

License No. 25-01706-03  
Docket No. 030-00872  
Control No. 472475

**Evans, Robert**

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**From:** Corti, Dan [Dan.Corti@mso.umt.edu]  
**Sent:** Thursday, February 18, 2010 9:10 AM  
**To:** Evans, Robert  
**Cc:** Altenhofen, Kay  
**Subject:** FW: NRC request for additional information - Univ of Montana license amendment  
**Attachments:** St Pats use interrogatory.doc; nrc314.pdf; survey results.pdf

Mr. Evans,

I inadvertently addressed yesterday's email of the same content to Mr. Brown instead of to you. Trust me, this was not an attempt to bolster your confidence in my attention to detail. If you know of a statutory limit on the number of Mondays in any given week, please advise as there seem to be an inordinate occurrence of them lately.

Please let me know if I can provide any further information which I will attempt to address to the right person.

Dan Corti  
Executive Director  
Environmental Health and Risk Management  
The University of Montana-Missoula  
32 Campus Drive  
Missoula, MT 59812-9144  
Tele: 406-243-2881  
Fax: 406-243-6452

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**From:** Corti, Dan  
**Sent:** Wednesday, February 17, 2010 2:11 PM  
**To:** Evans, Robert  
**Cc:** Spitzberg, Blair; Browder, Rachel; Altenhofen, Kay; Corti, Dan; Denker, Claudia; Dwyer, Dan; Keith Parker; Kent Sugden; Maryann McCrackin; Scott Samuels; Steve Lodmell  
**Subject:** RE: NRC request for additional information - Univ of Montana license amendment

Mr. Brown,

I am writing in response to your email of February 10, 2010 requesting the additional information below. Please see the text in blue for answers. Before you get to that I feel I should apologize for approaching this amendment request in a piecemeal fashion. I had not read NUREG 1757 Vol 1 or 2 prior to this request and had I done so, it would have saved both of us considerable time.

Thank you for your consideration of this request and please let me know if I need to provide further information,

Dan Corti  
Executive Director  
Environmental Health and Risk Management  
The University of Montana-Missoula  
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Missoula, MT 59812-9144  
Tele: 406-243-2881  
Fax: 406-243-6452

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**From:** Evans, Robert [mailto:Robert.Evans@nrc.gov]  
**Sent:** Wednesday, February 10, 2010 10:17 AM  
**To:** Corti, Dan  
**Cc:** Spitzberg, Blair; Browder, Rachel  
**Subject:** NRC request for additional information - Univ of Montana license amendment

Dan-

I've been assigned to review your license amendment request for removal of St. Patrick's Hospital and Health Sciences Center from the license. I've reviewed all pertinent records, and I have 3 requests for additional information.

First, please consider filling out an NRC Form 314 (available on NRC's web page), but leave Section A blank since you are not requesting license termination. Form 314 or equivalent is recommended by NUREG-1757, Vol 1, Revision 2, Table 1.2 for Group 2 decommissioning projects. This Form is being requested, in part, to certify the disposal of the radioactive waste material. NRC Form 314 is attached as requested. As noted in earlier correspondence, tritium in low amounts (a total of 1.75 millicuries ) was all that was used at this site.

Second, your response email, previously submitted to Rachel Browder, didn't clearly account for Rooms 3263, 3264, and 3276. We need you to provide either survey data or an affirmation that radioactive materials were never used in these 3 rooms. I have attached an email response from the authorized user who oversaw the operation at St. Pats, interviewed Kay Altenhofen the RSOS who did the quarterly inspections and the user files for this location and all documentation and verbal statements including my own observations during waste pick-ups are consistent that there was no radioactive materials use in rooms 3263, 3264 or 3276. Based on the above, I am hereby affirming that radioactive materials were never used in these 3 rooms.

