1/25/64

FORM APPROVED
BUREAU OF BUDGET NO. 38-R002.8.

# UNITED STATES ATOMIC ENERGY COMMISSION

# APPLICATION FOR SOURCE MATERIAL LICENSE

Pursuant to the regulations in Title 10, Code of Federal Regulations, Chapter 1, Part 40, application is hereby made for a license to receive, possess, use, transfer, deliver or import into the United States, source material for the activity or activities described.

| 1. (Check one)  (a) New license (b) Amendment to License No. (c) Renewal of License No. (d) Previous License No.  4. STATE THE ADDRESS(ES) AT WHICH SOURCE MATERIAL  |  | 2. NAME OF APPLICANT Heyden Newport Chemical Corporation  3. 300 East 22nd Street New York, N.Y. 10017   |  |                                       |  |                              |   |  |         |
|--|--|--|--|---------------------------------------|--|------------------------------|---|--|---------|
|  |  |  |  |                                       | Mo   | bedow Roed, Pords, Ne        | W Jersey  |  |         |
|  |  |  |  |                                       | 5. BUSINESS OR OCCUPATION Chemical Manufacture |                              | 6. (a) IF APPLICANT IS AN INDIVIDUAL, STATE (b) AGE |  | (b) AGE |
|  |  |  |  |                                       | DESCRIBE PURPOSE                               | OR WHICH SOURCE MATERIAL WIL | L BE USED   |  |         |
| carrier which  | compounds used in prep<br>th is packed into a fine   | paration of a catalyst. It is<br>d bed converter used for th   | s coated   | on an inert                           |  |                              |   |  |         |
| benzaldehy   | ia.  |  |  |                                       |  |                              |   |  |         |
| STATE THE TYPE OR<br>POSSESS, USE, OR TR   | TYPES, CHEMICAL FORM OR FOR  | MS. AND QUANTITIES OF SOURCE MAT   | ERIAL YOU PI   | ROPOSE TO RECEIVE                     |  |                              |   |  |         |
| (a) TYPE   | (b) CHEMICAL FORM  | (c) PHYSICAL FORM (Including   |  | MUM AMOUNT AT                         |  |                              |   |  |         |
|  | - Uranium Nitrate  | Grystals U or Th.)   | 3,000 NE   | TIME (in pounds)                      |  |                              |   |  |         |
| IORMAL URANIUM   | UO2 (NO3)2 6H2O  | 47.4% by wt.   | urenium  |                                       |  |                              |   |  |         |
| RANIUM DEPLETED IN   |  |  |  |                                       |  |                              |   |  |         |
|  | The same than 19 and 19 |  |  |                                       |  |                              |   |  |         |
| HORIUM   |  |  |  |                                       |  |                              |   |  |         |
| HE U-235 ISOTOPE  HORIUM  (a) MAXIMUM TOTAL  3,000 POW   | ere of filautifie  | YOU WILL HAVE ON HAND AT ANY TIME  |  |                                       |  |                              |   |  |         |
| HE U-235 ISOTOPE  HORIUM  (*) MAXIMUM TOTAL  000 POW  DESCRIBE THE CHEM  WILL BE USED, INDIC.  PROPORTION 1378   | ICAL, PHYSICAL, METALLURGICAL, ATING THE MAXIMUM AMOUNT OF   | OR NUCLEAR PROCESS OR PROCESSES SOURCE MATERIAL INVOLVED IN EACH   | IN WHICH TH  |                                       |  |                              |   |  |         |
| HE U-235 ISOTOPE  THORIUM  (e) MAXIMUM TOTAL  DESCRIBE THE CHEM WILL BE USED, INDIC. PROPERTY OF THE CHEM OF THE C | MUM TECHNICAL QUALIFICATIONS ORY PERSONNEL INCLUDING PERSONNEL INC | OR NUCLEAR PROCESS OR PROCESSES<br>SOURCE MATERIAL INVOLVED IN EACH  | THAT WILL EY PROGRAM (   | BE REQUIRED OF APPORT OF APPLICANT IF |  |                              |   |  |         |
| DESCRIBE THE MINIT PLICANT'S SUPERVISAPPLICANT'S SUPERVISAPPLICANT | MUM TECHNICAL QUALIFICATIONS ORY PERSONNEL INCLUDING PERSONNEL INC | OR NUCLEAR PROCESS OR PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF P | THAT WILL BY PROGRAM (A. PART 2)   | BE REQUIRED OF AP-                    |  |                              |   |  |         |
| DESCRIBE THE MINIT PLICANT'S SUPERVISAPPLICANT'S SUPERVISAPPLICANT | MUM TECHNICAL QUALIFICATIONS ORY PERSONNEL INCLUDING PERSONNEL INC | OR NUCLEAR PROCESS OR PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF P | THAT WILL BY PROGRAM (A. PART 2)   | BE REQUIRED OF AP-                    |  |                              |   |  |         |
| DESCRIBE THE MINITED LICANT'S SUPERVISAPPOLITATION OF THE PROCESS  | MUM TECHNICAL QUALIFICATIONS ORY PERSONNEL INCLUDING PERSONNEL INC | OR NUCLEAR PROCESS OR PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF P | THAT WILL EY PROGRAM (1) PATE 20 INIMIZE DANG IN ITEM 9 PROGRAM (1) IT | BE REQUIRED OF APOR OF APPLICANT IF   |  |                              |   |  |         |
| DESCRIBE THE MINITED LICANT'S SUPERVISAPPOINT AND RELATE T DETECTION | MUM TECHNICAL QUALIFICATIONS ORY PERSONNEL INCLUDING PERSONNEL INC | OR NUCLEAR PROCESS OR PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF PROCESSES SOURCE MATERIAL INVOLVED IN EACH PROCESSES OF P | THAT WILL EY PROGRAM (1) PATE 20 INIMIZE DANG IN ITEM 9 PROGRAM (1) IT | BE REQUIRED OF APOR OF APPLICANT IF   |  |                              |   |  |         |

