



# CITY OF PHILADELPHIA

DEPARTMENT OF PUBLIC HEALTH  
OFFICE OF THE MEDICAL EXAMINER  
321 University Avenue  
Philadelphia, PA 19104

Telephone - 215-685-7470

John Domzalski, Esq.  
Health Commissioner

HARESH G. MIRCHANDANI, M.D.  
Medical Examiner

## MEDICAL EXAMINER'S OFFICE

FAX TRANSMITTAL

FAX TELEPHONE NO: (215) 685-9075

TO: NRC Attention: Ms Darden

LOCATION: King of Prussia FAX# 610-337-5038

FROM: Guy Furnell, OME

DATE: 2-24-00

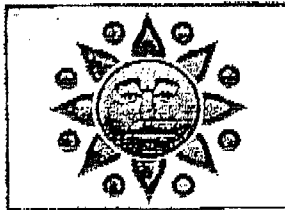
1 PAGES INCLUDING THIS COVER PAGE

MESSAGE:

Also please address his question about  
Maintaining a license while trying to dispose  
the material they have  
Thank

Please call (215) 685-7455 if there is a problem during transmittal of this document.

NMSS/RGN-004



# Air Management Services Laboratory

1501 East Lycoming Street  
Philadelphia, PA 19124  
Telephone: (215) 685-1040  
Fax: (215) 685-1045

City of Philadelphia

PLEASE DELIVER THIS FAX TO:

GUY PURNELL 5-9075

COMPANY:

MEDICAL EXAMINER'S - TOXICOLOGY

FROM:

NORMAN GLAZER

DATE:

2.22.00

I HAVE ATTACHED TO THIS FAX THE QUOTE FOR DISPOSAL OF THE ELEVEN (11) VARIOUS RADIOACTIVE SOURCES, INCLUDING TWO (2) IN YOUR (DR. RICH ZIEM'S) POSSESSION. ONE OF THOSE SOURCES, CESIUM-137, ACTUALLY BELONGS TO THE EPA AND THEY SHOULD TAKE THAT FROM US SHORTLY. WHEN THAT HAPPENS, WE WILL DOCUMENT IT. THE REMAINING SOURCES ARE TO BE DISPOSED AS SOON AS PAT O'NEILL OF THE LAW DEPT COORDINATES ANY LEGAL REQUIREMENTS.

WE ALSO HAVE TWO (2) HP ELECTRON CAPTURE AND ONE (1) SUCRAL IN FUEL ANALYSIS WHICH WE WILL RETAIN AT THIS LAB. NONE OF THOSE ARE INCLUDED IN THE NRC LICENSE AS FAR AS I KNOW.

THE CORRESPONDENCE FROM THE NRC DOES NOT SPECIFICALLY INDICATE ANY VIOLATION AT THIS LAB. IF WE ARE UNABLE TO DISPOSE OF THE ELEVEN (11) LICENSED ITEMS, DO WE HAVE TO MAINTAIN THE LICENSE? CAN THE LICENSE BE ELIMINATED BASED ON OUR INTENTIONS? GET BACK TO ME WITH ANYTHING

PURNELL

Total number of pages including cover sheet: 4



rganization, inc.

February 8, 2000

post office box 791  
peekskill, new york 10566  
(914) 737-7200  
fax (914) 737-9244

Edward Chasz  
City of Philadelphia  
Air Management Services Laboratory  
1501 East Lycoming Street  
Philadelphia, PA 19124

RE: Quotation #20005 [REVISED]

Dear Mr. Chaz:

Pursuant to your faxed inquiry regarding the additional material this is to submit a quotation for the disposal of the following radioactive sources and compound:

americium-241	activity unknown	coin standard
carbon-14	31,000 dpm [68.82 nCi]	coin standard
radium D&E	0.00424 $\mu$ Ci	coin standard
radium D&E	18,834 dpm [41.37 nCi]	coin standard
radium-226	0.0925 $\mu$ Ci	coin standard
strontium-90/Yttrium-90	43,360 dpm [96.26 nCi]	ampule
strontium-90	43,360 dpm [96.26 nCi]	coin standard
strontium-90	25 nCi	4" diameter std.
cesium-137	activity unknown	4" x 1/2" plas.bar
polonium-210 (lead-210?)	activity unknown	1" diameter disk
uranium nitrate	500 ml in 1 liter jar	crystalline material

Because the disposal site cannot accept unknown activities, the Cesium and Americium sources must be analyzed for activity.  
The cost is as follows:

-3- [Cesium, Americium, Polonium]	
analyses for activity @110.00	330.00
-1- Radioactive Disposal @1280.00	1,280.00
Class C Waste	75.00
DOT 7A shipping container @14.00	14.00
shielding	50.00
-1-wipe test @12.50	12.50
stabilization materials	45.00
Health Physics Packaging [encapsulation]	125.00
mCi surcharge @0.45/mCi	.45
Zone Charge [Philadelphia, PA] @375.00	<u>375.00</u>
<b>Total:</b>	<b><u>\$2,306.95</u></b>

Alternatively, the sources could be shipped to NDL via a common carrier, in which case the Zone Charge would be deducted from the total amount due NDL. However, the City of Philadelphia (Air Management Services Laboratory) would also have to obtain a Radioactive Transport Permit (\$200) from the South Carolina Department of Health and Environmental Control (NDL has blank applications, which must be submitted with NDL's Letter of Insurance Agreement indemnifying the State of South Carolina) and an Access Permit (\$500) from Chem-Nuclear Systems, the site operator. Once the approval for disposal and permits are obtained, fax copies to NDL, NDL could then accept the sources. Should you wish to proceed, please submit a Purchase Order covering the above. NDL also accepts *VISA* or *MasterCharge*.

