

U. S. NUCLEAR REGULATORY COMMISSION  
MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter 1, Parts 30, 31, 32, 33, 34, 35, 36, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s); and to import such byproduct and source material. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p>Licensee</p> <p>1. Envirodyne Engineers</p> <p>2. 12161 Lackland Road St. Louis, Missouri 63141</p>		<p>In accordance with application dated January 31, 1979,</p> <p>3. License number 24-17152-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date September 30, 1981</p> <p>5. Docket or Reference No.</p>
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Nickel-63</p> <p>B. Nickel-63</p> <p>C. Nickel-63</p>	<p>7. Chemical and/or physical form</p> <p>A. Plated Source (Hewlett-Packard Model 18713-A Detector Cell)</p> <p>B. Foil Source (Tracor Model 113027-3200 Detector Cell)</p> <p>C. Foil Source (Varian Instrument Company Model 01-001208-00 Detector Cell)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. No single source to exceed 15 millicuries</p> <p>B. No single source to exceed 15 millicuries</p> <p>C. No single source to exceed 10 millicuries</p>
<p>9. Authorized use</p> <p>A., B., and C. To be used in gas chromatographs for sample analysis.</p>		

CONDITIONS

10. Licensed material shall be used only at the licensee's address stated in Item 2 above.

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Supplementary Sheet

License Number 24-17152-01

Docket or  
Reference No. \_\_\_\_\_

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Amendment No. 02

CONDITIONS

11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision of, D. C. Kennedy, F. T. Hammer, or C. A. Hammer.
13.
  - A. Each chromatograph detector containing Nickel 63 shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a detector received from another person shall be put into use until tested.
  - B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the surfaces of the device in which the foil is mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
  - C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the foil from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the Regional Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, describing the equipment involved, the test results, and the corrective action taken.
  - D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
15. Detector cells containing licensed material shall not be opened by the licensee.

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License Number 24-17152-01

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Amendment No. 02

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CONDITIONS

16. Maintenance, repair, cleaning, replacement and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.
17. Except as otherwise specified in this license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for the chromatography device.
18. The licensee shall conduct a physical inventory every 6 months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, location of sealed sources, and the date of the inventory.
19. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated January 31, 1979.

Date FEB 23 1979

*Pett John 2/13 LS*

For the U. S. Nuclear Regulatory Commission  
*Original Signed by*  
*2-14* **JOHN E. BOWYER**  
by \_\_\_\_\_ License Management Branch

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

U.S. NUCLEAR REGULATORY COMMISSION  
MATERIALS DATA INPUT INDUSTRIAL

1 - FILE COPY

R3

## A. TYPE OF ACTION AND IDENTIFICATION CODES

<input type="checkbox"/> NEW LICENSE	<input type="checkbox"/> AMENDMENT TO RENEW LICENSE	<input type="checkbox"/> AMENDMENT TO TERMINATE	<input type="checkbox"/> VOID	DOCKET NUMBER	MAIL CONTROL NUMBER	CHANGE NAME ADDRESS
<input type="checkbox"/> NEW LICENSE AND NEW LICENSEE	<input checked="" type="checkbox"/> OTHER AMENDMENT	<input type="checkbox"/> CLERICAL CHANGE NO AMENDMENT	4	030-12280	01312	<input type="checkbox"/>

## B. INDICATIVE INFORMATION:

INDIVIDUAL	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)
	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)
	NAME (LAST, FIRST, MIDDLE)	NAME (LAST, FIRST, MIDDLE)
ORGANIZATION	ORGANIZATION NAME (ALPHABETIC SEQUENCE)	
	Envirodyne Engineers	
ADDRESS	DEPARTMENT OR BUREAU	
	BUILDING, STREET	CITY
	12161 Lackland Road	St. Louis
		STATE
		Mo.
		ZIP CODE
		63141
TYPE OF APPLICANT	<input type="checkbox"/> U.S. GOVERNMENT AGENCY	DATE REQUEST RECEIVED
	<input type="checkbox"/> INDIVIDUAL LICENSEE	INSTITUTION CODE
	<input checked="" type="checkbox"/> ORGANIZATIONAL LICENSEE	PENDING PROG. CODE
		03120
SECONDARY PROGRAM CODES AS REQUIRED:		ACTUAL PROG. CODE
#1	#2	#3
LICENSE NUMBER	DATE LICENSE ISSUED OR ACTION COMPLETED	EXPIRATION DATE
24-17152-01	2-23-79	9-30-84

## C. STATISTICAL INFORMATION:

## MEDICAL CATEGORY:

☐ FOR HUMAN USE ONLY☐ FOR HUMAN AND NONHUMAN USE☒ FOR NONHUMAN USE ONLY

## POSSESSION OF THE MATERIAL IS AUTHORIZED IN ONE OF THE FOLLOWING AREAS:

☒ SAME AS "STATE" ADDRESS☐ ALL STATES☐ ALL NON-AGREEMENT STATES

## AND/OR IN THE STATE(S), TERRITORY(S), COUNTRY CHECKED BELOW:

ALABAMA -AL	GEORGIA -GA	MARYLAND -MD	NEW JERSEY -NJ	SOUTH CAROLINA -SC	WYOMING -WY
ALASKA -AK	HAWAII -HI	MASSACHUSETTS -MA	NEW MEXICO -NM	SOUTH DAKOTA -SD	
ARIZONA -AZ	IDAHO -ID	MICHIGAN -MI	NEW YORK -NY	TENNESSEE -TN	AMERICAN SAMOA -AS
ARKANSAS -AR	ILLINOIS -IL	MINNESOTA -MN	NORTH CAROLINA -NC	TEXAS -TX	CANAL ZONE -CZ
CALIFORNIA -CA	INDIANA -IN	MISSISSIPPI -MS	NORTH DAKOTA -ND	UTAH -UT	GUAM -GU
COLORADO -CO	IOWA -IA	MISSOURI -MO	OHIO -OH	VERMONT -VT	PUERTO RICO -PR
CONNECTICUT -CT	KANSAS -KS	MONTANA -MT	OKLAHOMA -OK	VIRGINIA -VA	VIRGIN ISLANDS -VI
DELAWARE -DE	KENTUCKY -KY	NEBRASKA -NB	OREGON -OR	WASHINGTON -WA	
WASHINGTON, DC -DC	LOUISIANA -LA	NEVADA -NV	PENNSYLVANIA -PA	WEST VIRGINIA -WV	CANADA -CN
FLORIDA -FL	MAINE -ME	NEW HAMPSHIRE -NH	RHODE ISLAND -RI	WISCONSIN -WI	

## D. POSSESSION LIMITS OF SOURCE AND SPECIAL NUCLEAR MATERIALS AND TRITIUM

## SOURCE MATERIAL CEILING

## SNM CEILING

☐ GRAMS☐ KILOGRAMS☐ GRAMS☐ KILOGRAMS☐ "X" HERE IF FOR POWER REACTOR

	AMOUNT	UNIT	CONFIG.	ENRICH.	MAT.	AMOUNT	UNIT	CONFIG.	ENRICH.
U5		g	UNS				g	UNS	
U3		g	UNS				g	UNS	
PU		g	UNS				g	UNS	
UR		g	UNS				g	UNS	
TH		g	UNS				g	UNS	
		g	UNS				g	UNS	
		g	UNS				g	UNS	
		g	UNS				g	UNS	
H3		CURIES	MICROCURI						
		MILLICURI							

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