

030-10219

Refer to Control No. 01460.

Please note change from License No. 21-12621-01.

Application for Nuclear Weigh Scale, Model 5080 is
amended to License No. 21-12621-02.

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6-29-79

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APPLICATION FOR BYPRODUCT MATERIAL LICENSE
INDUSTRIAL

a. NEW LICENSE

b. AMENDMENT TO:
LICENSE NUMBER

21-12621-02

c. RENEWAL OF:
LICENSE NUMBER

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.

2. APPLICANT'S NAME (Institution, firm, person, etc.)

Edw. C. Levy Company

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

(313) 343-7200 207

3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION

John Olle

TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION

843-7200 313 207

4. APPLICANT'S MAILING ADDRESS (Include Zip Code)

8800 Dix Avenue
Detroit, Michigan 48209

5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED (Include Zip Code)

Plant #4 @ McLouth Steel Corp.
55 King Road
Trenton, Michigan 48183

(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.	Gail Reninger	Plant Manager
b.	Bob Steffes	Plant Supervisor
c.		

7. RADIATION PROTECTION OFFICER

John M. Olle

Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.

see attached sheets

8. LICENSED MATERIAL

L I N E 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 ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D
(1)	Cesium 137	Sealed Source	Nuclear-Chicago Model 850233	Not to exceed 500 millicuries
(2)			U.S. Nuclear Corp. Type 373, or 3M	
(3)			Installed in a 36" G-Frame.	
(4)				

DESCRIBE USE OF LICENSED MATERIAL
E

- (1) To be used in a Nuclear-Chicago Model 5080 gauge for continuous
- (2) weighing of a bulk product transported on a conveyor belt. The
- (3) weigh scale itself acts as a complete storage container for the
- (4) source, both prior and subsequent to installation.

fee paid with letter
dated 3/14/79 - see
Mar-12 III Log

9. STORAGE OF SEALED SOURCES

LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED.	NAME OF MANUFACTURER	MODEL NUMBER
	A.	B.	C.
(1)	Sealed source in gauge	Nuclear-Chicago Corp.	Model 5080
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS

LINE NO.	TYPE OF INSTRUMENT	MANUFACTURER'S NAME	MODEL NUMBER	NUMBER AVAILABLE	RADIATION DETECTED (alpha, beta, gamma, neutron)	SENSITIVITY RANGE (milliroentgens/hour or counts/minute)
	A	B	C	D	E	F
(1)	None Required.....					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

☐ a. CALIBRATED BY SERVICE COMPANY

NAME, ADDRESS, AND FREQUENCY

Nuclear-Chicago Corp.
9101 Highway 183 P.O. Box 9267
Northwest station, Austin, Texas 78757

☐ b. CALIBRATED BY APPLICANT

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

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	None required	<input type="checkbox"/> MONTHLY
<input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)		<input type="checkbox"/> QUARTERLY
<input type="checkbox"/> (3) OTHER (Specify): _____		<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 HOODS (Include filtration, if any), ETC. see attached sheets
- ☐ 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

See attached sheets

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.

No waste disposal is involved. In the event that the scale is damaged or its use discontinued, we shall return the gauge to Texas Nuclear Corp. for removal of source material.

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:

SEE ATTACHED SHEETS

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.

<p>a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170)</p>	<p>b. CERTIFYING OFFICIAL (Signature) <i>John M. Oile</i></p>
<p>(1) LICENSE FEE CATEGORY: 170 31 3L</p>	<p>c. NAME (Type or print) John M. Oile</p>
<p>(2) LICENSE FEE ENCLOSED \$ 110.00 * change</p>	<p>d. TITLE Manager of Quality Control</p> <p>e. DATE 6-14-79</p>

AGENDA FOR MODEL 5080

Refer to item 13..

"Adequate shielding is provided by the shielding incorporated in the instrument. The shutter will be locked in the "CLOSED" position at such times as the scale is not operating. In the event work must be done under the gauge, the person responsible for radiation safety will be notified to insure that the shutter is locked in the "closed" position before such work begins."

