



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

April 17, 2000

Docket No. 99990001
EA No. 00-079

Edward Gundrum
Vice President of Operations
Rowe International, Inc.
1500 Union Avenue, S. E.
Grand Rapids, MI 49507-1884

SUBJECT: INSPECTION NO. 99990001/99-013 AND NOTICE OF VIOLATION

Dear Mr. Gundrum:

On December 16 and 20, 1999, and January 5, 2000, Eric Reber of this office conducted a safety inspection at Whippany Ventures I, LLC, 75 Troy Hills Road, Whippany, NJ, and Sovereign Consulting, 111-A N. Gold Drive, Robbinsville, NJ, of activities authorized by the general license of Title 10, Code of Federal Regulations, Part 31.5 (10 CFR 31.5). The inspection was limited to a review of an event in which a generally licensed tritium exit sign was damaged at the Whippany Ventures I facility, then transported to Sovereign Consulting's Robbinsville facility. The transfer of ownership of the signs at the Whippany facility from you to Whippany Ventures I on September 15, 1999, was also reviewed. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. The findings of the inspection were discussed with you on March 27, 2000. The enclosed report presents the results of this inspection.

Based on the results of this inspection, it appears that your activities were not conducted in full compliance with NRC requirements. A Notice of Violation is enclosed that categorizes the violation by severity level in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG 1600. The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed on the docket in your letter to the NRC dated January 26, 2000. Your planned corrective actions were also described during the exit meeting on March 27, 2000, in which you stated that no tritium exit signs are currently installed in any other Rowe buildings, and that, if generally licensed tritium exit signs are installed in the future, Rowe will ensure that the required notifications are made if the building in which the signs are installed is subsequently sold. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

E. Gundrum
Rowe International, Inc.

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In accordance with Section 2.790 of NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and your reply will be placed in the Public Document Room (PDR).

Your cooperation with us is appreciated.

Sincerely,

Original signed by Judith A. Joustra

Judith Joustra, Acting Chief
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

Enclosure:

1. Notice of Violation
2. Inspection Report No. 99990001/99-013

cc w/ enclosures:

Ray Hendry, Associate, Whippany Ventures I
Richard Conway, Counsel, Rowe International
Ravi Gupta, Project Director, Sovereign Consulting
State of Michigan
State of New Jersey

E. Gundrum
Rowe International, Inc.

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Distribution:

PUBLIC

Nuclear Safety Information Center (NSIC)

Region I Docket Room

D. J. Holody, RI

DOCUMENT NAME: C:\199990001.99-013.04172000.wpd

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI	DNMS/RI		
NAME	Ereber ER		Jjoustra JAJ			
DATE	4/10/2000		4/10/2000			

OFFICIAL RECORD COPY

NOTICE OF VIOLATION

Rowe International, Inc.
Grand Rapids, MI

Docket No. 99990001

During an NRC inspection conducted on December 16 and 20, 1999, and January 5, 2000, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG-1600, the violation is listed below:

10 CFR 31.5 (c)(9)(i) requires, in part, that general licensees shall transfer devices to another general licensee only where the device remains in use at a particular location. In such case the transferor shall give the transferee a copy of this section and within 30 days of the transfer, report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the transferee.

Contrary to the above, on September 15, 1999, you (the general licensee) transferred devices to another general licensee where the devices remained in use at a particular location. You did not give the transferee a copy of 10 CFR 31.5 and within 30 days of the transfer, report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the transferee. Specifically, on September 15, 1999, you transferred the facility at 75 Troy Hills Road, Whippany, NJ to Whippany Ventures I LLC. Approximately 30 Saunders-Roe Developments Model Betalux-ETm tritium exit signs that originally contained 8.94 curies of tritium each were installed at the facility. Whippany Ventures I LLC was not given a copy of 10 CFR 31.5 and within 30 days of the transfer, Rowe International did not report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the Whippany Ventures One LLC.

