



40-8194

Regulatory  
File

DEPARTMENT OF THE ARMY  
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS  
WASHINGTON, D.C. 20310

12 APR 1974

DALO-MAB-I

US Atomic Energy Commission  
Directorate of Licensing  
Materials Branch  
Washington, DC 20545



Gentlemen:

Please refer to USAEC Source Material License No. SMB 1183 issued to the US Army Electronics Command, Fort Monmouth, New Jersey.

Attached is an application to amend this license. Changes are as follows:

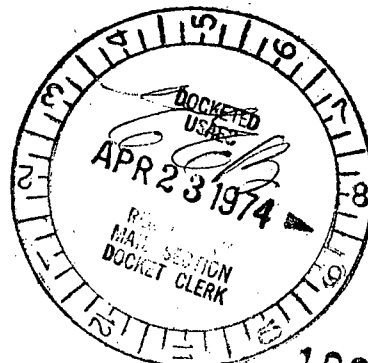
a. Delete the name of James M. Garner as Radiation Protection Officer and add Stanley B. Potter.

b. Add Charles F. Pullen as Alternate RPO. Resume of experience and qualifications for Mr. Pullen are contained in the original application.

Sincerely yours,

1 Incl  
as (4 cys)

*R. H. Ratcliff*  
R. H. RATCLIFF  
LTC, GS  
Chief, Programs and Budget Division



1064  
CC/3

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)<br><input type="checkbox"/> (a) New license<br><input checked="" type="checkbox"/> (b) Amendment to License No. <u>SMB 1183</u><br><input type="checkbox"/> (c) Renewal of License No. _____<br><input type="checkbox"/> (d) Previous License No. _____   |                   | 2. NAME OF APPLICANT<br><u>US Army Electronics Command</u>   |   |
|  |                   | 3. PRINCIPAL BUSINESS ADDRESS<br><u>ATTN: AMSEL-RD-H</u><br><u>Fort Monmouth, New Jersey 07703</u> |   |
| 4. STATE THE ADDRESS(ES) AT WHICH SOURCE MATERIAL WILL BE POSSESSED OR USED<br><u>No Change</u>  |                   |  |   |
| 5. BUSINESS OR OCCUPATION<br><u>No Change</u>  |                   | 6. (a) IF APPLICANT IS AN INDIVIDUAL, STATE<br>CITIZENSHIP<br><u>N/A</u>                           | (b) AGE<br><u>N/A</u>                             |
| 7. DESCRIBE PURPOSE FOR WHICH SOURCE MATERIAL WILL BE USED<br><u>No Change</u>   |                   |  |   |
| 8. STATE THE TYPE OR TYPES, CHEMICAL FORM OR FORMS, AND QUANTITIES OF SOURCE MATERIAL YOU PROPOSE TO RECEIVE, POSSESS, USE, OR TRANSFER UNDER THE LICENSE  |                   |  |   |
| (a) TYPE   | (b) CHEMICAL FORM | (c) PHYSICAL FORM (Including<br>% U or Th.)  | (d) MAXIMUM AMOUNT AT<br>ANY ONE TIME (in pounds) |
| NATURAL URANIUM  |                   |  |   |
| URANIUM DEPLETED IN<br>THE U-235 ISOTOPE   | <u>No</u>         | <u>Change</u>  |   |
| THORIUM (ISOTOPE)  |                   |  |   |
| (e) MAXIMUM TOTAL QUANTITY OF SOURCE MATERIAL YOU WILL HAVE ON HAND AT ANY TIME (in pounds)<br><u>No Change</u>  |                   |  |   |
| 9. DESCRIBE THE CHEMICAL, PHYSICAL, METALLURGICAL, OR NUCLEAR PROCESS OR PROCESSES IN WHICH THE SOURCE MATERIAL WILL BE USED, INDICATING THE MAXIMUM AMOUNT OF SOURCE MATERIAL INVOLVED IN EACH PROCESS AT ANY ONE TIME, AND PROVIDING A THOROUGH EVALUATION OF THE POTENTIAL RADIATION HAZARDS ASSOCIATED WITH EACH STEP OF THOSE PROCESSES.<br><u>No Change</u>  |                   |  |   |
| 10. DESCRIBE THE MINIMUM TECHNICAL QUALIFICATIONS INCLUDING TRAINING AND EXPERIENCE THAT WILL BE REQUIRED OF APPLICANT'S SUPERVISORY PERSONNEL INCLUDING PERSON RESPONSIBLE FOR RADIATION SAFETY PROGRAM (OR OF APPLICANT IF APPLICANT IS AN INDIVIDUAL). <u>No Change Except:</u><br><u>Stanley B. Potter, RPO (See attached resume)</u><br><u>Charles F. Pullen, Alternate RPO (Resume contained in original application)</u>  |                   |  |   |
| 11. DESCRIBE THE EQUIPMENT AND FACILITIES WHICH WILL BE USED TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE OR PROPERTY AND RELATE THE USE OF THE EQUIPMENT AND FACILITIES TO THE OPERATIONS LISTED IN ITEM 9: INCLUDE: (a) RADIATION DETECTION AND RELATED INSTRUMENTS (including film badges, dosimeters, counters, air sampling, and other survey equipment as appropriate. The description of radiation detection instruments should include the instrument characteristics such as type of radiation detected, window thickness, and the range(s) of each instrument).<br><u>No Change</u> |                   |  |   |
| (b) METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED IN (a) ABOVE, INCLUDING AIR SAMPLING EQUIPMENT (for film badges, specify method of calibrating and processing, or name supplier).<br><u>No Change</u>  |                   |  |   |

