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MS16
 J-6

U. S. Nuclear Regulatory Commission
 475 Allendale Road
 King of Prussia, PA 19406-1415

Attn: Dennis R. Lawyer

re: License no. 37-30095-01
 Docket no. 03033359
 Control no. ~~14361~~

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 REGION 1

January 21, 2008

Dear Mr. Lawyer:

This letter is in response to your request of 18 Dec 07, which was received 26 Dec 07, for additional information on the request for license termination for byproduct material license no. 37-30095-01. The responses for each item are listed below in the same order as in your RAI.

1a. Our request of 15 Nov 07 contained Form 314 certifying that all licensed material had been disposed. The additional information you requested for each disposal is provided in the following attachments to this letter.

Attachment A. Disposal of radioactive waste by transfer to a broker.

Attachment A. Disposals to the sanitary sewer under 20.2003.

Attachment B. Disposal of liquid scintillation cocktail waste under 20.2005.

There were no disposals by burial or onsite incineration. There were no airborne effluent releases, other than those incidental to the handling of radioactive material in hoods. Experiments in which significant amounts of radioactive material could be released to the hood were equipped with traps to collect the radioactive material for disposal.

1b. There is no detectable residual contamination of the facility except for minor contamination inside the ductwork for the hoods in Room 6 of Building 1 and Room 209 of Building 2. The ductwork contamination is within the release limits for ¹⁴C described in the section on Surveys in the 15 Nov 07 letter. There have been no modifications to the Radioisotope Laboratory rooms that would change the access to the hoods or sink drains. Residual contamination in the ductwork of the hood in the basement of Building 1 is discussed in the section of the 15 Nov 07 letter covering the Radioisotope Laboratory

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in room 6 of Building 1. The survey forms for the closeout survey for the lab are in Attachment A of the letter.

Residual contamination in the hood ductwork of room 209 in Building 2 is discussed in the section of the 15 Nov 07 letter on Room 209 of Building 2. The closeout survey for the lab is included as Attachment B of the letter.

Sink drain traps were checked in all three labs as part of the closeout surveys and residual contamination was less than the release limits. Only about 17 microcuries of ^{14}C was released to the sanitary sewer (see Attachment 3). Even if all this activity remained inside the drain pipes, it is only enough to contaminate an area of about $1,000\text{ cm}^2$ to the release limit in NUREG 1757. For that reason drain lines were not checked beyond the sink traps.

2. The 12' x 24' solvent storage building was only used for the storage of packaged liquid scintillation vials prior to pickup by a broker for disposal along with solvent waste. Drums were sealed and surveyed for contamination before transfer to the solvent storage shed. Therefore, the solvent storage shed was not included in the Final Status Survey.

3.a. The name of the facility is MPI Research Inc.

3.b. The facility consists of two buildings on adjacent lots. Single room radioisotope laboratories were located in each building. Only one radioisotope laboratory was in use at a time.

Building 1 at 3048 Research Drive is on a one-acre lot. It consists of one floor at grade level and a basement. Total area is 12,000 ft². The radioisotope laboratory was located in room 6 in the basement of this building from Feb 1994 to Oct 1996. It has an area of 600 ft² and is equipped with a hood and sinks. The closeout survey for this laboratory is included as Attachment A of the Final Status Survey with the 15 Nov 07 letter.

Building 1 also contains room 101 on the first floor that was used as the radioisotope laboratory from Feb 2004 until licensed activities ceased in 2007. The room has an area of 810 ft² and is equipped with 2 sinks. There is no hood with external exhaust in this room. A portable, benchtop hood with an activated carbon filter and room exhaust was used for work with volatile solvents and radioactive material. The hood was cleaned and released for unrestricted use in other labs. The closeout survey for this room is included as Attachment D in the Final Status Survey with the 15 Nov 07 letter.

Building 2 at 3058 Research Drive is also on a one-acre lot. It consists of 3 floors with a total area of 18,000 ft² and no basement. The radioisotope laboratory was located in room 209 of this building from Oct 1996 to Feb 2004. It has an area of 1000 ft² and contains 2 hoods with sinks and 2 regular sinks. Use of this room and the residual contamination in the hood is described the closeout survey for this room is included as Attachment B of the Final Status Survey with the 15 Nov 07 letter.

Building 3 was used to house growth chambers for one project from Mar 2002 to Sep 2003. It was removed from the license and released for unrestricted use by Amendment #6 and is not part of the license termination request.

