	2		37-1258-2
Form AEC-313 (9-55)	ATOMIC ENERGY OF PLICATION FOR BYPRODU		Form approved. Budget Bureau No. 38-R027.3.
mation previously submit Tennessee, Attention: I application, the applicant of an AEC Byproduct Ma	will receive an AEC Bypro- terial License are contained	is a new application. If re- to the other items there has I. S. Atomic Energy Commiss on of Civilian Application duct Material License. Gene 1 in Title 10, Code of Federa	been no change in the info ion, P. O. Box E, Oak Ridg . Upon approval of th
1. (e) NAME AND SHIPPING ADDRESS OF (Institution, firm, kospilal, person, e	FAPPLICANT	(b) ADDRESS(ES) AT WHICH BYPROD	ICT MATERIAL WILL BE USED
Jones & Laughli Building #3 Gat	teway Center	J&L RESEARCH LAB & STEEL J&L STEEL MILL - ALIQUIP , J&L STEEL MILL - YOUNGST	PA, PA.
2 DEPARTMENT 10 USE BYPRODUCT		, î l	
RESEARCH & DEVELOPMENT 3. INDIVIDUAL USER (Name and title of it	DEPARTMENT - RESEARCH DIVIS	<u>ION</u>	······································
WALTER A. WILSON	neislenet(s) who will use of elfectly supersu	e use of syproduct material)	
4. RADIOLOGICAL SAFETY OFFICER (Ne	me of person qualified in radiological safety,	if other than individual user)	
WALTER A. WILSON		• • •	
5. PREVIOUS LICENSE OR AUTHORIZATI radiologope procurement/TO BE AMEN	ION NUMBER (I/this is an application for DED FOR 1.) ADDITIONAL SOUR	renewal of a license for syproduct material ob CE (BBI0061)	tained under a prior license or authorization
	2. ADDITIONAL PLACE	ES OF USE	
	3.) ADDITIONAL SOURCE	CE CONTROL RESPONSIBILITY BY L	ICENSE
6. BYPRODUCT MATERIAL (Element and n	nam number) 7. CHEMICAL AND/OR PHY	IRRADIATION SERVICE DESI	
* THALLIUM 204	Rumber) MODEL BB -	- 0008 CURIES T	M AMOUNT OF RADIOACTIVITY IN MI HAT YOU WILL POSSESS AT ANY ONE T
* STRONTIUM 90 * KRYPTON 85	Model BB - Model BB -		ME
KRYPTON 85	MODEL BB -		
	STATEM1		
10. (a) DESCRIBE PURPOSE FOR WHICH is to be used in or manufactured as a "	RYPPODICT MATERIAL WILL DE LICER	170-1-1-1-1-0-11	Supplement A in lieu of this item. If male
TO BE MOUNTED IN AN IND	BYPRODUCT MATERIAL WILL BE USED sealed source" complete Supplement B in a	170-1-1-1-1-0-11	
	BYPRODUCT MATERIAL WILL BE USED sealed source" complete Supplement B in a	. (If material is for "human use" complete S ddition to this item.)	
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16-57264-5

ATOMIC ENERGY COMMISSION Form AEC-818 Page Two **APPLICATION FOR BYPRODUCT MATERIAL LICENSE** INSTRUCTIONS: Complete Items 12 through 19 if this is a new application. This information may be omitted from subsequent applications provided there is no change in the information previously submitted, and reference is made in Item 5 to the application on which this information appears. TRAINING AND EXPERIENCE WITH RADIOACTIVITY OF INDIVIDUAL USER NAMED IN ITEM 3 12 TYPE OF TRAINING ON THE JOB FORMAL COURSE (Circle answer) WHERE TRAINED DURATION OF TRAINING k ennver) YES INDUSTRIAL NUCLEONICS CORP. YEAR No 1. Principles and practices of radio-logical health safety, \_\_\_\_\_. YES Yes No No No Yes JONES & LAUGHLIN STEEL CORP. 2.5 YEARS YES 2. Radioactivity measurement stand1 INDUSTRIAL NUCLEONICS CORP. I YEAR YES NO ardization and monitoring tech-niques and instruments UNIVERSITY OF POH. YES Yes 2 YEARS No Yes 2.5 YEARS JONES & LAUGHLIN STEEL CORP. 3. Mathematics and calculations 1 basic to the use and measurement 6 MONTHS UNIVERSITY OF PGH. of radioactivity. . . . . . . . . No Yes No Ye 11 4. Biological effects of radiation. . . No No les INDUSTRIAL NUCLEONICS 3 DAYS 5. Actual use of radioisotopes in the 11 NO YES INDUSTRIAL NUCLEONICS I YEAR JONES & LAUGHLIN STEEL CORP. 25 YEARS No No Yes 13. ISOTOPE HANDLING EXPERIENCE 71311 1-L. 1 1 ۱. ---ISOTOPE MAXIMUM AMOUNT WHERE EXPERIENCE WAS GAINED DURATION OF EXPERIENCE TYPE OF USE ٦ 1 1 \_ 1.1 τ 1 1 -J