11(c). VENTILATION EQUIPMENT WHICH WILL BE USED IN OPERATIONS WHICH PRODUCE DUST, FUMES, MISTS, OR GASES, INCLUDING PLAN VIEW SHOWING TYPE AND LOCATION OF HOOD AND FILTERS, MINIMUM VELOCITIES MAINTAINED AT HOOD OPENINGS AND PROCEDURES FOR TESTING SUCH EQUIPMENT.

No Change

12. DESCRIBE PROPOSED PROCEDURES TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE AND PROPERTY AND RELATE THESE PROCEDURES TO THE OPERATIONS LISTED IN ITEM 9: INCLUDE: (a) SAFETY FEATURES AND PROCEDURES TO AVOID NONNUCLEAR ACCIDENTS, SUCH AS FIRE, EXPLOSION, ETC., IN SOURCE MATERIAL STORAGE AND PROCESSING AREAS.

No Change

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

No Change

(c) DETAILED DESCRIPTION OF RADIATION SURVEY PROGRAM AND PROCEDURES.

No Change

13. WASTE PRODUCTS: If none will be generated, state "None" opposite (a), below. If waste products will be generated, check here ☐ and explain on a supplemental sheet:

(a) Quantity and type of radioactive waste that will be generated.

None

(b) Detailed procedures for waste disposal.

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 DETAILED 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 MANUFACTURED 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 2, 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.

US Army Electronics Command

(Applicant named in Item 2)

Dated 28 FEB 1974

BY: Walter S. McAfee  
(Print or type name under signature)

WALTER S. McAFEE, Commander's Representative  
IRC Committee

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

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.

# Resume of Training and Experience of Stanley B. Potter

## 1. Educational background:

|                           |       |      |   |
|---------------------------|-------|------|---|
| Colorado State University | 4 yrs | 1961 | BS, Physics                                       |
| Chemical Corps School     | 2 wks | 1964 | Compl Radiation Safety Course                     |
| Naval Postgraduate School | 2 yrs | 1969 | Compl Nuclear (Effects)<br>Engineering Curriculum |
| Nuclear Weapons School    | 8 wks | 1969 | Compl SONAC, NET OPS, NHTC                        |

## 2. Vocational experience with radiation:

1961-1964 At Nuclear Defense Laboratory, Edgewood Arsenal, Md, as research physicist.

1964-1967 With US Army in Germany, as Radiation Protection Officer for the 32d Army Air Defense Command.

1969-1972 With Defense Nuclear Agency in Albuquerque, New Mexico, as Chief, Radiation Safety Support Division, Nuclear Weapons School.

1972 With Pan American Airways, Environmental Health contractor for NASA and the Air Force at Cape Kennedy, Florida, as Chief, Health Physics Division.

1972 With US Army Electronics Command, Fort Monmouth, NJ as Chief, Health Physics Division.

## 3. Formal Training in Radiation:

### a. Principles and practices of radiation protection.

| <u>Where Trained</u>      | <u>Duration of Training</u> |
|---------------------------|-----------------------------|
| Colorado State University | 24 weeks                    |
| Chemical Corps School     | 2 weeks                     |
| Naval Postgraduate School | 2 years                     |
| Nuclear Weapons School    | 8 weeks                     |

b. Radioactivity measurement, standardization, and monitoring techniques and instruments.

| <u>Where Trained</u>      | <u>Duration of Training</u> |
|---------------------------|-----------------------------|
| Colorado State University | 12 weeks                    |
| Chemical Corps School     | 2 weeks                     |
| Naval Postgraduate School | 36 weeks                    |
| Nuclear Weapons School    | 8 weeks                     |

c. Mathematics and calculations basic to the use and measurement of radioactivity.

| <u>Where Trained</u>      | <u>Duration of Training</u> |
|---------------------------|-----------------------------|
| Colorado State University | 24 weeks                    |
| Chemical Corps School     | 2 weeks                     |
| Naval Postgraduate School | 2 years                     |
| Nuclear Weapons School    | 8 weeks                     |

d. Biological effects of radiation.

| <u>Where Trained</u>      | <u>Duration of Training</u> |
|---------------------------|-----------------------------|
| Chemical Corps School     | 2 weeks                     |
| Naval Postgraduate School | 36 weeks                    |
| Nuclear Weapons School    | 2 weeks                     |