"The model 5080 weigh scale will be leak-tested at intervals not to exceed one year in accordance with Nuclear-Chicago recommended procedure, type QT/1 or EST/1. We shall follow the protection procedures given us by the Nuclear-Chicago Corporation."

"No waste disposal is involved. In the event that the scale is damaged or its use discontinued, we shall return the gauge to Nuclear-Chicago Corporation for removal of the source material."

Refer to items 10 and 12.

"A radiation survey will be performed by Nuclear-Chicago Corporation personnel, or other persons specifically licensed to do so, upon installation to assure the radiation levels around the device and in accordance with Nuclear-Chicago installation procedure."

"No additional personnel monitoring devices are required due to the presence of this gauge. The model 5080 source holder is designed such that it is unlikely that any person, during normal usage of the gauge, can receive an exposure in excess of 0.125 rem per year, and the radiation levels one foot from the nearest accessible surface are less than 5 mR per hour."

Refer to items #6 & #7.

GAIL RENINGER - Plant Manager
BOB STEFFES - Plant Supervisor

We shall follow the instructions for handling the Model 5080 given to us by the Nuclear-Chicago Industrial Division of Texas Nuclear Corporation.

JOHN M. OLLE -

Troxler Electronic Laboratories Inc., standard two day training. Formal course.

University of Toledo - x-ray analysis - 10 week course. Formal course.

EDWARD C. LEVY COMPANY
Plant 4
Trenton, Michigan

NUCLEAR SCALE SAFETY PROCEDURES

1. When the plant is down, shutter must be in the "CLOSED" position.
2. In case of fire or damage to the conveyor, shutter should be "CLOSED".
3. In case of damage to the scale device, a report must be made to the supervisor immediately!
4. Theft or loss of the licensed material must be reported to the Atomic Energy Commission immediately by telephone, with a written report filed within 30 days.
5. A leak test will be made at intervals not to exceed one year in accordance with Nuclear-Chicago Corporation recommended procedure.
6. Copies of "NOTICE TO EMPLOYEES" form AEC-3 will be posted.

EDWARD C. LEVY COMPANY
Plant 4
Trenton, Michigan

EMERGENCY PROCEDURES

In case of accidents involving damage or loss of the Nuclear
-Chicago gauge or devices notify the following:

1. Gail Reninger, plant manager
1623 Vernon
Trenton, Michigan
671-1867
2. Bob Steffes, plant supervisor
13342 Kimberly
Southgate, Michigan
284-5170
3. John M. Olle (geologist) radiation officer.
8800 Dix
Detroit, Michigan
843-7200 ext. 207
4. Atomic Energy Commission, Region III
799 Roosevelt Avenue
Glen Ellyn, Illinois 60137
(312) 858-2660
(312) 739-7111 - after 5:00 p.m. and Saturdays, Sundays, Holidays.
5. Michigan Department of Public Health
radiation Emergency Assistance
(517) 373-1410 - 8:00 a.m. to 5:00 p.m.
(517) 373-1360 - off duty hours.
6. Detroit Radioactive Report Center
864-1800

LEAK TEST PROCEDURE - TYPE EST/1
(For Model 5080 Belt Weigh Scale)

The source unit should not be removed from the conveyor belt to test the source container. Testing of the external seams and bolts are adequate.

1. Rotate the shutter actuator handle to the closed position. In the event that the shutter actuator handle is frozen notify Nuclear-Chicago Corporation immediately.
2. With the shutter closed, stick four pieces of pressure sensitive tape (Scotch-Electrical) around the seams and bolts at the locations designated on the included drawing No. 85205A or 85216A.
3. Remove the scotch tape individually and fold it with the adhesive side in. Place all four pieces of tape in one envelope.
4. Mark this envelope with full owner identification, model number, serial number, date. (If more than one device is tested, separate envelopes must be used for each gauge and marked accordingly.)
5. Seal the envelope containing the tape and place it in a second envelope addressed as follows: Mr. James Higley, Service Division, Nuclear-Chicago Corporation, 333 East Howard Avenue, Des Plaines, Illinois.

