



Technical Safety



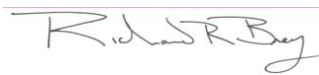
RADIATION PROCEDURES MANUAL

Procedure Cover Sheet

Procedure Title: Radioactive Material Inventory

Procedure Number: TSO-09-16-REV 0

Effective Date: June 18, 2009

Approved By:  Date: 11 August, 2009
Technical Safety Office Director



Procedure #: TSO-09-16-REV 0
Procedure Title: Radioactive Material Inventory
Approval Date: August 11, 2009
Effective Date: June 18, 2009

A. INTRODUCTION

According to 10 CFR 30.51, ISU must keep a record of byproduct materials, showing their receipt, transfer and disposal. This record is to be maintained for as long as the material is possessed and for three years following its transfer or disposal.

EH&S assistant is software which ISU utilizes to keep an inventory of radioactive materials used under its license. This tool has query functions that provide ISU the means to monitor the amount of radioactive materials being used as a function of the limit found in the general ISU license.

B. PURPOSE

The purpose of this manual is to describe the steps involved in inventorying radioactive materials (RAM) used under the ISU license into the EH&S database software, under different permit/program numbers.

C. REQUIRED MATERIAL(S)

Computer with access to EH&S software
User permit

D. PROCEDURE

Logging Into EH&S Assistant

1. Double click the EHS icon on your desktop to enter HP assistant
2. Enter a valid USER ID and PASSWORD
3. Click Login to enter the system

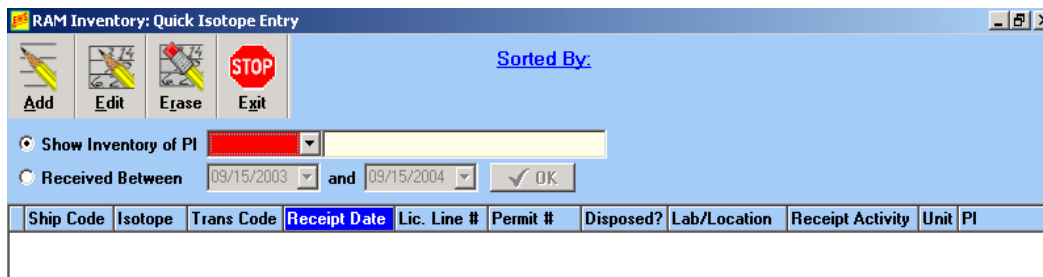
Entering RAM Inventories

Once you are logged into the system, the following page will appear.



The menu bars of importance for inventory purposes are: Licensing information, Inventory, Utilities and Exit. To enter the information of an isotope in the system:

1. From the main menu bar, click the “Inventory” menu bar
2. Select “Quick Isotope Entry” from the dropdown menu. This will bring up the following page



3. “Show Inventory of PI” is selected by default, if not, select it. Each PI name is associated with a particular program number (go to Athena → tsohare → User Permits; for the updated Responsible User/Program# permit, for more information).
4. From the dropdown menu, double click on the appropriate PI name under whose program the isotope information has to be entered.
5. Click on the “Add” button on the top of the opened page. This will take you to the “Adding RAM Inventory Record” page.
6. Add the RAM inventory record and click “Save” to save the entered information, or “cancel” to cancel the entered information and close the “Adding RAM Inventory Record” page.

7. To edit a particular inventory, select the corresponding number on “RAM Inventory: Quick Isotope Entry” page and click the “EDIT” button or double click on the corresponding inventory number to enter the “Editing Ram Inventory Record” page.

Important Features on the “Adding RAM Inventory Record” Page

The screenshot displays the "Adding RAM Inventory Record" interface. The main form contains the following fields: PI (BREY), Dr. Richard Brey, Isotope, License Line #, Permit #, Inventory # (090612000), Compound, Volatile? checkbox, Physical Form, PO #, Lot #, Transaction Code (TRA), Transfer, Vendor Code, No Vendor Selected, Vendor Catalog, Lab, Lab not found, Requisition #, and Comments. An "Assay Detail" window is open, showing Assay Date, Receipt Date, Assay Activity per Unit (0.00000), # of Units (1), Total Activity (0.00000), Receipt Activity (0.00000), and Volume (0.00000 mL). Below the main form are buttons for "Check Permit Limits", "PI Compliance Status", "Permit Conditions", and "Package Inspection". At the bottom are "Save" and "Cancel" buttons.

