

(SP-99-053, August 1999, Program, DOE, Neutron Source Recycling)

DATED: AUGUST 9, 1999; SIGNED BY: PAUL H. LOHAUS

ALL AGREEMENT STATES

MINNESOTA, OHIO, OKLAHOMA, PENNSYLVANIA, WISCONSIN

PROGRAM MANAGEMENT INFORMATION: THE DEPARTMENT OF ENERGY'S NEUTRON SOURCE RECYCLING PILOT PROGRAM (SP-99-053)

The Department of Energy (DOE), through its contractor Los Alamos National Laboratory (LANL), is continuing to support the transuranic neutron source recycling program for both the Nuclear Regulatory Commission (NRC) and Agreement State licensees. DOE is now entering the second phase of the pilot program by targeting the recycling of certain plutonium/beryllium (PUBE) and americium/beryllium (AMBE) sources. The guidelines for the recycling project are enclosed.

As in the previous phase of the project, DOE has requested that NRC provide a list of potential candidates for the second phase of the program. If you have potential Agreement State candidates or if you have questions about the program, please contact Douglas Broaddus at (301) 415-5847 or DAB@NRC.GOV.

For other information, the Office of State Programs contact is listed below:

CONTACT:	Jim Myers	INTERNET:	JHM@NRC.GOV
TELEPHONE:	(301) 415-2328	FAX:	(301) 415-3502

Paul H. Lohaus, Director
Office of State Programs

Enclosure:
As stated

July 27, 1999

MEMORANDUM TO: George C. Pangburn, Director
Division of Nuclear Materials Safety, RI

Douglas M. Collins, Director
Division of Nuclear Materials Safety, RII

Cynthia D. Pederson, Director
Division of Nuclear Materials Safety, RIII

Dwight D. Chamberlain, Director
Division of Nuclear Materials Safety, RIV

Paul H. Lohaus, Director
Office of State Programs

FROM: Donald A. Cool, Director
Division of Industrial and
Medical Nuclear Safety, NMSS

Original signed by:
Josephine M. Piccone

SUBJECT: REQUEST FOR AM:BE SOURCES AS POTENTIAL CANDIDATES
FOR THE DEPARTMENT OF ENERGY'S NEUTRON SOURCE
RECYCLING PILOT PROGRAM

The Department of Energy (DOE), through its contractor Los Alamos National Laboratory (LANL), is continuing support for a transuranic neutron source recycling program that will include sources from both the regions and the Agreement States. During the first phase of the pilot program, DOE successfully packaged, transported, and received into storage 56 sources from the regions and Agreement States. DOE is now entering the second phase of the pilot program and an estimated 80 additional sources are targeted for recovery. The second phase includes certain plutonium/beryllium (Pu:Be) sources and americium/beryllium (Am:Be) sources that may be received by LANL on a routine basis. This program is intended only for sources that exceed the Class C limits of 10 CFR Part 61 (GTCC) and is not intended for material that would generally be accepted at a commercial disposal facility. The pilot program is also only intended for separate sources and not complete gauges.

As in the previous phase of the pilot project, DOE has requested, through this office, that NRC provide a list of potential candidates for the second phase of the program, and that only the potential candidates with the highest level of health and safety concern, as determined by NRC, be included in the listing. In addition, DOE has indicated that candidates selected for the pilot program would likely be expected to provide for the transport of their material to a site specified by DOE.

CONTACT: Douglas Broaddus, NMSS/IMNS
(301) 415-5847

In support of the second phase of the pilot program, regional offices are requested to provide a list of Am:Be source(s) currently possessed by a licensee, for which there is concern that the source(s) may pose a radiological health and safety risk to the public in the future, and for which the licensee wishes to dispose of the material, but is unable to do so. A list of Am:Be gauges that licensees wish to dispose of is also requested, although DOE does not intend to recover gauges in this phase of the pilot project. The information on gauges will be used for planning purposes only, as DOE is currently negotiating with a gauge manufacturer to perform removal of sources from recovered gauges.

The attachment contains guidance for determining potential candidates for the pilot program and for the types of information needed to support DOE's request.

Lists should be provided to Douglas Broaddus (mail stop T8F5), no later than September 1, 1999.

Attachment:
As stated

GUIDANCE FOR THE DETERMINATION OF POTENTIAL CANDIDATES FOR THE DOE PILOT AmBe RECYCLING PROGRAM:

In general, the guidance contained in P&GD 9-12 may be used to assist in the determination of potential candidates and their priority for the pilot program. It is expected that regional personnel will identify potential candidates based on their experience and knowledge of licensees who may be of concern or a risk rather than through an exhaustive study of all licensees to determine acceptability. In addition, regional personnel should use their knowledge of a particular licensee and the licensee's current situation and future outlook to make a judgement as to the level of priority to be assigned to a potential candidate. When considering potential candidates, regional personnel should keep in mind that candidates for the pilot program should (at a minimum) be financially able to provide for the transport of the material to a site of DOE's choosing, and there should be no imminent threat of loss-of-control of the material or potential for significant exposures to members of the public. Potential candidates meeting any of the following criteria should not be considered for the pilot program:

- Sources that would be accepted by a commercial disposal facility.
- Licensees who have options available to divest themselves of the source(s) and are able (financially or otherwise) to do so.
- Sources that have been determined to meet the criteria contained in P&GD 9-12 for emergency assistance by DOE. Regional personnel should continue to make requests for these sources in accordance with P&GD 9-12.
- Unlicensed or abandoned sources. Inspection Manual Chapter 1301 provides guidance on these situations.
- Unsealed or leaking sources.
- Sources containing isotopes other than Am-241.
- Sources that are currently being used by the licensee.
- Licensees who are unable to provide the costs for packaging and transport of the material to a DOE specified site.

The list should be prioritized, if possible, from highest to lowest concern and contain as much of the following information as possible:

- The name and address of the licensee.
- A point of contact for the licensee (familiar with the sources and their current condition) and phone number.
- A brief justification as to why the material is a concern. When determining the priority of concern, regional personnel should consider the future potential for loss-of-control of the material and exposures to members of the public, with higher potential for loss-of-control and exposures to members of the public indicating a higher priority.
- A description or identification of the source(s) (e.g., model and serial number, isotope, activity, condition, shipping containers available, etc.). Enclosure 1 of P&GD 9-12 may be used as a guide for the type of information needed to describe the sources and their condition.
- A brief description of the actions the licensee has taken to divest itself of the material.
- Most recent leak test results (within 6 months if available).
- Any additional information that may be relevant to DOE accepting the material.