

0202 & 0402

NRC Form 313 I (12-81) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL		1. APPLICATION FOR: (Check and/or complete as appropriate)		
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.		X	a. NEW LICENSE	
			b. AMENDMENT TO LICENSE NUMBER	
			c. RENEWAL OF LICENSE NUMBER	
2. APPLICANT'S NAME (Institution, firm, person, etc.) TRW, INC./CASTINGS DIVISION TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (216) 868-6441		3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION Donald W. Gillespie TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (216) 868-7255		
4. APPLICANT'S MAILING ADDRESS (Include Zip Code) (Address to which NRC correspondence, notices, bulletins, etc., should be sent.) 3860 Union Avenue S.E. Minerva, Ohio 44657		5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code) 3860 Union Avenue S.E. Minerva, Ohio 44657		
(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. Lloyd Hays		Radiographic Supervisor		
b. Leonard A. Wasilewski		Master Metal Department Supervisor		
c. John Wieland		Chief Chemist		
7. RADIATION PROTECTION OFFICER		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				
LINE NO.	ELEMENT AND MASS NUMBER A	CHEMICAL AND/OR PHYSICAL FORM B	NAME OF MANUFACTURER AND MODEL NUMBER (If Sealed Source) C	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTIVITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1)	Cd-109	Elemental Cd	Either IPL No. GFS or Amersham No. AMC.P2	Up to 6 sources of up to 15 mCi each.
(2)	Am-241	Americium Oxide	Either IPL No. GFS or Amersham No. AMC.P2	Up to 2 sources of up to 7 mCi each...
(3)	Cd-109	Elemental Cd	Any of the following: IPL No. XFB, NEN No. NER-465, Amersham No. CLK.P1	3 sources of 8 mCi each
(4)	Am-241	Americium Oxide	Any of the following: IPL No. GFS, NEN No. NER-478, Amersham No. AM64	3 sources of 8 mCi each
DESCRIBE USE OF LICENSED MATERIAL E				
8512050097 851107 REG3 LIC30 34-24589-01 PDR (1) MATERIAL is to be used in a KEVEX Energy Dispersive X-Ray Analyzer to provide a source of x-ray energy to fluoresce x-rays from a sample for the purpose of alloy sorting and identification and for quantitative chemical analysis. (2) (3) (4) License Fee Information on Next Page				
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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)	Multiple Source Holder & Shutter	KEVEX Corporation	0402
(2)	Multiple Source Holder & Shutter	KEVEX Corporation	0402
(3)	Source Housing	KEVEX Corporation	0202
(4)	Source Housing	KEVEX Corporation	0202

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)	Victoreen	NDT System Corporation	440	1728	Gamma	300 - .3
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input checked="" type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY Victoreen, Inc. 10101 Woodland Avenue Cleveland, Ohio 44104 Yearly	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments. N/A
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12. PERSONNEL MONITORING DEVICES

TYPE (Check and/or complete as appropriate.) A.	SUPPLIER (Service Company) B.	EXCHANGE FREQUENCY C.
<input checked="" type="checkbox"/> (1) FILM BADGE <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD) <input type="checkbox"/> (3) OTHER (Specify): _____	ICN Dosimetry Service Box 28050 Cleveland, Ohio 44128	<input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> OTHER (Specify): _____

13. FACILITIES AND EQUIPMENT (Check where appropriate)

and attach annotated sketch(es) and description(s).

- ☒ a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOOD, etc. 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

N/A

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.

Disposal of source will be provided by KEVEX Corporation.

NRC FORM 313 (12-81)

Applicant

Check No.

Amount/Fee Category

Type of Fee

Date Check Rec'd

Received By

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)

\$230

b. CERTIFYING OFFICIAL (signature)

c. NAME (Type in print)

R. R. BROOKES

d. TITLE

PRODUCT MANAGER - MASTER METAL

e. DATE

OCT 11 1985

RECEIVED

OCT 18 1985

REGION III

(1) LICENSE FEE CATEGORY: 3P

(2) LICENSE FEE ENCLOSED: \$230

10. RADIATION DETECTION INSTRUMENTS

Model No.	Serial No.	Date Calibrated	Calibration Technique	Recommended Date For Recalibration
440	1728	6/26/85	¹³⁷ Cs	6/26/86
<p>FREQUENCY OF RE CALIBRATION MAY VARY DEPENDING ON LOCAL, STATE OR FEDERAL REQUIREMENTS.</p>				
<p>TRACEABLE TO N.B.S. TEST No. DG8118/83 DATED SEPT. 29, 1983 PTW CHAMBER MODEL 30-343 SERIAL NUMBER N23361-142</p>				

Register No.

hyp 2890 True Value

Calibration Lab.

VICTOREEN, INC.

10101 Woodland, Avenue. Cleveland, Ohio 44104

A Sheller-Globe Corporation Subsidiary

5713178

OVERSIZE DOCUMENT PAGE PULLED

SEE APERTURE CARDS

NUMBER OF PAGES: 1

ACCESSION NUMBER(S):

8512050097-01

APERTURE CARD/HARD COPY AVAILABLE FROM RECORD SERVICES BRANCH, TIDC
FTS 492-8989

ITEM 15

- a) Sources will be kept installed in instrument at all times except when removed by manufacturer's service engineer. If removed, the source will be kept in a locked cabinet marked "CAUTION - RADIOACTIVE MATERIAL". The instrument the source is installed in will be clearly marked the same way with approved labeling.
- b) The Radiation Protection Officer will maintain all records of area monitoring and film badge exposures. The RPO will safeguard and not open any box containing a source delivered to the site. The manufacturer's service engineer will open the package, install the source and perform initial radiation survey. He will also perform all service, repairs, or replacement of the source and will be responsible for disposal of spent devices.
- c) Leak tests will be performed semi-annually by the manufacturer's service engineer using analysis performed by Radiation Detection Company of Sunnyvale, California.

