats in Bailey's Cove. Both Tables assume that the residual soil activity is at the 10CFR20, Appendix B Table II, Column 2 MPC values for each nuclide identified. Annual dose estimates can be made by rationing the actual measured soil activity concentration near the RWST to the MPC values for each nuclide, multiplying the annual doses listed in the Tables by the ratio, and adding the contribution from each nuclide together.

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Cs-137	2.0E-5	2.3E-1
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Co-60	3.0E-5	6.5E-3

HSA ID# 64

64/

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	Radiation Spills Un usual occurrence Report ERoded Underground Waste Neutralization Discharge Pipe
2. DOCUMENT TYPE	Correspondence
3. DOCUMENT FORM	mI
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	01.05.04.04
7. DOCUMENT NUMBER	95-025
8. REVISION NUMBER	
9. DATE	03/08/1995
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

S. Evans

MY-0-3-76
REV. 22

INDEX NO. 95-025
Page 1 of 3

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: ERRODED UNDERGROUND WASTE NEUTRALIZATION DISCHAGE PIPE.

B. DATE/TIME OF EVENT: 3/8/95 1145

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 1 PLANT TRIP 7N
REACTOR POWER (%): 0

3. DESCRIPTION OF OCCURRENCE & IMMEDIATE CORRECTIVE ACTIONS:

3/8/95-1145 Control room was notified that during the crawl through inspection of the service water outfall piping it was discovered that the underground waste neutralization connection to the pipe was erroded away and that a cavity had formed above the original connection location.

The waste neutralization pipe is exposed to a variety of caustic and acidic chemicals. The location of the breach in the service water pipe is downstream of the location where the radioactive liquid waste is discharged into the service water system.

The Hazardous Waste Coordinator, the Manager of the Operations Department, Maintenance, Safety and Security were notified of the condition. Vehicular traffic on the south side of the plant between the waste neutralization tank and the gas house was restricted until excavation determines the exact location and extent of the cavity. Access to the service water outfall pipe was also restricted until the excavation is completed.

Consulted with Hazardous Waste Coordinator and Radiation Protection Manager concerning immediate reportability.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB: (LIST SEARCH CRITERIA)
Criteria: "Water Treatment Sump"> 6 records; 1 similar
"Waste Neutralization"> 3 records; none similar
"Trench" > 4 records; none similar

5. REPORTABILITY DETERMINATION: REPORTING CRITERIA; SHORT TERM PROC. 1-26-1; EMERGENCY PLAN PROC. 2.50.0; LER(EXPLAIN).
Determined to not be immediately reportable. Further repotability requirements to be determined after soil samples have been obtained and quantification of the contamination and activity if any can be determined.

5A. FITNESS FOR DUTY EVALUATED? NO (YES or NO)

5B. FOR CAUSE TEST REQUIRED? NO (YES or NO)
A For Cause Test is required as soon as possible after accidents involving a failure in individual performance where there is a resonable suspicion that the worker's behavior contributed to those events which result in:
a. A personal injury.
b. A radiation exposure or release in excess of regulatory limits.
c. Actual or potential substantial degradation of the level of plant safty

5C. EVALUATE FOR 10 CFR 21 REPORTABILITY: NO (YES or NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: I
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.
II: Corresponds to WO Priority Category 6. RESPONSE Time is 24 hours when presented at the Morning Meeting
III: Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	n		
NRC RESIDENT INSPECTOR	Y	PSS	3/8/95-1350
DUTY CALL OFFICER	N		
STATE INSPECTOR*	N		
INDUSTRIAL SAFETY COORDINATOR	Y	PSS	3/8/95-1200

* FOR: A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

8. SCREENING CRITERIA FOR CORRECTIVE ACTION:
   a. Does the event have a high probability of occurrence/recurrence and a potential high consequence with respect to Nuclear Safety, Personnel Safety, Regulatory Response, Production/Cost or Public Relations. YES (YES/NO)

   b. Does the event have a high probability of occurence/recurrence or a potential high consequence where any additional occurrence/ recurrence would be unacceptable. YES (YES/NO)

   IF either 8.a or 8.b is YES, THEN go to Section 9; PSS and STA recommend type of Root Cause IAW 0-16-1.

   IF both 8.a and 8.b are NO, THEN go directly to Section 10.

9. RECOMMENDED LEVEL OF ROOT CAUSE DETERMINATION: (Check one)

X DEPARTMENTAL ROOT CAUSE	RC/PRCE
INTERDEPARTMENTAL TEAM ROOT CAUSE	RC/HPES
RIR RADIOLOGICAL INCIDENT REPORT	RC/Evnt Revw Bd
RC/Alt Method	

10. PRELIMINARY LONGER TERM ACTION ITEMS:
    1. Contingent upon the the results of the root cause investigation.
    2. Analyze soil sample for chemical contamination and comply with any resulting reportability requirements.
    3. Analyze soil sample for radiological contamination and comply with any resulting reportability requirements.

11. SOME GOOD QUESTIONS TO ASK DURING THE MORNING MEETING:

    a. Is this or another activity ongoing or likely to occur before corrective actions have been implemented? ___(YES/NO) If so should we let it continue to occur without implementing some interim corrective measures? ___ (YES/NO)

    b. Did this event have the potential for serious personnel injury? ___ (YES/NO) If serious injury had occurred would we be doing anything differently?

    c. If the problem involved a component required by technical specifications, was the opposite train component ever out of service during the period the component was inoperable? ___(YES/NO)

    d. Does anyone have any questions or concerns not previously discussed? ___(YES/NO)

    e. Should we put something on the "Nuclear Network"? ___ (YES/NO)

SUBMITTED BY: P.T.EBERT APPROVED BY/DATE: [signature] 3-8-95

NOTED BY: _____

10/08/94]]

O.E.D.B. #: 1865
UOR # 94-019VENT DATE(Mo/Day/Yr)3/11/94
ADDENDUM DATE
OPERATING CONDITION: 7NS: Y/N) EVENT TIME: 1400
TREND CODE (QPD): E-PLAN LEVEL N/A

Reference Documentseave blank if N/A)
SIC#: H.P.E.S #:
L.E.R. #: P.R.C.E. #:
OTHER:

UOR TITLE WATER TREATMENT SUMP CRACKS DISCOVERED

DESCRIPTION:

1300 Workers identified cracks in the bottom of the sump liner in the water treatment area sump. The Hazardous Waste Coordinator responded to the scene. Licensing (Environmental Section) contacted the Manager of OPS and General Counsel at Corporate about the possibility of sump leakage.

1400 Control Room notified that workers performing maintenance on the water treatment area sump had discovered liner degradation and cracks underneath the sump floor.

The spill plan was consulted.

The sump area is exposed or has the potential to be exposed to a variety of caustic and acidic chemicals.

Spill plan notifications for a type A spill (smallest amount) were made, based on unknown quantities of material which had the potential to contact the ground.

1405 The Maine DEP was notified about the possibility of sump leakage.

1600 Maine Yankee Public Affairs was contacted by Nuclear Safety since notifications were made to government officials.
(For further information see page 2).

ADDENDUM TEXT

John- fyi
-FXP

UOR95-025
March 8, 95

Table 3. Analysis of Ground Water Sample from Well B-206, 3/22/95

Analysis	MY ODCM LLD (pCi/L)	MY Plant Lab Analysis Result (pCi/L)	YAEL Analysis Result (pCi/L)
H-3	3000*	2250	340
Mn-54	15	<4.9	<4.5
Fe-59	30	<9.3	<14
Co-58	15	7.45±0.9	<3.9
Co-60	15	26.1±1.1	12.4±1.3
Zn-65	30	<16.8	<10
Zr-Nb-95	15	<8.1	<7.7
I-131	15*	<4.6	<26
Cs-134	15	<5.3	<4.9
Cs-137	18	<5.5	<3.3
Ba-La-140	15	<16.7,<5.9	Ba <14

*LLD for environmental samples without a drinking water pathway

MEMORANDUM

Date: March 16, 1995

From: Susan Edgerly SE

To: Bill Ball

Subject: UOR 95-025; ERODED UNDERGROUND WASTE NEUTRALIZATION DISCHARGE PIPE

The cavity generated as a result of the Waste Neutralization Tank discharge pipe break was investigated for reportability to the Maine Department of Environmental Protection in accordance with the Maine Yankee Spill Plan. The investigation concluded that a reportable quantity (RQ) of a hazardous material was not spilled and therefore notification to the State is not required.

The investigation included the following:

1. An evaluation of the hazardous materials that go into the tank and what state they should be in once processed for discharge in accordance with our National Pollutant Discharge Elimination System (NPDES) license. Chemistry identified the following materials as going into tank:

Name	Source
Sodium hydroxide, sulfuric acid and rock salt	Demin regens and neutralization process
Sodium hypochlorite, hydrazine, morpholine, soda ash, sodium molybdate, methyl benzo triazole, hydrogen peroxide and sodium chromate	Rinse water from triple rinsing empty drums and small quantities from maint. activities
Alum, magnifloc	Clarifier blowdown and WT operations

These materials should be neutralized and converted into the salt form of the hazardous material when released from the eroded discharge pipe. There are no RQ's for these materials and therefore spill reportability is not an issue.

2. A visual inspection of the cavity and a sample of the dirt/material within cavity was taken immediately after cavity was exposed and accessible.

The visual inspection indicated that the dirt compacted on top of the cement casing that surrounding the SW line and the Waste Neutralization Tank discharge line had eroded to the top of the cement floor overhead. The eroded material is suspected

to have eventually migrated into SW line and discharged via a licensed pathway. The void created from this erosion was approximately a 6-8' X 3-4'.

The void was completely dry and the dirt did not indicate any staining or presence of hazardous materials. Atmospheric monitoring was done for hydrazine, chlorine, morpholine, hydrogen sulfide, ammonia and corrosives, none were detected.

A sample which was collected from the walls and floor of cavity consisted of a sandy type material with some gravel mixed in and appeared to be fill-type material. Since the majority of the materials going into the tank are corrosive, the sample was screened for pH to provide a quick indicator if any hazardous materials had accumulated or were present. A rough pH was measured at approximately 9-10. This is not an unusual pH for fill material and concrete. It does not provide sufficient evidence that the dirt had been exposed to or had accumulated corrosive hazardous materials.

3. An evaluation of reportability by the Corporate EHS staff. When MDEP was called on the March 1994 sump crack problem (a similar issue from a reportability standpoint), MDEP staffers told us not to call until we had "positive indication of the release of a reportable quantity of a hazardous material." We do not yet have positive evidence of a spill outside of the pipe of a reportable quantity of a hazardous material. According to John Arnold no report is required until we have this evidence, if we ever do for this incident.

Based on the above investigation findings, it is concluded that there was not a RQ of a hazardous material spilled and outside notifications are not necessary.

cc: Joe Grant
Herb Winicov
John Arnold

EFS

MEMORANDUM

YANKEE ATOMIC - BOLTON

To	P.L. Anderson	Date	May 16, 1995
From	F.X. Bellini/M.S. Strum	Group #	ESG 40/95;REG 96/95
		W.O.#	5100
Subject	SOIL INVESTIGATION FOR NEUTRALIZATION TANK DRAIN PIPE LEAK	I.M.S.#	O 2.3.3/O 1.5.1
		File #	ESG40.95

Attached is a report covering the investigation of consequences of leakage from the MY Neutralization Tank drain pipe.

This report documents conditions in keeping with requirements of 10CFR 50.75(g). This regulation provides a means for cleanup of negligible amounts of remnant radioactivity located in hard-to-access places within the plant's protected area. Cleanup of such materials will be deferred until decommissioning.

We trust you will provide transmittal to plant staff. If you have any questions, please contact Frank Bellini at x2234.

Frank X. Bellini
Environmental Sciences Group
Environmental Engineering Dept.

Mark S. Strum
Radiological Engineering Group
Environmental Engineering Dept.

/emd
Attachment

c: (w/Attachment)
R.A. Marcello
P.S. Littlefield

(w/o Attachment)
J.P. Jacobson
J.D. McCann
E.R. Cumming

TO: GDW for: JMC/E Hern/J Heberl S Evans
FROM: PLA
DATE 5-17-95
MYP # 95-0389
CC: MYP file RR
Microfile file Date
~~RPS-WJM-JBMc-JTMc-~~ Due

Characterization Study: MY Service Water Pipe Leak, March, 1995

F. X. Bellini
M. S. Strum

List of Tables

List of Figures

Characterization Study: MY Service Water Pipe Leak, March, 1995

Introduction

A 6 inch diameter drain pipe carries discharge from the Neutralization Tank to the Service Water (SW) discharge line. Corrosion of this drain just above its connection to the SW pipe caused leakage of Service Water and Neutralization Tank contents into soil under the Service Building. Soil eroded adjacent to the pipe around the leak. This erosion occurred immediately under the ground floor of the Lunch Room and Planning Office. Licensed discharges of radionuclides are introduced the Service Water just upstream of the location of the leak. These constituents leaked into the soil through this pipe breach. An investigation was conducted in March of 1995 to document any remnant radionuclide content of remaining soil surrounding the leak location. This included field sampling and laboratory analysis of samples for gamma isotopic content.

Purpose

This report provides the necessary data to document residual radioactivity according to requirements of 10CFR50.75(g) (Reference 1). This regulation provides for the documentation of low level residual radionuclide contamination to remain in place in normally inaccessible areas until plant decommissioning. In keeping with regulatory requirements this report identifies:

- Information describing the occurrence,
- Involved radionuclides, forms, quantities and concentrations, and
- Depiction of the location of the activity.

The justification for leaving residual radioactivity in-place until decommissioning is also addressed.

Location Description

The investigation location is shown in Figure 1. It is near the west side of the Service Building, immediately under the floor of that structure. The location underlies the Planning Office and the Lunch Room, and is along Service Building column line 1 between column lines E and F (Reference 2). References 3 through 6 represent pertinent plant drawings for the area.

Recognition of the subject pipe failure occurred in early March, 1995. Examination of the Neutralization Tank drain pipe from inside the SW pipe revealed the significant corrosion of a short portion of that drain, about two feet above its connection to the SW discharge pipe. Normal SW discharge, flowing into that drain, caused Service Water to escape into adjacent soil fill. Cyclic wetting of the fill and flow variation in the Service Water pipe could have caused surging and resulted in the observed erosion of soil from around the corroded drain. This erosion formed a circular cavity in the adjacent sand and gravel structural fill, centered on the vertical portion of the drain pipe. Most of the eroded soil washed into the SW pipe discharge line; a minor amount of loose soil remains in the floor of the cavity.

The maximum dimensions of the cavity are 11 feet across and 2 1/2 feet high (Figures 1 and 2). The erosion appears to have reached a maximum extent some time prior to its discovery. This assumption is based on the general absence of loose soil in the cavity, and the undisturbed structure of vertical cavity walls consisting of dense, compacted fill with a continuous surface encrustation of salt.

Remedial Activities

Access for pipe for repair was through a hole cut in the reinforced concrete floor of the Planning Office. The corroded metal segment of pipe was replaced with non-metallic pipe to prevent any future recurrence of this problem. Support and protection for the new pipe includes a concrete pad which encases the upper portion of the drain. The cavity was to be refilled with structural fill after repair of the pipe and sampling.

Soil Sampling

Soil at the location is of a single type. It is a structural fill placed during plant construction. It consists of a brown, medium to fine-grained, gravelly sand with a very small percentage of fines. The soil was slightly damp.

Soil sampling was done to attempt to bound the occurrence of radiological components in the soil. Sampling at depth below the cavity was limited by plant structures and components, although these same structures and components would also limit radionuclide migration paths. The configuration of plant components in and under the cavity, is shown in Figure 2. The Neutralization Tank drain pipe enters the cavity from the southeast side and descends vertically to connect with the SW pipe at the cavity center. The top of the SW pipe is about 1 foot 6 inches below the bottom of the cavity. Fill concrete encases the SW pipe and immediately adjacent Circulating Water System pipes, the top of which is about 9 to 12 inches below the bottom of the cavity (Reference 6). Less than a 2 foot wide area bounding the north side of the cavity is not underlain by fill concrete encasing the SW and CW pipes.

Soil comprising the near-vertical wall of the cavity and the soil a few inches below the surface at the cavity floor is clearly still relatively dense, in-place and well compacted. At the base of the wall a narrow, discontinuous sloping apron of loose soil occurs, apparently due to erosion by water action. Soil comprising the floor of the cavity was apparently loosened at the surface by re-piping activities and possibly also by water action. An undisturbed, thin powdery film of light-colored dust encrusts the walls of undisturbed fill. This material may be ocean salt and/or calcareous material derived from concrete. Whatever its origin, its presence and nature suggests multiple wetting and drying episodes during which little or no recent erosion has taken place.

Soil was initially tested for radionuclide content using a composite sample from 4 locations in the eroded cavity. Additional samples were taken at specific locations in the cavity using either a hand trowel or a 2 inch diameter hand bucket-auger. These systematic sample locations are shown on Figure 1. Sample depths are shown in Table 1. Locations were:

- MT-1, 2, 3, 4 and 5 sampling loose to dense soil above the SW encasement using the auger,
- MT-6 sampling the undisturbed soil comprising the cavity wall; the inner sample was collected by hand and the outer sample using the auger,
- MT-7 and MT-8 sampling loose surface soil using a hand-trowel.