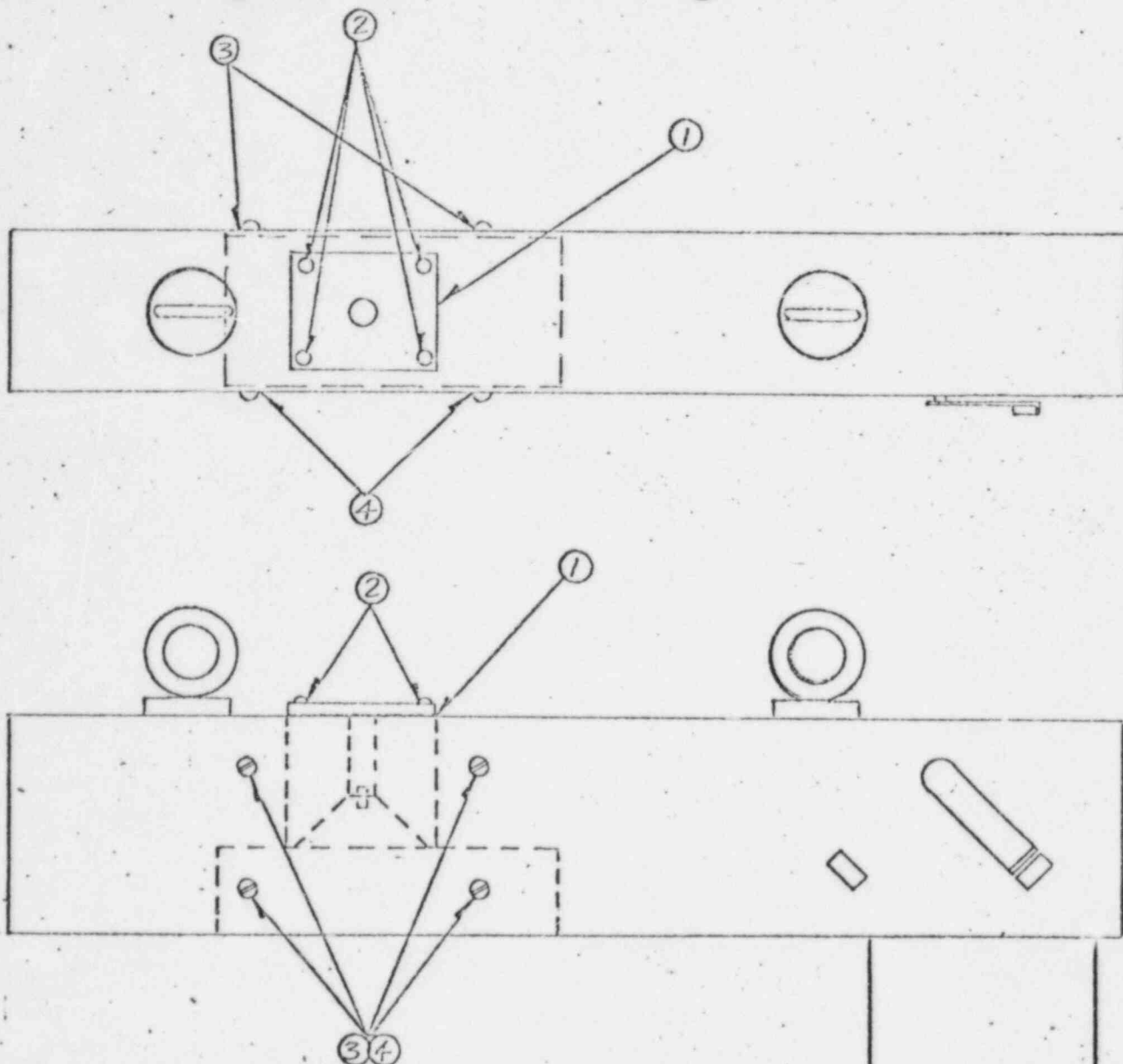
Upon receipt of the licensee's sample envelope by Nuclear-Chicago Corporation, the tape will be removed from the inner envelope and counted on very sensitive equipment that has a demonstrated sensitivity and accuracy of 5.22×10^{-5} uc $\pm 10\%$ for Cesium-137. If the tape is found to be free of contamination, a leak test certificate will be mailed to the licensee certifying that the source is leak free. If the tape is found to contain significant amounts of radioactive material, an emergency notification will be sent, via telephone or telegram, advising that the unit must be removed from service and appropriate action taken.