ITEM 16

LLOYD HAYS

TITLE: Radiographic Supervisor
Radiation Protection Officer

Resume Attached

Will read "Radiation Safety Guide" published by KEVEX and all Operator's Manuals. KEVEX personnel will provide orientation program covering Items 16 a-d upon installation of system at our site.

NDT PERSONNEL EXPERIENCE AND TRAINING RECORD

FORMAL TRAINING: *Lloyd Hays*

NDT TRAINING SCHOOL	TRAINING HOURS PER METHOD					DATE COMPLETED	AUTHORIZED LEVEL III SIGNATURE
	PT	MT	RT	UT	ET		
ASNT Course	18	6	36	6	6	April 1969	Unknown
GENERAL DYNAMICS			40			OCT, 1966	CAL DAVIS
PWA			80			MAY, 1967	C. ROBERSON

WORK EXPERIENCE:

EMPLOYER	DATES FROM - TO	METHODS	PRODUCT FORM
TRW Castings Div. Minerva Plant	May, 1982 to present	LEVEL III RT	Investment Castings
" " "	Sept, 1973 to May 1982	Sr. Level II - RT	" "
" " "	Apr. 1969 to Sept. 1973	Level II RT Shift Supervisor	" "
" " "	Oct 1965 to Apr 1969	Level II RT	" "
" " "	Oct. 1962 to Oct. 1965	Level I RT	" "

CONTROL NO. 79978

ITEM 16

LEONARD WASILEWSKI

TITLE: Master Metal Department Supervisor

No prior training with radiation equipment.

Will read "Radiation Safety Guide" published by KEVEX and all Operator's Manuals. KEVEX personnel will provide orientation program covering Items 16 a-d upon installation of system at our site.

ITEM 16

JOHN WIELAND

TITLE: Chief Chemist

DEGREE: B.S. Chemistry

No prior training with radiation equipment.

Will read "Radiation Safety Guide" published by KEVEX and all Operator's Manuals. KEVEX personnel will provide orientation program covering Items 16 a-d upon installation of system at our site.

1223A

CONTROL NO. 79973

ITEM 17

LLOYD HAYS

TITLE: Radiographic Supervisor
Radiation Protection Officer

Resume Attached.

NDT PERSONNEL EXPERIENCE AND TRAINING RECORD

FORMAL TRAINING: *Lloyd Hays*

NDT TRAINING SCHOOL	TRAINING HOURS PER METHOD					DATE COMPLETED	AUTHORIZED LEVEL III SIGNATURE
	PT	MT	RT	UT	ET		
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" " "	Sept, 1973 to May 1982	Sr. Level II - RT	" "
" " "	Apr. 1969 to Sept. 1973	Level II RT Shift Supervisor	" "
" " "	Oct 1965 to Apr 1969	Level II RT	" "
" " "	Oct. 1962 to Oct. 1965	Level I RT	" "

CONTROL NO. 79978

ITEM 17

LEONARD WASILEWSKI

TITLE: Master Metal Department Supervisor

EXPERIENCE: No prior experience with radiation.

ITEM 17

JOHN WIELAND

TITLE: Chief Chemist

DEGREE: B.S. Chemistry

EXPERIENCE: No prior experience with radiation.

VENDOR SEND TO

Donald W. Gillespie

NAME

TRW

MINERVA, OHIO 44657

0203

PURCHASE ORDER-For ☐ SUBSCRIPTIONS ☐ CONTRIBUTIONS ☐ MEMBERSHIPS ☐ PUBLICATIONS

TPFC-755K REV. 3 PRINTED IN U.S.A.

TO:		DATE
PUBLISHER/ORGANIZATION U.S. Nuclear Regulatory Commission		October 15, 1985
ADDRESS 799 Roosevelt Road		UNIT PRICE \$230.00
Glen F'lyn, IL 60137 Attn: Nuclear Materials Safety and Safeguards Branch		PER Ea.
PERIOD COV. ED		AMOUNT OF CHECK \$230.00
		ACCOUNT No. 29-880-410
FOR:		

(DESCRIBE)

License toRun Kevex.

SEND TO THE ATTENTION OF:

NAME	DEPT.	DIVISION	ADDRESS
Don W. Gillespie	880	KY Castings	3860 Union Ave. S.E. Minerva, OH 44657

APPROVAL FOR SUBSCRIPTIONS, MEMBERSHIPS AND PUBLICATIONS

DEPT. HEAD	DATE	DIV. MGR.	DATE
<i>[Signature]</i>	10-15-85		

APPROVAL FOR CONTRIBUTIONS

COMPANY OFFICIAL	DATE

BLUE COPY - ACCOUNTS PAYABLE
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APPROVED BY

(AUTHORIZED SIGNATURE)

(DATE)

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