Third, consider increasing the number of swipe sample points from 10 to 30 (for all 4 rooms). Thirty sample points are the recommended number of locations suggested by NUREG-1575, Revision 1, Appendix B, for statistical reasons. Otherwise, provide a reason why you chose 10 sample points. I choose 10 sample points due to the small lab space to survey, the low levels of tritium that had been used and the large area surveyed per wipe sample. As I stated in earlier correspondence, our policy is to survey an area considerably larger than 100 square centimeters and if counts are elevated, go back to quantify by re-sampling in a smaller, known area. Since the total radioactive materials used at this location were well accounted for from purchase to waste disposal and were very small in quantity, this was deemed sufficient at the time although I now realize not in keeping with NUREG 1575 Revision 1, App. B.

Let me try and further explain the thought process that led me to believe this was a very low risk situation that did not necessitate extensive monitoring to release the space. NCRP Report 30 states the Annual Limit on Intake (ALI) is 80 mCi of tritium and the Committed Effective Dose Equivalent (CEDE) is 64 millirem per millicurie of tritium ingested. The maximum amount that was ever at this site at any one time was 1.0 millicuries of tritium with only 1.75 millicuries total ever ordered at this site. Waste records accounted for disposal of all materials and no spills occurred at this site. Since the beta energy of tritium is so low, accrued dose beyond the dead outer layer of skin is only possible from ingestion, inhalation or injection. To exceed the release criteria for unrestricted use of a maximum 25 millirem per year dose potential, about 400 microcuries of tritium would have to be ingested, inhaled or injected by one individual from residual contamination at this site and I cannot envision a situation where that would be possible. If my assumptions are substantially off base, please let me know.

Please provide a response, in writing, within 30 days so we can continue with our review of your license amendment request.

Thank you for your time in this matter.

Robert Evans  
Sr. Health Physicist  
NRC Region IV  
817-860-8234

*3 Attachments to Email*

# Attachment 1

Dan

Radioactivity use was restricted to 3262.

Dave

On 2/16/10 9:57 AM, "Corti, Dan" <[Dan.Corti@mso.umt.edu](mailto:Dan.Corti@mso.umt.edu)> wrote:

Good Morning Dave and John,

I have been trying to get the necessary documentation together to officially decommission your old lab space at St Pats. In retrospect, I did not do a very good job at the time you moved back to campus in terms of meeting the necessary requirements. I thought that given the very small amount of H3 used at the site and the meticulous records that showed where it all went, we would not have any problems. This is proving to be an incorrect assumption. This was the first time I had tried to formally decommission a lab that we did not own and it is proving to be more detailed than I had thought. For the record, you both did exactly what I asked you to do so this is no reflection on your work at St. Pats.

In the email below from the NRC they ask," Second, your response email, previously submitted to Rachel Browder, didn't clearly account for Rooms 3263, 3264, and 3276. We need you to provide either survey data or an affirmation that radioactive materials were never used in these 3 rooms.

Both of your files show hot work done only in 3262. This is the area that had the fume hood, LSC, shakers and waste storage. To the best of your knowledge, was any hot work ever done in the adjacent lab spaces, specifically 3263, 3264 or 3276?

The information you provide me will be most helpful as I move forward. Just so you know, there is no wrong answer here—I just need to honestly reconstruct the extend of use.

Thanks,

Dan Corti  
Executive Director  
Environmental Health and Risk Management  
The University of Montana-Missoula  
32 Campus Drive  
Missoula, MT 59812-9144  
Tele: 406-243-2881  
Fax: 406-243-6452

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**From:** Evans, Robert [<mailto:Robert.Evans@nrc.gov>]  
**Sent:** Wednesday, February 10, 2010 10:17 AM  
**To:** Corti, Dan  
**Cc:** Spitzberg, Blair; Browder, Rachel  
**Subject:** NRC request for additional information - Univ of Montana license amendment

Dan-

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Robert Evans  
Sr. Health Physicist  
NRC Region IV  
817-860-8234