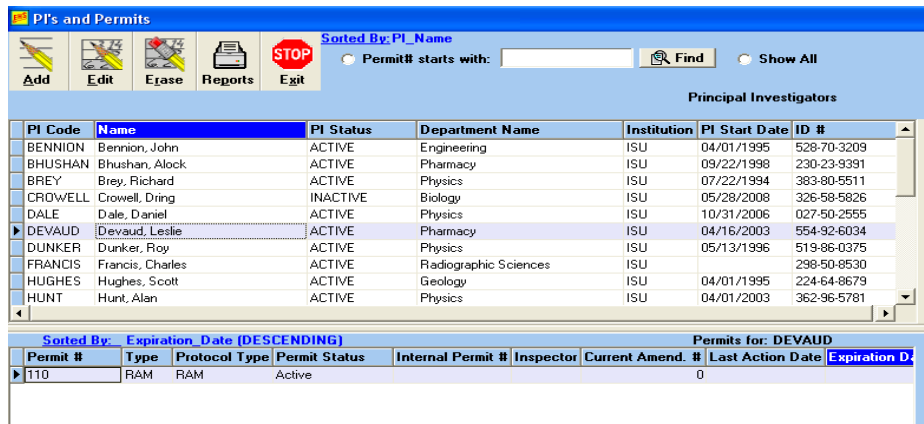
1. Fill in the “License Line #” field
 - a. When adding the RAM inventory record for different isotopes, it is important to choose the isotope that corresponds to the correct license line number (Lic. Line #) so as to have the isotopes under the appropriate categories (Sealed sources; Any, except sealed sources; etc). More information about the Line # under which different isotopes fall is found in the ISU License. The line #s in the ISU License are designated using the letters: A, B, C, D, etc.
2. Fill in the “Assay Detail” box
 - a. The “Assay Date” represents the reference date of the isotope while the “receipt date” represents today’s date i.e. the date on which the inventory of the isotope is entered in EH&S assistant.
 - b. Make sure the unit of the activity entered matches that in the “Assay Detail” section; else adjust the unit to match the unit in the “Assay Detail” section.

Possible Problems that can be Encountered

One of the problems that can be encountered when entering the inventory of an isotope in EH&S assistant is the absence of isotope information under the

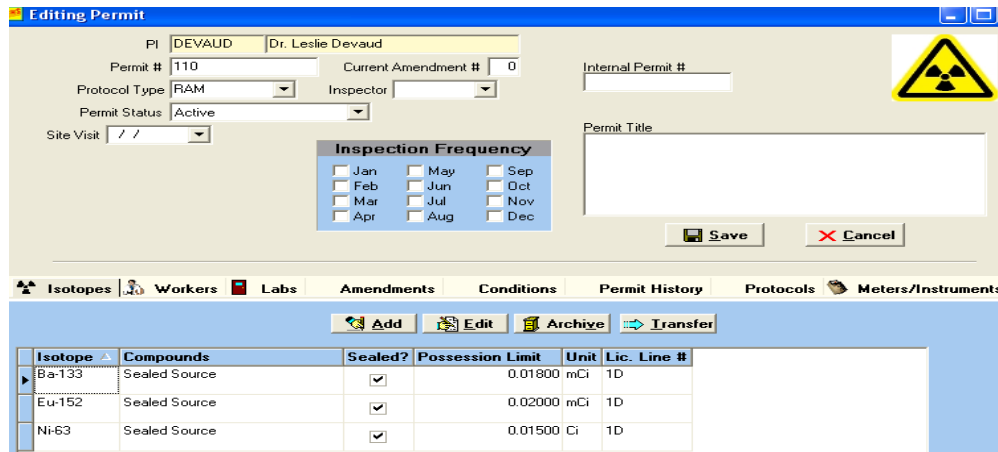
appropriate program number. To add this isotope information, the following steps should be taken.

1. Login to EH&S assistant
2. Go to the “Licensing Information” menu bar
3. Select “PI and Permit Information” from the dropdown menu. This will take you to a page that looks like the one below



4. Select the appropriate PI name. This will cause the permit number to appear in the bottom window of the page.
5. Double click on the highlighted permit/program # to go to the “Editing Permit” page.
6. The “Isotope” button is selected by default, if not select it to see the list of isotopes that have been entered under the permit/program number.

You will see a page that looks like the one below.



7. Click on the “Add” button to open the “Adding RAM Permit Limit Record” page

- Click the button adjacent to isotope to see the isotope record list in the database.

Isotope	Lic. Line #	Sealed?	License Limit	Unit	Physical Form	License #	Line #	Chemical Fo
U-235	1Q	<input checked="" type="checkbox"/>	5.00000	g	Sealed Source	1	Q	
U-238	1N	<input type="checkbox"/>	200.00000	kg	Solid metal	1	N	
W-181	1D	<input checked="" type="checkbox"/>	2000.00000	mCi	Sealed Source	1	D	
Y-88	1A	<input checked="" type="checkbox"/>	375.00000	mCi	Any, except sealed s	1	A	
Y-88	1D	<input checked="" type="checkbox"/>	2000.00000	mCi	Sealed Source	1	D	
Zn-65	1A	<input type="checkbox"/>	375.00000	mCi		1	A	

- Scroll through the list and select the isotope with the appropriate Lic. Line # by double clicking on the isotope (these isotopes have ISU license limits which is different from program limits).
- Add the possession limit as specified under the program's permit and save.

N/B

- If the isotope with the appropriate Lic. Line # is not found in this list; click the "Add" button at the bottom of the list to open the "Adding License Record". Add the isotope and the unit (which has for the same, i.e. μCi or mCi, for the purpose of generating good reports).
- If the isotope has not yet been entered in the "Adding License Record", then, from the main menu, click Utility \rightarrow HouseKeeping \rightarrow Half-Life. Click "Add" to add the isotope and the appropriate half-life and save.

REFERENCES

10 CFR 30

EH&S Assistant



Procedure #: TSO-09-16-REV 0
Procedure Title: Radioactive Material Inventory
Approval Date: August 11, 2009
Effective Date: June 18, 2009

REVISION TRACKER

Revision 0	June 18, 2009	Original Procedure
------------	---------------	--------------------