This is a Severity Level IV violation (Supplement VI).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 99990001/99-013
Docket No. 99990001
Licensee: Rowe International, Inc.
Address: Rowe International, Inc.
1500 Union Avenue, S. E.
Grand Rapids, MI 49507-1884
Locations Inspected: 75 Troy Hills Road
Whippany, NJ
111-A N. Gold Drive
Robbinsville, NJ 08691
Inspection Dates: December 16 and 20, 1999, January 5, 2000, and March 27, 2000

Inspector: Original signed by:
Eric H. Reber 4/11/00

Eric H. Reber date
Health Physicist

Approved By: Original signed by:
Judith A. Joustra 4/11/00

Judith Joustra, Acting Chief date
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Rowe International, Inc.
NRC Inspection Report No. 99990001/99-013

Thirty generally licensed tritium exit signs were installed at the Rowe International, Inc. (Rowe) facility in Whippany, New Jersey. On September 15, 1999, the facility was sold to Whippany Ventures I LLC (WVI). One apparent violation was identified for the failure of Rowe to give WVI a copy of 10 CFR 31.5 and to notify the NRC of the transfer of the signs. During preparation for demolition of the facility, one of the signs was being removed by a worker and was broken. The sign was later transported to a consultant's office in Robbinsville, NJ. The Rowe facility and the consultant's office were both surveyed for removable contamination by a Region I inspector. Based on the low levels of contamination detected, the dose and resultant risk to a member of the public that would result from the free release of these facilities would be negligible. Therefore, no remediation is necessary.

REPORT DETAILS

I. Event

a. Inspection Scope

The circumstances surrounding the event in which a tritium exit sign was broken at an industrial facility and transported to the office of a consultant were reviewed.

b. Observations and Findings

The property at 75 Troy Hills Road, Whippany, NJ, is a 34 acre industrial site with 318,000 square feet of buildings including a training building and a "high bay" building. Rowe International, Inc. (Rowe) manufactured vending machines at the site until several years ago when operations were shut down. On September 15, 1999, the property was transferred to Whippany Ventures I LLC (WVI). Sovereign Consulting (Sovereign), a company specializing in site remediation, was hired by WVI to oversee the remediation and demolition of the facility.

Approximately 30 Saunders-Roe Developments Model Betalux-ETM tritium exit signs that originally contained 8.94 curies of tritium each were installed at the facility. According to Jim Roberts of SRB Technologies (successor company to Saunders-Roe Developments, Inc.), the signs were originally distributed as generally licensed devices to Rowe on March 23, 1987.

In preparation for demolition of the facility, a Sovereign employee was to remove all the signs. On December 6, 1999, the employee was removing a sign from above an exit door at the northeast side of the "high bay" building with a crow bar. The sign fell to the concrete floor and the glass cover of the sign was broken. The employee noticed that a glass tube in the "X" of the sign was cracked and that the cracked tube did not glow as brightly as the rest of the sign. The employee placed the sign in a cardboard box and transported it back to the training building.

The sign was transported to the Sovereign office at 111-A N. Gold Drive, Robbinsville, New Jersey on December 8, 1999, in the personal vehicle of another Sovereign employee. The sign was transported to the Sovereign office because the company's radiation specialist was stationed at the office. On December 16, 1999, at approximately 11:00 a.m., a Sovereign representative reported to the NRC that they were in possession of the broken sign.

An inspector from the Region I Office reviewed the circumstances regarding the event and performed surveys at the Sovereign's office on December 16, 1999, and the Rowe facility in Whippany, New Jersey on December 20, 1999.

II. Surveys for Removable Contamination

a. Inspection Scope

The Rowe facility and the Sovereign office were surveyed for removable contamination.

b. Observations and Findings

On December 16, 1999, 30 removable contamination wipe samples of 100 cm² each were taken at Sovereign's Robbinsville, NJ, office. Areas surveyed included the car that was used to transport the sign and both areas in the office where the sign was stored. The samples were analyzed in a Packard Tri-Carb 2250CA Liquid Scintillation Analyzer at the NRC Region I office. Table 1 (see attachment) lists the results of this survey.

