

**DE MINIMIS QUANTITY VERIFICATION
LIQUID SCINTILLATION MEDIA (VIALS ONLY)**

**RS-16
June 2012**

RS Use Only, RS-ID Number: _____

Supervisor			
Radionuclide	H-3	C-14	Building
Highest cpm			Room Number
Counting media trade name			Carcinogen (Yes or No)

Calculation to verify waste as de minimis waste	
A.	Enter your counter efficiency
B.	Divide the cpm obtained from the vial with the highest count by counter efficiency to convert to disintegrations per minute (dpm).
C.	Divide the results from line B by 2.22×10^6 dpm/μCi and enter the result
D.	Divide line C by the total volume (in ml) of counting media in the vial and enter the result
E.	Is the result obtained in line D less than or equal to 0.05 μCi/ml? (enter yes or no)

If you entered “no” on line E then stop. Your waste is not de minimis and must be disposed of as “hot” waste.

F.	If your answer on line E is “yes,” enter an estimate of the total activity for this waste container
G.	Any other known hazards or pathogen other than radioactivity? (enter yes or no)
H.	If line G was “yes,” list these hazards

Overview

The RS-16 is a single-page form to be used for the verification of de Minimis status for Liquid Scintillation Vials (LSV) containing 3H and 14C only. The form is to be completed and the original(s) attached to the outside of each box. One form must be completed for every box for pickup. If you have a box of LSV containing both 3H and 14C, list both in the space marked “Radionuclide”, separating them with a comma. Continue through the calculations for each nuclide following the same convention. No part of these instructions applies for decay-in-storage LSV’s.

Vials can be scheduled for pickup using the HP Assistant web-based record keeping system. Use the Waste Pickup link and enter your contact information and each individual box for pick up in the Liquid Waste section.

Hint: For easier handling, save the original boxes the LSV’s come in and re-package the waste LSV’s into the original packaging.

Completing the Form

In the first part of the form, simply complete as appropriate. For “Counting media trade name,” fill-in the trade name of the cocktail you are using, e.g. “BioSafe.” If you are using “standard” chemicals, e.g. “Toluene,” then the trade name is not necessary, simply write-in the chemical you are using.

Complete the bottom section of the form, if the answer to “E” is “No,” then you must dispose of the waste as regulated scintillation cocktail and the waste will be billable. Otherwise there is no charge for the disposal of de minimis vials.

There are two acceptable methods of completing the form:

- 1) If you do not track you scintillation waste via the online record keeping system and you do not know the exact activity in the box of vials for pickup then follow the instruction given on the form to estimate the activity of the box of vials.
- 2) If you do track scintillation waste via the online record keeping system you can list the total activity in Line F of the form. You will then need to work the form in reverse dividing the total activity in the box by the total milliliters of scintillation cocktail to show that the average specific activity is < 0.05 uCi/ml.