14. If Radiological Safety Officer named in Item 4 is different from individual user named in Item 8, use supplementary sheet to provide equivalent information on "Training and Experience With Radioactivity of Radiological Safety Officer." Supplementary sheet is attached (Circle answer) Yes No X

## PHYSICAL FACILITIES, EQUIPMENT, AND RADIATION INSTRUMENTATION

15. RADIATION DETECTION INSTRUMENTS (Use separate sheet if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/kr)	WINDOW THICKNESS (mg/cm <sup>3</sup> )	USE (Monitoring, surveying, measuring)			
RADIATION SURVEY METER UNIVERSAL ATOMIC UAC #407 TRACER LAB SU-18	-	T Beta-Gamma Beta-Gamma	0-50 MR/HR. 0-2500	20 то 30 2 то 3	SURVEYING SURVEYING			

16. FILM BADGES, DOSIMETERS, AND OTHER PERSONNEL MONITORING DEVICES INCLUDING BIO-ASSAY PROCEDURES

FILM BADGE SERVICE SUPPLIED BY ST. JOHN X-RAY LABORATORY, CALIFON, NEW JERSEY 7 1 LL т IT 1 1 CC THEV I τ 1 1 1 31 1 DL IC TI 2 CD 1 ( ) 1 Ĵ , 1 1 : 1 5 I I ΤI 11

17. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE (For film badges specify method of calibration and processing, or name supplier)

METHOD - MEASUREMENT OF DOSAGE RATE VS. DISTANCE FROM STANDARD. FREQUENCY - MONTHLY

STANDARD - L.L2 MG RADIUM IN 0.05 MM 90% PT, LO% IR NEEDLE

18. (a) DESCRIBE BRIEFLY REMOTE HANDLING EQUIPMENT, STORAGE CONTAINERS, SHIELDING, AND LABORATORY FACILITIES (Working areas, fume hoods, ed.) STORAGE CONTAINER\_CONSISTS\_OF\_ 5; INCH THICK STEEL PROPERLY MARKED AND STORED IN UNDERGROUND VAULT ACCESSIBLE BY COMBINATION LOCK ONLY. ALL MODERN CHERICAL LABORATORY FACILITIES AVAILABLE, E.G. FUME HOOD. SHIELDING ACCOMPLISHED BY COMBINED USE OF STEEL PLATE, LEAD AND LUCITE.

(b) SKETCHES OF SUCH FACILITIES ARE ATTACHED (Chrole answer)