On December 20, 1999, 21 wipe samples of 100 cm² each were taken at the Rowe facility in Whippany, NJ. Areas surveyed included the area near the exit door to the northeast wall of the "high bay" building where the sign broke, the cardboard box in which the sign was stored, the area in the training building where the sign was stored and the fire suppression closet in the training building where intact signs were being stored. Table 2 (see attachment) lists the results of this survey. Images made during this survey are included in Attachment 1.

c. Conclusions

On November 18, 1998, the NRC issued "Supplemental Information Regarding the Implementation of NRC's Final Rule of Radiological Criteria for License Termination." This guidance established acceptable screening levels for unrestricted release of buildings with surface contamination levels that would result in a dose to members of the public of 25 millirem per year. The acceptable screening limit for tritium was listed in Table 1—Acceptable License Termination Screening Values of Common Radionuclides for Building Surface Contamination as 1.210E+8 disintegrations per minute per 100 square centimeters area (dpm/100 cm²). Footnote 1 of this table indicates that in cases where the fraction of removable contamination was undetermined (as in this case), a value of 1.210E+7 dpm/100 cm² should be used.

Removable contamination levels of up to 105 dpm/100 cm² were measured at Sovereign's Robbinsville, NJ, office. Removable contamination levels of up to 16,300 dpm/100 cm² were measured on the glass cover from the broken sign and up to 9,960 dpm/100 cm² in the area where the sign broke at the Rowe facility. These tritium contamination levels were at least 700 times less than the undetermined removable contamination screening value from Table 1. Therefore, the dose and resultant risk to a member of the public that would result from the free release of these facilities would be negligible. Therefore, no remediation of these facilities is necessary.

III. Transfer of Licensed Material by Rowe International, Inc.

a. Inspection Scope

The transfer of the tritium exit signs by Rowe was reviewed.

b. Observations and Findings

According to Jim Roberts of SRB Technologies (successor company to Saunders-Roe Developments, Inc.), the tritium exit signs were originally distributed as generally licensed devices by Saunders-Roe Developments, Inc. to Rowe International, Inc. on March 23, 1987. Approximately 30 tritium exit signs were installed at the Rowe facility when it was transferred to WVI on September 15, 1999. Ray Hendry is the employee of WVI who handled the transfer of the property from Rowe to WVI. He stated that he was unaware that the signs were installed in the facility at the time of the transfer.

Richard Conway is the attorney that handled the sale of the Rowe property for Rowe. Part of his responsibility in the transaction was the transfer of all licenses to the new owner. He stated on January 5, 2000, that he was unaware that tritium exit signs were installed in the facility and therefore, was unable to notify the new owner or the NRC of the transfer of the signs. He stated that he will implement corrective actions including the notification of WVI and the NRC.

On February 14, 2000, the NRC Office of Nuclear Material Safety and Safeguards confirmed that they had received a letter dated January 14, 2000, from Rowe that documented the transfer of the tritium exit signs from Rowe to WVI. On February 4, 2000, Ray Hendry confirmed that he had received written notification from Rowe of the transfer of the tritium exit signs from Rowe to WVI.

c. Conclusions

10 CFR 31.5 (c)(9)(i) requires, in part, that general licensees shall transfer devices to another general licensee only where the device remains in use at a particular location. In such case the transferor shall give the transferee a copy of this section and within 30 days of the transfer, report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the transferee.

Contrary to the above, on September 15, 1999, the general licensee transferred devices to another general licensee where the device remained in use at a particular location. In this case the transferor did not give the transferee a copy of this section and within 30 days of the transfer, report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the

manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the transferee. Specifically, on September 15, 1999, Rowe International, Inc. transferred the facility at 75 Troy Hills Road, Whippany, NJ to Whippany Ventures I LLC. Approximately 30 Saunders-Roe Developments Model Betalux-E™ tritium exit signs that originally contained 8.94 curies of tritium each were installed at the facility. Whippany Ventures I LLC was not given a copy of 10 CFR 31.5 and within 30 days of the transfer, Rowe International did not report to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, the manufacturer's name and model number of devices transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Commission and the Whippany Ventures I LLC.

No other items of noncompliance or safety concerns were identified.

