

31-461-10

Form AEC-313b
(9-55)

APPLICATION FOR BYPRODUCT MATERIAL LICENSE
SUPPLEMENT B—SEALED SOURCES

Form approved.
Budget Bureau No. 38-R023.3

If application is for byproduct material to be used in or manufactured as a "sealed source" complete this supplement and attach to the application for byproduct material license. Applicant for use of sealed source should complete Section I. An applicant desiring to manufacture a sealed source should complete Section II. If information has been submitted previously and there are no changes in the sealed source and/or device design or other changes in information submitted previously, details requested below may be omitted provided reference is made on line below to the application or other document on which this information appears:

SECTION I—USE (See instructions)

1. IF SEALED SOURCE OR DEVICE CONTAINING SEALED SOURCE IS MANUFACTURED COMMERCIALY, GIVE FOLLOWING INFORMATION:

- A. Manufacturer or supplier of sealed source and/or device New England Nuclear Corp. 575 Albany St. Boston, Mass.
- B. Make and model number of sealed source and/or device See attached drawing
- C. Person who will hold legal title to sealed source Eastman Kodak Company

2. (a) NAME OF PERSON WHO WILL PERFORM NECESSARY PERIODIC LEAKAGE TESTS (6-month intervals for beta-gamma; 5-month period for alpha emitters. See instructions)

(b) IF ABOVE PERSON IS NOT THE SUPPLIER, MANUFACTURER, NOR A COMMERCIAL LABORATORY ROUTINELY OFFERING SUCH SERVICES, GIVE BRIEF STATEMENT OF EXPERIENCE OR TRAINING OF SUCH PERSON IN TECHNIQUES TO BE EMPLOYED, A STATEMENT OF LEAK TESTING PROCEDURES INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:

See previous application

3. ARRANGEMENTS WHICH WILL PREVAIL FOR PERFORMING INITIAL RADIATION SURVEY (if appropriate), SERVICING MAINTENANCE, REPAIR, CONTROL, AND DISPOSAL, ETC., OF THE SOURCE:

Periodic inspection of sources will be carried out by the operating departments and by representatives of the Radiation Committee. No repair of sources will be undertaken and the sources will not be opened. An accurate inventory of all sources will be maintained. Disposal will be carried out in accordance with the AEC Standards (10-CFR-20)

SECTION II—MANUFACTURE

4. IF SEALED SOURCE TO BE MANUFACTURED OR FABRICATED BY THE APPLICANT IS DESIGNED TO TRANSMIT ONLY GAMMA RAYS AND CONTAINS IN ELEMENTAL FORM (but not powders) COBALT 60, IRIDIUM 192, GOLD 198, TANTALUM 182, OR THULIUM 170, GIVE FOLLOWING INFORMATION AND DISREGARD QUESTIONS 5 THROUGH 12 ON THIS SUPPLEMENT:

- (a) Quantity of byproduct material per source and model number
- (b) Leak testing procedure to be employed:
- (c) Attach annotated engineering drawing of source container and holder, if any:
- (d) Describe label to be affixed to source container and/or source holder (or attach copy. See instructions):

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ALL SEALED SOURCES OTHER THAN THOSE DEFINED IN ITEM 4

5. QUANTITY OF BYPRODUCT MATERIAL PER SOURCE AND MODEL OR DRAWING NUMBER

8 mc. H³ per source

6. MEANS BY WHICH BYPRODUCT MATERIAL WILL BE DEPOSITED IN SOURCE CONTAINER:

See attached and application from New England Nuclear Corp.

7. ATTACH ANNOTATED ENGINEERING DRAWING OF SOURCE CONTAINER AND HOLDER, IF ANY:

See attached

8. TYPE OF SEAL TO BE USED TO PRECLUDE LEAKAGE OF RADIOACTIVITY TO EXTERIOR OF SOURCE:

See attached and application from New England Nuclear Corp.

9. IF SOURCE HOLDER IS TO BE USED WILL CONTAINER BE PERMANENTLY OR SEMIPERMANENTLY MOUNTED THEREIN?

Yes

10. DESCRIBE LABEL TO BE AFFIXED TO CONTAINER AND/OR SOURCE HOLDER (Or attach copy. See instructions):

See application on file from New England Nuclear Corp.

11. EVIDENCE OF STABILITY OF SOURCE CONTAINER MATERIAL TO IRRADIATION FROM BYPRODUCT MATERIAL THEREIN (Omit if such stability is obvious):

See application on file from New England Nuclear Corp.

12. LEAK TESTING PROCEDURE TO BE EMPLOYED INCLUDING EVIDENCE OF ITS EFFICACY AND INSTRUMENTATION TO BE USED:

See application on file from New England Nuclear Corp.

DEVICES CONTAINING SEALED SOURCE

(Give following information if sealed source is to be mounted in a device)

13. ATTACH ANNOTATED ENGINEERING DRAWING OF DEVICE INCLUDING MODEL NUMBER AND DETAILS OF MOUNTING OF CONTAINER OR SOURCE HOLDER IN THE DEVICE:

Not applicable

14. DESCRIBE CONSTRUCTION AND OPERATION OF THE POSITIONING MECHANISM FOR BRINGING SOURCE INTO "ON" AND "OFF" POSITIONS:

15. DESCRIBE CONSTRUCTION AND OPERATION OF READILY VISIBLE INDICATOR OF DEVICE INDICATING "ON" AND "OFF" POSITIONS OF SOURCE:

16. DESCRIBE DESIGN FEATURES WHICH SERVE TO MINIMIZE RADIATION HAZARD FROM THE DIRECT BEAM AND SECONDARY RADIATION (Including type and amount of shielding as well as limited accessibility inherent in installations where use is contemplated)

17. DESCRIBE LABEL TO BE AFFIXED TO DEVICE (Or attach copy. See instructions):

18. RADIATION PROFILE OF A PROTOTYPE DEVICE IS ATTACHED. (Circle your answer):

YES

NO