Yes No

19. DESCRIBE BRIEFLY RADIATION SURVEYING PROCEDURES AND METHODS OF DISPOSING OF RADIOACTIVE WASTES

SURVEY CHECKED AGAINST INITIAL RADIATION PATTERN OF BETA GAGE

	APPLICATIO OR BYPRODUCT MATERIAL LICENSE	Page Two
	ALL SEALED SOURCES OTHER THAN THOSE DEFINED IN ITEM 4	
S. QUANTITY OF BYPROD	UCI MATERIAL PER SOURCE AND MODEL OR DRAWING NUMBER	·····
1.) 100 MC TI (204	4) BB0008 2.) 25 MC SR (90) BB0020 3.) 250 MC KR (85) BB0030 4.) 1000 M	C KR (85) BRIDOGI
SEE INDUSTRIAL NO	CLEONICS PARTS NOS. 88-0008, 88-0020, 88-0030 ON FILE WITH ISOTOPE DIVISION	-
7. ATTACH ANNOTATED EN	IGINEERING DRAWING OF SOURCE CONTAINER AND HOLDER, IF ANY:	
ON FILE WITH ISOTO	PE DIVISION, AEC.	
8. TYPE OF SEAL TO BE USE	ED TO PRECLUDE LEAKAGE OF RADIOACTIVITY TO EXTERIOR OF SOURCE:	
SEE NOTE 6 ABOVE.	De La Lation of Booke	
. IF SOURCE HOLDER IS TO	O BE USED WILL CONTAINED DE DEDUCIÓN	
YES	D BE USED WILL CONTAINER BE PERMANENTLY OR SEMIPERMANENTLY MOUNTED THEREIN?	
		ł
DESCRIBE LABEL TO BE A	AFFIXED TO CONTAINER AND/OR SOURCE HOLDER (Or attach copy. See instructions):	
	PE DIVISION, AEC.	ì
EVIDENCE OF STABILITY	OF SOURCE CONTAINER MATERIAL TO IRRADIATION FROM BYPRODUCT MATERIAL THEREIN (Omit if such	
		· · · · · · · · · · · · · · · · · · ·
SEE NO. 2, REVERSE :	SIDE, DEVICES CONTAINING SEALED SOURCE (Give following information if sealed source is to be mounted in a data)	! I !
SEE NO. 2, REVERSE :	SIDE, DEVICES CONTAINING SEALED SOURCE (Give following information if sealed source is to be mounted in a data)	
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U. S. GOVERNMENT PRINTING OFFICE 16-61444-2