IV. Security

a. Inspection Scope

The security of licensed material was reviewed.

b. Observations and Findings

On March 30, 2000, Coleman King of Sovereign was contacted. He stated that the tritium exit signs, including the broken sign, have not been disposed and are currently secured at the former Rowe facility.

Access to the Rowe facility is restricted by a chain link fence around the perimeter of the facility. On December 20, 2000, the exit signs were stored in the training building that is kept locked.

c. Conclusions

No safety significant issues or violations were identified.

V. Radioactive Waste Management

a. Inspection Scope

The disposal of the tritium exit signs at the Rowe facility was reviewed.

b. Observations and Findings

On February 22, 2000, Ray Hendry of WVI was contacted regarding the disposal of the tritium exit signs at the former Rowe facility. He stated that he was aware of WVI's responsibility to properly dispose of the exit signs in accordance with 10 CFR 31.5.

Sovereign representatives have also indicated that they will ensure that the tritium exit signs (including the broken sign) at the Rowe facility will be properly disposed. SRB Technologies has indicated that Sovereign may return the signs (including the broken sign) at the Rowe facility to them.

On March 30, 2000, Coleman King of Sovereign was contacted. He stated that the tritium exit signs, including the broken sign, have not been disposed and are currently secured at the former Rowe facility. He stated that they are planning to ship the signs to SRB Technologies during the week of April 2, 2000.

c. Conclusions

No items of noncompliance or safety concerns were identified.

VI. Exit Meeting

The results of the inspection were discussed with Edward Gundrum on March 27, 2000. In that meeting, Mr. Gundrum stated that tritium exit signs are not currently installed in any other Rowe buildings. He also stated that if tritium exit signs are installed in the future, Rowe will ensure that the required notifications are made if the building in which the signs are installed is subsequently sold.

PARTIAL LIST OF PERSONS CONTACTED

Sovereign Consulting, Inc.

Andrew J. Schwartz, Project Engineer
Coleman P. King, Project Engineer
Ari Locklear, Project Manager
Dave Evans
Ravi Gupta, Project Director

SRB Technologies, Inc. (successor company to Saunders-Roe Developments, Inc.)

Jim Roberts, Vice President

Whippany Ventures I LLC

Ray Hendry, Associate

Schenck, Price, Smith & King, LLP

Richard Conway, Esq.

Rowe International, Inc.

Edward Gundrum, Vice President of Operations

Table 1 - Removable Contamination Survey Results - Sovereign Consulting, Inc.'s Robbinsville, NJ Office

Wipe Number	Wipe Location	dpm/100 cm ²
1	Left rear floor mat of car used to transport sign	0 ± 5
2	Left rear floor mat of car used to transport sign	7 ± 6
3	Left rear floor mat of car used to transport sign	6 ± 5
4	Left rear floor mat of car used to transport sign	0 ± 5
5	Door handle of car used to transport sign	8 ± 6
6	Back of driver's seat of car used to transport sign	11 ± 6
7	Left rear seat of car used to transport sign	11 ± 6
8	Right rear seat of car used to transport sign	10 ± 6
9	Driver's seat of car used to transport sign	2 ± 5
10	Driver's door handle of car used to transport sign	-2 ± 5
11	Chair in office where sign was stored	43 ± 6
12	Chair in office where sign was stored	105 ± 7
13	Chair in office where sign was stored	26 ± 6
14	Chair in office where sign was stored	45 ± 6
15	Floor in office where sign was stored	26 ± 6
16	Floor in office where sign was stored	1 ± 5
17	Floor in office where sign was stored	60 ± 6
18	Floor in office where sign was stored	88 ± 7
19	Wall in office where sign was stored	39 ± 6
20	Side of box in which sign was stored	26 ± 6
21	Side of box in which sign was stored	29 ± 6
22	Side of box in which sign was stored	20 ± 6
23	Side of box in which sign was stored	29 ± 6

Wipe Number	Wipe Location	dpm/100 cm ²
24	Bag in which sign was stored	62 ± 6
25	Floor of HVAC room where sign was stored	23 ± 6
26	Floor of HVAC room where sign was stored	24 ± 6
27	Floor of HVAC room where sign was stored	1 ± 5
28	Wall of HVAC room where sign was stored	15 ± 5
29	Floor of HVAC room where sign was stored	31 ± 6
30	Floor of HVAC room where sign was stored	-1 ± 5