11(c). VENTILATION EQUIPMENT WHICH WILL BE USED IN OPERATIONS WHICH PRODUCE DUST, FUMES, MISTS, GASES, ETC.

### See supplemental sheet

12. DESCRIBE PROPOSED PROCEDURES TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE AND PROPERTY AND RELATE THESE PRO-CEDURES TO THE OPERATIONS LISTED IN ITEM 9: INCLUDE:

(a) PROCEDURES FOR USE OF NUCLEAR MATERIALS AND SAFETY FEATURES AND PROCEDURES TO AVOID NONNUCLEAR ACCIDENTS, SUCH AS FIRE, EXPLOSION, ETC., IN SOURCE MATERIAL STORAGE AND PROCESSING AREAS.

### See supplemental sheet

(b) EMERGENCY PROCEDURES IN THE EVENT OF ACCIDENTS WHICH MIGHT INVOLVE SOURCE MATERIAL.

### See supplemental sheet

(c) DETAILED DESCRIPTION OF RADIATION SURVEY PROGRAM AND PROCEDURES

### See supplemental sheet

- 13. WASTE PRODUCTS: If none will be generated, state "None" opposite (a), below. If waste products will be generated. ated, check here X and explain on a supplemental sheet:
  - (a) Quantity and type of radioactive waste that will be generated.
  - (b) Detailed procedures for waste disposal.