Form AEC-813b (9-65)	APPLIC ON FOR BYPRODUCT MATERIAL LIC	E Form approved. Budget Bureau No. 38-R028.
If application is f the application fo to manufacture a in the sealed sour omitted provided	for byproduct material to be used in or manufactured as a "sealed source" or byproduct material license. Applicant for use of sealed source should consealed source should complete Section II. If information has been submit rece and/or device.design or other changes in information submitted preventer reference is made on line below to the application or other document on TO BE AMENDED FOR A.) ADDITION LICENSE NO. 37-1258-2	mpiete Section 1. An applicant der tted previously and there are no chr viously, details requested below mr which this information appears: AL SOURCE (88-10061)
	SECTION I-USE (See instructions)	LICENSEE.
1. IF SEALED SOURCE (	OR DEVICE CONTAINING SEALED SOURCE IS MANUFACTURED COMMERCIALLY, GIVE FOLL	LOWING INFORMATION:
A. Manufacture	r or supplier of sealed source and/or device INDUSTRIAL NUCLEONLOS COR	
D. Make and mo	odel number of sealed source and/or device 100 MC T1 (204) BB-0008 -	25 MC SR (90) 88-0020 -
	vill hold legal title to sealed source250_MC_KR_(85)_BB-0030 - 1000_M	KR [85] BB-10061
2. (a) NAME OF PERSON	JONES & LAUGHLIN STEEL CORPORAT	ION - RESEARCH DIVISION
WALTER A.	WILSON	na; 3-month period for alpha emitters. See instru
(b) IF ABOVE PERSON MENT OF EXPERIN EVIDENCE OF ITS ABOVE PERSON	N IS NOT THE SUPPLIER, MANUFACTURER, NOR A COMMERCIAL LABORATORY ROUTINEL ENCE OR TRAINING OF SUCH PERSON IN TECHNIQUES TO BE EMPLOYED, A STATEMEN EFFICACY AND INSTRUMENTATION TO BE USED: HAS HAD OVER 5 YEARS TRAINING IN ALL PHASES OF THE PRINCIPLES A	T OF LEAK TESTING PROCEDURES INCL
NUCLEONICS CO	EXPERIENCE ARE: ASSISTANT AT THE UNIVERSITY OF PITTSBURGH RADIA ORP., ENGINEER IN CHARGE OF BETA GAGING FOR JONES & LAUGHLIN STE STS SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD SOURCE WIPE TH INDUSTRIAL NUCLEONICS CORP. FOR USE OF FIELD ENGINEERS AND AUTHOR	TION LAB, ENGINEER FOR INDUSTR
3. ARRANGEMENTS WHI DISPOSAL, ETC., OF T	ICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY (if appropriate), SERVI	ICING MAINTENANCE, REPAIR, CONTROL
REDUCE THE RAI	RADIATION SURVEY AND RADIATION PATTERNS HAVE BEEN PERFORMED ON E ATION OF BB-10061 RADIATION PATTERN WILL BE RUN AND NECESSARY SH DIATION TO BELOW 5 MR AT 30 INCHES. ND WIPE TEST WILL BE PERFORMED AT A MAXIMUM OF 6 MONTH INTERVALS	HELDING WILL BE INSTALLED TO
	TION OF GAUGES, RADIATION SURVEY, MAINTENANCE, AND REMOVAL OF SO	
	AL NUCLEONICS REPRESENTATIVE WILL BE CONTACTED FOR DISPOSAL AND	
SEALED SO	DURCES SHALL NOT BE OPENED OR COMBINED BY LICENSEE.	
	SECTION II-MANUFACTURE	
<ul><li>s THROUGH 12 ON THE</li><li>(a) Quantity of by</li><li>(b) Leak testing p</li></ul>	yproduct material per source and model number procedure to be employed:	Y GAMMA RAYS AND CONTAINS IN ELEME G INFORMATION AND DISREGARD QUEST
(d) Describe label	ted engineering drawing of source container and holder, if any: to be affixed to source container and/or source holder (or attach copy.	See in demotion .
•••••••••	10	See instructions):
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	Tel App 150 U C S UN Des 1 C S UN OF Strang	· · · · · · · · · · · · · · · · · · ·
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OF IN A EC-313 (9-55)	APPLICA.	ATOMIC ENERGY COMMISSION	LICEN	Form approved. Budget Bureau No. 38-B027.3.
INSTRUCTIONS only Items 1 t mation previou Tennessee, A application, th of an AEC By	: Complete Items brough 11 provide usly submitted. M ttention: Isotopes e applicant will re- product Material 1	1 through 19 if this is a new applic ad that with respect to the other iter fail two copies to: U. S. Atomic Ener Extension, Division of Civilian reive an AEC Byproduct Material Li- iccense are contained in Title 10, Co	ation. If reven ms there has be reversed to the second Application. icense. General de of Federal D	P C Roy E Ock Ridge
1. (*) NAME AND SHIPP (Institution, firm, Jones & Bldg. 7	ING ADDRESS OF APPLICAT hospital, percon, dc.) Laughlin St 3, Gateway ( rgh 30, Pa BPRODUCT MATERIAL	eel Corp. (b) ADDRESS(ES) A (if different from Jones & 900 Agne	T WHICH BYPRODUCT I shipping eddress) Laughlin R EW Road	ATERIAL WILL BE USED
Researc	h and Develo	pment Department - Rese who will use or directly supervise use of byproduct materia	<del>gh 27, Pa.</del> arch Divis	ion
Walter	A. Wilson	n gualified in radiological safety, if other than individual us	al)	
warter .	A Wilcon o	r Harry F. Osterman R (1) this is an application for renewal of a license for by		
		the second per concern of a succede for or	product material obtained	under a prior license or authorization j
6 DV000000000000000000000000000000000000	BYPRODU	CT MATERIAL OR IRRADIATION SE	RVICE DESIDED	
Dia 2 7 days	the mound in the mound of	7. CHEMICAL AND/OR PHYSICAL FORM (Or catalog number)	8. MAXIMUM AM	OUNT OF PADIOACTIVITY
Thallium 2 Krypton 85	204	Nodel BB-0008	CURIES THAT Y	OU WILL POSSESS AT ANY ONE TI
Strontium	) 00	Model BB-0030	250 I	IC
. IF IRRADIATION SERV	90	Nodel BB-0020		
RADIOACTIVITY, IRRA	VICE IS DESIRED, STATE DIATION TIME IN DAYS, A	PERTINENT DETAILS SUCH AS: CHEMICAL COMPOS ND NEUTRON FLUX	SITION AND WEIGHT	N GRAMS OF TARGET MATERIA
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<ul> <li>(a) DESCRIBE PURPOSI is to be used in or mar To be per Beta Gaug</li> <li>(b) DESCRIBE PROCEDUR Source will be perform Industrial repair and</li> <li>The applicant and is prepared in confo tion contained here</li> <li>State of</li></ul>	E FOR WHICH BYPRODUC Suffactured as a "sealed source manently mou e for produc res which will be obser ll not be re ned on the s L Nucleonics l disposal o any official executing rmity with Title 10, in, including any sup worn to before me th	STATEMENT OF USE         STATEMENT OF USE         IMATERIAL WILL BE USED. (If material is for "huma" complete Supplement B in addition to this item.)         Inted in an Industrial N         etion line measurement.         WED TO MINIMIZE HAZARD FROM HANDLING, STORA MOVED TO MINIMIZE HAZARD FROM HANDLING, STORA MOVED from holder. Wip ource capsule and immed Corp. representative W f source if required.         CERTIFICATE         this certificate on behalf of the applicant Code of Federal Regulations, Part 30, and plements attached hereto, is true and cor Jones and Applicant named in By <u>Minimize Hazard From Handling</u> , Stora	An use" complete Supplet Nucleonics Nee and surv iate surro rill be cal named in Item 1, do solemnly swear rect to the best of d Laughlin	ment A in lieu of this item. If materi Corp. Accuray THE BYPRODUCT MATERIAL ey test will undings. led for certify that this application (or affirm) that all informa our knowledge and belief Steel Corp.