Table 2 - Removable Contamination Survey Results - Rowe International, Inc.'s Whippany, New Jersey Facility

Wipe Number	Wipe Location	dpm/100 cm ²
1	Box in which sign was stored	14 ± 6
2	Box in which sign was stored	12 ± 6
3	Box in which sign was stored	6 ± 6
4	Box in which sign was stored	23 ± 6
5	Box in which sign was stored	14 ± 6
6	Portable stairs in Training Building where sign was stored	16 ± 6
7	Portable stairs in Training Building where sign was stored	43 ± 6
8	Portable stairs in Training Building where sign was stored	29 ± 6
9	Glass cover from broken sign	2660 ± 20
10	Glass cover from broken sign	1056 ± 16
11	Glass cover from broken sign	16300 ± 60
12	Glass cover from broken sign	8400 ± 40
13	Glass cover from broken sign	837 ± 14
14	Floor where sign broke in "high bay" building	9960 ± 60
15	Floor where sign broke in "high bay" building	1300 ± 20
16	Floor where sign broke in "high bay" building	551 ± 13
17	Floor where sign broke in "high bay" building	3800 ± 30
18	Glass shard from broken sign - analysis not available due to presence of phosphor on the sample	N/A
19	Floor where sign broke in "high bay" building	381 ± 11
20	Floor where sign broke in "high bay" building	181 ± 9
21	Intact signs in storage	821 ± 13
22	Intact signs in storage	147 ± 8

Attachment 1 - Images from Survey of Rowe International, Inc.'s Whippany, New Jersey Facility



Figure 1 Intact Saunders-Roe Developments Model Betalux-E™ Tritium Exit Sign



Figure 2 Sign Label

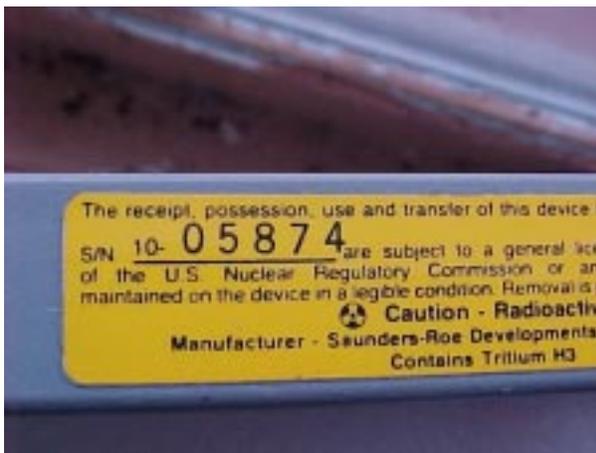


Figure 3 Sign Label Required by 10 CFR 32.51 - Part I

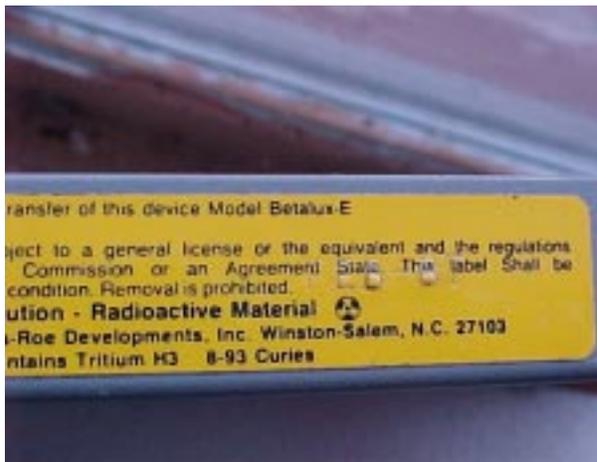


Figure 4 Sign Label Required by 10 CFR 32.51 - Part II



Figure 5 - Pieces of Disassembled Exit Sign



Figure 6 - Door where Broken Sign was Installed



Figure 7 - Cover of Broken Sign (in location where sign was damaged)