Results of Radiological Testing of Soil Samples

Results of sample testing for radionuclides are shown in Table 4. Laboratory analyses of soil samples were performed to the ODCM environmental lower limits of detection (LLD), or below, for sediment-type materials. This is equivalent to detection capabilities of at least 150 pCi/kg for Cs-134 and 180 pCi/kg for Cs-137. Most LLD for these analyses actually exceeded these minimums requirements by a factor of 2. Included is an initial analysis done at the MY plant to guide sample collection as well as final results from the Yankee Atomic Environmental Lab (YAEL). There is good agreement between results from the two labs, although initial results identified Co-58 as present and finalized results did not identify this radionuclide.

Only two radionuclides were identified in systematic sampling: Co-60 and Cs-137. These radionuclides have half-lives of 30.17 and 5.271 years, respectively.

The general distribution of these radionuclides in systematic samples is as follows:

- 6 of 13 samples contained one of these two radionuclides above minimal detectable amounts,
- Both Co-60 and Cs-137 were detected in 3 of 13 samples,
- Co-60 is absent from all 4 samples taken at a depth lower than 13 inches below the bottom of the cavity,
- All samples with measurable radionuclide concentrations are below 150 pCi/kg for Cs-137 and below 75 pCi/kg for Co-60, and
- Of the shallow samples, 3 contained no measurable activity.

The initial composite sample listed in Table 1 has the highest value of Co-60 of any sample. This sample was taken from surface material, and may have included large amounts of sample from the first one to two inches of soil in the cavity. Co-60 may have concentrated a narrow zone at the surface, which was then disturbed by re-construction activities. Attempts to duplicate this result with other surface samples were unsuccessful.

Estimate of Residual Radionuclides Remaining in the Soil

For the purpose of calculating affected soil volume, the concentration of radionuclides in soil surrounding the cavity is conservatively estimated as the sum of radionuclides in three zones. These zones are depicted schematically in Figure 3. The location and geometry of these zones is:

1) The volume of soil beyond the walls of the cavity: a cylinder wall with an inside diameter of 11 feet and an outside diameter of 12 feet.
2) The volume of soil directly below the cavity floor and over the concrete encasement of the SW pipe: a disk 11 feet in diameter and 12 inches thick, less the volume of the 3 feet x 3 feet x 9 inch concrete pad around the drain.
3) The volume soil below the cavity floor on the north side, beside the concrete encasement of the SW pipe: a portion of a cylinder wall about 12 inches wide and 3 feet deep, with an estimated area of 15% of the area of the cavity floor.

The volume of these zones is calculated as:

$$V_{st} = V_{cw} + V_{d} + V_{pd}$$

$$= [(\pi r_1^2 h_1) - (\pi r_2^2 h_1)] + [(\pi r_2^2 h_2) - (l \cdot w \cdot h)] + [0.25((\pi r_1^2 h) - (\pi r_2^2 h))]$$

$$= [(\pi \cdot 6.5^2 \cdot 2.5) - (\pi \cdot 5.5^2 \cdot 2.5)] + [(\pi \cdot 5.5^2 \cdot 1) - (3 \cdot 3 \cdot 0.75)] + 0.15 \cdot [(\pi \cdot 6^2 \cdot 4) - (\pi \cdot 5.5^2 \cdot 4)]$$

$$= 331.83 - 237.58 + 95.03 - 6.75 + 0.15[452.39 - 380.13] = 193 \text{ ft}^3$$

Where:

V_{st} = Total volume of soil

V_{cw} = Volume of soil comprising a 1 foot thick cavity cylinder wall

V_{d} = Volume of soil directly below the cavity, less the volume of the concrete pad

V_{pd} = Volume of soil below 15% of V_{d}, 3 feet deep

r_1 = Radius of cavity + 1 ft of soil at the cavity margin, 6.5 ft

r_2 = Radius of cavity, 5.5 feet

h_1 = Height of cavity, 2.5 ft

h_2 = Thickness of soil between cavity bottom and top of SW pipe concrete encasement, 1 ft.

h,w,l = Dimensions of concrete pad poured around drain pipe into the SW pipe, 3 ft, 3 ft and 9 inches (0.75 ft).

The density of this soil is estimated as 130 lbs/ft^3, a conservative value for sand and gravel fill. Average radionuclide concentrations are conservatively assumed to be the mean for only those samples containing positive activity for a radionuclide:

Co-60	Cs-137
71	87
72	112
43	41
72	147
28	66
33	65
258	97
Mean = 82.4 pCi/kg	130
	79
	45
	56
	Mean = 84.1 pCi/kg

Thus, total mass of affected soil is calculated as:

M_{soil} = 193 ft^3 · 130 lbs/ft^3 = 25090 lbs
= 25090 lbs · 453.59 grams/lb = 11,380,573 grams

And, based on an average concentration and a total mass of affected soil, the total amount of activity for each radionuclide remaining in the soil is shown in Table 2.

Ground Water Analysis

Ground water is 17 feet below the bottom of the cavity at an elevation of about 0 ft (msl) (Reference 7). A sample of ground water was obtained from an observation well, B-206, as part of this investigation. Well B-206 is about 90 feet away, down-gradient (toward the forebay) of ground water flow. Radiological sample analysis was performed by the YAEL with environmental LLD's (lower limits of detection) in accordance with required MY ODCM Table 2.4.

Results of this sample testing are shown in Table 3. Two radionuclides were found present in the water sample, H-3 and Co-60, however, the levels of both these radionuclides is very low in the sample. H-3 and Co-60 have half-lives of 12.33 and 30.17 years, respectively.

The U.S. EPA limits for H-3 radionuclides in drinking water is 24,000 pCi/L. The amount of H-3 found in the sample, 340 pCi/L, is less than 1½% of this limit. EPA limits for other radionuclides are based on annual dose rather than concentration. The U.S. EPA limit for radionuclides in drinking water is 4 mrem/year. The concentration of 12.4 pCi/L of Co-60 found in the sample would provide an annual dose of 0.0427 mrem/yr, about 1% of this limit. These limits are based on a person who would drink 2 liters per day of the affected water.

These radionuclides found in the water sample are not inferred to have resulted from the subject release. Other documented releases over the life of the plant are much more likely to be the source of these ground water sample results. This is based on the absence of Co-60 from soil samples at depth in the subject cavity.

The actual dose potential from any radionuclides that migrated to the ground water from this release would have already been considered as part of licensed effluent releases. Their ultimate destination will be the adjacent waters of the Back River, as originally intended for the liquid effluent releases. The delay due to detention in the soil and ground water systems will only reduce the amount of activity eventually released to the Back River. Meanwhile, the activity remains inaccessible to either plant workers or the public, as there are no water supply wells down gradiant of the subject location. All calculated effluent dose impacts from past liquid discharges demonstrate that resultant dose has always been well below the ALARA objectives of 10CFR50, Appendix I, and considerably below plant Technical Specification limits.

Migration of Radionuclides in the Soil

Water draining through the sides and bottom of the cavity has caused radionuclides to lodge in the soil there. Results of analyses of samples from location MT-6 suggest that minimal radionuclides are present in the side wall soil. Results of analysis for the samples from MT-4 support a conclusion that migration of radionuclides to depth is limited. Co-60 is absent (below environmental LLD) in the lower two MT-4 samples (36"-45" and 45"-57", Table 1). Cs-137 is present in slightly higher amounts, but levels represent those typically found in the environment due to fallout (Reference 8).

Further migration of these radionuclides is not likely due to lack of water to drive their movement. Rain water cannot access the location due to the overlying structure, and ground water is at an elevation of about 0 ft (msl), about 17 feet below the cavity floor.

Non-Radiological Chemical Character of Soil Samples

Non-radiological chemical investigation of the soil was carried out by Maine Yankee plant staff. Documentation is contained in Reference 9. Based on this investigation, it appears that no chelating agents were introduced into the subject soil. Thus, accelerated migration of radionuclides was not expected or found. Discharges from the Neutralization Tank included only small quantities of chemicals, all neutralized and mostly in the form of salts. The soil, regularly wetted by SW discharge, probably contains remnants of ocean water constituents.

Source of Radionuclides in the Soil

The primary source of cobalt in the soil is licensed liquid effluent discharges. The low levels certainly result from the fact that leakage through the drain was relatively small; the path of least resistance for SW flow was clearly out the open-ended discharge into the Forebay. Effluent discharges may have also been the source of Cs-137 however, the levels of this radionuclide are comparable to that observed in normal environmental samples due to fallout (Reference 8), and may have been deposited with the structural fill prior to the time of construction in the 1960's and 70's.

Evaluation of Potential Impacts of Maintaining Soil In-Place

Existing circumstances merit its acceptance for administration of this soil at the time of plant decommissioning under 10CFR50.79(g).

- Any potential dose from this activity has already been accounted for in licensed liquid effluent discharge evaluations, as controlled by the MY ODCM. The end point of release of any radionuclides that may move through the soil column and ground water regime is the adjacent estuary of the Back River. This is the same water body that receives licensed radioactive discharges from the plant. As a result, dose pathways for members of the public that have been assessed in the MY ODCM, bound the impact for this migration pathway. Calculated effluent dose impacts from past liquid discharges demonstrate that resultant dose has always been well below the ALARA objectives of 10CFR50, Appendix I, and well below plant Technical Specification limits.

- Pathways to the environment for the subject soil are very limited. The subject soil will be isolated from contact with plant workers as a result of refilling of the cavity and replacement of the concrete floor removed to access the location. The only possible pathway for exposure would be through ground water. However, there are no ground water supply wells down gradient of the subject location.

- The subject soil is about 14 feet above the ground water table. radionuclides are in a form (attached to soil) that will severely limit further migration of radionuclides into the soil.

- The levels of contamination of the subject soil are very low. Total activity concentration is less than 100 pCi/kg.

- Involved radionuclides are fission and activation products, all with half-lives less than about 30 years.

- Currently excavation of soil from beneath the building and from around operating plant components is neither practical nor feasible.

Thus, the consequences of residual radionuclides remaining in the soil until plant decommissioning are negligible.

Conclusions

1. The primary source of radionuclides in soil at the junction of the Service Water and Neutralization Tank drain pipe was the discharge of licensed effluents into the Service Water discharge.

2. The presence of radionuclides in systematic soil samples is limited to Co-60 and Cs-137. The concentration of these radionuclides is very low, generally less than 100 pCi/kg, and each of these radionuclides' half-lives is less than about 30 years

3. Dose pathways for this activity are very limited, if not absent. Therefore there are no significant impacts or health risks to members of the public or to plant workers if the subject soil is allowed to remain in place until plant decommissioning.

4. The ultimate destination of any radionuclides released into the soil as a result of this leakage will be the Back River, the original destination of licensed effluent releases into the Service Water system.

5. The consequences of these residual radionuclides remaining in the soil until plant decommissioning are negligible.

References

1. Title 10, Code of Federal Regulations, Part 50.75, Reporting and Record Keeping for Decommissioning Planning: Paragraph (g), Information Important to Decommissioning.

2. MY Plant Drawing 637-41-22, Floor Plan, El. 21'-0", Service Building Alterations, Phase I. Rev. 17, 11/23/94.

3. MY Plant Drawing 11150-FC-5B, Circulating Water Line Encasement, SH-2. Rev. 4, 3/3/92.

4. MY Plant Drawing 11150-FM-77A, Operating Valve Nos., Diagram Service Water Piping. Rev. 31, 11/14/94.

5. MY Plant Drawing 11150-FP-58F, Water Treatment Piping, Sheet 6. Rev. 6, 1/4/83.

6. MY Plant Drawing 11150-FP-1B, Circulating and Service Water Piping, Sheet 2: Section F-F, Concrete Encasement. Rev. 6, 10/12/70.

7. Maine Yankee Atomic Power Co., 12/88 Sodium Chromate Spill, Summary Report, March, 1990, R.G. Gerber, Inc.

8. Memo to P.L. Anderson-MY Project, from D.G. Keefer-Yankee Atomic Environmental Laboratory, "Typical Levels of Cs-137 in Soil," May 29, 1991, EL 246/91.

9. Memo to Bill Ball-MY Plant from Susan Edgerly-MY Plant, UOR 95-025; "Eroded Underground Waste Neutralization Discharge Pipe," March 16, 1995.

Table 1. Results of Sampling of Soils from Adjacent to SW Pipe Leak

Sample Location No.	Measured Sample Depths	Sample Elevations		Radiological Analyses pCi/kg					
				By MY (wet)	By YAEL (dry)	By MY (wet)	By YAEL (dry)	By MY (wet)	By YAEL (dry)
		Top	Bottom	Co-60	Co-60	Co-58	Co-58	Cs-137	Cs-137
NT-1	0"-9"	+18.5	+17.8		<110		<56		<58
NT-2	0"-9"	+18.5	+17.8		71±14		<37		87±18
NT-3	0"-13	+18.6	+17.5		72±11		<30		112±17
NT-4	0"-13	+18.7	+17.6		43±9		<24		41±12
NT-4	13"-26"	+17.9	+16.5		<13		<82		<100
NT-4	26"-36"	+16.5	+15.7	28±7	<60	<60	<58	65±9	147±22
NT-4	36"-45"	+15.7	+14.9	33±8	<120	<120	<71	97±9	<92
NT-4	45"-57"	+14.9	+13.9	<74	<48	<74	<38	130±16	66±18
NT-5	0"-10"	+18.6	+17.8	<66	72±13	<66	<31	79±12	<58
NT-6W	0"-6"	+19.7	+19.7		<99		<94		<89
NT-6W	6"-16"	+19.7	+19.7	<60	<58	<60	<45	45±10	<59
NT-7	0"-4"	+18.8	+18.4	<62	<140	<62	<110	<60	<130
NT-8	0"-4"	+18.8	+18.4		<85		<95		<100
Soil Composite	Surface	+18.5		258±16		64±11		56±11	

Table 2. Estimated Total Amounts of Radionuclides Remaining in Soil

Nuclide	Average Concentration (pCi/kg)	Total Mass of Affected Soil (grams)	Total uCi Present
Co-60	82.4	11,380,573	0.938
Cs-137	84.1	11,380,573	0.957

Table 3. Analysis of Ground Water Sample from Well B-206, 3/22/95

Analysis	MY ODCM LLD (pCi/L)	YAEL Analysis Result (pCi/L)
H-3	3000*	340±240
Mn-54	15	<4.5
Fe-59	30	<14
Co-58	15	<3.9
Co-60	15	12.4±1.3
Zn-65	30	<10
Zr-Nb-95	15	<7.7
I-131	15*	<26
Cs-134	15	<4.9
Cs-137	18	<3.3
Ba-La-140	15	Ba <14

*LLD for environmental samples without a drinking water pathway

Figure 1.
Investigation and and Sample Locations

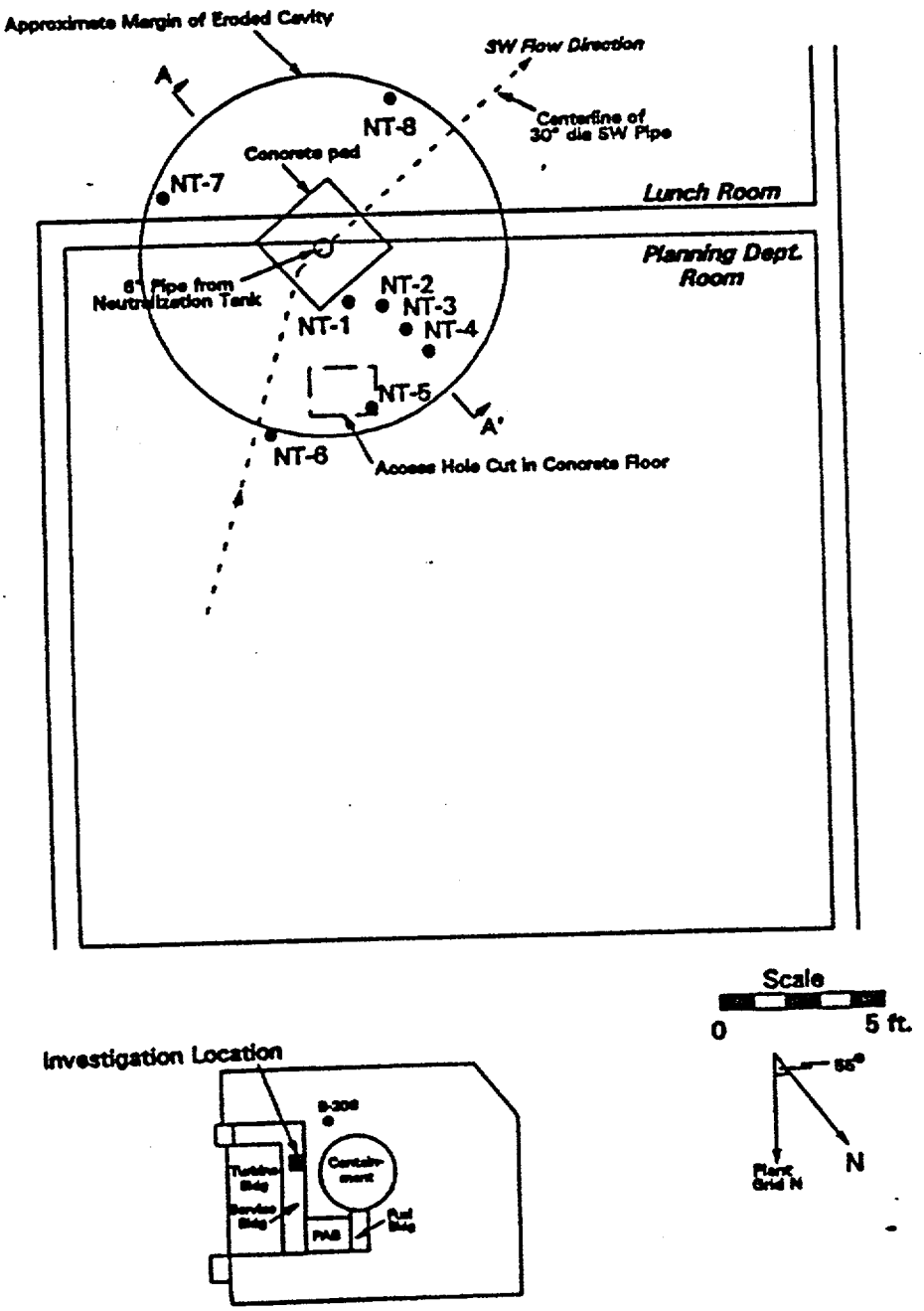


Figure 3.