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INSTRUCTIONS: Complete Items 12 through 10 if this is a naw application. This information may be omitted from subsequent application or private in the information previously submitted, and reference is made in laws 5 to the splication on which this information appears.         TAINING AND EXPERIENCE WITH RADIOACTIVIT OF INDIVIDUAL USER NAMED IN ITEM 3         TYPE OF TRANSING         1. Principles and practices of radio for the single of the single	from subsequent applications provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided predictions provided there is no charge in the information provided prediction provided predictions information provide predictions information provided predictions information predintegramment prediment prediction information predictions predicti	Form AEC-818	AP	PLIUN		OMIC ENERGY				•			Page T	wo•/
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2 TYPE OF TRAINING       UDDATION OF TRAINING       Circle assers/ togical health safety		TRAININ	NG AND EXPER	IENCE	WITH	RADIOACTIV	VITY (	OF INDIVI	DUAL USE	L NA				
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Radiation Survey       1       Beta       0-2500       2-3       Surveying         Model SU-1B       1       Beta       0-2500       2-3       Surveying         16. FILM BADGES, DOSIMETERS, AND OTHER PERSONNEL MONITORING DEVICES INCLUDING BIO-ASSAY PROCEDURES       Film badge service supplied by St. John X-Ray Laboratory, Califon, New Jersey         17. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE (For film badges specify method of calibration and proceeding, or not supplied)         18. Film badge - Measurement of dosage rate versus distance from standard frequency - semimonthly. Standard - 1.12 mg. Radium in 0.05 mm. 90% Pt, 10% Ir Needle         18. (e) DESCRIBE BRIEFLY REMOTE HANDLING EQUIPMENT, STORAGE CONTAINERS, SHIELDING, AND LABORATORY FACILITIES (Working erose, fume hoods, etc.)         (b) SKETCHES OF SUCH FACILITIES ARE ATTACHED (Christ ensure)       Yes	Radiation Survey       1       Beta       0-2500       2-3       Surveying         Model SU-1B       1       Beta       0-2500       2-3       Surveying         16. FILM BADGES, DOSIMETERS, AND OTHER PERSONNEL MONITORING DEVICES INCLUDING BIO-ASSAY PROCEDURES       Film badge service supplied by St. John X-Ray Laboratory, Califon, New Jersey         17. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE (For film badges specify method of calibration and proceeding, or not supplied)         18. Film badge - Measurement of dosage rate versus distance from standard frequency - semimonthly. Standard - 1.12 mg. Radium in 0.05 mm. 90% Pt, 10% Ir Needle         18. (e) DESCRIBE BRIEFLY REMOTE HANDLING EQUIPMENT, STORAGE CONTAINERS, SHIELDING, AND LABORATORY FACILITIES (Working erose, fume hoods, etc.)         (b) SKETCHES OF SUCH FACILITIES ARE ATTACHED (Christ ensure)       Yes	TYPE OF IN	TION INSTRUMENTS (	Jse separat	te sheet if IBER	RECEISARY)	SENS	ANGE	WINDOW			ing, surp	eying, mea	unting
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(b) SKETCHES OF SUCH FACILITIES ARE ATTACHED ( <i>Circle graver</i> )	(b) SKETCHES OF SUCH FACILITIES ARE ATTACHED (Circle entrier) Yes No	Metho	d - Measure	ement	of	dosage r	ate	versus	distan	ce	from	sta	ndar	d
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		(b) SKETCHES OF S	UCH FACILITIES ARE AT		(Circle en	11007)							Yes	No
							ISPOSIN	G OF RADIOAC	TIVE WASTES					

