Lawrence Berkeley National Laboratory
Environment, Health and Safety Division

Sealed Source Authorization

CLASS I

SSA: 214

Date: 9/30/2008	New
Next renewal due date 3/30/2010	

Custodian: Thorsten Weber
Phone: 510/486-5588 **Mail Stop:** 2-100
Division Chemical Sciences

Experiment Description

The sources HC 5630, HC 5631, HC 5632 and HC 5633 are used for testing a Multi Channel Plate Detector (MCPD) with a delay line readout in a vacuum chamber which has an operating pressure of 1E-7 mbar.

Sources will be mounted with a housing on a metal bracket/frame inside the chamber. The bracket will be placed approximately 15 cm above the bottom of the chamber so that it can illuminate the MCPD which is located at a distance of between 10 and 30 cm away from the sources. The experiment is typically performed over 1 to 2 days.

When not in use the sources will be stored in a Radioactive Material Storage Area (RSA) in Building (B) 002-104.

Sealed Source Inventory

Sealed Source List:

Exempt

Source HC #	Isotope	Initial Activity(Ci)	Date Made	Current Activity(Ci)	Description	Storage Loc Bldg-Room	Class
5630	Am-241	1.00E-06	8/30/2008	9.99E-07	Metal foil in a plastic holder	002-104	I
5631	Am-241	1.00E-06	8/30/2008	9.99E-07	Metal foil in a plastic holder	002-104	I
5632	Am-241	1.00E-06	8/30/2008	9.99E-07	Metal foil in a plastic holder	002-104	I
5633	Am-241	1.00E-06	8/30/2008	9.99E-07	Metal foil in a plastic holder	002-104	I

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I accept custody and responsibility for the listed sealed sources. I understand that I am responsible for their safe use, control and storage in the Radioactive Material Storage Area (RSA). I will promptly notify the Radiation Protection Group (RPG) , in writing (or electronic mail) of any changes in inventory.

_____
Sealed Source Custodian   Date
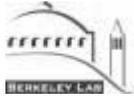
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Precautions Required

The RCT assigned to this SSA is: Tho Nhan 510/486-5603

Safety Items Required: Remote handling tools (tongs, positioning systems, lanyards, etc.) should be used whenever reasonable to maintain extremity and whole body dose as low as reasonably achievable (ALARA).

Access Controls: The RSA shall be locked whenever unattended.

Dosimetry: The sealed sources authorized by this Sealed Source Authorization (SSA) do not require whole body or extremity dosimetry.

Shielding Sources that are not in use must be stored in the RSA in B002-104.

Leak Testing and Inventory: Routine accountable source inventories and leak tests are performed by a Radiation Protection Group (RPG) radiological control technician (RCT) every six months and routine exempt source inventories are performed annually.

A logbook must be maintained to record use of the sources in any location other than the immediate laboratory containing the RSA, or for use in the immediate laboratory containing the RSA for more than 48 hours. This logbook must document the source number, removal date, name of authorized worker removing the source, and return date.

Wear gloves when leak testing or cleaning sealed sources. Do not handle sources with questionable integrity, immediately contact the Sealed Source Program Manager (x2842) for assistance.

Posting / Labeling: Work and storage locations for accountable and exempt sources shall be posted as Controlled Areas for Radiation Protection (Controlled Areas). The source storage area shall be posted as an RSA. A Radiological Work in Progress sign must be used whenever sources are used and not continuously attended. If the Radiological Work in Progress sign is used for a period of longer than 48 hours, an entry must be made in the Custodian's log book to indicate the location of the source.

Transportation: For assistance with radioactive materials transportation and packaging, contact the EH&S Radioactive Materials Transportation Office (x6228).

Training: All workers at LBNL, who handle radioactive materials must demonstrate satisfactory completion of the following training courses:

1. EHS0400 (401 for retraining) Radiation Protection - Fundamentals
2. EHS0432 Radiation Protection - Laboratory Safety

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Precautions Required (cont.)

In addition, documented on-the-job training (OJT) is required of all users authorized by this SSA before beginning independent radiological work. The Custodian, or designee conducts and documents OJT. OJT forms must be filed in the SSJ.

Documented escort and concurrence by the assigned health physicist (HP) prior to work commencing is required if these conditions cannot be met. Contact Ibrahim Ozcan (x2842) for further details.

Special Concerns: There are no special concerns.

Standard Safety Procedure: Requirements of Pub 3000, Chapter 21 must be followed.

Authorized Radiation Workers

Adherence with the SSA requirements is mandatory in order to prevent potential violations of federal law, including the Price Anderson Amendments Act of 1988, and to ensure protection of workers, the public, and the environment. Failure to comply with the SSA requirements may result in suspension or termination of the SSA and possible disciplinary action.

Signatures below indicate that the authorized user has read this document and agrees to follow the requirements. The Principal Investigator has delegated SSA responsibilities to each authorized user listed below.

Name	Signature	Date	ID	Date of Last Training (*Expired,** Deficient)
Schoeffler, Markus S	_____	_____	007513	EHS0400 09/23/08
				EHS0401
				EHS0432 09/25/08
Weber, Thorsten	_____	_____	800360	EHS0400 08/26/08
				EHS0401
				EHS0432 09/25/08

*** **Radiation worker training (EHS 400 and 432) is required prior to working with the sealed radioactive sources authorized by this SSA. EHS 401 (retraining) is required every 24 months. EHS 432 classroom training is required every 60 months.**

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Certification	
I certify that the authorized users listed on the SSA have completed required radiation safety training and will work in accordance with the precautions specified.	*Radiological work is approved with required precautions.*

Source Custodian   Thorsten Weber   Date

Sealed radioactive source use is approved with required precautions

Division Director   Daniel M. Neumark   Date

Radiological Control Manager   David J Kestell   Date

Technical Review   Jeffrey R Bramble   Date

Sealed Source Program Manager   Ibrahim Ozcan   Date

* IN CASE OF EMERGENCY, CALL THE FIRE DEPARTMENT, 7911 *