

10 CFR PART 71 QUALITY ASSURANCE PROGRAM
FOR SHIPMENT OF ^{239}Pu PLUTONIUM-BERYLLIUM NEUTRON SOURCES
(Please Type)

Site Name and Address: Amherst College, Personnel Office,
Box 2204, P.O. Box 5000, Amherst, MA 01002-5000

This Quality Assurance (QA) Program is limited to the shipment of ^{239}Pu Plutonium-Beryllium ($^{239}\text{PuBe}$) neutron sources in model DOT 6M packaging from
Amherst College (Site Name) to the United States Department of Energy.

Los Alamos National Laboratory (LANL), Los Alamos, New Mexico. It is designed to meet the requirements of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material." The anticipated date of each shipment that will be made, the contents of each shipment, and the serial number of each $^{239}\text{PuBe}$ neutron source is provided below.

Estimated Shipment Date: 20 January 97

Number of DOT 6Ms: one

$^{239}\text{PuBe}$ Neutron Source Information:

SERIAL #	<u>M73</u>	ELEMENT	<u>15g</u>	ISOTOPE	<u>14g</u>	CURIES	<u>1.0Ci</u>
SERIAL #		ELEMENT		ISOTOPE		CURIES	
SERIAL #		ELEMENT		ISOTOPE		CURIES	
SERIAL #		ELEMENT		ISOTOPE		CURIES	
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SERIAL #		ELEMENT		ISOTOPE		CURIES	

1. Organization (10 CFR § 71.103)

The final responsibility for the QA program for 10 CFR Part 71 Subpart H Requirement resides with Amherst College
(Site Name)

The QA Program is implemented by Jim Tocci,
Radiation Protection Mgr., Consultant
(Name, Title & Department of Person Responsible for the Shipment)

The Radiation Protection Mgr. is responsible for the overall
(Title of responsible individual)
administration of this QA program, including training of personnel and all quality-related activities regarding the shipment of $^{239}\text{PuBe}$ neutron sources. These quality-related activities include, but are not limited to, inspection and identification of each DOT 6M upon receipt from LANL, or a Shipping Broker, as well as proper handling, packaging, inspecting, testing, and recording each shipment.

2. Quality Assurance Program (10 CFR § 71.105)

The management of Amherst College establishes and
(Site Name)
implements this QA Program based on the LANL manual "Plutonium Beryllium ($^{239}\text{PuBe}$) Neutron Source Recovery Program", dated February 1995, which is part of this QA Program. Training on the LANL manual for all QA functions is required before any quality-related activities are performed. The QA Program will emphasize control of the characteristics of the transportation package which are critical to safety.

3. Document Control (10 CFR § 71.113)

All documents related to each shipment of $^{239}\text{PuBe}$ neutron sources will be controlled. The Radiation Protection Mgr. shall assure that all
(Title of responsible individual)
QA functions are performed in accordance with the LANL manual.

4. Handling, Storage, and Shipping Control (10 CFR § 71.127)

The procedures in the LANL manual will be followed concerning the handling, storage, and shipping of transportation packages. Shipments will not be made unless tests, certifications, acceptances, and final inspections have been completed.

5. Inspection, Test, and Operating Status (10 CFR § 71.129)

Inspection, test, and operating status of each transportation package for shipment of $^{239}\text{PuBe}$ neutron sources will be documented. Transportation package status will be indicated by tag, label marking, or log entry.

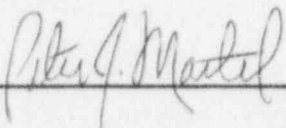
Nonconforming parts or transportation packages will be positively identified and segregated to avoid inadvertent use.

6. Quality Assurance Records (10 CFR § 71.135)

Records of transportation package inspections and tests will be retained for three years beyond the date this QA program ends. Records of each shipment will be retained for three years after each shipment occurs. The records will be identified and retrievable.

RESPONSIBLE OFFICIAL

Name: Peter J. Martel Title: Director of Health & Safety
(Type) (Type)

Signature:  Date: November 15, 1996