LEAK TEST PROCEDURE - TYPE QT/1
(For Model 5080 Belt Weigh Scale)

The source unit should not be removed from the conveyor belt to test the source container. Testing of the external seams and bolts is adequate.


1. Rotate the shutter actuator handle to the closed position. In the event that the shutter actuator handle is frozen notify Nuclear-Chicago Corporation immediately.
2. Obtain four 6-inch Q-Tips (cotton tipped applicators) and slightly moisten with water.
3. With the shutter closed, wipe around the seams and bolts with each Q-Tip at the locations designated on the included Drawing No. 85205A or 85216A. (Care should be taken not to touch the Q-Tips with the fingers following the wiping operation.)
4. Shorten the Q-Tips by breaking them in the middle and place them within a small, moisture-proof, plastic bag or wrapper and seal with tape. Place this bag or wrapper within an envelope, previously marked with full owner identification, model number, serial number and date. (If more than one device is tested, separate envelopes must be used for each gauge and marked accordingly.)
5. Seal the envelope containing the Q-Tips and place it in a second envelope addressed as follows: Mr. James Higley, Service Division, Nuclear-Chicago Corporation, 333 East Howard Avenue, Des Plaines, Illinois.

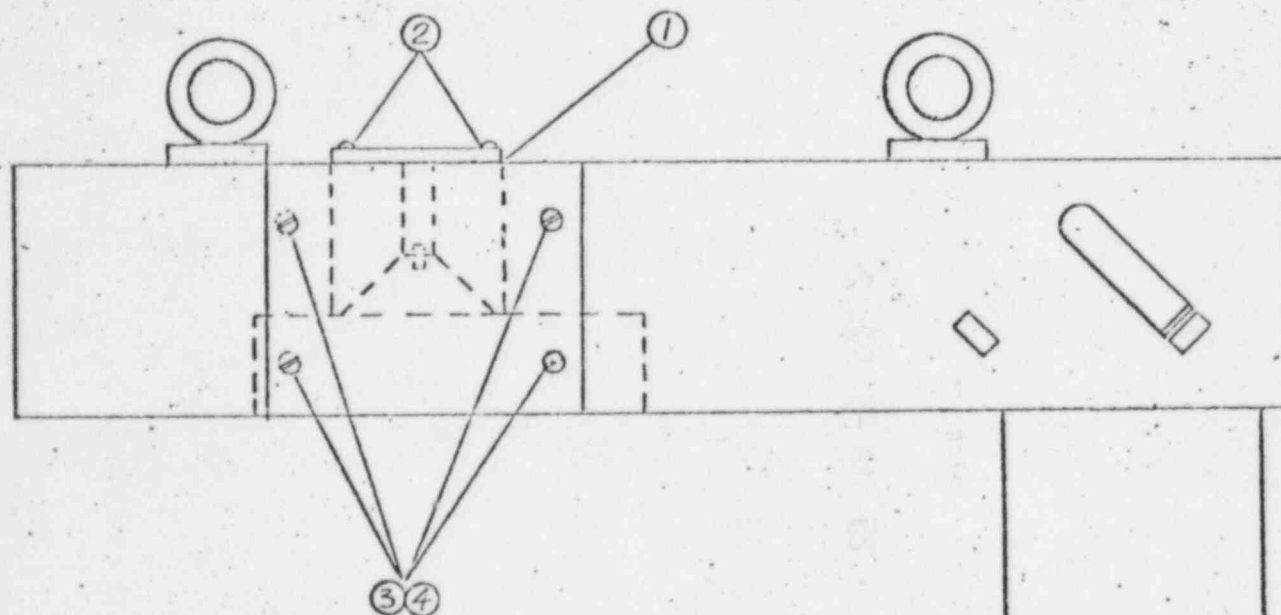
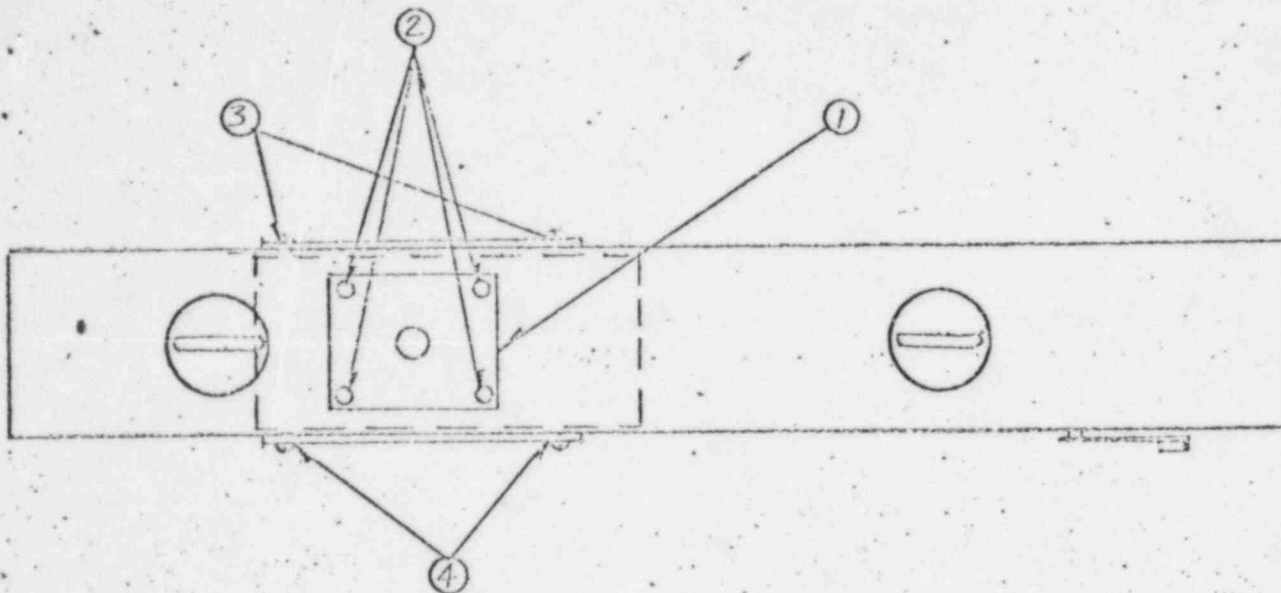