Estimate of Affected Zone Extent

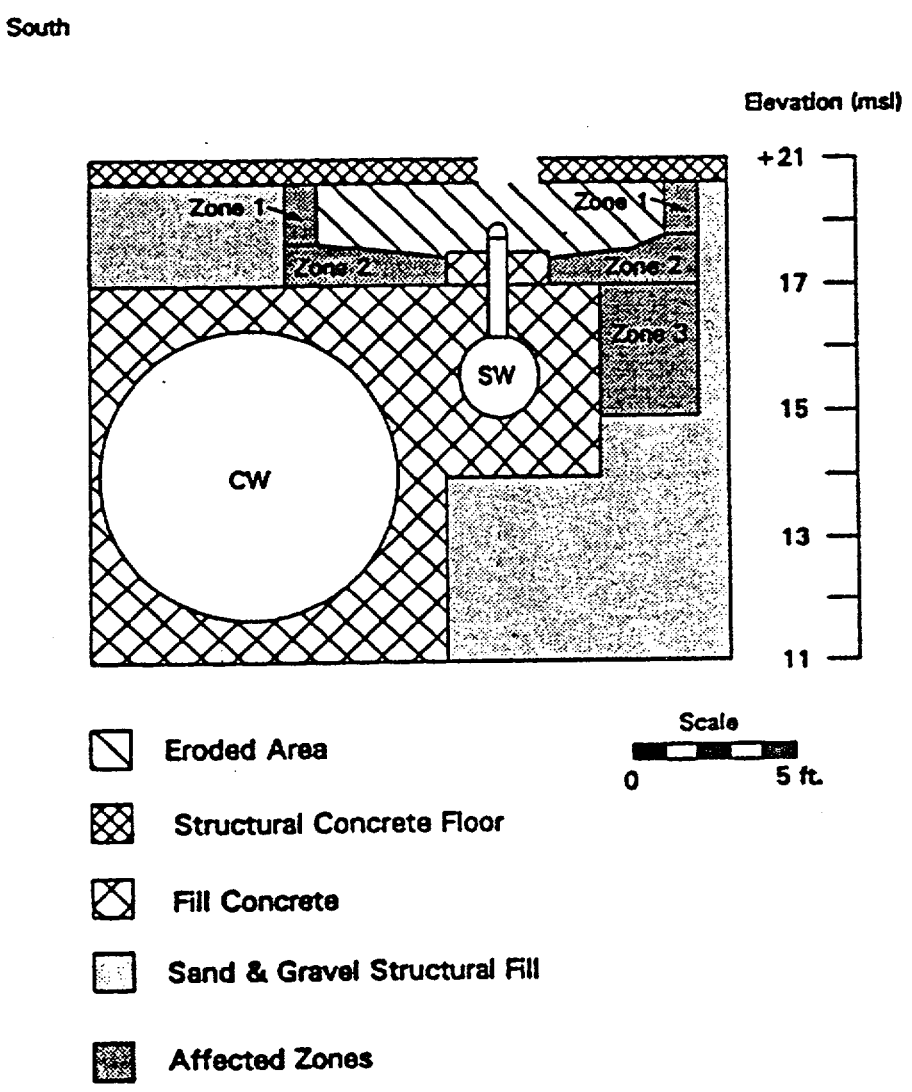
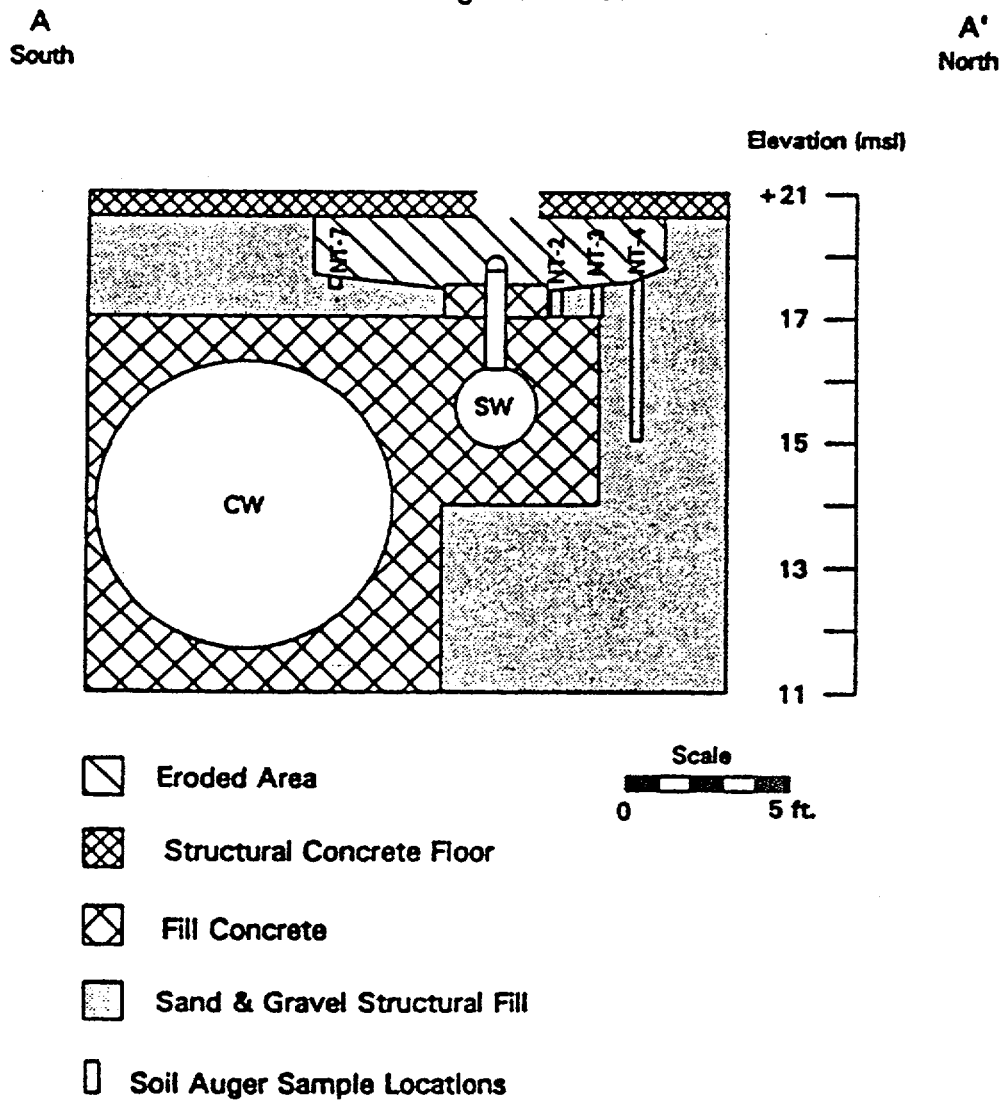


Figure 2.
Profile Through
Investigation Area



ATTACHMENT C
ATLAS DOCUMENT INPUT FORM

1. DOCUMENT TITLE* Unusual Occurrence Reports (UORs) Eroded underground waste Neutralization discharge pipe
2. DOCUMENT TYPE* **REPORT** 3. DOCUMENT FORM*
4. DOCUMENT LOCATION* 5. RETENTION PERIOD
6. TECHNICAL FILE NUMBER **1.8.4.2**
7. DOCUMENT NUMBER
8. REVISION NUMBER 9. DATE: ~~1995~~ 03/08/1995 10. CLASSIFICATION TYPE D
11. TOPICAL INDUSTRY ISSUE
12. KEYWORDS
13. SUBJECT
14. REFERENCE DOCUMENT
15. SYSTEM CODE 16. COMPONENT CODE
17. CYCLE NUMBER
18. ORIGINATOR: **OPERATIONS**
19. RECEIVER
20. VENDOR CODE
21. ACCESSION NUMBER
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)

NOTE: Required fields are identified by an asterisk (*).

CREW REVIEW / FILE

INDEX NO. 95-025

MY-0-3-76
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OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: **ERRODED UNDERGROUND WASTE NEUTRALIZATION DISCHAGE PIPE.**

B. DATE/TIME OF EVENT: **3/8/95 1145**

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): **1** PLANT TRIP ?**N**
REACTOR POWER (%): **0**

3. DESCRIPTION OF OCCURRENCE & IMMEDIATE CORRECTIVE ACTIONS:

3/8/95-1145 Control room was notified that during the crawl through inspection of the service water outfall piping it was discovered that the underground waste neutralization connection to the pipe was erroded away and that a cavity had formed above the original connection location.

The waste neutralization pipe is exposed to a variety of caustic and acidic chemicals. The location of the breach in the service water pipe is downstream of the location where the radioactive liquid waste is discharged into the service water system.

The Hazardous Waste Coordinator, the Manager of the Operations Department, Maintenance, Safety and Security were notified of the condition. Vehicular traffic on the south side of the plant between the waste neutralization tank and the gas house was restricted until excavation determines the exact location and extent of the cavity. Access to the service water outfall pipe was also restricted until the excavation is completed.

Consulted with Hazardous Waste Coordinator and Radiation Protection Manager concerning immediate reportability.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)
Criteria: "Water Treatment Sump"> 6 records; 1 similar
"Waste Neutralization"> 3 records; none similar
"Trench" > 4 records; none similar

5. REPORTABILITY DETERMINATION: REPORTING CRITERIA; SHORT TERM PROC. 1-26-1; EMERGENCY PLAN PROC. 2.50.0; LER(EXPLAIN).
Determined to not be immediately reportable. Further repotability requirements to be determined after soil samples have been obtained and quantification of the contamination and activity if any can be determined.

5A. FITNESS FOR DUTY EVALUATED? **NO** (YES or NO)

5B. FOR CAUSE TEST REQUIRED? **NO** (YES or NO)
A For Cause Test is required as soon as possible after accidents involvin a failure in individual performance where there is a resonable suspicion that the worker's behavior contributed to those events which result in:
a. A personal injury.
b. A radiation exposure or release in excess of regulatory limits.
c. Actual or potential substantial degradation of the level of plant saft

5C. EVALUATE FOR 10 CFR 21 REPORTABILITY: **NO** (YES or NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: **I**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.
II: Corresponds to WO Priority Category 6. RESPONSE Time is 24 hours when presented at the Morning Meeting
III: Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	n		
NRC RESIDENT INSPECTOR	Y	PSS	3/8/95-1350
DUTY CALL OFFICER	N		
STATE INSPECTOR*	N		
INDUSTRIAL SAFETY COORDINATOR	Y	PSS	3/8/95-1200

* FOR: A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

10/08/94]]

UCR 95-07

O.E.D.B. #: 1865
UOR # 94-019VENT DATE(Mo/Day/Yr)3/11/94
ADDENDUM DATE EVENT TIME: 1400
OPERATING CONDITION: 7NS: Y/N)
TREND CODE (QPD): E-PLAN LEVEL N/A

Reference Documentseave blank if N/A)
SIC#: H.P.E.S #:
L.E.R. #: P.R.C.E. #:
OTHER:

UOR TITLE WATER TREATMENT SUMP CRACKS DISCOVERED

DESCRIPTION:

1300 Workers identified cracks in the bottom of the sump liner in the water treatment area sump. The Hazardous Waste Coordinator responded to the scene. Licensing (Environmental Section) contacte the Manager of OPS and General Counsel at Corporate about the possibility of sump leakage.

1400 Control Room notified that workers performing maintenance on the water treatment area sump had discovered liner degradation and cracks underneath the sump floor.

The spill plan was consulted.

The sump area is exposed or has the potential to be exposed to a variety of caustic and acidic chemicals.

Spill plan notifications for a type A spill (smallest amount) were made, based on unknown quantities of material which had the potential to contact the ground.

1405 The Maine DEP was notified about the possibility of sump leakage.

1600 Maine Yankee Public Affairs was contacted by Nuclear Safety since notifications were made to government officials.
(For further information see page 2).

ADDENDUM TEXT

HSA ID# 65

(65)

ATTACHMENT 3

ATLAS DOCUMENT INPUT FORM

1. TITLE	Unusual Occurrence Reports UORs' Oil Sheen on Standing Water at Fuel Oil Storage Tank Removal Site
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	10/27/1994
10. CLASSIFICATION TYPE	"D"
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	Operations
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

CREW REVIEW/FILE

MY-0-3-76
REV. 22

INDEX NO. 94-093
Page 1 of

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: **Oil Sheen On Standing Water At Fuel Oil Storage Tank Removal Site**

B. DATE/TIME OF EVENT: **10/27/94 1530**

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): **7** PLANT TRIP ? **NO**
REACTOR POWER (%): **100**

3. DESCRIPTION OF OCCURRENCE & IMMEDIATE CORRECTIVE ACTIONS:

At approximately 1530 the control room was notified by the Environmental Section Senior Engineer that a report of an oil sheen on standing water at the excavation site for the Fuel Oil Storage Tanks had been received. The report had been received from the cognizant engineer and R.G.Gerber Inc (an environmental engineering group). Additionally, some soil had been removed from the tank fill line location and set aside for future disposal.

An inspection of the site revealed a slight oil sheen on standing water located between the tanks which were still in the ground. No indication of leakage was observed.

Control room personnel reviewed the Spill Plan and completed the required notifications per section 2.3 - Spill Reporting.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB: (LIST SEARCH CRITERIA)
Several past UOR's were located regarding oil sheen and oil spill. None similar.

5. REPORTABILITY DETERMINATION: REPORTING CRITERIA; SHORT TERM PROC. 1-26-1; EMERGENCY PLAN PROC. 2.50.0; LER(EXPLAIN).
This event is reportable under 10CFR 50.72 (b) (2) (vi) due to offsite notification of the National Response Center as required by the spill plan. Additional reporting was conducted per Spill Plan form C-1.

5A. FITNESS FOR DUTY EVALUATED? **NO** (YES or NO)

5B. FOR CAUSE TEST REQUIRED? **NO** (YES or NO)
A For Cause Test is required as soon as possible after accidents involv a failure in individual performance where there is a resonable suspicio that the worker's behavior contributed to those events which result in:
a. A personal injury.
b. A radiation exposure or release in excess of regulatory limits.
c. Actual or potential substantial degradation of the level of plant sa

5C. EVALUATE FOR 10 CFR 21 REPORTABILITY: **NO** (YES or NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.
II: Corresponds to WO Priority Category 6. RESPONSE Time is 24 hours when presented at the Morning Meeting
III: Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	**Y**	**Grimard**	**10/27/94 1700**
NRC RESIDENT INSPECTOR	**N**		
DUTY CALL OFFICER	**N**		
STATE INSPECTOR*	**Y**	**Grimard**	**10/27/94 1645**
INDUSTRIAL SAFETY COORDINATOR	**N**		

FOR: A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

8. SCREENING CRITERIA FOR CORRECTIVE ACTION:

a. Does the event have a high probability of occurrence/recurrence and a potential high consequence with respect to Nuclear Safety, Personnel Safety, Regulatory Response, Production/Cost or Public Relations. NO (YES/NO)

b. Does the event have a high probability of occurence/recurrence or a potential high consequence where any additional occurrence/recurrence would be unacceptable. X (YES/NO)

IF either 8.a or 8.b is YES, THEN go to Section 9; PSS and STA recommend type of Root Cause IAW 0-16-1.

IF both 8.a and 8.b are NO, THEN go directly to Section 10.

9. RECOMMENDED LEVEL OF ROOT CAUSE DETERMINATION: (Check one)

DEPARTMENTAL ROOT CAUSE	RC/PRCE
INTERDEPARTMENTAL TEAM ROOT CAUSE	RC/HPES
RIR RADIOLOGICAL INCIDENT REPORT	RC/Evnt Revw Bd
RC/Alt Method X	

10. PRELIMINARY LONGER TERM ACTION ITEMS:

NO AI REQ'D.

