

Environmental Services

Rich Dailey, Sr. Director

Radiation Safety Officer

1300 SE 8th Street
Bentonville, AR 72716-0605
Phone 479.204.9914
Rich.Dailey@wal-mart.com
www.walmart.com

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Charles Miller, Director
Office of Federal and State Materials
and Environmental Management Programs
U.S. Nuclear Regulatory Commission
One White Flint North
11545 Rockville Pike
Rockville, MD 20852

Subject: Supplemental Report of Damaged Tritium Exit Signs

Dear Dr. Miller:

On July 15, 2008, consistent with 10 CFR§ 31.5(c)(5), Wal-Mart Stores, Inc. ("Wal-Mart") sent the U.S. Nuclear Regulatory Commission ("NRC") a report regarding two damaged tritium exit signs ("TES") that it discovered at store #1934, located in South Hill, Virginia. In that report, Wal-Mart committed to provide a supplemental report regarding a visit by Wal-Mart representatives and a Certified Health Physicist from Dade Moeller & Associates to that store. That supplemental report is provided herein as Attachment A.

Information on the damaged TES is provided below:

<u>Serial #</u>	<u>Curies</u>	<u>Damage Date</u>	<u>Store Location</u>
320020	11.5	unknown	315 Furr St., South Hill, VA
320025	11.5	unknown	315 Furr St., South Hill, VA

Please contact me at (479) 204-9914, if you have any questions regarding this letter or the attached report.

Sincerely,



Richard Dailey

Radiation Safety Officer
Wal-Mart Stores, Inc.

cc: Angela Washington, Wal-Mart Stores, Inc.
Thomas Poindexter, Morgan Lewis & Bockius LLP

Attachment

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Attachment A

A. Actions Taken

On July 22, 2008, Wal-Mart representatives and a Certified Health Physicist ("CHP") from Dade Moeller & Associates ("Dade Moeller") visited Wal-Mart store #1934 in South Hill, Virginia to conduct radiological surveys, package the tritium exit signs ("TES") for disposal, and decontaminate the areas to ALARA levels, as necessary. The CHP removed and packaged both TES for transfer according to a protocol established by Isolite, a specific licensee authorized to receive TES for disposal. Interviews with the store managers and associates provided no information as to when or how the TES were damaged.

The CHP, after removing the TES, cleaned the mounting locations and conducted direct monitoring of the areas deemed likely to have become contaminated. The results appear in Table 1. The CHP also conducted swipe surveys by wiping a 100 cm² area (approximately 4 X 4 inches) with a paper disk. The disks were then placed in 7 ml vials and shipped to Dade Moeller's certified laboratory. The results appear in Table 2.

Table 1. Direct Monitoring Results

	Location, Description	Results ¹ (dpm/100 cm ²)
TES Serial #320025	<i>Floor Background</i>	2248
	1 – Floor underneath sign, left – pre cleaning	0
	2 – Floor underneath sign, middle– pre cleaning	130
	3 – Floor underneath sign, right– pre cleaning	-130
	<i>Header Background</i>	1455
	4 – Header, left of cut location – pre cleaning	750
	5 – Header, left of TES post sign removal, pre cleaning	1800
	6 – Header, center of TES post sign removal, pre cleaning	540,000
	7 – Header, right of TES post sign removal, pre cleaning	240
	8 – Header, right of cut location – pre cleaning	130
	9 – Header, left of TES post sign removal, post cleaning	770
	10 - Header, center of TES post sign removal, post cleaning	17,000
	11 - Header, right of TES post sign removal, post cleaning	-130
	<i>Floor Background</i>	2248
	12 - Floor underneath sign, left – post cleaning	-260
	13 - Floor underneath sign, left – post cleaning	-530
	14 - Floor underneath sign, left – post cleaning	-260
TES Serial #320020	<i>Floor Background</i>	2063
	1 – Floor underneath sign, left – pre cleaning	317
	2 – Floor underneath sign, middle– pre cleaning	450
	3 – Floor underneath sign, right– pre cleaning	317
	<i>Header Background</i>	264
	4 – Header, left of cut location – pre cleaning	793
	5 – Header, left of TES post sign removal, pre cleaning	4894
	6 – Header, center of TES post sign removal, pre cleaning	410,000
	7 – Header, right of TES post sign removal, pre cleaning	790
	8 – Header, right of cut location – pre cleaning	790
	9 – Header, left of TES post sign removal, post cleaning	530
	10 - Header, center of TES post sign removal, post cleaning	15,000
	11 - Header, right of TES post sign removal, post cleaning	340
	<i>Floor Background</i>	2063
	12 - Floor underneath sign, left – post cleaning	260
	13 - Floor underneath sign, left – post cleaning	400
	14 - Floor underneath sign, left – post cleaning	260

¹For dpm/100 cm² background is subtracted and a nominal detection efficiency of 30 percent is assumed. Actual probe area is 126 cm², and the instrument is calibrated with the screen in place. Results are divided by 1.26 to correct to 100 cm².

Table 2. Removable Contamination Surveys for Both TES

Description, Location	Results ¹ (dpm/100 cm ²)
TES Serial #320025	
Field Blank	7
Floor to left of TES, pre sign removal, pre cleaning	5
Floor below TES, pre sign removal, pre cleaning	-0.7
Floor to right of TES, pre sign removal, pre cleaning	5
Left of TES, pre removal, pre- cleaning	12
Right of TES, pre sign removal, pre-cleaning	13
Floor to left of TES, post sign removal, post cleaning	17
Floor below TES, post sign removal, post cleaning	13
Floor to right of TES, post sign removal, post cleaning	12
Left of TES, post removal, post cleaning	5
Wallboard behind removed Plywood	11
Right of TES, post removal, post cleaning	5
Field Blank	12
Waste Box	8
TES Serial #320020	
Field Blank	6
Floor to left of TES, pre sign removal, pre cleaning	9
Floor below TES, pre sign removal, pre cleaning	10
Floor to right of TES, pre sign removal, pre cleaning	9
Left of TES, pre removal, pre- cleaning	140
Right of TES, pre sign removal, pre-cleaning	28
Floor to left of TES, post sign removal, post cleaning	3
Floor below TES, post sign removal, post cleaning	4
Floor to right of TES, post sign removal, post cleaning	4
Left of TES, post removal, post cleaning	11
Plywood behind sign, post cleaning	100
Right of TES, post removal, post cleaning	1
Field Blank	4
TES Shipping Box Inner – South Hill	3
TES Shipping Box Outer - South Hill	12

¹ Net results; average background of 20 dpm H-3

Because of the significantly elevated contamination detected by direct readings at both TES mounting locations, the CHP removed the plywood behind both TES mounting locations. The plywood was packaged in a lined, ORM-D box, sealed, marked as TES waste, and stored in the store claims area. Wal-Mart will contact a waste broker to pick up and ship the waste to a low-level waste depository for disposal. After cleaning and plywood removal, all results are less than 1,000 dpm/100 cm². The CHP concluded that no additional action is necessary.

B. Shipping Details

Wal-Mart transferred the damaged TES to a specific licensee authorized to receive damaged TES on July 23, 2008. Wal-Mart sent the NRC a report of that transfer on August 22, 2008.