Figure 8 - Area of Building Where Sign Was Damaged

302116

SAMPLE RECORD SHEET

LABORATORY - REGION I REGION III

SAMPLE LOCATION: ROWE - Whippany, NJ
 COLLECTED BY: E. Reber
 DIVISION: DNMS
 TELEPHONE: _____
 DATE ANALYSIS BEGAN: 12/20/99
 DATE COMPLETED: 1/5/00
 CONTACT NOTIFIED: _____
 DATE: 1-5-00

NO	DATE	HOUR	SAMPLE DESCRIPTION	ANALYZE FOR	INSTR. NET USED	QUANTITY USED	DATE COUNTED	COUNT TIME	GROSS COUNT	BACK-GROUND	NET COUNT	RESULT*
1	12/20	-	w. pds	H-3	LSC	w. pds	12/21	20m	501	426	77	eff
2									493	418	75	14 ± 6
3									460	428	32	12 ± 6
4									486	379	107	6 ± 6
5									483	411	72	23 ± 6
6									573	453	120	14 ± 6
7									632	413	219	16 ± 6
8									592	436	156	43 ± 6
9									15607	462	15145	29 ± 6
10									5565	396	5169	2660 ± 20
11									75091	371	74720	1056 ± 16
12									46300	412	45888	16300 ± 60
13									4685	413	4272	8400 ± 40
14									31014	250	30764	837 ± 14
15									6762	396	6366	9960 ± 60
16									2792	358	2434	1300 ± 20
17									15278	319	14959	557 ± 13
												3800 ± 30

INSPECTION

* Random uncertainties as reported: ± 1 σ, ± 2 σ. Small negative and other results ≤ 2 σ are interpreted as including "zero" or as not detected. If appropriate, estimates of possible systematic errors are reported in parentheses.

NRC FORM 304A (8-1987)		U. S. NUCLEAR REGULATORY COMMISSION										LABORATORY CONTROL NUMBER	
SAMPLE RECORD SHEET (Continued)													
NO.	DATE	HOUR	SAMPLE		ANALYZE FOR	INSTRUMENT USED	QUANTITY USED	DATE COUNTED	COUNT TIME	GROSS COUNT	BACK-GROUND	NET COUNT	RESULT: dpm/cw, Ra
			DESCRIPTION										
19	12/20	-	2.1785		H-3	LSC	1 wipe	12/21	20m	1961	344		381 ± 11
20		-								1156	358		191 ± 9
21		-								5059	454		821 ± 13
22		-								1098	390		147 ± 8
NOTE: unable to analyze sample # 18 due to the presence of phosphorus on the sample.													
Taken from Quench Curve													

INSPECTION

* Random uncertainties as reported: $\pm 1\sigma$, $\pm 2\sigma$. Small negative and other results $\leq 2\sigma$ are interpreted as including "zero" or as not detected. If appropriate, estimates of possible systematic errors are reported in parentheses.

REQUEST FOR ANALYSIS

LABORATORY - REGION I REGION III

CONTROL NUMBER

302116

SAMPLE LOCATION (LICENSEE)

Kowr - Whippany, NJ

LICENSE NO.

GL

DOCKET NO.

SAMPLE SUBMITTED

# TOTAL	TYPE	VOLUME	WEIGHT	DATE SAMPLES SUBMITTED	PRIORITY			
					ROUTINE	URGENT	SAMPLE COLLECTION INTERVAL	
				START	MONTH	DAY	YEAR	TIME
22	100cm ² wipers	100cm ²		12/20/99				
				STOP				

INSPECTOR RESPONSIBLE

TELEPHONE NUMBER

ANALYSIS TO BE PERFORMED	LIST DESIRED LLD (Optional)	OTHER TYPE OF ANALYSIS (Specify)	LIST DESIRED LLD (Optional)
GROSS ALPHA (GA)			
GROSS BETA (GB)			
GAMMA SPEC (GS)			
X TRITIUM (H3)			
CARBON-14 (C14)			
IODINE-125 (I125)			

RELINQUISHED BY	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
	JOR	12/20	1630	Transfer to Lab

REMARKS

NOTE: SAMPLES WILL BE DISCARDED AFTER ANALYSIS UNLESS REASONS ARE NOTED IN REMARKS ABOVE.

