

Genisphere

A DATASCOPE COMPANY

VIA FACSIMILE (610) 337-5269
8 Pages Total
Hardcopy to follow

11TH May, 2007

Genisphere Inc.
2801 Sterling Drive
Hatfield, PA 19440
Tel: 215.996.3000
Fax: 215.996.3070

Re: Genisphere Inc. License Amendment

MS 16
J-6

Lic. No. 37-30211-01
Docket No. 03033804
Control No. 140257

Dennis Lawyer
NRC
475 Allendale Road
King of Prussia, PA 19406

RECEIVED
REGION 1
2007 MAY 14 PM 1:11

Dear Mr. Lawyer,

I am writing in response to your Request for Additional **Information** concerning application for a License Amendment (**emails** of 04/26/07 and **04/17/07**).

The specifics for the request are:

1) Unrestricted use criteria of space:

I have attached files of our records of the results of the close-out survey and decay-to-background disposal records demonstrating that the facility at 4170 City Ave, Philadelphia, PA 19131 (PCOM leased space) meet the NRC criteria for unrestricted use. All short-lived radioactive (³²P and ³S) material was decayed to background and all sealed sources were removed to our remaining active facility in **Hatfield** PA.

Please note that the long-lived tritium isotopic material was disposed via the sanitary sewers as permitted. Please **also** note that the attached close-out survey of the space specifically tested the benches and sinks where the tritium was used and disposed of.

Isotope	Date of Last Use at 4170 City Ave.
³² P	Jun 2001
³⁵ S	Feb 1994
³ H	Jun 1994

140257

NMSS/RGN1 MATERIALS-002

FAX RECEIVED 5/12/2007

Genisphere Inc.
2801 Sterling Drive
Hatfield, PA 19440
Tel: 215.996.3000
Fax: 215.996.3070

2) Sealed Sources:

All of the sealed sources in our possession do not require leak testing. Please also note that the ¹³⁷Cs source associated with our **Beckman** Instruments scintillation counter is 30 **uCi** and therefore is an exempt source as per **10CFR** part 20. This regulation is also quoted on page 2 of our current NRC license (expires **10-31-2015**) , section 14, paragraph C, which states:

"14.C. Sealed sources need not be tested if they contain only **hydrogen-3**, or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of **beta-and/or** gamma-emitting material or not more than 10 microcuries of alpha-emitting material."

At the time of the **close-out** of the PCOM facility, **Beckman** Instruments (the manufacturer) provided the disassembly, and shipment of the instrument to our facility in **Hatfield** PA.

3) Records regarding termination of licensed activities at the PCOM facility:

a) No burials • all short-lived radioactive material decayed to background via greater than 10 half-lives. The internal standard source for the scintillation counter was moved to the remaining active site in **Hatfield** PA. Tritiated compounds were disposed via sanitary sewer.

b) No **offsite** release or waste disposal. (Tritium disposal as noted)

4) Environmental Assessment related to the release of the facility:

a) Name of Facility to be released:

PCOM **a/k/a/** 4170 City Ave. Philadelphia PA 19131 **a/k/a** Polyprobe Leased Space **a/k/a** Genisphere Leased Space **a/k/a** All designated spaces at 4170 City Ave under **Lic. No 37-30211-01**

b) Size of building and area to released in sq. ft.

Building and area owned by PCOM • several floors and ~ 8 acres

Area to be released: nominal 3000 sq ft

c) Description of building

Medical School Laboratory space • teaching facility

Genisphere

A DATASCOPE COMPANY

d) Surrounding area

mixed residential / commercial

Genisphere Inc.
2801 Sterling Drive
Hatfield, PA 19440
Tel: 215.996.3000
Fax: 215.996.3070

Please let me know if any further clarification is required.

Thank you for your time and attention to our request for the license amendment.

