Form AEC-313 (5-58) ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved. Budget Bureau No. 38–R027.4

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545. Attention: Isotopes Branch, Division of Licensing and Regulation. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30 and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (IF 1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc.) U. S. Nuclear Corporation Dow Corning Corporation 801 North Lake Street Midland, Michigan Burbank, California P. O. Box 208 2. DEPARTMENT TO USE BYPRODUCT MATERIAL 3. PREVIOUS LICENSE NUMBER(S). (If this is application for renewal of a license, please indicate and give number.) N.A. 4-5241-8 (Application for amendment) SMDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and ex perience as in Items 8 and 9.) Karl Amlauer J. L. Shepherd Same as 4. R. N. Donelson Thomas Seminoff Philip Gill

6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)

(b) CHEMICA: AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYS-KAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)

Cobalt 60

U. S. Nuclear sealed sources USN Drawing No. B-0177 30,000 curies in 20 capsules

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a seoled source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)

Install and provide initial servicing of U. S. Nuclear Gamma Irradiator Model E-0117-M-1

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Procedure for Initial Installation and Servicing of Gamma Irradiator Model E-Oll7-M-1

General

- 1. Assure that customer has applicable AEC (or State) byproduct license for possession and use of the irradiator.
- 2. All persons involved in the installation are to wear film badges.
- 3. At least one ionization chamber type survey instrument (Jordan AG-500 or AGB-10K or equal) and one thin window Geiger type instrument (USN Type N-22C or equal) are to be available and operating properly at time of installation.

Assembly

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AND THE RESERVE

- 1. Survey irradiator and compare readings with those taken prior to shipment. In the event any radiation limits are exceeded or any damage is discovered which would make the irradiator unsafe to operate, the irradiator is to be returned to U. S. Nuclear for repair.
- 2. Move main body of irradiator to location and proper orientation.
 - 3. Remove shipping plate and source hold-down devices.
 - 4. Install three top sections on main body.
- 5. Install mast and lifting arm.
 - 6. Place hydraulics cabinet in proper location.
- 7. Connect hydraulics from cabinet to irradiator and fill system.
- 8. Connect electrical cables between hydraulics cabinet and irradiator.
 - 9. Place control cabinet in place.
 - 0. Connect electrical caules to hydraulic cabinet and to power outlets.

Checkout

- 1. Operate source plates at least ten times both manually and with timer.
 Observe radiation levels at all points.
- 2. Operate plug-lift at least 10 times observing radiation levels at cavity and surroundings.
- 3. Check all safety systems for proper operation.





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Procedure for Initial Installation are Servicing of Gamma Irradiator Model E-Oll7-M-1

Checkout

- 4. Wipe check source lifting rods at lower extremity of main body and assure that results indicate no contamination.
- 5. Survey room and surrounding area and assure that all posting requirements of 10 CFR 20 (or applicable State regulations) are met.
- 6. Issue report of installation to customer.