SAMPLE RECORD SHEET

302115

LABORATORY - REGION I REGION III

ROUTINE
 URGENT

DATE REQUIRED
ASAP

SAMPLE LOCATION
COLLECTED BY
E. Reber

DIVISION
DNMS

OFFICE
Savoy 169n Consulting - Office

TELEPHONE

DATE ANALYSIS BEGAN
12/17

CONTACT NOTIFIED

DATE COMPLETED
12/20

APPROVED BY
[Signature]

DATE
12/20/99

NO	DATE	HOUR	SAMPLE DESCRIPTION	ANALYZE FOR	INSTRUMENT USED	QUANTITY USED	DATE COUNTED	COUNT TIME	GROSS COUNT	BACK-GROUND	NET COUNT	EFF	RESULT
1	12/16	PM	wipes	H-3	LSC	1 wipe	12/18	20m	392	↑ CORRECTED FOR QUENCH, VARIED FROM 339 - 442 COUNTS	↑	↑	0 ± 5
2									425				7 ± 6
3									427				6 ± 5
4									398				0 ± 5
5									422				8 ± 6
6									432				11 ± 6
7									433				11 ± 6
8									458				10 ± 6
9									403				2 ± 5
10									393				-2 ± 5
11									617				43 ± 6
12									916				105 ± 7
13									538				26 ± 6
14									576				45 ± 6
15									509				26 ± 6
16									450				1 ± 5
17									684	↓	↓	↓	60 ± 6

* Random uncertainties as reported: ± 1 σ, ± 2 σ. Small negative and other results ≤ 2 σ are interpreted as including "zero" or as not detected. If appropriate, estimates of possible systematic errors are reported in parentheses.

3011302115

U. S. NUCLEAR REGULATORY COMMISSION

SAMPLE RECORD SHEET (Continued)

NRC FORM 304A (8-1987)

NO.	SAMPLE		ANALYZE FOR	INSTRUMENT USED	QUANTITY USED	DATE COUNTED	COUNT TIME	GROSS COUNT	BACK GROUND	NET COUNT	EFF.	RESULT
	DATE	HOUR										
18	12/16	PM	H-3	LSC	wipe	12/18	20m	808	↑		↑	dpm/wipe 88±7
19								567				39±6
20								516				26±6
21								526				29±6
22								482				20±6
23								517				29±6
24								701				62±6
25								450				23±6
26								460				24±6
27								415				1±5
28								508				15±5
29								400				31±6
30								402				-1±5

CORRECTED FOR QUENCH, VARIED FROM 22.39% to 29.20%

CORRECTED FOR QUENCH, VARIED FROM 389-142 counts

* Random uncertainties as reported: ± 1 σ, ± 2 σ. Small negative and other results ≤ 2 σ are interpreted as including "zero" or as not detected. If appropriate, estimates of possible systematic errors are reported in parentheses.

Protocol #: 3 Name: H-3 DPM 17-Dec-99 11:08
 Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
 Region B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
 Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
 Time = 1.00 QIP = tSIE ES Terminator = Count
 Conventional DPM
 Nuclide 1 = 156034