Upon receipt of the licensee's sample envelope by Nuclear-Chicago Corporation, the Q-Tips will be removed from the inner envelope and counted on very sensitive equipment that has a demonstrated sensitivity and accuracy of 1.35×10^{-7} uc $\pm 10\%$ for Cesium-137. If the Q-Tips are found to be free of contamination, a leak test certificate will be mailed to the licensee certifying that the source is leak free. If the tape is found to contain significant amounts of radioactive material, an emergency notification will be sent, via telephone or telegram, advising that the unit must be removed from service and appropriate action taken.



NOTE:

ALL WIPES TO BE 360° AROUND JOINTS

UNLESS OTHERWISE SPECIFIED TOL ARE									
DECIMAL		FRACTIONAL		ANGULAR					
.XX		+		+					
.XXX		-		-					
MATERIAL									
FINISH				ASSY USED ON					
SCALE	DWN BY	DATE	CHKD BY	DATE	APPD BY	AT	WAS	DATE	DWN
NTS	JMD	10-9-67	JMD						
								REVISIONS	
 YENICK NUCLEAR A DIVISION OF WESTINGHOUSE CORPORATION								LEAK TEST PATTERN for 5080 BWS	
								85205A	



NOTES:

ALL WIPE TO BE 360° AROUND JOINTS

UNLESS OTHERWISE SPECIFIED TOL ARE		DECIMAL		FRACTIONAL		ANGULAR									
		+		+		+									
MATERIAL															
FINISH															
ASSY USED ON															
DATE	DWN BY	DATE	CHG BY	DATE	APPD BY	AT	WAS	DATE	DWN	CHKD	APPD	REVISIONS			
10-9-65	JMD														
LEAK TEST PATTERN for 5080 WITH SIDE PLATES												85216A			