

METROPOLITAN ST. LOUIS SEWER DISTRICT



April 24, 1985

U.S. Nuclear Regulatory Commission, Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Sir:

We want to renew and continue to operate under our NRC license-24-09723-08. The license was issued to us on May 13, 1980. The person to contact in regards to our renewal application is I. Leo Groseclose at (314) 231-1950 ext. 44.

Enclosed is the \$150.00 fee made payable to the U.S. Nuclear Regulatory Commission for the renewal of the license.

Sincerely,

Mario J. DePrimo

Mario J. DePrimo
Instrumentation Chemist

MJD/jsf

Applicant	May 18 1985
Check #	0968183
Amount	\$150
Ren	EX 3P
Date Check Rec'd	5/15/85
Received By	

check
net
5/15/85
MAY 15 1985
NRC
BRANCH

8507160766 850619
REG3 LIC30
24-09723-08 PDR

170.11(a)(a)
FEE EXEMPT

RECEIVED
MAY 09 1985
REGION III

CONTROL NO. 78907

MAY 9 1985

Reg. III DCS 4/16/80

FORM NRC-313 I (1-79) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: (Check and/or complete as appropriate)	
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL				X	a. NEW LICENSE
See attached instructions for details. Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.					b. AMENDMENT TO: LICENSE NUMBER
					c. RENEWAL OF: LICENSE NUMBER
2. APPLICANT'S NAME (Institution, firm, person, etc.) Metropolitan St. Louis Sewer District Industrial Waste Laboratory TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 231-1950 (314) 44			3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION I. Leo Groseclose TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 231-1950 (314) 44		
4. APPLICANT'S MAILING ADDRESS (Include Zip Code) Metropolitan St. Louis Sewer District Industrial Waste Laboratory 10 East Grand Avenue St. Louis, Missouri 63147			5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code) Metropolitan St. Louis Sewer District Industrial Waste Laboratory 10 East Grand Avenue St. Louis, Missouri 63147		
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)					
6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL (See Items 16 and 17 for required training and experience of each individual named below)					
		FULL NAME		TITLE	
a. Mario J. DePrimo		RECEIVED BY LMB Date: APR 17 1980 Log: APR PG 14 III By: Brown		Chemist II - Instrumentation	
b.					
c.					
7. RADIATION PROTECTION OFFICER I. Leo Groseclose Orig. To: Action Compl. 4/21/80				Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.	
8. LICENSED MATERIAL					
L I N E	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source)	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME	
NO.	A	B	C	D	
(1)	Nickel 63	Deposited on gold or platinum Foil	New England Nuclear Foil Model NER-002	Foil strength is 10 millicuries. No single	
(2)			Nuclear Radiation Dev. Foil Model N1001	detector contains more than 15 millicuries	
(3)			Amersham/Searle Corp. Foil Model N.B.C.7020		
(4)					
DESCRIBE USE OF LICENSED MATERIAL E					
(1)	The sealed detector cell containing Nickel 63 foil shall be used in a Perkin-Elmer				
(2)	Model Sigma 1 gas chromatograph with Temperature Protection Circuitry which cuts				
(3)	off at 450°C.				
(4)	8222136766 LPP				

9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	Detector cell used in all Perkin-Elmer Sigma Gas Chromatographs	Perkin-Elmer	330-0119
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT A	MANUFACTURER'S NAME B	MODEL NUMBER C	NUMBER AVAILABLE D	RADIATION DETECTED (alpha, beta, gamma, neutron) E	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F
(1)	NA	NA	NA	NA	NA	NA
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

NA

☐ b. CALIBRATED BY APPLICANT

Attach a separate sheet describing method, frequency and standards used for calibrating instruments.

NA

12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A	SUPPLIER (Service Company) B	EXCHANGE FREQUENCY C
<input type="checkbox"/> (1) FILM BADGE <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input checked="" type="checkbox"/> (3) OTHER (Specify): <u>None</u>	NA	<input type="checkbox"/> MONTHLY <input type="checkbox"/> QUARTERLY <input checked="" type="checkbox"/> OTHER (Specify): <u>NA</u>

13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)

- ☐ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.
☐ b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.
☐ c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.
☐ d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED

Nuclear Sources and Services, Inc. or Nuclear Radiation Dev. Corp.

b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE. The application is for a sealed source which shall be returned to one of the above companies for foil disposal as described in the instrument manual.

INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.
16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
 - a. Principles and practices of radiation protection.
 - b. Radioactivity measurement standardization and monitoring techniques and instruments.
 - c. Mathematics and calculations basic to the use and measurement of radioactivity.
 - d. Biological effects of radiation.
17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

18. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

WARNING.—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; 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.

a. LICENSE FEE REQUIRED
(See Section 170.31, 10 CFR 170)

\$110.00

(1) LICENSE FEE CATEGORY:

1. I

(2) LICENSE FEE ENCLOSED: \$ 110.00

b. CERTIFYING OFFICIAL (Signature)

Leo Groseclose

c. NAME (Type or print)

I. Leo Groseclose

d. TITLE

Industrial Waste Lab. Supervisor

e. DATE

March 26, 1980

15. Radiation Protection Program:

Detailed instruction for installing, operating and wipe testing detector cells are contained in the instruction manual supplied with the Model Sigma 1,2,3 and 4 gas chromatographs.

Wipe tests for radioactivity are required at 6 month intervals. Instructions for conducting the wipe test are included in the manual and in the wipe test are included in the manual and in the wipe test kit (P-E Part No.009-1667) shipped with the detector cell. The wipe test is to be submitted to one of the following for a radiation survey:

Nuclear Sources and Service, Inc.
5711 Ethridge Street
Houston, Texas 77017

or

Nuclear Radiation Dev. Corp.
2937 Alt Boulevard
Grand Island, New York 14070

Cell cleaning and foil replacement must be performed by one of the above mentioned companies.

16. Formal Training In Radiation Safety

Mario J. DePrimo

Has had no training in radiation protection, radioactivity measurement standardization, calculations for measurement of radioactivity, and biological effects of radiation.

I. Lee Groseclose

Has attended the course, "Problems of Radioactivity in Waterworks" at the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio. The course was one week in duration and was held from January 30 through February 3, 1956. The range of the course was broad and quite intensive in covering all of the areas of principles and practices of radiation protection, radioactivity measurement standardization and monitoring techniques and instruments, mathematics and calculations basic to the use and measurement of radioactivity and biological effects of radiation.

17. ExperienceMario J. DePrimo

Has had no prior experience with radiation materials or equipment, however he does have a Bachelor of Science Degree in chemistry. He has had over fifty credit hours of chemistry at both the undergraduate and graduate levels and has worked extensively with gas chromatography using the thermal conductivity, flame ionization, and electron capture detectors. Prior to his entrance into the wastewater analysis field, he taught (a number of analytical courses) for several years at the University of Missouri - St. Louis as an instructor.

I. Leo Groseclose

Has a BA in Bacteriology with a minor (27 hours) in Chemistry in both undergraduate and graduate courses. As Water Purification Chemist for 12 years with Kansas City, Missouri Water Department and St. Louis County Water Company performed total Beta radiation activity counts on river and finished water samples. Utilized Carbon 14 standards with a maximum activity of 25 Micro-curies. As Industrial Waste Laboratory Supervisor for 12 years with Metropolitan St. Louis Sewer District, NRC Rules & Regulations have been reviewed for conformance of specific industrial wastes to Standards for Protection Against Radiation.