1. Maintain continued vigilance for oil contamination for the duration of the project.

2. Collect contaminated water for proper disposal.

AI 94-093-1

11. SOME GOOD QUESTIONS TO ASK DURING THE MORNING MEETING:

a. Is this or another activity ongoing or likely to occur before corrective actions have been implemented? NO (YES/NO) If so should we let it continue to occur without implementing some interim corrective measures? YES (YES/NO)

b. Did this event have the potential for serious personnel injury? NO (YES/NO) If serious injury had occurred would we be doing anything differently?

c. If the problem involved a component required by technical specifications, was the opposite train component ever out of service during the period the component was inoperable? N/A (YES/NO)

d. Does anyone have any questions or concerns not previously discussed? NO (YES/NO)

e. Should we put something on the "Nuclear Network"? NO (YES/NO)

SUBMITTED BY: **Grimard**

APPROVED BY/DATE: _____

NOTED BY: _____ 10/28/94

HSA ID# 66

66

3511.9

ATTACHMENT 3

ATLAS DOCUMENT INPUT FORM

1. TITLE	Unusual Occurrence Reports UORs Oil Sheen at Circulating Water Intake Structure
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	06/30/1994
10. CLASSIFICATION TYPE	"D"
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	Operations
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

MY-0-3-76
REV. 20

INDEX NO. 94-047
Page 1 of

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: **OIL SHEEN AT CIRCULATING WATER INTAKE STRUCTURE**

B. DATE/TIME OF EVENT: **06/30/94 1000**

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): **7** PLANT TRIP ?**N**
REACTOR POWER (%): **30**

3. DESCRIPTION OF OCCURRENCE & IMMEDIATE CORRECTIVE ACTIONS:
NOTE: ALL TIMES ARE APPROXIMATE.

1000: A SLIGHT OIL SHEEN IS NOTED ON THE SURFACE OF THE WATER AT THE CIRCULATING WATER PUMP INTAKE STRUCTURE, INSIDE THE INSTALLED BOOM.

1100: CLEANED THE OIL SHEEN WITH ABSORBENT PADS.

1600 FOLLOWING DAY: NOTIFICATIONS WERE MADE TO OFFSITE AGENCIES IAW THE MAINE YANKEE SPILL PLAN. DUE TO THE EXTREMELY SMALL SIZE OF THE OIL SHEEN, IT WAS NOT IMMEDIATELY APPARENT THAT NOTIFICATION WAS REQUIRED; THUS ACCOUNTING FOR THE DELAY IN REPORTING.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB: (LIST SEARCH CRITERIA)
SEARCH CRITERIA: "OIL SPILL" 23 RECORDS FOUND.

5. REPORTABILITY DETERMINATION: (REPORTING CRITERIA; SHORT TERM PROC. 1-26-1; EMERGENCY PLAN PROC. 2.50.0; LER).
THIS EVENT IS A FOUR HOUR NON-EMERGENCY REPORTABLE OCCURRENCE TO THE NRC VIA ENS SINCE A REQUIRED NOTIFICATION WAS MADE TO AN OFFSITE AGENCY (NATIONAL RESPONSE CENTER).

5A. FITNESS FOR DUTY: FOR CAUSE TEST REQUIRED? **NO** (YES or NO)
A For Cause Test is required as soon as possible after accidents involvi a failure in individual performance where there is a resonable suspicion that the worker's behavior contributed to those events which result in:
a. A personal injury.
b. A personnel radiation exposure or release of radioactivity in excess of regulatory limits.
c. Actual or potential substantial degradation of the level of plant saft

5B. EVALUATE FOR 10 CFR 21 REPORTABILITY: **NO** (YES or NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.
II: Corresponds to WO Priority Category 6. RESPONSE Time is 24 hours when presented at the Morning Meeting
III: Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME	
ENS	**Y**	**L. GRIMARD**	**7/1/94**	**1745**
NRC RESIDENT INSPECTOR	**Y**	**L. GRIMARD**	**7/1/94**	**1800**
DUTY CALL OFFICER	**n**			
STATE INSPECTOR*	**Y**	**L. GRIMARD**	**7/1/94**	**1600**
INDUSTRIAL SAFETY COORDINATOR	**n**			

* NOTIFY THE SNI IN CASE OF A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

8. SCREENING CRITERIA FOR CORRECTIVE ACTION:
Does the event have a high potential consequence relative to any of the following:
- Nuclear Safety
- Personnel Safety
- Production
- Regulatory Response
- Public Relations

OR -Does this event have a high probability of recurrence?

Y (Y/N) IF YES, THEN PSS and NSE implement procedure 0-16-1 and recommend scope of root cause determination in Section 9.

9. RECOMMENDED LEVEL OF ROOT CAUSE DETERMINATION: (Check one)
X RC/NONE
RC/HPES
DEPARTMENTAL ROOT CAUSE
INTERDEPARTMENTAL TEAM ROOT CAUSE
RC/PRCE
RC/Evnt Revw Bd
RC/Alt Method

10. PRELIMINARY LONGER TERM ACTION ITEMS:
1. A CONSULTANT HAS BEEN RETAINED TO EVALUATE THE REPEATED APPEARANCE OF OIL SHEEN ON THE BAY WATER SURFACE. "CLEAN HARBORS" WILL ARRIVE ON TUESDAY TO CONDUCT THEIR EVALUATION AND MAKE RECOMMENDATIONS.

2. THE HAZARDOUS WASTE SPECIALIST EVALUATING THE PROPOSED "FINGER PRINTING", OR IDENTIFYING OF OIL SHEENS, TO DETERMINE IF THEY ARE EMANATING FROM THE PLANT.

See attached page for Action Items

11. SOME GOOD QUESTIONS TO ASK DURING THE MORNING MEETING:

a. Is this or another activity ongoing or likely to occur before corrective actions have been implemented? If so should we let it continue to occur without implementing some interim corrective measures? ___ (YES/NO)

b. Did this event have the potential for serious personnel injury? If serious injury had occurred would we be doing anything differently ___ (YES/NO)

c. Have we assumed anything we shouldn't? ___ (YES/NO)

d. Should we put something on the "Nuclear Network"? ___ (YES/NO)

SUBMITTED BY: **L. GRIMARD**

APPROVED BY/DATE: July 3 1994

NOTED BY: 7/5/94

8. <u>SCREENING CRITERIA FOR CORRECTIVE ACTION:</u>
Does the event have a high potential consequence relative to any of the following:

- Nuclear Safety
- Personnel Safety
- Production
- Regulatory Response
- Public Relations

OR

-Does this event have a high probability of recurrence?

Y (Y/N) IF YES, THEN PSS and NSE implement procedure 0-16-1 and recommend scope of root cause determination in Section 9.

9. <u>RECOMMENDED LEVEL OF ROOT CAUSE DETERMINATION:(Check one)</u>

X RC/NONE
RC/HPES
DEPARTMENTAL ROOT CAUSE
INTERDEPARTMENTAL TEAM ROOT CAUSE
RC/PRCE
RC/Evnt Revw Bd
RC/Alt Method

10. <u>PRELIMINARY LONGER TERM ACTION ITEMS:</u>

TECH 1. **A CONSULTANT HAS BEEN RETAINED TO EVALUATE THE REPEATED APPEARANCE OF OIL SHEEN ON THE BAY WATER SURFACE. "CLEAN HARBORS" WILL ARRIVE ON TUESDAY TO CONDUCT THEIR EVALUATION AND MAKE RECOMMENDATIONS.**

TECH 2. **THE HAZARDOUS WASTE SPECIALIST EVALUATING THE PROPOSED "FINGER PRINTING", OR IDENTIFYING OF OIL SHEENS, TO DETERMINE IF THEY ARE EMANATING FROM THE PLANT.**

LIC 3 CLEARIFY THE REPORTABILITY Requirements ~~FOR~~ Repeat of the Same event, small Quantity EVENTS

11. <u>SOME GOOD QUESTIONS TO ASK DURING THE MORNING MEETING:</u>

a. Is this or another activity ongoing or likely to occur before corrective actions have been implemented? If so should we let it continue to occur without implementing some interim corrective measures? N (YES/NO)

b. Did this event have the potential for serious personnel injury? If serious injury had occurred would we be doing anything differently? N (YES/NO)

c. Have we assumed anything we shouldn't? N (YES/NO)

d. Should we put something on the "Nuclear Network"? N (YES/NO)

SUBMITTED BY: **L. GRIMARD**

APPROVED BY/DATE: July 3, 1994

NOTED BY: 7/3/94

HSA ID# 67

67

9403250540

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE Kerosene Leak Spare Generator Enclosure Structure Follow UP Report	
2. DOCUMENT TYPE Correspondence	3. DOCUMENT FORM mF
4. DOCUMENT LOCATION	5. RETENTION PERIOD
6. TECHNICAL FILE NUMBER 01.08.04.02	
7. DOCUMENT NUMBER	
8. REVISION NUMBER 9. DATE 09/21/1994	10. CLASSIFICATION TYPE D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	16. COMPONENT CODE
17. CYCLE NUMBER	
18. ORIGINATOR Admin/Licensing	
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

Maine Yankee
RELIABLE ELECTRICITY SINCE 1972

329 BATH ROAD • BRUNSWICK, MAINE 04011 • (207) 798-

RESPONSIBILITY Hebert
RESPOND BY NA
NRC DUE DATE NA

1.8.4.2

September 21, 1994
JRH-94-230

Mr. Frank Gehrling
Response Services Division
Bureau of Hazardous Material and Solid Waste Control
Maine Department of Environmental Protection
State House Station # 17
Augusta, ME 04333

Subject: **Kerosene Leak, Spare Generator Enclosure Structure-Follow up Report**

References: (a) Robert G. Gerber Inc Report: Kerosene Leak, Spare Generator Enclosure, August 26, 1994(Attached)

(b) Maine Yankee (MY) letter to MDEP of August 10, 1994 containing written spill report and remediation plan

Dear Mr. Gehrling:

In accordance with reference (b) a Robert G. Gerber certified Maine geologist, Thomas Brennan, has completed Phase One of the proposed remediation plan and developed a recommended approach for dealing with Phase Two. Reference (a) contains these results and the recommendation.

Mr. Brennan has determined that the spill currently constitutes no threat to the ground water or Maine Yankee well water supply. Excavation would be greatly encumbered by the stored equipment and railway line. Mr. Brennan recommends that quarterly monitoring of the three overburden wells be undertaken. This monitoring will be performed for one year. In September 1995 Maine Yankee in conjunction with Robert G. Gerber Inc. will determine if additional monitoring is justified. Maine Yankee will inform you of this determination.

We trust that we have complied with all remediation requirements for this spill and will proceed as indicated unless we hear otherwise from you. Please contact John Arnold, 207-798-4213, should you have questions or comments.

Very truly yours,

James R. Hebert

James R. Hebert, Manager
Licensing & Engineering Support Department

General Dist. w/o enc

c: T.J. Brennan, RGGI
S.H. Edgerly

1:\jrh\ltrs\jrh94230.ltr

KEROSENE LEAK
SPARE GENERATOR ENCLOSURE

MAINE YANKEE ATOMIC POWER

By

Robert G. Gerber, Inc.
17 West Street
Freeport, Maine 04032

August 26, 1994

Geoscience and Environmental Management Professionals

ROBERT G. GERBER, INC.

17 West Street • Freeport, Maine • 04032-1133

207-865-6138 • (FAX) 207-865-1071

August 26, 1994
File No. 1253

Ms. Susan Edgerly
Maine Yankee-Facilities
Maine Yankee Atomic Power
Wiscasset, Maine
04578

Subject: Kerosene Leak, Spare Generator Enclosure Building, Maine Yankee Wiscasset Facility

Dear Ms. Edgerly,

Robert G. Gerber, Inc. (GERBER) is pleased to submit this letter report regarding our subsurface investigation in the vicinity of a leaking Kerosene line at the Spare Generator Enclosure building at the Maine Yankee (MY) facility. The purpose of our investigation is to delineate the extent of contamination by the leaking Kerosene both vertically and horizontally. We advanced a series of borings to establish the stratigraphy and thickness of overburden to bedrock. In addition, we have installed monitoring wells to estimate vertical hydraulic gradients in both the overburden and shallow bedrock at the site in order to assess the likely direction of migration of local ground water and a potential contaminant plume.

BACKGROUND

This subsurface investigation follows an earlier preliminary investigation of leaking Kerosene conducted by GERBER in June 1994. At your request, we conducted the earlier investigation to assess the extent of the leakage and the likely threat to environmental quality caused by the leaking Kerosene. At that time we observed the excavation of several test pits in the area of the leak. We obtained soil samples from these test pits for poly-bag headspace procedures to determine qualitative concentrations of Volatile Organic Compounds (VOC's) with depth. In addition, we obtained two ground water samples from test pits and one

surface water sample from the pond northeast of the site to be analyzed for fuel oil constituents by gas chromatograph. The results of the earlier investigation was reported to you as part of our Scope of Services dated July 22, 1994.

Based on our observations made during the preliminary site investigation, we concluded that although Kerosene contamination appeared to be confined to an area of about 500 ft² in the immediate area of the leaking line, we were unable to ascertain the vertical extent of migration. We had the use of a rubber tire tractor-mounted backhoe. Large angular rock fragments limited the depth of our excavations. Bag headspace results indicated that contamination by VOC's increased with depth in the immediate area of the leak. The maximum depth that we were able to achieve was 6.5 ft. We consulted our large body of geologic and hydrogeologic data that we have accumulated over many years of experience at the MY facility. In addition, Mr. Fred Drottar, (MY CED) has provided us with other historical subsurface data. We observed that blasted rock fill was used extensively in the area of the Spare Generator Enclosure Facility during construction of the plant. In addition, this data indicated that overburden thickness in the area likely ranged from 10 ft. to 40 ft. We also noted that the leak was located within the area of contribution of the Knoll Well, a water supply well to the plant. Simple excavation and remediation of contaminated soil is not a practical solution at this site. The structure of the building, rail road tracks, and the stability of the spare generator are at risk. We recommended that a series of borings be advanced to confirm stratigraphic relationships in the area. In addition, we advised that monitoring wells be installed in both the overburden and bedrock to establish vertical hydraulic gradients in the area of the spill. We recommended that a subsurface characterization, including an assessment of the direction of ground water flow, be made in order to judge the necessity of and the extent of remedial action required at this site.

SUBSURFACE INVESTIGATION

At your request, GERBER began the current subsurface investigation August 8, 1994. The boring program consisted of three pairs of borings. These pairs are located in a triangular pattern around the leak location (Figure 1). The pattern was ideally arranged so that one pair of borings is located 30 to 50 ft. from the leak location on a line with the Knoll Well. The other two pairs are located approximately 30 to 50 ft. from the leak location and in 120° increments around the leak location as a pole. We followed this arrangement as closely as possible; however, some adjustments were required by structural obstacles, underground utilities, and overhead power lines.

At each location, the first boring was advanced to bedrock. Soil samples were taken continuously for bag headspace screening except where refused by large rocks in fill material. Continuous sampling was altered to five foot intervals after several samples showed no detection of VOC's with depth. Confirmation of bedrock was made by coring 10 ft. A 2" PVC monitoring well with a 5 ft. slotted screen was installed in bedrock. This

monitoring well is confined to bedrock by a 1 to 2 ft. bentonite seal. During the advance of the initial boring, we estimated the depth of the water table in the overburden. The second boring was advanced to an appropriate depth such that we were able to install a 2" PVC well with a 10 ft. slotted screen which straddles the water table. This well is sealed by 1 to 2 ft. of bentonite at the ground surface. Environmental Technician Ted McHugh supervised borings, logged soils, and performed bag headspace analyses. Appendix 1 is a graphical display of boring logs, well installation details, and results of bag headspace for each boring. After installation, we developed each of the six monitoring wells by removing at least six well volumes.

In addition to the three paired borings, a soil boring was advanced as close to the leak location as was practical. We have logged the stratigraphy at that location. We obtained soil samples for bag headspace analysis with depth. We advanced this boring to bedrock. Upon completion, we backfilled this boring with bentonite to 9 ft. and native fill to the surface (Appendix 1).

DISCUSSION

On Friday, August 12, 1994, GERBER Maine Certified Geologist Thomas Brennan surveyed the locations of the newly installed monitoring wells relative to a vertical datum of 100 ft. arbitrarily chosen at the top of a hydrant approximately 175 ft. north northwest of the leak location. On Tuesday, August 16, 1994, GERBER returned to measure the depth to water at each monitoring well location. We combined the survey data and depth to water measurements to establish ground water elevations at each well location (Table 1). We observed upward hydraulic gradients from bedrock to overburden at each of the paired well locations. With the ground water elevations measured at each well 8/16/94 and considering upward gradients observed at each location we have plotted the potentiometric surface for both the overburden (Figure 1) and bedrock (Figure 2) regimes and indicated the estimated direction of ground water flow.