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If application is for byproduct material to be used in or manufactured as a "scaled source" complete this supplement and attach to the application for byproduct material local constants on the scaled source and/or device design of other changes in information has behavior and/or the sequence of the source and/or device design or other changes in information and previously, details requested block manufacture or source of other changes in information and previously, details requested block appears:           SECTION I—USE (Set instructions)           1. If SEALED SOURCE OF OPTICE CONTAINING SELED SOURCE IS MANUFACTURED COMMENCIALY, GWE FOLOWING INFORMATION:           A. Manufacturer or supplier of sealed source and/or device	Form AEC-313b (9-55)	APPLIC	SUPPLEMENT B-S	DUCT MATERIAL I	.ICL 3E	Forth approved. Budge, Bureau No. 38-R028.3.
<ul> <li>1. IF SEALED SOURCE OR DEVICE CONTAINING SEALED SOURCE IS MANUFACTURED COMMERCIALLY, Give FOLLOWING INFORMATION: A. Manufacturer or supplier of sealed source and/or device</li></ul>	to manufacture a seal in the sealed source	ed source should and/or device de	complete Section II.	or use of sealed source s If information has been in information submit	hould complete Sec n submitted previously de	ction I. An applicant desiring ously and there are no changes
<ul> <li>A. Manufacturer or supplier of scaled source and/or device.</li> <li>Industrial Fuelconics Corp.</li> <li>Make and model number of scaled source and/or device.</li> <li>25.14. SR1901100200</li> <li>Person who will hold legal tile to scaled source</li></ul>		************	SECTION 1		*)	
<ul> <li>*** ABOVE PERSON IS NOT THE SUPPLIER, MANUFACTURER, NOR A COMMERCIAL LABORATORY ROUTINELY OFFERING SUCH SERVICES, GIVE BRIEF STATE MENT OF EXPERIENCE OF TRAINING OF SUCH PERSON IN TECHNIQUES TO BE EMPLOYED. A STATEMENT OF LEAK TESTING PROCEDURES INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED: We intend to perform survey and source wipe test only, any source handling, replacement or repair will be done by Industrial Nucleonics or other approved contractor.</li> <li>************************************</li></ul>	<ol> <li>IF SEALED SOURCE OR D A. Manufacturer or B. Make and model C. Person who will</li> </ol>	EVICE CONTAINING supplier of seale number of seale hold legal title to	SEALED SOURCE IS MANUF d source and/or devic d source and/or devic o sealed source	ACTURED COMMERCIALLY, a Industrial a 100 fc T1 a 25 fc SR19 Jones & La	GIVE FOLLOWING INF Lucleonic 204) BB0008 00) BB0020 ughlin Res	ormation: s Corp. =250 MCKr(85)BBO search
<ul> <li>ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY ((sppropriate). SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC., OF THE SOURCE.</li> <li>ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY ((sppropriate). SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC., OF THE SOURCE.</li> <li>Initial radiation survey will be performed by Industrial Nucleonics Corp. using appropriate beta-gamma survey instrument. Industrial Nucleonics representative will be called when necessary for maintenance, repair or disposal of source material. Survey and wipe tests will be performed at 6 month intervals.</li> </ul>	2. (c) NAME OF PERSON WH Walter	O WILL PERFORM NE	CESSARY PERIODIC LEAKA	GE TESTS (G-month intervals f	or beta-gamma; S-month j	veriod for alpha emitters. See instructions)