3.c. Both buildings are used for general office and laboratory work

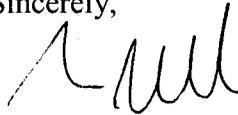
3.d. The buildings are located in an area zoned for research and commercial use.

3.e. The activities performed in the radioisotope laboratories were laboratory procedures performed on bench tops and in hoods.

3. f. Licensed use of radioactive material in projects was completed in the summer of 2007. Decommissioning activities under the license were started in the spring of 2007 and completed in Oct 07.

Thank you for your prompt attention to this license termination request. Please contact Ralene Kreiser at the letterhead address, if you need any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin Lloyd', written in a cursive style.

Kevin Lloyd
General Manager

- Enc. Attachment 1. Disposal of radioactive waste by transfer to a broker.
Attachment 2. Disposals to the sanitary sewer under 20.2003.
Attachment 3. Disposal of liquid scintillation cocktail waste under 20.2005.

Summary of Radioactive Waste Shipments

Date	Drum Number	Isotope	Activity uCi	Drum Size gallons	Broker
3-Sep-97	SW-95-1	C-14	1630	5	US Ecology
3-Sep-97	SW-97-1	C-14	1985	5	US Ecology
2-Dec-99	99-01	C-14	835	55	US Ecology
2-Dec-99	99-02	C-14	110	55	US Ecology
26-Feb-02	RW-02-01	C-14	462	30	Philotechnics
10-Apr-02	R-02-007	C-14	170	30	Philotechnics
19-Nov-03	WA-186	C-14	4500	55	Philotechnics
19-Nov-03	WA-187	C-14	3500	55	Philotechnics
3-Oct-07	WA-1205	C-14	13400	55	Energy Solutions
3-Oct-07	WA-1206	C-14	59	55	Energy Solutions
3-Oct-07	WA-1207	C-14	15009	55	Energy Solutions
3-Oct-07	WA-1208	C-14	5922	55	Energy Solutions
		H-3	511		
3-Oct-07	WA-1209	C-14	787	55	Energy Solutions
3-Oct-07	WA-1209LIQ	C-14	10	15	Energy Solutions
3-Oct-07	WA-1243LIQ	C-14	840	30	Energy Solutions
3-Oct-07	WA-1245	C-14	196	30	Energy Solutions
Totals			49926	640	

Summary of Releases to Sanitary Sewer

Date	Assay Number	Isotope	Activity uCi	Diluted Volume ml	Concentration uCi/ml
5-Aug-94	94-1	C-14	4.8E-04	8.1E+03	5.9E-08
10-Aug-94	94-2	C-14	1.1E+00	6.6E+04	1.7E-05
20-Sep-94	94-3	C-14	1.1E-01	4.0E+04	2.7E-06
20-Sep-94	94-4	C-14	6.0E-02	3.1E+04	2.0E-06
6-Mar-95	95-1	C-14	4.9E-01	2.2E+04	2.2E-05
20-Apr-95	95-2	C-14	3.6E-02	3.0E+03	1.2E-05
26-Jul-96	96-1	C-14	9.6E-01	1.0E+05	9.6E-06
26-Jul-96	96-2	C-14	1.2E+00	1.0E+05	1.2E-05
7-Nov-97	97-1	C-14	1.1E-01	2.0E+04	5.4E-06
7-Nov-97	97-2	C-14	2.4E-01	2.0E+04	1.2E-05
18-Feb-98	98-1	C-14	1.3E-01	8.1E+04	1.6E-06
29-Oct-99	99-1	C-14	4.0E-01	5.5E+04	7.2E-06
1-Nov-99	99-2	C-14	3.0E-01	6.4E+04	4.7E-06
4-Nov-99	99-3	C-14	9.4E-01	7.4E+04	1.3E-05
12-Nov-99	99-4	C-14	1.0E+00	1.6E+05	6.4E-06
12-Nov-99	99-5	C-14	9.8E-01	7.9E+04	1.2E-05
24-Nov-99	99-6	C-14	6.6E-01	3.6E+05	1.8E-06
24-Nov-99	99-7	C-14	6.5E-02	4.0E+03	1.6E-05
2-Dec-99	99-8	C-14	1.7E+00	2.6E+05	6.4E-06
7-Dec-99	99-9	C-14	8.3E-02	1.5E+05	5.4E-07
23-Feb-01	01-01	C-14	7.2E-04	2.1E+04	3.5E-08
3-Aug-01	01-04	P-32	1.2E-03	1.6E+04	7.5E-08
22-Feb-02	02-01	C-14	1.4E-02	1.1E+04	1.4E-06
13-Aug-02	02-05	C-14	1.1E+00	3.8E+05	3.0E-06
7-Oct-03	03-02	C-14	8.5E-01	3.0E+05	2.8E-06
14-Oct-03	03-03	C-14	1.9E+00	3.1E+05	6.2E-06
24-Oct-03	03-04	C-14	2.3E+00	1.1E+05	2.1E-05
24-Oct-03	03-05	C-14	6.2E-01	1.0E+05	6.0E-06
Total			1.7E+01	3.0E+06	

