

NRC Form 313 I (12-81) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION		1. APPLICATION FOR: <i>(Check and/or complete as appropriate)</i>	
APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL				X	a. NEW LICENSE
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.					b. AMENDMENT TO: LICENSE NUMBER
					c. RENEWAL OF: LICENSE NUMBER
2. APPLICANT'S NAME <i>(Institution, firm, person, etc.)</i>  Cargill, Inc.  TELEPHONE NUMBER: AREA CODE -- NUMBER EXTENSION (309) 827-6025			3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION Edward S. Fowler  TELEPHONE NUMBER: AREA CODE -- NUMBER EXTENSION (309) 827-6025 ext. 220		
4. APPLICANT'S MAILING ADDRESS <i>(Include Zip Code)</i> <i>(Address to which NRC correspondence, notices, bulletins, etc., should be sent.)</i>  P.O. Box 3428 Bloomington, Illinois 61702-3428			5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED <i>(Include Zip Code)</i>  115 South Euclid St. Bloomington, Illinois 61701		
(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 <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>					
FULL NAME			TITLE		
a. Edward S. Fowler			Plant Superintendent		
b. Larry A. Mikesh			Maintenance Supervisor		
c. David L. Rieks			Production Supervisor		
7. RADIATION PROTECTION OFFICER  Larry Mikesh			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					
L I N E	ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i>	MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME	
NO.	A	B	C	D	
(1)	CS-137				
(2)	CS-137				
8511180058 851001 REG3 LIC30 12-18671-02 PDR		Sealed Source	Ohmart Model  A2102 or A33361	Not to exceed 100 mci	
DESCRIBE USE OF LICENSED MATERIAL E					
(1)	To be used in the Ohmart SH100 source holder to measure level of process material.				
(2)	Testing for proper operation of OFF/ON mechanism - not to exceed 6-month intervals.				
(3)	Wipe test interval - not to exceed 3 years.				
(4)					

License Fee Information  
on Next Page

## 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)	Source Holder	Ohmart SH100	
(2)	Source Holder	Ohmart SH100	
(3)			
(4)			

## 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)	None required by the user.	The Ohmart Corporation will provide a field service				
(2)	representative to do initial	and on-going tests required, using proper				
(3)	instrumentation.					
(4)						

## 11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10

<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY  Not applicable	<input type="checkbox"/> b. CALIBRATED BY APPLICANT Attach a separate sheet describing method, frequency and standards used for calibrating instruments.  Not applicable
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## 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 by the user. Radiation does not exceed 5 mr/hr at one (1) foot from gage outline and 100 mr/hr field is not present.	<input type="checkbox"/> MONTHLY
<input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)		<input type="checkbox"/> QUARTERLY
<input type="checkbox"/> (3) OTHER (Specify): _____ Not applicable		<input type="checkbox"/> OTHER (Specify): _____ Not applicable

## 13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)

<input type="checkbox"/> a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC.	Not applicable
<input type="checkbox"/> b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC.	
<input type="checkbox"/> c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC.	
<input type="checkbox"/> d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.	

## 14. WASTE DISPOSAL

a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED Complete as shown on attached by product material license attachment.
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.  Complete as shown on attached by product material license attachment

# 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.

Applicant Sept 6 III

## 18. CERTIFICATE

(This item must be completed by applicant)

Check No. 20021

Amount/Fee Category \$230 (3P)

Type of Fee New License

Date Check Rec'd 9/4/85

Received By AK/COF 9/4/85

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)

Edward S. Fowler

c. NAME (Type or print)

Edward S. Fowler

d. TITLE

SUPERINTENDENT

e. DATE

August-20-1985

(1) LICENSE FEE CATEGORY: 3P

(2) LICENSE FEE ENCLOSED: \$ 230

Attachment to ByProduct Material License

Item 14: Whenever the source/source holder is no longer needed it will be either:

1. Removed and stored in a locked cupboard or room properly labeled. It will not be replaced in service without prior wipe testing; or,
2. Removed and returned to the manufacturer for disposal.

Attachment to ByProduct Material License

Item 15: RADIATION PROTECTION PROGRAM

The source/source holder will be received and stored pending arrival of Manufacturer's Field Engineer. The source/source holder will be installed in the closed position under the supervision of the representative. A written procedure for prevention of entry into the vessel when the source is in the open (source exposed) position will be prepared. This program will be developed in consultation with the manufacturer's representative.

The initial radiation survey will be made by the representative at the time the device is placed in service. An occupancy evaluation will be made by the representative and if film badges appear to be required, they will be obtained. Form NRC-3 will be posted and if the radiation survey with the vessel(s) empty reveals radiation fields in excess of 5 mr/hr at 12 inches from the surface of the vessels, appropriate warning signs will be posted. Procedures will be adjusted to reduce the total dose to personnel to the minimum reasonably achievable. A copy of the radiation survey and written procedures will be kept on file for future reference.

In case of malfunction of the source holder or damage thereto, the services of the manufacturer's representative will be obtained for repair or to supervise removal and proper packaging for return to the manufacturer for repair or replacement as required.

In case of emergency such as fire or explosion involving apparent damage to the source holder, the appropriate Regional Office of Inspection and Enforcement (10 CFR 20 Appendix D), USNRC, will be contacted for assistance. The area around the source holder will be barricaded. The services of a manufacturer's representative will be obtained to assist in inspection for damage and local health authorities will also be notified.

WIPE TEST PROCEDURE - A test will be performed on the surface of the source holder at the appropriate interval by the licensee in accordance with the instructions of the manufacturer's representative and contained in the gage instruction manual. The wipe test kit to be used is the Ohmart Model LT and the wipe will be evaluated for leakage by the Ohmart Corporation. Should the presence of 0.005 microcuries of removable contamination be detected, the source holder will be withdrawn from service, the Regional Office of the USNRC notified and the device repaired or replaced by the manufacturer.

Attachment to ByProduct Material License

Item 16: FORMAL TRAINING IN RADIATION SAFETY

Larry Mikesch - completed Ohmart Technical Training School as per enclosed copy of certificate. Information on principles and practices of radiation protection, radioactivity measurement standardization and monitoring techniques and instruments, mathematics and calculations basic to the use and measurement of radioactivity, and biological effects of radiation was covered.

Edward Fowler - will complete course in radiation safety sometime during the next twelve (12) months. The course will be conducted by Ohmart Corporation.

David Rieks - will complete course in radiation safety some time during the next twelve (12) months. The course will be conducted by Ohmart Corporation.

Attachment to ByProduct Material License

Item 17: EXPERIENCE

Larry Mikesh, Edward Fowler and David Rieks have had no prior work experience with radioactive materials. On the job training will be conducted by the Ohmart Corporation Field Service Engineer.



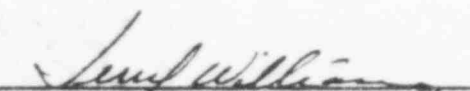
# CERTIFICATE OF PROFICIENCY

THIS IS TO CERTIFY THAT

LARRY MIKESH

HAS SUCCESSFULLY COMPLETED AN OHMART TRAINING COURSE INCLUDING:  
PRINCIPLES AND PRACTICES OF RADIATION PROTECTION, RADIOACTIVITY  
MEASUREMENT AND MONITORING, MATHEMATICS AND CALCULATIONS, BIOLOGICAL  
EFFECTS OF RADIATION, COMMON U.S.N.R.C. REGULATIONS, WASTE DISPOSAL  
AND EMERGENCY PROCEDURES.



  
JERRY WILLIAMS,  
TRAINING DIRECTOR

Date: July 16, 1985