PID	S#	TIME	CPMA	A:25%	CPMB	B:25%	DPM1	DPM2	ELTIME	tSIE	FLAG
12	1	1.00	24.00	40.82	19.00	45.88	79.31		2	311.	L
12	2	1.00	33.00	34.81	24.00	40.82	114.70		3	294.	L
12	3	1.00	23.00	41.70	17.00	48.50	77.60		5	305.	L
12	4	1.00	28.00	37.79	20.00	44.72	90.64		6	318.	L
12	5	1.00	22.00	42.64	22.00	42.64	77.43		8	290.	L
12	6	1.00	22.00	42.64	17.00	48.50	79.28		9	282.	L
12	7	1.00	31.00	35.92	23.00	41.70	110.78		11	285.	L
12	8	1.00	18.00	47.14	13.00	55.47	57.98		12	320.	L
12	9	1.00	21.00	43.64	13.00	55.47	70.13		14	308.	L
12	10	1.00	15.00	51.63	12.00	57.73	48.89		15	316.	L
12	11	1.00	32.00	35.35	27.00	38.49	107.93		17	305.	L
12	12	1.00	50.00	28.28	28.00	37.79	175.15		19	292.	L
14	13	1.00	30.00	36.51	23.00	41.70	98.73		20	313.	L
14	14	1.00	28.00	37.79	16.00	49.99	103.63		22	274.	L
14	15	1.00	26.00	39.22	17.00	48.50	92.43		23	287.	L
14	16	1.00	36.00	33.33	28.00	37.79	108.55		25	344.	L
14	17	1.00	44.00	30.15	31.00	35.92	153.71		26	293.	L
14	18	1.00	44.00	30.15	27.00	38.49	157.79		28	284.	L
14	19	1.00	41.00	31.23	29.00	37.13	146.21		29	286.	L
14	20	1.00	37.00	32.87	22.00	42.64	131.15		31	288.	L
14	21	1.00	37.00	32.87	26.00	39.22	132.32		33	285.	L
14	22	1.00	40.00	31.62	23.00	41.70	140.17		34	292.	L
14	23	1.00	30.00	36.51	27.00	38.49	107.77		36	283.	L
14	24	1.00	40.00	31.62	30.00	36.51	133.22		37	309.	L
1	25	1.00	22.00	42.64	15.00	51.63	82.12		39	271.	L
1	26	1.00	25.00	39.99	15.00	51.63	88.92		40	287.	L
1	27	1.00	27.00	38.49	20.00	44.72	88.00		42	316.	L
1	28	1.00	27.00	38.49	16.00	49.99	81.02		43	346.	L
1	29	1.00	26.00	39.22	18.00	47.14	103.22		45	284.	L
1	30	1.00	36.00	33.33	26.00	39.22	118.03		47	314.	L
1	31	1.00	16.00	49.99	13.00	55.47	61.49		48	262.	BKGD
1	32	1.00	33.00	34.81	24.00	40.82	132.19		50	251.	BKGD
1	33	1.00	5849.00	2.61	3292.00	3.48	24858.5		51	238.	STD

NRC FORM 304 (8-1997)

U. S. NUCLEAR REGULATORY COMMISSION

SAMPLE RECORD SHEET

LABORATORY - REGION I REGION III

LABORATORY CONTROL NUMBER
302115

LABORATORY ROUTINE DATE REQUIRED
 URGENT **ASAP**

DATE ANALYSIS BEGAN **12/17** DATE COMPLETED **12/20**

DATE ANALYZED BY **[Signature]** DATE **12/20/99**

COLLECTED BY **E. Reber** DIVISION **DNMS** TELEPHONE

CONTACT NOTIFIED

NO.	DATE	HOUR	SAMPLE DESCRIPTION	ANALYZE FOR	INSTRUMENT USED	QUANTITY USED	DATE COUNTED	COUNT TIME	GROSS COUNT	BACK-GROUND	NET COUNT	EFF	RESULT
1	12/16	PM	wipes	H-3	LSC	1 wipe	12/18	20m	392	↑ CORRECTED FOR QUENCH, VARIED FROM 339 - 442 COUNTS	↑	↑ CORRECTED FOR QUENCH, VARIED FROM 22.39% TO 29.20%	0 ± 5
2									425				7 ± 6
3									427				6 ± 5
4									398				0 ± 5
5									422				8 ± 6
6									432				11 ± 6
7									433				11 ± 6
8									458				10 ± 6
9									403				2 ± 5
10									393				-2 ± 5
11									617				43 ± 6
12									916				105 ± 7
13									538				26 ± 6
14									576				45 ± 6
15									509				26 ± 6
16									450				1 ± 5
17									684				60 ± 6

INSPECTION

* Random uncertainties as reported: ± 1 σ, ± 2 σ. Small negative and other results ≤ 2 σ are interpreted as including "zero" or as not detected. If appropriate, estimates of possible systematic errors are reported in parentheses.