<ul> <li>We intend to perform survey and source wipe test only, any source handling, replacement or repair will be done by Industrial Nucleonics or other approved contractor.</li> <li>ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY (Veppropriate). SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC. OF THE SOURCE: Initial radiation survey will be performed by Industrial Nucleonics Corp. using appropriate beta-gamma survey instrument. Industrial Nucleonics representative will be called when necessary for maintenance, repair or disposal of source material. Survey and wipe tests will be performed at 6 month intervals.</li> </ul>	MENT OF EXPERIENC	L OR TRAINING OF S	uch Person in Techniqi	COMMERCIAL LABORATORY JES TO BE EMPLOYED, A	ROUTINELY OFFERING	S SUCH SERVICES, GIVE BRIEF STATE
Initial radiation survey will be performed by Industrial Nucleonics Corp. using appropriate beta-gamma survey instrument. Industrial Nucleonics representative will be called when necessary for main- tenance, repair or disposal of source material. Survey and wipe tests will be performed at 6 month intervals.	We intend handling,	to perfor replaceme	m survey and nt or repair	d source wipe r will be don	e test only	, any source
Initial radiation survey will be performed by Industrial Nucleonics Corp. using appropriate beta-gamma survey instrument. Industrial Nucleonics representative will be called when necessary for main- tenance, repair or disposal of source material. Survey and wipe tests will be performed at 6 month intervals.						
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SECTION II—MANUFACTURE	Initial ra Corp. usir Nucleonics tenance, r	adiation s ng appropr s represen repair or	urvey will b iate beta-ga tative will disposal of a	be performed amma survey i be called wh source materi	by Industri Instrument. Ien necessa Ial. Surve	rial Nucleonics Industrial ary for main-
SECTION II—MANUFACTURE	Initial ra Corp. usir Nucleonics tenance, r	adiation s ng appropr s represen repair or	urvey will b iate beta-ga tative will disposal of a	be performed amma survey i be called wh source materi	by Industri Instrument. Ien necessa Ial. Surve	rial Nucleonics Industrial ary for main-
SECTION II—MANUFACTURE	Initial ra Corp. usir Nucleonics tenance, r	adiation s ng appropr s represen repair or	urvey will b iate beta-ga tative will disposal of a	be performed amma survey i be called wh source materi	by Industri Instrument. Ien necessa Ial. Surve	rial Nucleonics Industrial ary for main-
SECTION II—MANUFACTURE	Initial ra Corp. usir Nucleonics tenance, r	adiation s ng appropr s represen repair or	urvey will b iate beta-ga tative will disposal of a	be performed amma survey i be called wh source materi	by Industri Instrument. Ien necessa Ial. Surve	rial Nucleonics Industrial ary for main-
	Initial ra Corp. usir Nucleonics tenance, r	adiation s ng appropr s represen repair or	urvey will b iate beta-ga tative will disposal of a	be performed amma survey i be called wh source materi	by Industri Instrument. Ien necessa Ial. Surve	rial Nucleonics Industrial ary for main-
	Initial ra Corp. usir Nucleonics tenance, r tests will	Adiation s adiation s ag appropr repair or be perfo	survey will h iate beta-ga tative will disposal of s rmed at 6 mo SECTION I	be performed amma survey i be called wh source materi onth interval	by Industr nstrument. ien necessa al. Surve	rial Nucleonics Industrial ary for main- ey and wipe
<ul> <li>FORM (but not powders) COBALT 60, IRIDIUM 192, GOLD 198, TANTALUM 182, OR THULIUM 170, GIVE FOLLOWING INFORMATION AND DISREGARD QUESTIONS 5 THROUGH 12 ON THIS SUPPLEMENT:</li> <li>(a) Quantity of byproduct material per source and model number</li> <li>(b) Leak testing procedure to be employed:</li> <li>(c) Attach annotated engineering drawing of source container and holder, if any:</li> <li>(d) Describe label to be affixed to source container and/or source holder (or attach copy. See instructions):</li> </ul>	Initial ra Corp. usir Nucleonics tenance, r tests will IF SEALED SOURCE TO BE FORM (but not powders) CO 5 THROUGH 12 ON THIS SU (a) Quantity of bypr (b) Leak testing proc (c) Attach annotated	MANUFACTURED OR BALT 60, IRIDIUM 192 IPPLEMENT: oduct material p redure to be empl lengineering dra	SECTION I FABRICATED BY THE APPLI C GOLD 198. TANTALUM 18 For source and model r loyed: wing of source contain	De performed amma survey i be called wh source materi onth interval II	by Industr nstrument. ien necessa al. Surve .s.	rial Nucleonics Industrial ary for main- ey and wipe wipe