Signed,



Thor W. **Nilsen**
RSO
Genisphere
2801 Sterling Dr.
Hatfield, PA 19440

cell (215) 485-3433

cc: S. Arie **Zak**
J. Gary Mohr
James M. Kadushin
Robert C. **Getts, PhD**
Radiation Safety Correspondence File

Attachments: **12/10/98** Memo Disposal Record ³²P
09/08/99 Memo Disposal Record ³²P
02/27/02 Memo Disposal Record ³²P
Log of Waste in Storage - 4170 City Ave Facility
02/19/04 Closeout survey record

Memo

6-24-99
TNS

To: Rad File
From: Bob Getts
CC: Thor Nilsen
Date: 12/10/98
Re: Rad disposal for long term storage

On Tuesday December 08, 1998 James Kadushin and Scott Olex emptied one of the barrels of decayed 32P radioisotope from room 420 of Evans Hall. The contents were sorted, assayed for radioactivity, and disposed of as regular trash. The information below summarizes the results of the radioisotope survey of the discarded material.

Survey Meter: 104530

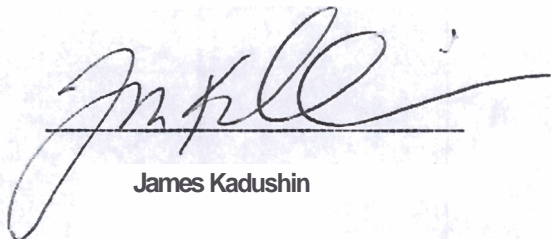
Check Source Reading: 0.3 mRem/hr

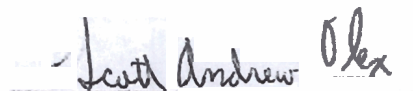
Background Reading: 0.04 mRem/hr

Barrel ID: Sealed on 3/26/98

Meter reading: 0.04 mRem/hr

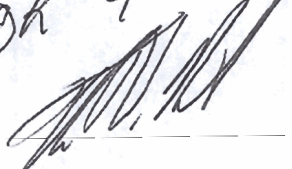
The activity records for the barrel is attached to this memo.


James Kadushin


Scott Olex

Memo

To: Rad File
From: Bob Getts
CC: Thor Nilsen
Date: 09/08/99
Re: Rad disposal for long term storage

OK 9-8-99


On July 30, 1999 I emptied 5 of the barrels of decayed ^{32}P radioisotope from room 420 of Evans Hall. The contents were sorted, assayed for radioactivity, and disposed of as regular trash. The information below summarizes the results of the radioisotope survey of the discarded material.

Survey Meter: 104530 **Check Source Reading:** 0.3 mRem/hr

Background Reading: 0.04 mRem/hr

Barrel ID	Date Sealed	Survey Results
#2	07-20-98	0.04 mR/hr
#3	09-23-98	0.04 mR/hr
#5	05-07-98	0.04 mR/hr
#6	08-10-98	0.04 mR/hr
#7	11-2-98	0.04 mR/hr

The activity records for each barrel are attached to this memo.



Robert Getts

Genisphere Inc.
R&D Group
4170 City Avenue
Philadelphia, PA 19131
(215) 871-6866
fax (215) 871-6451

→ Rad File

27TH February, 2002

MEMO

Re: Radioactive Disposal - Decay to Background

Radiation File
Genisphere Inc.
4170 City Ave.
Philadelphia, PA 19131

On 27th February, 2002 4 (four) barrels were emptied:

Date Sealed.	Survey Meter	Current mRem/hr	Decay Half Lives
10-Jan-1999	104530	<0.02	80
15-July-1999	104530	<0.02	67
13-December-1999	104530	<0.02	57
10-May-2000	104530	<0.02	46

Note: All waste far exceeds the recommended 10 half lives and therefore has decayed to background.

Material removed from barrels, autoclaved and disposed in ordinary trash.