If you have any questions, or need additional information, please contact me, Edward Gershey, Ph.D., or Joseph Spektor, Physicist.

With every good wish, I remain,

Very truly yours,



Peter J. Pastorelle

PJP/mrhc



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103

Richard Romm  
Air Management Laboratory  
City of Philadelphia  
1501 E Locoming St  
Philadelphia, PA 19124

Dear Mr. Romm

At your request, I have performed an assay on a Cs-137 source located at the Air Management Lab. The source is a clear plastic rod about 5/8 inch in diameter and about 6 inches long and has a green tip about 3/4 inch long at one end. It is marked "Atomic Accessories, Inc. G6011, Cs-137." No activity is printed on the source. The assay was performed at the AMS Lab on Friday, February 11, 2000. I used an Exploranium GR-130 survey meter which was calibrated in August, 1999 by the manufacturer. This instrument is energy compensated and so yields an accurate gamma measurement over a wide energy range. The results of this assay were as follows.

The radionuclide was identified as Cesium-137 by the presence of the Ba-137m peak at 662 keV with no other noticeable peaks in the spectrum. This agrees with the label. The activity was determined by measuring the gamma field at a measured distance from the source and dividing by the gamma factor for Cs-137 / Ba-137m from the Radiation Health Handbook. In the 1970 issue, this factor is 0.33 R/hr per Ci at 1 meter. In the 1998 issue, SI units are used and the radiation field is given in Sieverts and Bq. This converts to 0.38 rads/hr per Ci at 1 meter. For practical purposes, these numbers are the same.

The survey meter was placed at a distance of 1 meter and an integrated exposure was taken over a period of 5 minutes. Background was 490 nR per five minutes. With the source in place at 1 meter, the integrated exposure was also 490 nR. The source was not detectable at this distance. At 50 cm the integrated exposure was 480 nR per 5 minutes, again a non-detect. At 10 cm, the 5 minute integrated exposure was 580 nR per five minutes, for a net exposure of 90 nR per five minutes. Multiplying by 60/5, this yields 1.08 micro R per hour net at 10 cm.

Scaling this to a 1 meter distance using the square law, this results in 0.0108 micro-R per hour, which is why the source was undetectable at that range. Dividing by the gamma factor yields 0.03 microCuries activity. This is an exempt quantity.

Sincerely

William E. Belanger  
Health Physicist

CITY OF PHILADELPHIA  
OFFICE OF MEDICAL EXAMINER  
321 UNIVERSITY AVENUE  
PHILADELPHIA, 19104

NRC  
Regional Administration, Region I  
King of Prussia  
475 Allendale Road  
King of Prussia, Pa. 1906-1415

ATTENTION: MS. DARDEN

Dear Ms. Darden:

Please note the response from Mr. Norman Glazer of the <sup>A</sup>ir Management Laboratory at 1501 East Lycoming Street with reference to the communication I had with him about my last communication I had with you. I can't find in any of my material the answer to his questions about the sealed sources needing to be covered by a license.

Also would you please address his question about their violations as noted by your last inspection. I sent him a copy of all the material that I had received from you and as per his fax message he isn't clear either.

I would appreciate you sending me a copy of any correspondence you have with him.

Thank you for your help in this matter.

As soon as we hear from the law department I will proceed with fulfilling your request. Ms. Jane Hix, a lawyer, is working with Mr. O'Neil concerning the overall matter.

Yours truly,

  
Guy V. Funnell

P.S.,

what is the difference between a general  
license and a material license?

efy

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OFFICE OF MEDICAL EXAMINER  
321 UNIVERSITY AVENUE  
PHILADELPHIA, 19104

Air Management Services Laboratory  
1501 East Lycoming St.  
Philadelphia, Pa. 19124

Dear Dennis:

I have been in contact with NRC most of the afternoon relative to our violations as per the last inspection. When I speak of our violations I am speaking of the toxicology laboratory. I didn't know that you all were in violation of anything. So, when I addressed the "notice of violation" I only addressed our violations which had already been taken care of before the time of the inspection, namely the lack of two wipe tests. The other "failure to take a six month inventory of all sealed sources", I didn't know that such had to be done since we only had one source. However, by the time I replied to her notice We had sent back our only source of sealed radiation for disposal so that took care of that.

The problem is I didn't address your problems. I am sending you a copy of the material that we got from her and she wants you to address such and provide the following :

1. What are your plans for the sealed sources, the status of such plans and dates that you anticipate your plans to be complete.
2. What are your plans for the other materials on sight, the status of such plans and dates also that you anticipate such to be complete.

Paul Clements wants you to address all these issues: As per the violation notice and then the two issues I have listed above. He wants you to send such to him and he will get with me to finalize an amended response for the NRC.

If you have any questions please call me.

Yours Truly,

  
Guy V. Funnell

*This is the pack  
I sent to her  
except for your  
letter  
GVS*