

MATERIALS LICENSE

Supplementary Sheet

License Number 24-17152-01

Docket or

Reference No. _____

Amendment No. 01

Envirodyne Engineers, Incorporated
12161 Lackland Road
St. Louis, Missouri 63141

In accordance with letter dated December 6, 1978, License Number 24-17152-01 is amended as follows:

Item 1 (name) is changed from Pyckman/Hedgerly/Tomlinson and Associates, Incorporated to Envirodyne Engineers, Incorporated.

Condition 12. is amended to read:

12. Licensed material shall be used by, or under the supervision of, D. C. Kennedy, I. T. Harner, or C. A. Harner-Syngton.

Date Jan 8 1979

For the U. S. Nuclear Regulatory Commission

Original Signed By

JOHN W. COOPER, Ph.D.

by _____

Division of Fuel Cycle and
Material Safety
Washington, D.C. 20555

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PDR FOIA
NEITZEL96-314 PDR

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U5=U235, U3=U233, PU=PLUTONIUM, UR=URANIUM, TH=THORIUM, H3=TRITIUM, G=GRAMS,
KG=KILOGRAMS, S=SEALED, UNS=UNSEALED

Ryckman / Edgley / Tomlinson & Assoc. Inc.
**enviRODYNE
engineers**

12161 Lackland Road
St. Louis, Missouri 63141
(314) 434-8980

Environment • Energy • Transportation • Food Processing

January 31, 1979

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

Re: Materials License No. 24-17152-01
Envirodyne Engineers, Inc.

030-12280

Gentlemen:

Enclosed please find the following:

- 1) A completed form AEC-313 to expand our present license from 30 millicuries to 60 millicuries.
- 2) A check for \$40 as required for a modification of our license.

Recent contractual work with the Environmental Protection Agency has required Envirodyne Engineers, Inc. to purchase additional electron capture GC's. Your assistance in expediting this modification to our license will be most appreciated inasmuch as instrument delivery will be held up until we receive the modification.

Very truly yours,

James W. Irvin

James W. Irvin, D.Sc., P.E.
Vice President

FTH/csq
Enclosures

FEB 9 1979

A/108

9702070265 1P

Control No. 01312

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the licensee is subject to Title 10, Code of Federal Regulations, Part 20.

<p>1. (a) NAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc. Include ZIP Code.)</p> <p>Envirodyne Engineers 12161 Lackland Road St. Louis, Missouri 63141</p>	<p>(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a). Include ZIP Code.)</p> <p>Envirodyne Engineers 12160 Lackland Road St. Louis, Missouri 63141</p>
<p>2. DEPARTMENT TO USE BYPRODUCT MATERIAL</p> <p>Laboratory</p>	<p>3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)</p> <p>Application for renewal; License #24-17152-01 <i>Amended</i></p>
<p>4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)</p> <p>D. C. Kennedy, Dir. of Laboratories F. T. Hammer, Mgr., Analytical Operations C. A. Hammer, Sr. Env. Scientist</p>	<p>5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)</p>
<p>6. (a) BYPRODUCT MATERIAL (Element and mass number of each)</p> <p>Nickel 63</p>	<p>(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)</p> <p>Hewlett-Packard Linear E C Detector Model 18713-A, containers Hewlett-Packard Source #18713-80020, 45 millicuries</p> <p>Tracor High Temperature E C Detector Model 12002, 15 millicuries</p> <p>Sealed Sources Varian Instrumental Company 2 ea., 8 millicurie 02-001972-00</p>
<p>7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A [Form AEC-313a] must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)</p> <p>Hewlett-Packard 5830A Gas Chromatograph Hewlett-Packard 5840A Gas Chromatograph Tracon Microtek 220 Gas Chromatograph Varian Model 3700 Dual EC Gas Chromatograph</p>	

Applicant.....
Check No. 379.....
Amount/Fee Category 140-36.....
Type of Fee *Am*.....
Date Check Rec'd. 2/12/79.....
Received By *Curran*.....

File 79 D-10

(Continued on reverse side)

Control No. 01312

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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4

supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	D. C. Kennedy, AEC, Ames Lab. F. T. Hammer, Phoenix Memorial Lab.	3 yrs. 2 yrs.	Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	C. A. Hammer, Savannah River Lab. D. C. Kennedy, AEC, Aiken, SC F. T. Hammer, Phoenix Memorial Lab.	3 mos.	Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity	C. A. Hammer D. C. Kennedy	6 mos.	Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
None required with this instrument					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE

None required with this instrument

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED (For film badges, specify method of calibrating and processing, or name of supplier)

None required with this instrument

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached (Circle answer) Yes No Effluent gas will be piped into a fume hood

14. RADIATION PROTECTION PROGRAM Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. Perform leak test with Hewlett-Packard Model P6761 leak test kit at 6-month intervals.

15. WASTE DISPOSAL If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of method which will be used for disposal of radioactive wastes and estimates of the type and amount of activity involved. If necessary, units will be returned to manufacturer.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, 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.

ENVIRODYNE ENGINEERS

Applicant named in item 1

Date January 31, 1979

By:

James W. Irvin
Vice President

Title of certifying official

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.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

43

TO: John Cooper, Chief
Radioisotopes Licensing Section
NMSS, Region III

FROM: William O. Miller, Chief
License Fee Management Branch
Office of Administration

SUBJECT: LICENSE FEE INFORMATION

Applicant/Licensee Envirotech Engineers
City/State St Louis, Missouri
License No. 24-17152-01
Control No. 01312

Fee Information:

Type of Fee Amendment
Check No. 379
Amount \$ 40
Fee Category 3C
Date of Check 2/7/79
Date Check Rec'd 2/22/79

OK to issue:

Amendment X
Renewal _____
License _____
Additional
Fee Due _____

Signed Doug Miller
License Fee Management Branch
Date 2/22/79

FORM 2

Saved
FEB 22 1979