<b>NRC FORM 314</b> (4-2008) 10 CFR 30.36(j)(1); 40.42(j)(1); 70.38(j)(1); and 72.54(k)(5)(1)(1)	<b>U.S. NUCLEAR REGULATORY COMMISSION</b>	<b>APPROVED BY OMB: NO. 3150-0028</b>	<b>EXPIRES: 08/31/2010</b>
<b>CERTIFICATE OF DISPOSITION OF MATERIALS</b>		Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	

<b>LICENSEE NAME AND ADDRESS</b> The University of Montana Building 32 Missoula, MT 59812-9144	<b>LICENSE NUMBER</b> 25-01706-03	<b>DOCKET NUMBER</b> 030-00872
<b>LICENSE EXPIRATION DATE</b> October 31, 2015		

**A. LICENSE STATUS (Check the appropriate box)**

This license has expired.       This license has not yet expired; please terminate it.

**B. DISPOSAL OF RADIOACTIVE MATERIAL**

*(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)*

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

1. No radioactive materials have ever been procured or possessed by the licensee under this license.

2. All activities authorized by this license have ceased, <sup>at ST. PATRICK'S HOSPITAL</sup> and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner.

a. Transfer of radioactive materials to the licensee listed below:

b. Disposal of radioactive materials:

1. Directly by the licensee:

2. By licensed disposal site: **shipped with:** Thomas Gray and Associates  
1205 W. Barkley Ave  
Orange, CA 92868  
Tele: 714-997-8090

3. By waste contractor: **Shipped To:** Hanford Disposal Site  
Richland, WA

c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

**C. SURVEYS PERFORMED AND REPORTED**

1. A radiation survey was conducted by the licensee. The survey confirms:

a. the absence of licensed radioactive materials

b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.

2. A copy of the radiation survey results:

a. is attached; or  b. is not attached (Provide explanation); or  c. was forwarded to NRC on: \_\_\_\_\_ Date \_\_\_\_\_

3. A radiation survey is not required as only sealed sources were ever possessed under this license, and

a. The results of the latest leak test are attached; and/or  b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME <b>Dan Corti</b>	TITLE <b>RSO</b>	TELEPHONE (Include Area Code) <b>406-243-2881</b>	E-MAIL ADDRESS <b>Dan.CORTI@MSO.UMT.EDU</b>
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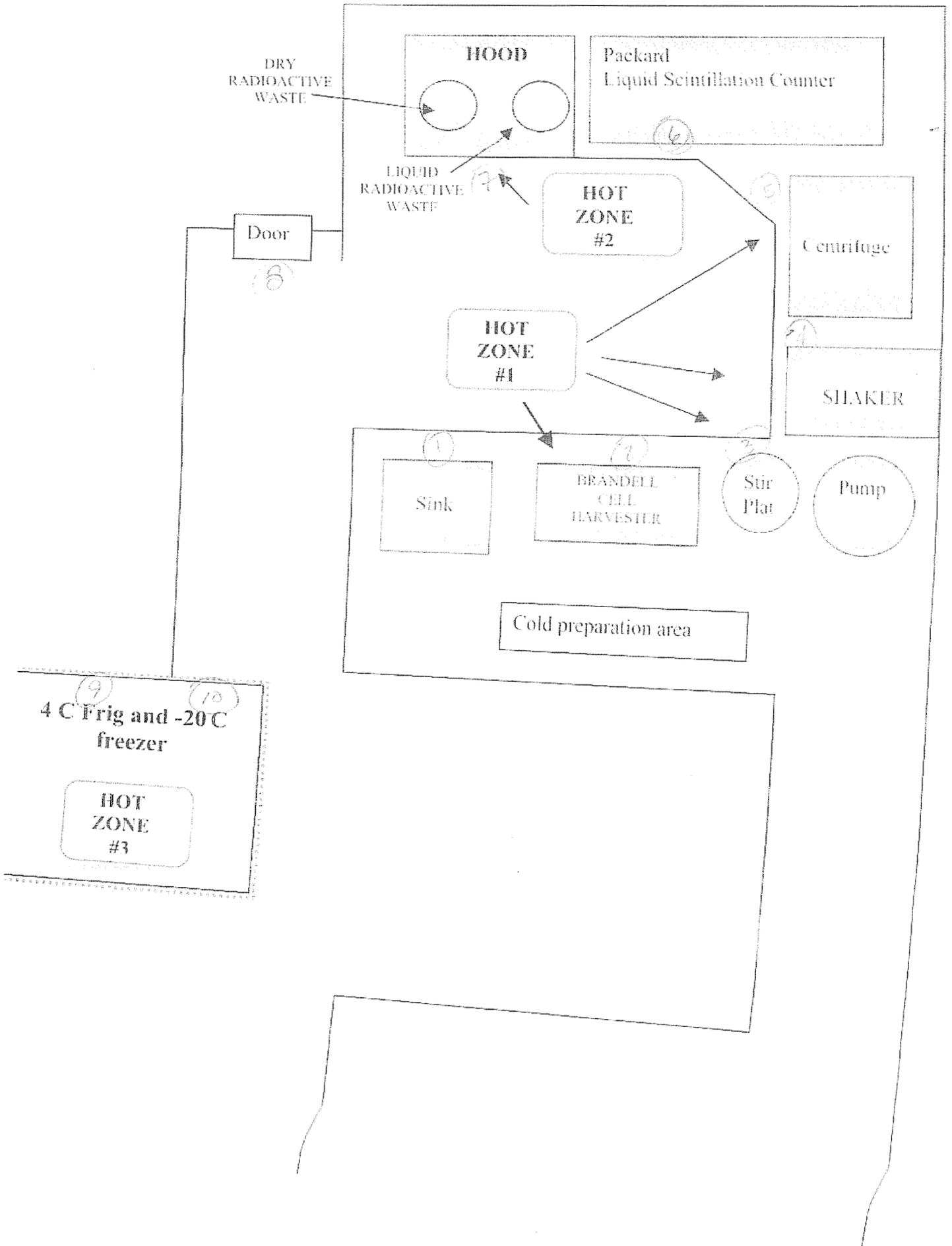
Mail all future correspondence regarding this license to:  
**Dan Corti @ Address above**