Boring logs from this investigation (Appendix 1) indicate 5 to 10 ft. of sand and gravel fill with many rock fragments over 15 to 30 ft. of slowly permeable glaciomarine clayey silt and silty fine sand to quartz biotite schist bedrock. This relatively thick glaciomarine unit likely acts as an aquitard, restricting downward migration of recharge or contaminants. This unit also acts as a confining layer for the bedrock regime. This is supported by the upward gradients observed from adjacent bedrock and overburden wells.

We performed bag headspace analysis on continuous split spoon samples in the deep borings at each location as well as at the soil boring B-1. We made several tests from each split spoon sample to insure a representative result for the 2 ft. interval sampled (Appendix 1). We did not detect any significant concentration of VOC's from samples at any of the well locations. Values obtained with depth from soil boring K-1 resemble those obtained from the

preliminary test pits. VOC concentrations increased with depth to a maximum of 150 ppm at about 5 ft. Concentrations drop off sharply after 5 ft. in the upper fill. There was no detection noted after the glaciomarine unit was contacted at about 9.5 ft.

CONCLUSIONS

We have estimated the direction of ground water flow as generally west at the site from hydraulic gradients observed in wells installed in the overburden (Figure 2) and shallow bedrock (Figure 3). This is supported by westerly surficial drainage to discharge in Bailey Cove (Figure 1). Borings advanced during this investigation indicate that native overburden is typically slowly permeable glaciomarine deposits ranging from about 15 to 30 ft. in thickness. High concentrations of VOC's were only measured at soil boring B-1. Concentrations of VOC's increased with depth to a maximum (150 ppm) at approximately 5 ft. Detected values quickly became negligible.

Based on the estimated direction of flow, we do not believe that the Knoll Well is directly threatened by contamination from Kerosene migrating from this site. In addition, the thickness of slowly permeable glaciomarine overburden deposits appear to confine and protect local bedrock from vertical migration of Kerosene from this site.

RECOMMENDATIONS

The purpose of this investigation is to characterize the subsurface and to determine the direction of ground water flow at this site before pursuing remedial action. The structural encumbrances presented by the railroad tracks, the generator enclosure structure, and the stability of the generator present significant obstacles to invasive remediation. We do not believe that the Knoll Well is at significant risk of contamination by this Kerosene leak. We recommend that the overburden wells be sampled and analyzed for fuel oil and its constituents quarterly for at least one year to provide suitable monitoring of potential contaminant migration. We do not feel that sampling the bedrock wells is necessary at this time. We do not believe that it is necessary to jeopardize the structural integrity of the building or the railroad, or to destabilize the generator by extensive excavation. At the request of MY we outlined our plan for site characterization as described above with Mr. Frank Gehrling of the Maine Department of Environmental Protection. Mr. Gehrling indicated that if there was no apparent threat to the water supply by direct directional flow, then periodic monitoring of ground water quality from the proximal monitoring wells should provide sufficient warning of contaminant migration to suggest whether future remediation efforts might be required.

CLOSURE

Our work should be understood in the context in which we have performed it. We have estimated likely values for hydrogeologic and geochemical parameters based on limited data. Our work is based on explorations performed by others at discrete points and inferences regarding conditions between those points. Those inferences are based on our geologic judgment. Soil and geologic conditions may change over relatively short distances. These changes could affect system performance in ways we cannot foresee.

This report was prepared for the exclusive use of our client for the specific application of developing a remedial action plan and no third party is entitled to place any reliance thereon. We have based our work on our understanding of DEP regulations and the requests made by our client. No other warranty, expressed or implied, is made. Assumptions, measurements, and data used for the investigation are stated herein; conditions other than those stated may alter the conclusions.

We are pleased to have been able to assist you with this project. If we can be of future assistance, or if you have any questions, please don't hesitate to call.

Sincerely,
ROBERT G. GERBER, INC.

Thomas J. Brennan, C.G.
Geologist

Andrews L. Tolmanr, C.G.
Chief Hydrogeologist

xc: Mr. John Arnold

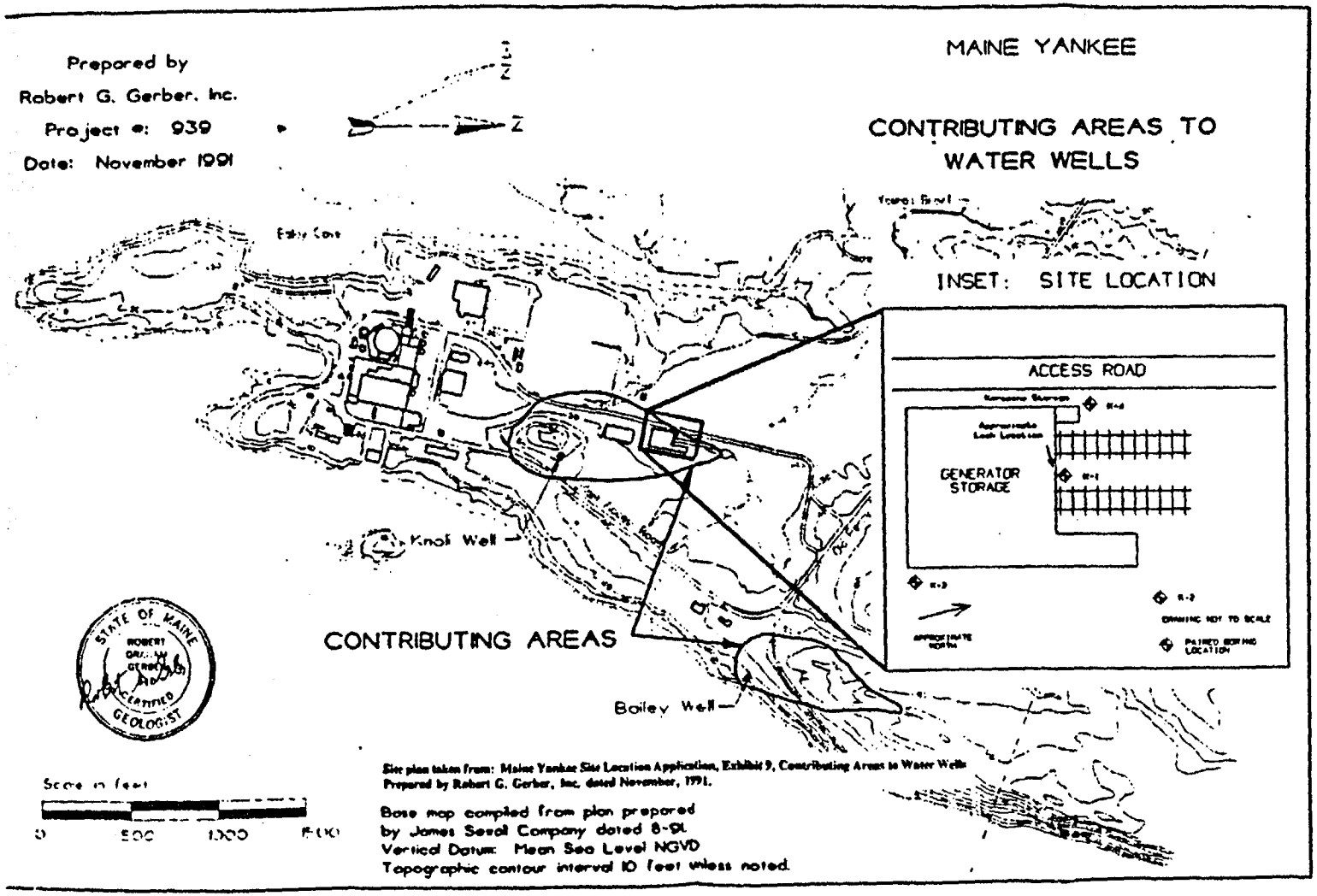
TABLE 1.

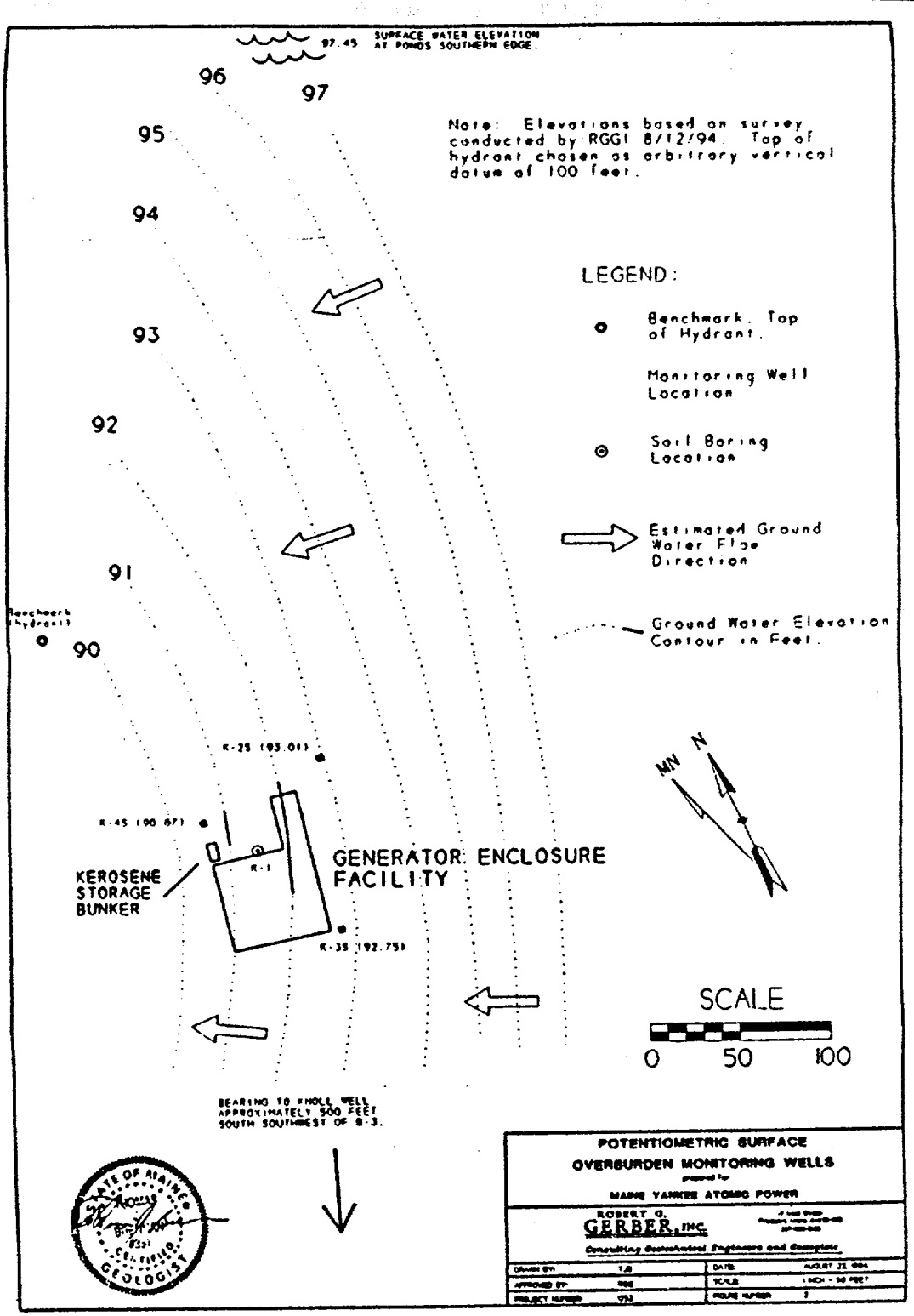
Location	Elevation Top of PVC	Depth to Water	Ground Water Elevation
BM (HYDRANT)	100	NA	NA
B-1*	98.23	NA	NA
B-2S	96.91	3.9	93.01
B-2D	96.73	2.74	93.99
B-3S	98.07	5.32	92.75
B-3D	97.93	3.66	94.27
B-4D	97.56	5.55	92.01
B-4S	97.4	6.73	90.67
POND	97.45	0	97.45

* Note: No well installed at B-1. Elevation at Ground Surface.
NA = not applicable

2505.40.1450

FIGURE 1. Approximate Site Plan and Boring Locations

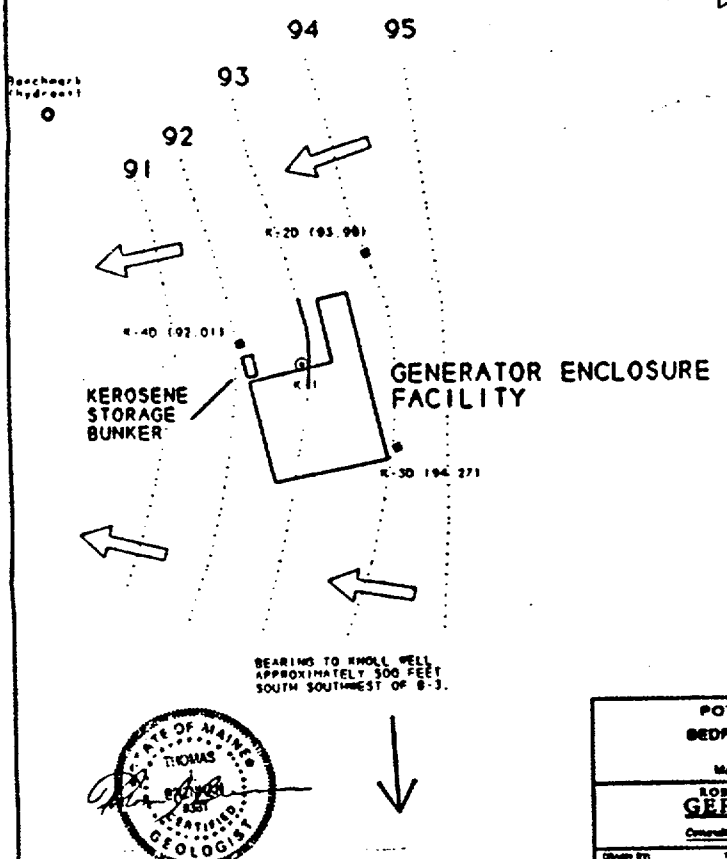


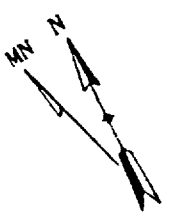

97.45 SURFACE WATER ELEVATION AT PONDS SOUTHERN EDGE.
96
97
95
94
93
92
91
90
Benchmark Hydrant
Note: Elevations based on survey conducted by RGGI 8/12/94. Top of hydrant chosen as arbitrary vertical datum of 100 feet.
LEGEND:
Benchmark, Top of Hydrant.
Monitoring Well Location
Soil Boring Location
Estimated Ground Water Flow Direction
Ground Water Elevation Contour in Feet.
R-2S (93.01)
R-4S (90.67)
R-3S (92.75)
KEROSENE STORAGE BUNKER
GENERATOR ENCLOSURE FACILITY
N
MN
SCALE
0 50 100
BEARING TO FHOLL WELL APPROXIMATELY 500 FEET SOUTH SOUTHWEST OF B-3.
STATE OF MAINE REGISTERED GEOLOGIST
POTENTIOMETRIC SURFACE
OVERBURDEN MONITORING WELLS
prepared for
MAINE YANKEE ATOMIC POWER
ROBERT G. GERBER, INC.
Consulting Geotechnical Engineers and Geologists
DRAWN BY: LB
DATE: AUGUST 22, 1994
APPROVED BY:
SCALE: 1 INCH = 50 FEET
PROJECT NUMBER: 1793
FIGURE NUMBER: 3

Note: Elevations based on survey conducted by RGGI 8/12/94. Top of hydrant chosen as arbitrary vertical datum of 100 feet.

LEGEND:

- Benchmark, Top of Hydrant.
- Monitoring Well Location
- Soil Boring Location
- Estimated Ground Water Flow Direction
- Ground Water Elevation Contour in Feet





SCALE

0 50 100

STATE OF MAINE THOMAS E. KNOLL REGISTERED GEOLOGIST

POTENTIOMETRIC SURFACE
BEDROCK MONITORING WELLS
prepared for
MAINE YANKEE ATOMIC POWER

ROBERT G. GERBER, INC.
Consulting Geotechnical Engineers and Geologists

Drawn By	T.E.	Date	August 23, 1994
Approved By	RGG	Scale	1 inch = 50 feet
Project Number	853	Figure Number	3

GERBER, INC.
Freeport, Maine 04032-1133
207-865-6138
Consulting Geotechnical Engineers and Geologists

LOG OF BORING K-1

Project:	Maine Yankee	Surface Elev.:	98.2
Job No.:	1253	Top of PVC Elev.:	none
Location:	Wiscasset, Maine	Equipment:	
Coordinates:		Drilling Method:	HSA/wash

Total Depth: 27.5
Hole Diameter: 4.25"

Elevation, feet	Depth, feet	Graphic Log and Sample Types	Sample No.	% Recovery	MATERIAL DESCRIPTION	SPT, N value or RQD in %	Vane Shear Strength Sv / ▲ psf	COMMENTS	WELL INSTALLATION DETAILS
98.2	0		S-1	50	Brown fine to coarse sand with trace fine gravel, well graded. FILL. 1" dark brown stained layer at 1.0'. Light brown sand layer at 2.0' and 2.7'. Slightly odorous from 2.0-6.5'.	26		Amb. air = 0.2 ppm. PID = 0.8, 10.0, 0.6 ppm.	
			S-2	75		24		PID = 7, 50 ppm.	
	5		S-3	100	Moderately widely graded brown fine to medium sand with trace rock fragments, trace olive brown silty fine sand, trace iron staining.	60/.5'		PID = 70, 150 ppm.	
			S-4	67		201			
			S-5	75		45		PID = 5, 1.2 ppm.	
90			S-6	0	Brown fine to medium sand, trace fine gravel, poorly graded, saturated. FILL. Debris - rollercone through fill.	60/.5'		PID = 0.8, 0.8, 5 ppm.	
88.7	10		S-7	100	Contact with olive brown clayey silt (9.5'10.0').	24		PID = 0.4 ppm.	
								PID = 0, 0, 0 ppm.	
	15		S-8	100		6		PID = 0, 0 ppm.	
80			S-9	100	Olive brown clayey silt, wet, poorly graded, some fine sand. GLACIOMARINE	7		PID = 0, 0 ppm.	
	20								
	25								
70.7					Boring terminated at 27.5' at refusal on presumed bedrock.			Bentonite inserted from 27.5' to 9.0'. Backfilled from 9.0' to 0.0' with Fill material.	