Note: 1. Permissible release concentration for C-14 is 3E-4 uCi/ml.
 2. The diluted volume is at the point of release at the lab sink.
 and does not include the average monthly water release of
 4E+7 ml from Building 1 or 1E+8 ml from Building 2.

Summary of Liquid Scintillation Vial Disposal

Date	Drum Number	Isotope	Activity uCi	Drum Size gallons	Broker	File I.D.
27-Oct-94		C-14	3.0	55	US Ecology	
27-Apr-95		C-14	38.4	55	US Ecology	
31-Oct-95		C-14	26.9	55	US Ecology	
14-May-96		C-14	2.0	55	US Ecology	
3-Sep-97		C-14	3.7	55	US Ecology	
2-Dec-99	98-01	C-14	9.5	55	US Ecology	
2-Dec-99	99-03	C-14	3.7	55	US Ecology	
		H-3	0.6			
26-Feb-02	LS-01-01	C-14	22.0	55	Philotechnics	
26-Feb-02	LS-01-02	C-14	39.0	55	Philotechnics	
26-Feb-02	LS-02-01	C-14	40.0	55	Philotechnics	
26-Feb-02	LS-02-02	C-14	8.6	55	Philotechnics	
9-Jul-02	LS-02-03	C-14	1.5	55	PSC	
9-Jul-02	LS-02-04	C-14	2.0	55	PSC	
9-Jul-02	LS-02-05	C-14	1.4	55	PSC	
9-Jul-02	LS-02-06	C-14	2.6	55	PSC	
9-Jul-02	LS-02-07	C-14	9.5	55	PSC	
9-Jul-02	LS-02-08	C-14	47.3	55	PSC	
9-Jul-02	LS-02-09	C-14	5.3	55	PSC	
9-Aug-02	LS-02-10	C-14	3.1	55	PSC	WA-28
8-Oct-02	LS-02-11	C-14	5.5	55	PSC	WA-44
8-Oct-02	LS-02-12	C-14	6.4	55	PSC	WA-58
8-Oct-02	LS-02-13	C-14	51.3	55	PSC	WA-59
6-Dec-02	LS-02-14	C-14	21.7	55	PSC	WA-64
6-Dec-02	LS-02-15	C-14	18.5	55	PSC	WA-72
30-Jan-03	LS-02-16	C-14	0.0	55	PSC	WA-76
5-Mar-03	LS-03-17	C-14	7.3	55	PSC	WA-90
5-Mar-03	LS-03-18	C-14	2.2	55	PSC	WA-94
16-Apr-03	LS-03-19	C-14	1.2	55	PSC	WA-101
16-Apr-03	LS-03-20	C-14	0.9	55	PSC	WA-104
16-Apr-03	LS-03-21	C-14	1.1	55	PSC	WA-113
16-Apr-03	LS-02-22	C-14	3.2	55	PSC	WA-116
10-Jun-03	LS-03-23	C-14	0.9	55	PSC	WA-129
10-Jun-03	LS-03-24	C-14	0.5	55	PSC	WA-134
9-Sep-03	LS-03-25	C-14	1.4	55	PSC	WA-150
9-Sep-03	LS-03-26	C-14	1.6	55	PSC	WA-155
7-Oct-03	LS-03-27	C-14	25.4	55	PSC	WA-165
2-Feb-04	LS-04-28	C-14	18.4	55	PSC	WA-203
6-Dec-05	LS-05-01	C-14	17.3	55	PSC	WA-491
15-Nov-07	200706	C-14	2.2	55	PSC	WA-1210
		H-3	0.0			
Total			457.1	2145		

Note: approximately 3,000 vials w/10 ml each per drum, ~2.7E4 g/drum.
maximum allowed activity/drum at 0.05 uCi/g is 1350 uCi, 20.2005(a).