**C. CERTIFYING OFFICIAL**

**I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

PRINTED NAME AND TITLE <b>Dan Corti, RSO</b>	SIGNATURE 	DATE <b>17 Feb 2010</b>
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**WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.**



26 JUL 2007 13:04

ISOTOPE 1: 3H %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

USER: 1  
 PROJECT: TMR 1  
 DATE: 07/26/07  
 COUNT BLANK: NO IC# 1 NO REPLICATES: 1 PRINTER: STD  
 TWO PHASE: NO ABC: NO CYCLE REPEATS: 1 DISK: OFF  
 SCINTILLATOR: LIQUID LHMEX: NO LOW SAMPLE RES: 0  
 LOW LEVEL: NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 3H %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0  
 SAM POS TIME MIN MH CPM %ERROR LHMEX % ELAPSED TIME

SAM POS	TIME MIN	MH	CPM	%ERROR	LHMEX %	ELAPSED TIME
1 **--1	1.00	100.3	110.00	19.07	29.62	1.52
2 **--2	1.00	97.0	124.00	17.96	20.20	3.23
3 **--3	1.00	102.8	67.00	24.43	22.24	4.99
4 **--4	1.00	99.1	78.00	22.65	16.13	6.52
5 **--5	1.00	101.1	100.00	20.00	10.25	8.16
6 **--6	1.00	103.6	76.00	22.94	11.49	9.79
7 **--7	1.00	103.3	68.00	24.28	16.61	11.47
8 **--8	1.00	95.3	74.00	23.25	10.24	13.10
9 **--9	1.00	97.0	58.00	26.26	7.90	14.74
10 **--10	1.00	97.2	64.00	25.00	7.64	16.37
11 **--11	1.00	100.3	58.00	26.26	7.74	18.03
12 **--12	1.00	102.1	86.00	21.57	5.44	19.65

*Blank*