Date Started: 8/12/94
Date Completed: 8/12/94
Drilling Contractor: NEDD
Engineer/Geologist: TEM
Approved By:

Sample Types:
Auger Cutting
Vane Shear
SPT
UD
Penetrometer
Rock Core

Remarks: No well installed.

All depths in feet. Unless otherwise noted, water encountered but not recorded.

The stratification lines represent approximate boundaries. The transition may be gradual.

ROBERT G. GERBER, INC.

17 West Street
Freeport, Maine 04032-1133
207-865-6130

Consulting Geotechnical Engineers and Geologists

LOG OF BORING K-2D

Project: Maine Yankee
Job No.: 1253
Location: Wiscasset, Maine
Coordinates:

Surface Elev.: 97.0
Top of PVC Elev.: 96.73
Equipment:
Drilling Method: HSA/core (NV2)

Total Depth: 41.0
Hole Diameter: 3"

Elevation, feet	Depth, feet	Graphic Log and Sample Types	Sample No.	% Recovery	MATERIAL DESCRIPTION	SPT, N value or RQD in % / Vane Shear Strength Sv / s psf	COMMENTS	WELL INSTALLATION DETAILS
97.0	0		S-1	100	Brown fine to coarse sand, some fine gravel, widely graded. FILL	27	PID = 0, 0, 0 ppm.	Bentonite chips.
			S-2	100	As above with some olive brown silt.	36	PID = 0, 0 ppm.	
	5		S-3	30	Brown silty fine sand, poorly graded, moist. FILL	48	PID = 0.2 ppm.	Filter sand.
91.0			S-4	35	Brown silty fine sand, trace clayey silt, poorly graded, damp. GLACIOMARINE	13	PID = 0 ppm.	
90			S-5	100	Olive brown clayey silt, some fine sand, some seams of gray clayey silt, damp to moist.	14	Water at 2' on 8-10-94. PID = 0, 0, 0 ppm.	Bentonite chips.
	10		S-6	100		11	PID = 0, 0, 0 ppm.	
			S-7	100	Same as above with trace brown fine sand.	15	PID = 0, 0, 0 ppm.	Filter sand.
			S-8	100		17	PID = 0, 0, 0 ppm.	
80	15							
	20		S-9	100		WOR		Bentonite chips.
76.2					Grey clayey silt, poorly graded, soft, wet.		PID = 0, 0, 0 ppm.	
	25		S-10	100	Some fine sand layers (1 cm), wet.	WOR	PID = 0, 0, 0 ppm.	Filter sand.
70								
67.0	30		S-11		Grey fine silty sand, trace clayey silt, poorly graded, wet, schistose rock fragments in tip of spoon.	12	PID = 0, 0, 0 ppm.	Bentonite chips.
66.0								

Boring continues on next page

Date Started: 8/9/94
Date Completed: 8/10/94
Drilling Contractor: NEDD
Engineer/Geologist: TEM
Approved By:

Sample Types:
Auger Cutting
Vane Shear
SPT
UD
Penetrometer
Rock Core

Remarks: Ground water at 2.74' to PVC on 8/16/94. Monitoring well constructed of 2" diameter schedule 40 PVC. Well annulus backfilled with Morrie 01 Pool Filter Sand.

All depths in feet. Unless otherwise noted, water encountered but not recorded.

The stratification lines represent approximate boundaries. The transition may be gradual.

ROBERT G. GERBER, INC.

17 West Street
Freeport, Maine 04032-1133
207-865-6136

Consulting Geotechnical Engineers and Geologists

LOG OF BORING K-2D (continued)

Project:	Maine Yankee	Surface Elev.:	97.0
Job No.:	1253	Top of PVC Elev.:	96.73
Location:	Wiscasset, Maine	Equipment:	
Coordinates:		Drilling Method:	HSA/core (NV2)

Total Depth: 41.0
Hole Diameter: 3"

Elevation, feet	Depth, feet	Graphic Log and Sample Type	Sample No.	% Recovery	MATERIAL DESCRIPTION	SPT, N value or ROD in % / Vane Shear Strength Sv / ≈ psf	COMMENTS	WELL INSTALLATION DETAILS
			R-1	100	QUARTZ-BIOTITE, schist with garnet, moderately fractured, bedding dips at 50°, slight weathering in fractures.		Slight water loss in bedrock.	
	35		R-2				Running sand around casing/rock contact.	5' of slotted PVC screen surrounded by filter sand.
60								
	40							
56.0					Boring terminated at 41'.			

Date Started: 8/9/94
Date Completed: 8/10/94
Drilling Contractor: NEDD
Engineer/Geologist: TEM
Approved By:

Sample Types:
Auger Cutting
Vane Shear
SPT
UD
Penetrometer
Rock Core

Remarks: Ground water at 2.74' to PVC on 8/16/94. Monitoring well constructed of 2" diameter schedule 40 PVC. Well annulus backfilled with Morrie 01 Pool Filter Sand.

All depths in feet. Unless otherwise noted, water encountered but not recorded.

The stratification lines represent approximate boundaries. The transition may be gradual.

ROBERT G. GERBER, INC.

Consulting Geotechnical Engineers and Geologists

17 West Street
Freeport, Maine 04032-1133
207-865-6136

LOG OF BORING K-2S

Project:	Maine Yankee	Surface Elev.:	97.2	Total Depth:	18.0
Job No.:	1253	Top of PVC Elev.:	96.91	Hole Diameter:	4.25"
Location:	Wiscasset, Maine	Equipment:			
Coordinates:		Drilling Method:	HSA		

Elevation, feet	Depth, feet	Graphic Log and Sample Types	Sample No.	% Recovery	MATERIAL DESCRIPTION	SPT, N value or RQD in %	Vane Shear Strength Sv / e psf	COMMENTS	WELL INSTALLATION DETAILS
97.2	0				See boring B-2D for geologic description.				Bentonite chips.
90	5								
	10								15' of slotted PVC screen (0.010) surrounded by filter sand.
80	15								
79.2									

Date Started: 8/11/94
Date Completed: 8/12/94
Drilling Contractor: NEDD
Engineer/Geologist: TEM
Approved By:

Sample Types:
Auger Cutting
Vane Shear
SPT
UD
Penetrometer
Rock Core

Remarks: Ground water at 3.90' to PVC on 8/16/94. Monitoring well constructed of 2" diameter schedule 40 PVC. Well annulus backfilled with Morrie 01 Pool Filter Sand.

All depths in feet. Unless otherwise noted, water encountered but not recorded.

The stratification lines represent approximate boundaries. The transition may be gradual.

ROBERT G. GERBER, INC.

17 West Street
Freeport, Maine 04032-1133
207-865-6136

Consulting Geotechnical Engineers and Geologists

LOG OF BORING K-3D

Project: Maine Yankee
Job No.: 1253
Location: Wiscasset, Maine
Coordinates:

Surface Elev.: 98.2
Top of PVC Elev.: 97.93
Equipment:
Drilling Method: HSA/core (NV2)

Total Depth: 44.4'
Hole Diameter: 3"

Elevation, feet	Depth, feet	Graphic Log and Sample Types	Sample No.	% Recovery	MATERIAL DESCRIPTION	SPT, N value or RQD in %	Vane Shear Strength Sv / a psf	COMMENTS	WELL INSTALLATION DETAILS
98.2	0		S-1	50	Brown fine to coarse sand, trace small cobbles, trace gravel, moderately widely graded, dry. FILL	26		Amb. air = 0 ppm. PID = 0.0, 0.2 ppm.	Bentonite chips.
			S-2	75	Brown fine to coarse sand, some fine gravel, trace gray medium sand, widely graded, dry. FILL	48		PID = 0.2, 0.0 ppm.	
	5		S-3	75		64			Filter sand.
92.4			S-4	75	Olive brown clayey silt with gray clayey silt in seams, poorly graded, damp, trace fine sand. GLACIOMARINE	18		PID = 0.6, 0.6 ppm.	
90			S-5	75		8		PID = 0.0, 0.0 ppm.	
	10		S-6	100	Grey clayey silt in seams.	12		PID = 0.0, 0.0 ppm.	Bentonite chips.
			S-7	100		10		PID = 0, 0, 0 ppm.	
	15		S-8	100	Grey clayey silt and olive brown clayey silt, wet.	5		PID = 0, 0, 0 ppm.	Filter sand.
80									
78.0	20		S-9			7		PID = 0, 0, 0 ppm.	Bentonite chips.
			S-10			WOH		PID = 0, 0, 0 ppm.	
			S-11		Grey clayey silt, wet.	WOH		PID = 0, 0, 0 ppm.	
	25								Filter sand.
70									
	30		S-12	100	Some fine sand seams(1 cm).	WOH		PID = 0, 0, 0 ppm.	

Boring continues on next page

Date Started: 8/8/94
Date Completed: 8/9/94
Drilling Contractor: NEDD
Engineer/Geologist: TEM
Approved By:

Sample Types:
Auger Cutting
Vane Shear
SPT
UD
Penetrometer
Rock Core

Remarks: Ground water at 3.66' to PVC on 8/16/94. Monitoring well constructed of 2" diameter schedule 40 PVC. Well annulus backfilled with Morrie 01 Pool Filter Sand.

All depths in feet. Unless otherwise noted, water encountered but not recorded.

The stratification lines represent approximate boundaries. The transition may be gradual.

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ATTACHMENT 3

ATLAS DOCUMENT INPUT FORM

1. TITLE	Unusual Occurrence Reports UORs Small Releases and Spills
2. DOCUMENT TYPE	Reports
3. DOCUMENT FORM	
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	06/23/1994
10. CLASSIFICATION TYPE	"D"
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	Operations
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

CREW REVIEW/FILE

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: **SMALL KEROSENE OIL SPILL**

B. DATE/TIME OF EVENT: **06/23/94 0900**

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): **6** PLANT TRIP ?**NO**
REACTOR POWER (%): **~2%**

3. DESCRIPTION OF OCCURRENCE & IMMEDIATE CORRECTIVE ACTIONS:

At approximately 0900 the control room was notified about a Kerosene spill at the spare generator storage building. The HAZ MAT team was in the process of responding to what was determined to be a pin-hole leak in the supply line to the furnace from the heating oil storage tank.

During cleanup evaluations it was determined that approximately 10 to 20 gallons of Kerosene spilled to the gravel and into the ground. The control room was notified about this quantity at 1000 in order to assess reportability per the Spill Plan.

Gerber Environmental Services was called in to excavate the Kerosene soaked soil.

At approximately 1100 all notifications were made IAW the Maine Yankee Spill Plan.

At approximately 1200 Gerber arrived on site and assessed the situation. Subsequently, it was determined that the spill has been ongoing through the pin-hole leak for some indeterminate time. The pin-hole leak was caused by a sheet rock screw and most likely sealed the hole for a while and then came loose at some later time.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB: (LIST SEARCH CRITERIA)
Search criteria: Oil spill - numerous records found. None for kerosene.

5. REPORTABILITY DETERMINATION: (REPORTING CRITERIA; SHORT TERM PROC. 1-26-1; EMERGENCY PLAN PROC. 2.50.0; LER).
Reportable per Maine Yankee Spill Plan and MYP 1-26-1.

5A. FITNESS FOR DUTY: FOR CAUSE TEST REQUIRED? **NO** (YES or NO)
A For Cause Test is required as soon as possible after accidents involvin a failure in individual performance where there is a resonable suspicion that the worker's behavior contributed to those events which result in:
a. A personal injury.
b. A personnel radiation exposure or release of radioactivity in excess of regulatory limits.
c. Actual or potential substantial degradation of the level of plant safty

5B. EVALUATE FOR 10 CFR 21 REPORTABILITY: **NO** (YES or NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.
II: Corresponds to WO Priority Category 6. RESPONSE Time is 24 hours when presented at the Morning Meeting
III: Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME	
ENS	**Y**	**J.B. MABEN**	**06/23/94**	**1102**
NRC RESIDENT INSPECTOR	**Y**	**J.B. MABEN**	**06/23/94**	
DUTY CALL OFFICER	**N**			
STATE INSPECTOR*	**Y**	**J.B. MABEN**	**06/23/94**	**1050**
INDUSTRIAL SAFETY COORDINATOR	**Y**	**PRESENT**		

* NOTIFY THE SNI IN CASE OF A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

8. SCREENING CRITERIA FOR CORRECTIVE ACTION:

Does the event have a high potential consequence relative to any of the following:

- Nuclear Safety
- Personnel Safety
- Production
- Regulatory Response
- Public Relations

OR

-Does this event have a high probability of recurrence?

YES (Y/N) IF YES, THEN PSS and NSE implement procedure 0-16-1 and recommend scope of root cause determination in Section 9.

9. RECOMMENDED LEVEL OF ROOT CAUSE DETERMINATION: (Check one)

RC/NONE
RC/HPES
DEPARTMENTAL ROOT CAUSE
INTERDEPARTMENTAL TEAM ROOT CAUSE
RC/PRCE
RC/Evnt Revw Bd
X RC/Alt Method

10. PRELIMINARY LONGER TERM ACTION ITEMS:

CED 1) **Increase frequency of inspections of storage tanks in remote locations** AND OTHER TEMPORARY TANKS

~~2)~~ [**Consider installing catch basin/spill bin berm to prevent ground contamination.** (TANK HAS A CATCH BERM)]

CED 2) REPAIR LINE & MAKE NECESSARY CHANGES TO PREVENT RECURRANCE.

LIC. & E/S 3) REVIEW CRITERIA FOR FUEL LINES & TEMPORARY HAZARDOUS MATL TANKS/SYSTEMS FOR PROPER ENVIRONMENTAL COMPLIANCE.

ADMIN 4) CHECK OTHER MAINE YANKEE BLDGS/BRUNSWICK FOR SIMILAR PROBLEMS AND MAKE ANY NECESSARY CHANGES TO PREVENT UNMONITORED LEAKS.

11. SOME GOOD QUESTIONS TO ASK DURING THE MORNING MEETING:

a. Is this or another activity ongoing or likely to occur before corrective actions have been implemented? If so should we let it continue to occur without implementing some interim corrective measures? NO (YES/NO) Based on AI's ADMIN.

b. Did this event have the potential for serious personnel injury? If serious injury had occurred would we be doing anything differently? NO (YES/NO)

c. Have we assumed anything we shouldn't? NO (YES/NO)
IF THIS WAS ERR. COULD OF BEEN A SAFETY CONCERN - DISCUSS @ SAFETY MTG.

d. Should we put something on the "Nuclear Network"? NO (YES/NO)

SUBMITTED BY: **J.B. MABEN**

APPROVED BY/DATE: [signature] 6/23/94

NOTED BY: [signature] 6/24/94

94-64

FORM 2-1
IMMEDIATE NOTIFICATION FOR SPILLS

1. Complete this section with available information and follow up if information is not available.

Type of Spilled Substance: Kerosene ~~A + B~~

Qty Spilled 10 - 20 gal (gal,pint,lb) RQ (Table 2-3) _____ (gal,pint,lb) MSDS # 1678

Date/Time of Spill 4/23/94 1200 Location Spare Generator Sewage bldg

Date/Time of Discovery 4/23/94, 0900 Determination of leakage 1000.

Facilities and Equipment Affected: Generator Sewage bldg.