<ul> <li>(a) Quantity of byproduct material per source and model number</li> <li>(b) Leak testing procedure to be employed:</li> <li>(c) Attach annotated engineering drawing of source container and holder, if any:</li> </ul>	Initial ra Corp. usir Nucleonics tenance, r tests will IF SEALED SOURCE TO BE FORM (but not powders) CO 5 THROUGH 12 ON THIS SU (a) Quantity of bypr (b) Leak testing proc (c) Attach annotated	MANUFACTURED OR BALT 60, IRIDIUM 192 IPPLEMENT: oduct material p redure to be empl lengineering dra	SECTION I FABRICATED BY THE APPLI C GOLD 198. TANTALUM 18 For source and model r loyed: wing of source contain	De performed amma survey i be called wh source materi onth interval II	by Industr nstrument. ien necessa al. Surve .s.	rial Nucleonics Industrial ary for main- ey and wipe wipe
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Form AEC-818b		SUPPLEMENT B-SE	UCT MATERIAL LI	CENSE	Pa	ge Two	· •
	ALL SEALED	SOURCES OTHER	R THAN THOSE DE	FINED IN ITEM	14		
(A) 100 MC		-0008 (B) 25	50 MC Kr(85)	BB-0030 (0	C) 25 MC	Sr(9 BB-0	0)
See Indu	PRODUCT MATERIAL WILL astrial Nucl on file wit	eonics Part	Nos. BB-0003 Nos. BB-0003 Vision, AEC	, BB-0030	and		- ~ -
7. ATTACH ANNOTATED	ENGINEERING DRAWING	OF SOURCE CONTAINER A	ND HOLDER, IF ANY:				
On file	e with Isoto	pes Division	AEC.				
8. TYPE OF SEAL TO BE	USED TO PRECLUDE LEAK	AGE OF RADIOACTIVITY T	O EXTERIOR OF SOURCE:				
	. 6 Above.						
		AINER BE PERMANENTLY	OR SEMIPERMANENTLY MO	UNTED THEREIN?			
Yes	-				-		
	BE AFFIXED TO CONTAINE	R AND/OR SOURCE HOLD	ER (Or attach copy. See instru	uctions):	•		
	e with Isoto						
11. EVIDENCE OF STABIL	ITY OF SOURCE CONTAINE	R MATERIAL TO IRRADIA	TION FROM BYPRODUCT MA	TERIAL THEREIN (O	wit if such stobility	is obvious):	
			TE FEICACY AND INCTON	ENTATION TO BE HE	57):		
12 LEAK TESTING PROCI	EDURE TO BE EMPLOYED I	ACCUDING EVIDENCE OF	ITS EFFICACY AND INSTRU	MENTATION TO BE US			
See No	. 2, Reverse	Side.					
	(Cine follo		INING SEALED SOU				
13. ATTACH ANNOTATED	· ·	• •	ODEL NUMBER AND DETAIL		CONTAINER OR S	SOURCE HO	LDER IN
THE DEVICE: Industrial	Nucleonics	Nodel BL Me	asuring Syste	em, Models	BL, BL	K and	
BM Measur	ing System,	Drawing on	file with Iso	otopes Div	ision,	AEC.	
14. DESCRIBE CONSTRUC	TION AND OPERATION OF	THE POSITIONING MECHA	NISM FOR BRINGING SOUR	CE INTO "ON" AND "C	OFF" POSITIONS		<u> </u>
On file '	with Isotope	s Division,	AEC.	•			
•••• •	•						
15. DESCRIBE CONSTRUC	TION AND OPERATION OF	READILY VISIBLE INDICA	TOR OF DEVICE INDICATING	G "ON" AND "OFF" PC	SITIONS OF SOU	RCE:	
On file	with Isotope	s Division.	AEC.				
•••• •	1	•					
16. DESCRIBE DESIGN FE	ATURES WHICH SERVE TO miled accessibility inherent in	MINIMIZE RADIATION HA	ZARD FROM THE DIRECT BE	AM AND SECONDARY	RADIATION (Inc	luding type a	nd emo
On file	with Isotope	es Division,	AEC.				
17. DESCRIBE LABEL TO E							
	BE AFFILED TO DEVICE (OF	attach copy. See instruction					
On file	with Isotope		AEC.				
		es Division,	r austort):			YES	NO

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## SUPPLEMENTARY SHEET OF HARRY F. OSTERMAN

Training and Experience with Radioactivity:

Item	Where Trained	Duration of Training	On the Job	Formal <u>Course</u>
l	U. S. Army	2 Weeks	No	Yes
2	U. S. Army C.I.T.	2 Weeks 2 Weeks	No No	Yes Yes
3	C.I.T.	2 Months	No	Yes
4	U. S. Army	Taught CBR Course		