4. On-the-job training in radiation.

a. Principles and practices of radiation protection.

| <u>Where Trained</u>       | <u>Duration of Training</u> |
|----------------------------|-----------------------------|
| Nuclear Defense Laboratory | 3 yrs - 1961-1964           |
| Germany                    | 3 yrs - 1964-1967           |
| Albuquerque, New Mexico    | 3 yrs - 1969-1972           |
| Cape Kennedy, Florida      | 1 mo - 1972                 |
| Fort Monmouth, New Jersey  | 4 mo - 1972                 |

b. Radioactivity measurement, standardization, and monitoring techniques and instruments.

| <u>Where Trained</u>       | <u>Duration of Training</u> |
|----------------------------|-----------------------------|
| Nuclear Defense Laboratory | 3 yrs - 1961-1964           |
| Germany                    | 3 yrs - 1964-1967           |
| Albuquerque, New Mexico    | 3 yrs - 1969-1972           |
| Cape Kennedy, Florida      | 1 mo - 1972                 |
| Fort Monmouth, New Jersey  | 4 mo - 1972                 |

c. Mathematics and calculations basic to the use and measurement of radioactivity.

| <u>Where Trained</u>       | <u>Duration of Training</u> |
|----------------------------|-----------------------------|
| Nuclear Defense Laboratory | 3 yrs - 1961-1964           |
| Germany                    | 3 yrs - 1964-1967           |
| Albuquerque, New Mexico    | 3 yrs - 1969-1972           |
| Cape Kennedy, Florida      | 1 mo - 1972                 |
| Fort Monmouth, New Jersey  | 4 mo - 1972                 |

5. Experience with radioisotopes.

| <u>Isotope</u>    | <u>Maximum Activity</u> | <u>Place of Experience</u> | <u>Duration of Experience</u> |
|-------------------|-------------------------|----------------------------|-------------------------------|
| Ra <sup>226</sup> | Less than 10 curies     | Colorado State University  | 3 mo                          |
| Co <sup>60</sup>  | Kilocuries              | Naval Postgraduate School  | 3 mo                          |
|                   |                         | Colorado State University  | 3 mo                          |
|                   |                         | Chemical Corp School       | 6 mo                          |
|                   |                         | Naval Postgraduate School  | 3 mo                          |
| Am <sup>241</sup> | Millicuries             | Albuquerque, New Mexico    | 3 yrs                         |
| Pr <sup>147</sup> | Hundreds of curies      | Albuquerque, New Mexico    | 3 yrs                         |
| Pu <sup>238</sup> | Kilocuries              | Cape Kennedy, Florida      | 1 mo                          |
|                   |                         | Albuquerque, New Mexico    | 3 yrs                         |
|                   |                         | Cape Kennedy, Florida      | 1 mo                          |
| Pu <sup>239</sup> | Curies                  | Albuquerque, New Mexico    | 3 yrs                         |
| Co <sup>57</sup>  | Millicuries             | Albuquerque, New Mexico    | 1 yr                          |
| Th <sup>232</sup> | Kilocuries              | Albuquerque, New Mexico    | 3 yrs                         |
| Th <sup>229</sup> | Curies                  | Edgewood, Maryland         | 3 yrs                         |
| Tritium           | Hundreds of curies      | Edgewood, Maryland         | 3 yrs                         |
|                   |                         | Albuquerque, New Mexico    | 3 yrs                         |
| Ir <sup>131</sup> | Millicuries             | Edgewood, Maryland         | 1 yr                          |
|                   |                         | Naval Postgraduate School  | 1 yr                          |
| Po Be             | Curies                  | Edgewood, Maryland         | 3 yrs                         |
| Pu Be             | Curies                  | Edgewood, Maryland         | 3 yrs                         |
| Ir <sup>192</sup> | Hundreds of curies      | Cape Kennedy, Florida      | 1 mo                          |
| Kr <sup>85</sup>  | Hundreds of curies      | Cape Kennedy, Florida      | 1 mo                          |
| U <sup>238</sup>  | Millicuries             | Albuquerque, New Mexico    | 3 yrs                         |
| Sr <sup>90</sup>  | Millicuries             | Germany                    | 3 yrs                         |
|                   |                         | Albuquerque, New Mexico    | 3 yrs                         |
|                   |                         | Colorado State University  | 3 mo                          |
| y <sup>90</sup>   | Millicuries             | Germany                    | 3 yrs                         |
|                   |                         | Albuquerque, New Mexico    | 3 yrs                         |
|                   |                         | Colorado State University  | 3 mo                          |

6. Experience with devices equivalent to that of actual use of radioisotopes.

| <u>DEVICE</u>               | <u>PLACE OF EXPERIENCE</u> | <u>DURATION</u> |
|-----------------------------|----------------------------|-----------------|
| Cockroft Walton Accelerator | Edgewood, Maryland         | 2 years         |
| Betatron                    | Edgewood, Maryland         | 1 year          |
| Van de Graaff Accelerator   | Naval Postgraduate School  | 1 year          |