Injuries: No ✓ Yes__ Number and type _____

Name of MY person making report S. Cox Telephone Number (207) 882-6321

Name and address of facility: Maine Yankee, Old Ferry Road, Wiscasset, ME 04578 ✓

2. Circle Spill Category: A - Oil > 10 gallons to ground or hazardous waste
B - Oil Sheen to water
C - Haz Mat > RQ

3. Based on spill category (A,B,C), call agencies as indicated by unshaded boxes and provide Step 1 information.

Spill Category A	B	C	Agency/Telephone #	Time Limit	Date/ Time Rpt	Name of Report Receiver
X			MDEP 1-800-482-0777	One hour	1045	Mary Johnson
			National Response Center 1-800-424-8802	B - one hour. C - 15 min.		
					Spill Number	
			Wiscasset Fire Dept./911	15 min.		
			Lincoln Co. Sheriff's Office/ 882-7332	15 min.		
			Maine State Police/Hotline or 1-800-452-4664	15 min.		
X			NRC-Non Emergency Notification	Four hours	1102	T. ANDREWS
X			State Nuclear Safety Inspector - Courtesy	Four hours	1050	P. DOSTIE
			Mason Station/ 882-6212	None/Courtesy		
1	C-1	AR-1	Additional Forms Located in Appendix C			

4. Send completed forms to Hazardous Waste Coordinator for filing and Licensing for agency submission.

HSA ID# 68

6.8

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 92-051 Small (½ Gallon) Sodium Hydroxide Spill on Pavement
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	4/15/92
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: SMALL (1/2 GALLON) SODIUM HYDROXIDE SPILL ON PAVEMENT.

B. DATE/TIME OF EVENT: 04/1 /92 1045

C. DATE/TIME UOR COMPLETED: 04/15/19 1400

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 5
REACTOR POWER (%): 0%
Tave (deg F): 532
PLANT TRIP ?NO
PZR PRESSURE (psig): 2235
PZR LEVEL (%): 48

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

1045 The Hazardous Materials Coordinator reported to the PSS that approximately one half of a gallon of sodium hyroxide was spilled on the pavement near the water treatment loading dock.

The spill propagated from intentionally overturned drums on 4/14/92 that were thought to be "triple washed" and labelled. The drums, in fact, were not washed and labelled but contained a residue of sodium hydroxide that leaked out overnight. The spill did not stray from the immediate area, nor was it close to a storm drain.

The following agencies were notified:

11:00 Resident NRC inspector
11:15 Industrial Safety
11:20 DCO
11:35 MDEP - D. Phillips
11:45 USCG National Response Center - PO. Stillwagon
12:05 MEMA
12:10 SNSI
12:24 NRC via ENS

1230 Notified by the Hazardous Materials Coordinator that the spill had been cleaned up.

4. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Reportable per 1-26-1, M.Y. spill plan, and 10 CFR 50.72 (b)(2)(6).

5 A. FITNESS FOR DUTY:

WAS FOR CAUSE TESTING CONSIDERED FOR THIS EVENT? **No** (YES OR NO)

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

1.) Cleaned up spill.
2.) Determined cause of spill.
3.) Assessed reportability.

8. ACTION ITEMS (LONG TERM):

1.) Investigate cause of overturning unlabelled drum.
2.) Update 1-26-1 to be consistent with spill plan.
3.) Determine if worker training was adequate.

NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	J. Maben	12:24
NRC RESIDENT INSPECTOR	Y	J. Maben	11:00
DUTY CALL OFFICER	Y	B. Baxter	11:20
STATE INSPECTOR*	Y	J. Maben	11:35
INDUSTRIAL SAFETY COORDINATOR		J. Maben	11:10

* NOTIFY THE SNI IN CASE OF A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: Jerry Maben

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP, OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*PED Manager (CRS)
*CED Manager (JRH)
*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
Required Reading System (before shift)
Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 69

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DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 92-037 HAZARDOUS SUBSTANCE SPILL
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	3/15/92
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

CREW REVIEW/FILE

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: HAZARDOL SUBSTANCE SPILL

B. DATE/TIME OF EVENT: 03/15/92 0645

C. DATE/TIME UOR COMPLETED: 03/15/92 1400

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 2
REACTOR POWER (%): 0%
Tave (deg F): 97F

PLANT TRIP ?NO
PZR PRESSURE (psig): VENT
PZR LEVEL (%): 46

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

0645 Completed filling one of three tankers with Sodium Hydroxide (NaOH) from the Spray Chemical Addition Tank (SCAT).

0655 The second tanker was lined up for transfer operations. Once the transferring was started a flange on the tanker truck started leaking. The transfer was secured and the spill was quickly cleaned up with "speedy dry". It was determined that approximately 3 gallons spilled and all liquid was absorbed by the "speedy dry".

0700 The Hazardous Waste Coordinator was contacted for a reportability determination. The following notifications were made as a 1 hour reportable to the DEP:

1) Maine DEP 0737 - Dispatcher
2) Maine DEP 0755 - Perry Cogburn
3) MEMA 0800 - Duty Officer
4) NRC 0852 - Resident Inspector
5) NRC 0910 - ENS 4 hour call
6) SNSI 0920 - Pat Dostie
7) MY PA 0922 - Marshall Murphy

1100 MY Maintenance repaired the leaky flange on the installed equipment on the tanker truck. Transfer operations resumed.

1230 While transferring NaOH from a leakoff collection barrel another spill occurred. Approximately 1 gallon sprayed from the hose of a barrel pump and splashed an AO. The AO took a shower and reported to the plant nurse. There were no serious injuries and the spill was quickly cleaned up with "speedy dry".

CONT.

1330 Notified DEP about the one hour reportable. Perry Cogburn remarked that it was not reportable since it was part of the same evolution previously reported. No further official notifications were made.

THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)

Search criteria: NaOH or SCAT tank. No records exist, however, many reportable spills are found associated with oil.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

One Hour Reportable to Maine DEP., Four hour reportable to NRC IAW 10 CFR 50.72 b 2 vi Offsite Notification.

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

1) Stopped transfer operations.
2) Cleaned up spill.
3) Reported spill.
4) Briefed AO's

8. ACTION ITEMS (LONG TERM):

AI-92-037-01S **1) Evaluate adequacy of current controls for handling hazardous chemicals (i.e. increased use of berms and containment devices). Have Hazardous Waste Coordinator involvement in planning and executing such evolutions.**

AI-92-037-02 **2) Obtain written guidance on reportability of multiple spills.**

Tech Support Licensing

9. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME	
ENS	Y	Bob Meixell	03/15/92	0910
NRC RESIDENT INSPECTOR	Y	Bob Meixell	03/15/92	0852
DUTY CALL OFFICER	Y	Bob Meixell	03/15/92	1100
STATE INSPECTOR*	Y	Bob Meixell	03/15/92	0920
INDUSTRIAL SAFETY COORDINATOR	Y	Present		

* NOTIFY THE SNI IN CASE OF A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: Jerry Maben

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*PED Manager (CRS)
*CED Manager (JRH)
*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
Required Reading System (before shift)
Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 70

70 DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	VOR 92-034 Oil Leakage onTo Ground Undee Fuel Truck
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	3/6/92
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

FILE

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: **OIL LEAKAGE ONTO GROUND UNDER FUEL TRUCK**

B. DATE/TIME OF EVENT: **3/6/92 0900**

C. DATE/TIME UOR COMPLETED: **3/6/92 1300**

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): **1**	PLANT TRIP ?n
REACTOR POWER (%): **0**	PZR PRESSURE (psig): **14.7**
Tave (deg F): **98**	PZR LEVEL (%): **46**

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

0900 - Control Room receives report from OCC of an oil stain on the ground beneath the fuel truck parked in the vicinity of the C.W. Pumphouse. It is estimated that about 1 quart of oil has dripped onto the ground during the night.

0930 - HAZ MAT Coordinator determines that this incident is reportable to the State of Maine, Dept of Environmental Protection.

1010 - HAZ MAT Coordinator notifies State D.E.P.

1010 - State Nuclear Safety Inspector notified of report to D.E.P.

1010 - NRC Resident notified of report to offsite agency and of impending ENS call.

1100 - Plant Manager notified.

1100 - Mason Station notified per 1-26-1 (Attachment H)

1232 - ENS call to NRC to report offsite notification. (4-HR Non-Emergency call per 10 CFR 50.72(b)(2)(vi).

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Reportable to State of Maine D.E.P.
Reportable to SNSI.
Reportable to NRC per 10 CFR : 0.72(b)(2)(vi).

6. SAFETY SIGNIFICANCE CLASSIFICATION: III
CATEGORIZE ACCORDING TO THE TIME REQUIRED FOR A RESPONSE FROM MANAGEMENT, AFTER THE UOR HAS BEEN PRESENTED AT THE MORNING MEETING.

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

1. Assess reportability and make reports.
2. Initiate cleanup action
3. Inspect for source of leakage.

8. ACTION ITEMS (LONG TERM):

1. Install drip pans or absorbent pads under hose connections, drain valves, etc. of parked oil storage vehicles.
2. ~~Monitor equipment refueling operations.~~ Need?
3. ~~Ensure all on-site contractors understand Maine Yankee's obligations to the D.E.P. and the NRC; and the ramifications of spilling even the slightest amount of oil.~~

Pans have been installed

9. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	R.E. Maloney	1232 on 3/6/92
NRC RESIDENT INSPECTOR	Y	R.E. Maloney	1006 on 3/6/92
DUTY CALL OFFICER	n		
STATE INSPECTOR*	Y	R.E. Maloney	1005 on 3/6/92
INDUSTRIAL SAFETY COORDINATOR	n		

* NOTIFY THE SNI IN CASE OF A) EMERGENCY CLASSIFICAION
B) UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C) UNSCHEDULED RELEASES OF RADIOACTIVITY.
D) ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: R. E. Maloney

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*PED Manager (CRS)
*CED Manager (JRH)
*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
Required Reading System (before shift)
Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 71

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 92-011 Sanitary Sewer Line Leak on M.Y. Property
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	1/23/92
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: SANITARY SEWER LINE LEAK ON M.Y. PROPERTY

B. DATE/TIME OF EVENT: 1/23/92 2200

C. DATE/TIME UOR COMPLETED: 1/24/92 1500

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 7
REACTOR POWER (%): 69
Tave (deg F): 542

PLANT TRIP ?n
PZR PRESSURE (psig): 2235
PZR LEVEL (%): 43

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

At approx 2200 on 1/23/92 the PSS was advised of a possible Wiscasset sewer line leak/rupture on MY property in the vicinity of the base ball field. An official from Wiscasset was notified and inspected the site. Source of leak unknown and an attempt to obtain commercial sewage truck service was unsuccessful at that time.

At 0935 on 1/24/92 MY secured its sewage pumps and commenced inspection to determine source of leak.

At 1010 on 1/24/92 MY notified the State of Maine DEP of this leak IAW requirements of MY's Waste Discharge License.

At 1030, notified SNSI about report to DEP per Proc 20-301-1

At 1044, notified NRC resident of offsite notification to the State of Maine and of MY's intent to make 4-hour ENS call per 10 CFR 50.72(b)(2).

Inspection revealed source of leak to be a defective ball vent valve in the sewage pipe. Approximately 200 gallons of sewage/water had leaked from this valve. Valve was removed and a blank flange installed pending receipt/installation of a replacement valve. Sewer pipe was pressure tested at service pressure and restored to operation at approx 1130 on 1/24/92. Spilled sewage was removed by commercial vacuum truck.

At 1248, made 4-hour ENS notification call to NRC.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Reportable to State of Maine DEP, SNSI and NRC as noted above.

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

1. **Identified and secured source of leak.**
2. **Made required notifications.**
3. **Initiated clean-up actions.**

8. ACTION ITEMS (LONG TERM):

92-011-1 OPS - **1. Establish points of contact between MY and Wiscasset Public Works/Sewer District for coordination of response/troubleshooting of any future sewer piping problems.**

92-011- OPS - 2. Ascertain reporting requirements and incorporate in 1-20-1

92-011- PFCD 3. Request Wiscasset check other similar valves in sewer line.

9. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	R. Maloney	1248, 1/24/92
NRC RESIDENT INSPECTOR	Y	R. Maloney	1044, 1/24/92
DUTY CALL OFFICER			
STATE INSPECTOR*	Y	R. Maloney	1030, 1/24/92
INDUSTRIAL SAFETY COORDINATOR	n		

* NOTIFY THE SNI IN CASE OF A)EMERGENCY CLASSIFICAION
B)UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C)UNSCHEDULED RELEASES OF RADIOACTIVITY.
D)ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: R.E. Maloney

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*PED Manager (CRS)
*CED Manager (JRH)
*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
Required Reading System (before shift)
Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 72

12/ DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-098 Gasoline Tank Ground Water Sample Exceedence
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	12/6/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: GASOLINE TANK GROUND WATER SAMPLE EXCEEDENCE

B. DATE/TIME OF EVENT: 12/6/91 1425

C. DATE/TIME UOR COMPLETED: 12/6/91 1600

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 7
REACTOR POWER (%): 91
Tave (deg F): 574

PLANT TRIP ?N
PZR PRESSURE (psig): 2235
PZR LEVEL (%): 58

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

1445 The control room was notified that the results for 2 of the 4 water samples associated with the removal of the plant 1000 gal. gasoline tank exceeded the threshold value which requires that the State Department of Environmental Protection be notified.

The reporting threshold value for gasoline in water is 5 mg/l. The two samples which exceeded this value had concentrations of 5.4 mg/l and 6.9 mg/l respectively. There was no reporting requirement associated with the soil sample concentrations.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

1-26-1 4 hr report per 50.72(b)(2)(vi)

6. SAFETY SIGNIFICANCE CLASSIFICATION: III

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

-Notified State department of environmental protection
-Obtained concurrence from DEP that concentration levels did not require any immediate compensatory action.

8. ACTION ITEMS (LONG TERM):

-Determine if any long term compensatory actions are required.

91-098-1
Licensing

9. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	P.T. EBERT	12/6/91-1500
NRC RESIDENT INSPECTOR	Y	P.T.EBERT	12/6/91-1500
DUTY CALL OFFICER	n		
STATE INSPECTOR*	Y	P.T.EBERT	12/6/91
INDUSTRIAL SAFETY COORDINATOR	n		

* NOTIFY THE SNI IN CASE OF A)EMERGENCY CLASSIFICAION
B)UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C)UNSCHEDULED RELEASES OF RADIOACTIVITY.
D)ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: P.T.EBERT

APPROVED BY: _____

NOTED BY: _____

Distribution:

- *PM (RWB)
- *MMD (RLB)
- *MOD (AJC)
- *MTSD (RHN)
- *AMOD (JAN)
- *ATMOD
- *PSS
- *SOS
- *RO
- *VP,OPS (ETB)
- *OPD Section Head (STL)
- *MSP (MJV)
- *PED Manager (CRS)
- *CED Manager (JRH)
- *State Inspector (PJD)
- *NRC RESIDENT (CSM/WTO)
- *MGR QPD (JCF)
- *AUGUSTA TELEX
- *NSS Section Head
- *MOPS (RRL)
- *RE Supervisor (DAR)
- *Security - SAS (Shift Lieutenant)
- Operator Training Section Head (MDE)
- Specialty Training Section (HMS)
- Required Reading System (before shift)
- Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 73

73

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-092 Small Diesel Fuel Spill DG-2 Piping
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	11/1/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

T-22-4552

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: SMALL DIESEL FUEL SPILL DG-2 PIPING

B. DATE/TIME OF EVENT: 11 /91 1545

C. DATE/TIME UOR COMPLETED: 11/1/91 1900

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 7	PLANT TRIP ?N
REACTOR POWER (%): 100	PZR PRESSURE (psig): 2235
Tave (deg F): 574	PZR LEVEL (%): 58

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

11/1/91-1205 A report of an oil film in the vicinity of DG-2 was investigated by the hazardous waste coordinator. No leak could be identified and the presence of a film was attributed to residue from the 8/14/91 DG-2 spill (UOR 91-061) being surfaced by the rain.

11/1/91-1545 A second report of oil was also investigated by the hazadous waste coordinator and this time oil was detected weeping from a cracked fitting in the supply piping from the storage tank (TK-126) to DG-2. The total amount spilled was 50 ml(.01 Gal). Some of the oil flowed in the direction of a nearby storm drain but there was no visible sheen in the storm drain or storm drain discharge points. Following detection the leak was isolated and absorbent pads were used to clean up the spill.

In addition to the notifications listed in paragraph 9. the following activities were contacted USCG National Response Center(@1620), Maine State DEP(@1635), Mason Station(@1647) and M. Murphy(@1700).

The last DG-2 surveillance run occurred on 10/15/91.

CONT.

THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)

Criteria-Oil Spill 15 records found one similar 89-102 a leak in the fuel oil supply piping to the RWST furnace.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Reportable IAW 1-23-1 and the OIL SPILL PLAN

6. SAFETY SIGNIFICANCE CLASSIFICATION: **I**

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

-Isolated leak and laid absorbant pads
-Issued WO to replace fitting

8. ACTION ITEMS (LONG TERM):

91-092-1 PED **-Determine if tubing fittings should be heavier duty (Maintenance observation).**

91-092-2 LICENSING **-Determine if there should be a berm around the tank.**
-OIL SPILL PLAN needs to be updated. It requires filling out a referenced form (Appendix B) that doesn't exist.

