

Widener University

COLLEGE OF ARTS AND SCIENCES
Science Division

The Pennsylvania Campus
Chester, Pennsylvania 19013
(215) 459-4002

July 27, 1984

Nuclear Regulatory Commission
Material Licensing Branch
Division of Fuel Cycle and Material Safety
Washington, D.C. 20555

RECEIVED BY LFMB	
Date	8/13/84
Log	Aug - 5 I
By	Jacques
Orig. To	
Action Compl.	9/4/84

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AM 1:19

Applicant.....
Check No. 028030 #460
Amount/Fee Category 4/3m
Type of Fee renewal
Date Check Rec'd 8/13/84
Received By Jacques

Re: Renewal of License
37-12196-01
Program Code 03620

3M
(1) K portin
is OK - transfer
from SNM
license

Gentlemen:

Since our last application in 1979 we have taught our Radioisotope course three times. The last year was typical in that we used the following isotopes:

0.250 millicuries of P^{32}
1.0 millicuries of Cr^{51}
0.050 millicuries of C^{14}

While our isotope course will be much the same in the near future, we request the following changes in our license:

1. Please add the names of Angus Neaves and Richard St. John as individuals who will use or directly supervise use of byproduct material.
2. Please increase the maximum numbers of millicuries of P^{32} allowable at any one time from 0.250 to 1.000.

Justifications for the above requests are enclosed.

We enclose a fee of \$460.00.

Sincerely,

Robert S. Gioggia

Robert S. Gioggia
Professor of Physics
Radiation Safety Officer

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REG1 LIC30
37-12196-01 PDR

FEE EXEMPT

(per §170.11(a)(4))

for dia item 2
see next pg

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ITEM 1

Angus Neaves

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration</u>	<u>Type</u>
Principles and practices of radiation protection.	Widener	5 years	On the job
Radioactivity measurement and monitoring techniques and instruments	Widener	5 years	On the job
Mathematics and calculations basic to the use and measurement of radioactivity	Widener	5 years	On the job

Experience with Radiation

<u>Isotope</u>	<u>Amount</u>	<u>Where</u>	<u>Duration</u>	<u>Type of Uses</u>
Pu-Be Neutron Source	5 Curies	Widener	10 years	Activation of foils; Chem. and Biol. Specimens
Carbon 14	0.3 mCuries	Widener	5 years	Instruction
Phosphorus 32	0.25 mCuries	Widener	5 years	Instruction
Chromium 51	0.2 mCuries	Widener	5 years	Instruction
Calcium 45	0.2 mCuries	Widener	5 years	Instruction
Iron 59	0.04 mCuries	Widener	5 years	Instruction

Richard St. John

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration</u>	<u>Type</u>
Principles and practices of radiation protection.	U. of Penn.	1 years	On the job
Radioactivity measurement and monitoring techniques and instruments	U. of Penn.	1 years	On the job
Mathematics and calculations basic to the use and measurement of radioactivity	U. of Penn.	1 years	On the job

Experience with Radiation

<u>Isotope</u>	<u>Amount</u>	<u>Where</u>	<u>Duration</u>	<u>Type of Uses</u>
Phosphorus 32	1 mCurie	U. of Penn.	1 year	Research

ITEM 2

Professor Richard St. John has spent his sabbatical year at the University of Pennsylvania where he conducted research on viral DNA metabolism. He was a visiting scientist at the Wister Institute in the laboratory of Nigel Fraser.

In this research he used Phosphorus 32 as a tracer.

He would like to continue this research at Widener and hence the request for an increase in the maximum allowable amount of this isotope. He plans to use less than 0.250 millicuries per week and with the half-life of two weeks, we will have less than 1.000 millicuries on hand at any time.