Thor W. Nilsen

Radiation Safety Officer

100

Complete File

Complete File

Please refer to the "Isotope.wk" file for the status of each shipment of received isotope (In Use or Decay)

Date	Activity (deposit, seal, or empty)	Barrel #	Individual	Survey Meter	Calibration mR/Hr	Isotope
1/14/91	deposit	#4	BG/JMK	63899	0.5	32p
1/27/91	deposit	#4	BG/JMK	63899	0.5	32p
2/22/91	Empty	#4	BG/JMK	63899	0.5	32p
2/24/91	Deposit	#4	BG/JMK	63899	0.5	32p
3/16/91	Deposit	#4	BG/JMK	63899	0.5	32p
6/9/91	Deposit	#4	BG/JMK	63899	0.5	32p
7/10/91	Empty	1, 2, 3, 5, 6	BG/JMK	63899	0.5	32p
7/15/91	Deposit	#3	BG/JMK	63899	0.5	32p
7/15/91	Sealed	#4	BG/JMK	63899	0.5	32p
8/16/91	DEPOSIT	#3	BG/JMK	63899	0.5	32p
10/21/91	Deposit	#3	BG	63899	0.5	32p
12/13/91	Deposit	#3	BG	63899	0.5	32p
12/15/91	Sealed barrel	#3	BG	139202	0.5	32p
8/25/00	Deposit		JMK/CM6	143423	0.5	32p
8/1/29/00	deposit	#3	BG	143423	0.5	32p
03/02/01	deposit	#5	BG	143423	0.5	32p

25-FEB-04
OK

FINAL PCOM
BARRELS
VERIFIED EMPTY FEB 2004
MOVE → HATFIELD

Close Out!

Filename: c:\radfiles\wipetest\wk4

Survey by: Aseel Rasheed
Date: 19-Feb-2004

CLOSEOUT

RADIATION SAFETY PROGRAM SURVEY SHEET

GENISPHERE, INC.

4170 City Avenue
Philadelphia, PA 19131

Clean-up and resurvey for DPM >200

Negative values indicate count sample below background

Background 17.0 15.0 16.5

No.	Room	S i	CPM Data	14-C	32-P	DPM Data	32-P
			3H-C			3-H/35-S	
1	323	Centrifuge/bench	20.0	15.0	12.5	6.0	0.0
2	319	Warm box shelving, south	17.0	14.0	11.0	0.0	0.0
3	319	Warm box shelving, north	16.0	7.0	15.0	0.0	0.0
4	317	Wood table, south	12.0	11.0	11.0	0.0	0.0
5	317	Wood table, north	18.5	15.5	12.0	4.0	0.0
6	317	Centrifuge/bench	17.5	12.0	10.5	1.0	0.0
7	317	Steel shelving	14.5	16.5	10.5	3.0	0.0
8	316	Refrigerator/freezer	26.0	11.5	15.0	18.0	0.0
9	316	Scintillation counter	15.5	10.5	6.5	0.0	0.0
10	316	Ultracentrifuge	18.0	11.0	11.0	2.0	0.0
11	316	Tabletop centrifuge	22.0	9.0	17.5	10.0	2.0
12	316	Spectrophotometer	21.0	14.0	15.0	8.0	0.0
13	316	Northwest room	20.0	9.5	9.5	6.0	0.0
14	316	Northwest room sink	24.0	11.0	13.5	14.0	0.0
15	316	Fume hood	16.0	13.5	13.5	0.0	0.0
16	316	Southwest room	19.0	16.5	10.0	7.0	0.0
17	316	Southwest bench	25.5	20.0	10.5	27.0	0.0
18	316	Southeast bench	18.0	12.5	14.0	2.0	0.0
19	316	Southeast sink	14.5	7.5	9.0	0.0	0.0
20	316	East bench	12.5	11.5	12.5	0.0	0.0
21	316	East sink	18.5	12.5	11.0	3.0	0.0
22	316	Northeast bench	16.5	9.5	8.5	0.0	0.0
23	420	Remote Decay Storage Room	29.5	19.0	12.5	33.0	0.0

FINAL CLOSEOUT SURVEY

ALL SPACES @ 4170 CITY AVE.