91-092-3 LICENSING

NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	P.EBERT	1716
NRC RESIDENT INSPECTOR	Y	L.JEWETT	1650
DUTY CALL OFFICER	Y	L.JEWETT	1615
STATE INSPECTOR*	Y	P.EBERT	1705
INDUSTRIAL SAFETY COORDINATOR	N	N/A	N/A

* NOTIFY THE SNI IN CASE OF A)EMERG 'CY CLASSIFICAION
B)UNSCH DULED PLANT TRIP OR SHUTDOWN.
C)UNSCHEDULED RELEASES OF RADIOACTIVITY.
D)ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: P.T.EBERT

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
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*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
Required Reading System (before shift)
Public Affairs Director (MDM)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

APPENDIX C

HAZARDOUS WASTE/OIL SPILL REPORT

DATE 11/1/91 Time 15:45 AM (PM) DEP Spill # 94718

Division _____ District/Plant name MAINE YANKEE County LINCOLN

Town WISCASSET Road Name OLD FERRY ROAD Route # _____

Exact Location/Pole # _____

Type of Equipment DIESEL FUEL OIL TANK Make _____ Size 500 GAL

S/N _____ Weather Conditions LIGHT RAIN EARLIER THAT AFTERNOON

On or near water [X] Yes [ ] No If yes, name of body of water BACK RIVER

Type of chemical/oil DIESEL FUEL Level of PCB's (if known) NONE ppm

Amount of chemical/oil spilled 50 ML [ ] assumed 50-500 ppm PCB's

[X] assumed less than 50 ppm PCB's

Cause of Spill CRACKED NUT ON F.O.-108 CAUSED OIL TO DRIP ONTO GROUND AND FLOW TOWARDS STORM SEWER. HNC ESTIMATED THAT 25 ML WENT INTO STORM SEWER.

Measures taken to contain or clean up spill SHUT F.O.-108. PLACE BUCKET UNDER LEAK AND PLACED ABSORBENT PADS ON GROUND.

Amount of chemical/oil recovered 25 ML Method ABSORBENT PADS

Material collected as a result of clean up

<1 drums containing ABSORBENT PADS

_____ drums containing _____

_____ drums containing _____

Location and method of debris disposal CONTACT HAZARDOUS WASTE COORDINATOR

Name and address of any person, firm or corporation suffering damages _____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring _____

Spill reported to General Office by _____ Time ___:___ AM PM

Spill reported to DEP or National Response Center by LARRY JEWETT

DEP Date 11/1/91 Time 16:35 AM PM Inspector PERRY COCBURN

NRC Date 11/1/91 Time 17:16 AM PM Inspector TOM ANDREWS

Oil Sample # _____ PCB content NONE ppm Northeast Lab Sheet # _____

Additional comments _____

0064h

HSA ID# 74

74

DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-061 Small (1 gal.) Fuel Oil Spill During DG-2 Transfer
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	8/14/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: SMALL (1qt) FUEL OIL SPILL DURING DG-2 TRANSFER

B. DATE/TIME OF EVENT: 08/14/91 0900

C. DATE/TIME UOR COMPLETED: 08/14/91 1100

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 7	PLANT TRIP ?No
REACTOR POWER (%): 100	PZR PRESSURE (psig): 2235
Tave (deg F): 574	PZR LEVEL (%): 58

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

About 1 quart of diesel fuel oil was spilled on the pavement during fuel oil transfer operations from DG-2 fuel oil tank.

A portable fuel oil transfer pump was in service moving fuel oil from DG-2 fuel oil storage tank (TK-126) to several 55 gallon drums inside a diked area. After approximately 100 gallons of fuel oil was transferred a discharge filter on the transfer pump clogged and caused pressure to build up in the pump discharge line.

The line eventually separated from the transfer pump fittings and splashed about 1 quart of fuel oil from the diked area on to the surrounding pavement.

The pump was immediately stopped and the fuel oil contained with absorbent pads and speedy dry. Stronger hoses and fittings were installed, the filter was replaced, and transfer operations resumed without incident.

Notifications were made to the AMOD (0935), DCO (0940), USCG National Response Center-Chief Carlin (0940), Department of Environmental Protection-Perry Cogburn (0947), and Mason Station-Carroll Small (1015) in addition to those listed.

CONT.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)
UOR 91-036 OIL SPILL IN BOOMED AREA. UOR 89-035 SHEEN DETECTED ON BACK RIVER. UOR 87-119 OIL SPILL IN CW FOREBAY.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

This spill was reporatble IAW 1-26-1 and the oil spill plan.

6. SAFETY SIGNIFICANCE CLASSIFICATION: **III**

Category I: Corresponds to Work Order (WO) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to WO Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to WO Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

Stopped pump, cleaned up fuel oil with absorbent pads and speedy dry, and obtained stronger hoses and fittings. Changed filter periodically.

8. ACTION ITEMS (LONG TERM):

Filter will be installed on the suction side of the pump when returning fuel oil from the 55 gallon drums to the tank.

9. NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME	
ENS	Y	Jerry Maben	08/14/91	0959
NRC RESIDENT INSPECTOR	Y	Jerry Maben	08/14/91	1020
DUTY CALL OFFICER	Y	Ron Howard	08/14/91	0940
STATE INSPECTOR*	Y	Jerry Maben	08/14/91	1022
INDUSTRIAL SAFETY COORDINATOR	Y	Jerry Maben	08/14/91	1021

* NOTIFY THE SNI IN CASE OF A)EMERGENCY CLASSIFICAION
B)UNSCHEDULED PLANT TRIP OR SHUTDOWN.
C)UNSCHEDULED RELEASES OF RADIOACTIVITY.
D)ANY STATE AGENCY IS NOTIFIED EXCLUSIVE OF THE MONTHLY E-PLAN PHONE CHECKS.

SUBMITTED BY: Jerry Maben

APPROVED BY: Ronald Howard

NOTED BY: [signature]

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*State Inspector (PJD)
*NRC RESIDENT (CSM/WTO)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head
*MOPS (RRL)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (HMS)
*PED Section Head (CRS)
Required Reading System (before shift)
VP Public Affairs (JDF)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

APPENDIX C

HAZARDOUS WASTE/OIL SPILL REPORT

DATE 8/14/91 Time 1:00 (AM) PM DEP Spill # 8374h From NATIONAL RESPONSE CENTER

Division _____ District/Plant name MAINE YANKEE PWR CO County LINCOLN

Town WISCASSET Road Name FERRY Route # _____

Exact Location/Pole # _____

Type of Equipment DG-2 FUEL OIL TANK Make _____ Size 500 gal

S/N _____ Weather Conditions SUNNY

On or near water [X] Yes [ ] No If yes, name of body of water BACK RIVER (100 YARDS)

Type of chemical/oil DIESEL FUEL OIL Level of PCB's (if known) NONE ppm

Amount of chemical/oil spilled 1 QUART [ ] assumed 50-500 ppm PCB's

[X] assumed less than 50 ppm PCB's

Cause of Spill WHILE PUMPING OUT DG-2 FUEL OIL TANK INTO 55gal DRUMS DISCHARGE FILTER CLOGGED CAUSING PUMP DISCHARGE LINE TO SEPARATE FROM PUMP DISCHARGE CONNECTION

Measures taken to contain or clean up spill IMMEDIATELY STOPPED PUMP PLACED ABSORBENT PADS AND SPREAD DRY ON FUEL OIL

Amount of chemical/oil recovered 1 QUART Method ABSORBENT PADS AND SPREAD DRY

Material collected as a result of clean up

< 1 drums containing ABSORBENT PADS AND SPREAD DRY

_____ drums containing _____

_____ drums containing _____

Location and method of debris disposal CONTACT WASTE COORDINATOR

Name and address of any person, firm or corporation suffering damages NONE

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring CHANGE DISCHARGE FILTER MORE FREQUENTLY TO PREVENT FILTER FROM CLOGGING

Spill reported to General Office by _____ Time ____ : ____ AM PM

Spill reported to DEP or National Response Center by RONALD HOWARD EPA

DEP Date 8/14/91 Time 9:47 (AM) PM Inspector PERRY COBURN

NRC Date 8/14/91 Time 9:40 (AM) PM Inspector CLIFF CARLIN

Oil Sample # _____ PCB content _____ ppm Northeast Lab Sheet # _____

Additional comments _____

0064h

HSA ID# 75

TS DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-039 Oil Leak From Oil Processing Trailer
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	5/9/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: OIL LEAK FROM OIL PROCESSING TRAILER

B. DATE/TIME OF EVENT: 05/[illegible]/91 1920

C. DATE/TIME UOR COMPLETED: 05/09/91 2300

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 3
REACTOR POWER (%): 0
Tave (deg F): 145

PLANT TRIP ? No
PZR PRESSURE (psig): 245
PZR LEVEL (%): 36.5

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:
-1920 oil leak reported to control room. PSS investigation revealed that oil had been discharged from the oil processing trailer to the ground under the trailer. The trailer was located east of X-1B just outside the containment berm.

-1945 contacted Hazardous Waste Coordinator. HWC concurred with reportability to DEP and the cleanup plan.

-2000 DCO contacted

-2005 DEP notified, reported less than 5 gallons spilled.

Other relevant information

Further investigation to ensure that additional leaks would not occur revealed that an oil leak had occurred about 1500 on 05/09/91. Both leaks occurred during equipment startup in the trailer and the total oil release from both leaks was less than a gallon.

The 1500 leak was identified to the Transformer Shift Coordinator who placed absorbent pads in and buckets beneath the trailer. Absorbent pads were placed under the trailer at about 1600.

ONT.

THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)

Oil spill

UORs 91-036, 119-87, 89-102, 89-034, 89-035 these were spills of lube oil and fuel oil. UORs 042-85, 91-037 and 90-093 were X-former oil leaks.

INDEX NO. 91-039

4.02.4552

5. REPORTABILITY DETERMINATION, EXPLAIN, INCLUDE REPORT & CRITERIA AND EMERGENCY PLAN INFORMATION, CONSULT PROCEDURE 6.50.21.

This oil leak was reportable IAW procedure 1-86-1 and the oil spill plan.

6. SAFETY SIGNIFICANCE CLASSIFICATION: II

Category I: Corresponds to Discrepancy Report (DR) Priority Categories 1 thru 6. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to DR Priority Category 8. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to DR Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

- Remove oily sand into a 55 gallon drum.
- Poly and absorbent pads placed under trailer.
- Contract Personnel sensitized to significance of oil spills.

8. ACTION ITEMS (LONG TERM):

~~- Improve contractor awareness to oil spills whenever oil handling on site is required.~~

AI-91039-1 Outage - Investigate the control of oil and hazardous materials brought on site by contractors.

AI-91039-2 Outage Coordinator - Ensure supervisors of projects are aware of implications of oil spills. Evaluate implementation of supervisor training program when people are brought in from other departments during outages.

NOTIFICATION:

	Y/N	NOTIFIED BY	DATE/TIME
ENS	Y	Waldman	05/09/91 2242
NRC RESIDENT INSPECTOR		Waldman	05/09/91 2145
DUTY CALL OFFICER	Y	Baxter	05/09/91 2000
STATE INSPECTOR*	Y	Waldman	05/09/91 2210
INDUSTRIAL SAFETY COORDINATOR	N		

* NOTIFY THE SNI WHENEVER THE NRC IS NOTIFIED

SUBMITTED BY: Joe Waldman

APPROVED BY: _____

NOTED BY: _____

Distribution:

*PM (RWB)
*MMD (RLB)
*MOD (AJC)
*MTSD (RHN)
*AMOD (JAN)
*ATMOD
*PSS
*SOS
*RO
*VP,OPS (ETB)
*QPD Section Head (STL)
*MSP (MJV)
*State Inspector (PJD)
*NRC RESIDENT (CSM/RJF)
*MGR QPD (JCF)
*AUGUSTA TELEX
*NSS Section Head (2)
*RE Supervisor (DAR)
*Security - SAS (Shift Lieutenant)
Operator Training Section Head (MDE)
Specialty Training Section (WWW)
*PED Section Head (CRS)
Required Reading System (before shift)
VP Public Affairs (JDF)

* Distribute promptly by on-shift personnel, remainder of list distributed by Operations Department Admin Specialist

HSA ID# 76

76 DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-019 'A' Boron Waste Storage Tank (TK-13A) Heater Flange Leak
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	2/18/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

~~Correction~~ / FILE

INDEX NO. 91-019
MY-0-3-76
REV.13

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: 'A' BORON WASTE STORAGE TANK (TK-13A) HEATER FLANGE LEAK

B. DATE/TIME OF EVENT: 2/18/91

C. DATE/TIME UOR COMPLETED: 2/18/91 1500

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 5	PLANT TRIP ?N
REACTOR POWER (%): S/D	PZR PRESSURE (psig): 2235
Tave (deg F): 530	PZR LEVEL (%): 40

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

- Operator noted that the 'A' BWST diked area contained approximately 12 inces of warm water. Control room notified.

- Chemistry sampled the water. Determined to be BWST water. E-3 gross activity.

- Operations isolated the heater and began diverting the water to the ADT's.

- No radiological release occurred.

NT.

4. THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)
UOR 91-005, same problem. See 91-005 for others.

REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Not reportable. No radiological release.

6. SAFETY SIGNIFICANCE CLASSIFICATION: II

Category I: Corresponds to Discrepancy Report (DR) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to DR Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to DR Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

- Isolated heater.
- Diverted contaminated water to the ADT's.

8. ACTION ITEMS (LONG TERM):

- Repair BWST heater leak.

- Refer to AI or UOR 91-005.

- PCS to PED relative to correcting problem with BWST heater AI-90-0197 OPS

HSA ID# 77

77 DECOM

ATTACHMENT B

ATLAS DOCUMENT INPUT FORM

1. TITLE	UOR 91-005 'A' BORON WASTE STORAGE TANK (TK-13A) Heater Flange Leak
2. DOCUMENT TYPE	Report
3. DOCUMENT FORM	M
4. DOCUMENT LOCATION	
5. RETENTION PERIOD	
6. TECHNICAL FILE NUMBER	11.14.6 1.8.4.2
7. DOCUMENT NUMBER	
8. REVISION NUMBER	
9. DATE	1/9/91
10. CLASSIFICATION TYPE	D
11. TOPICAL INDUSTRY ISSUE	
12. KEYWORDS	
13. SUBJECT	
14. REFERENCE DOCUMENT	
15. SYSTEM CODE	
16. COMPONENT CODE	
17. CYCLE NUMBER	
18. ORIGINATOR	OPS
19. RECEIVER	
20. VENDOR CODE	
21. ACCESSION NUMBER	
ACTION: ADD/REPLACE/DELETE (CIRCLE ONE)	

OPERATIONS DEPARTMENT

UNUSUAL OCCURRENCE REPORT (UOR)

1. GENERAL

A. TITLE OF UOR: 'A' BORON WASTE STORAGE TANK (TK-13A) HEATER FLANGE LEAK

B. DATE/TIME OF EVENT: 1/9/91 0745

C. DATE/TIME UOR COMPLETED: 1/9/91 1200

2. PLANT CONDITIONS AT TIME OF OCCURRENCE:

OPERATING CONDITION (1-7): 4	PLANT TRIP ?N
REACTOR POWER (%): 0	PZR PRESSURE (psig): 350
Tave (deg F): 230	PZR LEVEL (%): 46

3. DESCRIPTION OF OCCURRENCE/SEQUENCE OF EVENTS:

- 0745 Operator noted that the 'A' BWST diked area contained approximately 12 inches of warm water. Control Room notified.

- Chemistry sampled the water. Determined to be BWST water. 1465 Cb, 2.6 E-3 gross activity, 3.7 E-4 I-131, 2.1 E-5 I-133.

- Operations isolated the heater for 'A' BWST and began diverting the diked area to the Fuel Building Sump which pumped the water to the ADT's. Approximately 2400 gal was removed from the dike.

Air samples taken at the diked area were all MDA. No radiological release occurred.

2547.18.3

CONT.

4. <u>THE FOLLOWING SIMILAR OCCURRENCES WERE FOUND IN THE OEDB:
(LIST SEARCH CRITERIA)</u>

The following UORs document various leaks due to the *RWST* siphon heater: 86-099,101; 87-002,017,153,159; 88-021,033,042.

5. REPORTABILITY DETERMINATION: (EXPLAIN, INCLUDING REPORTING CRITERIA AND EMERGENCY PLAN INFORMATION. CONSULT PROCEDURE 2.50.0).

Not reportable. No radiological release.

6. SAFETY SIGNIFICANCE CLASSIFICATION: II

Category I: Corresponds to Discrepancy Report (DR) Priority Categories 1 thru 5. May have Tech Spec or FSAR implications and a Safety Issues Concern form may be needed. RESPONSE TIME is immediate or accelerated e.g. 1400 of the same day when presented at the morning meeting.

Category II : Corresponds to DR Priority Category 6. RESPONSE TIME is 24 hours when presented at the Morning Meeting.

Category III : Corresponds to DR Priority Category 7 thru 10. A normal operational concern - routine.

7. IMMEDIATE CORRECTIVE ACTIONS:

- Isolated the 'A' BWST heater.
- Drained the 'A' BWST dike to the ADT's.

8. ACTION ITEMS (LONG TERM):

AI-91-005-1 MAINT - Repair BWST heater leak.

- Evaluate if modifications could be made to the RWST and BWST heaters and/or diked areas to minimize the probability or consequences of a radiological release.

AI-91-005-2 MAINT