Dated September 25, 1964

- 14. IF PRODUCTS FOR DISTRIBUTION TO THE GENERAL PUBLIC UNDER AN EXEMPTION CONTAINED IN 10 CFR 40 ARE TO BE MANUFACTURED, USE A SUPPLEMENTAL SHEET TO FURNISH A "ETAILED DESCRIPTION OF THE PRODUCT, INCLUDING:
  - (a) PERCENT SOURCE MATERIAL IN THE PRODUCT AND ITS LOCATION IN THE PRODUCT.
  - (b) PHYSICAL DESCRIPTION OF THE PRODUCT INCLUDING CHARACTERISTICS, IF ANY, THAT WILL PREVENT INHALATION OR INGESTION OF SOURCE MATERIAL THAT MIGHT BE SEPARATED FROM THE PRODUCT.
  - (c) BETA AND BETA PLUS GAMMA RADIATION LEVELS (Specify instrument used, date of calibration and calibration technique used) AT THE SURFACE OF THE PRODUCT AND AT 12 INCHES.
  - (d) METHOD OF ASSURING THAT SOURCE MATERIAL CANNOT BE DISASSOCIATED FROM THE MAN-UFACTURED PRODUCT.

#### CERTIFICATE

(This item must be completed by applicant)

15. The applicant, and any official executing this certificate on behalf of the applicant named in Item 1, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 40, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

**Reyden Newport Chemical Corporation** 

Plant Manager

(Title of certifying official authorized to act on behalf of the applicant)

anded in Item 2

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.

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BUREAU OF BUDGET NO. 38-R002 8

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# APPLICATION FOR SOURCE MATERIAL LICENSE

ISE FILE COPE

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| THE RESERVE OF THE PARTY OF THE |  |  |   |  |  |
|--|--|--|---|--|--|
| 1. (Check one)  [] (a) New licens  |  | 2. NAME OF APPLICANT   |   |  |  |
| (a) New license (b) Amendment to License No.   |  | Heyden Newport Chemical Corporation  |   |  |  |
| (c) Renewal of License No. SUB 466   |  | 3. PRINCIPAL BUSINESS ADDRESS  |   |  |  |
| (d) Previous License No.   |  | 300 East 42nd Street   | (1) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4        |  |  |
| Annual Artist Control of the Control |  | AL WILL BE POSSESSED OR USED   | New York, N.Y. 10017                              |  |  |
|  | eadow Road, Fords, N   |  |   |  |  |
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| One of the carrier which benzaldehy  | ch is packed into a fix  | eparation of a catalyst. It i<br>ked bed converter used for th   | s coated on an inert<br>ne manufacture of         |  |  |
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| NORMAL URANIUM   | Uranium Nitrate  | Crystals   | 3,000 pounds as                                   |  |  |
| THOMMAL ORANIOM  | 1102 (NO3)2 6H2O   | 47.4% by wt.   | uranium   |  |  |
| URANIUM DEPLETED IN<br>THE U-235 ISOTOPE   |  |  |   |  |  |
| THORIUM  |  | L YOU WILL HAVE ON HAND AT ANY TIME  |   |  |  |
| 9. DESCRIBE THE CHEM<br>WILL BE USED, INDIC<br>PROVIDING A THORO<br>FOR USE IN 8   | accordance with proce  | or NUCLEAR PROCESS OR PROCESSES OF SOURCE MATERIAL INVOLVED IN EACH NITIAL HAZARDS ASSOCIATED WITH EACH SECURES described in previous, 1961 and September 25, 19   | applications                                      |  |  |
| Full knowle Competent detection de   | dge and understanding per dividual).  dge and understanding in use of approved duevices. Full understanding per dividual p | g of Title 10, CFR, Chapter st respirator, film badges, and and experience good title 10, cfr, chapter st respirator, film badges, and and good title good | 1, Part 20. and radiation os and safety           |  |  |
| DETECTION AND REL description of radiation   | ATED INSTRUMENTS (including fire detection instruments should include to see supplemental should be supplemental | USAEC E  | ther survey equipment as appropriate. The         |  |  |
|  | See supplemental sh  | SEP 2 8 1964 P   | GOVE (for film badges, specify method of          |  |  |

11(6). VENTILATION EQUIPMENT WHICH WILL BE USED IN OPERATIONS WHICH PRODUCE DUST, FUMES, MISTS, GASES, ETC.

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Heyden Newport Chemical Corporation

1

Dated September 25, 1964

E. B. Trio

Plant Manager

(Title of certifying official authorized to act on behalf of the applicant)

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