



University of Colorado Health Sciences Center

Health and Safety Division

Compliance Note

January 2004

Green Tagging for Equipment and Rooms Potentially Contaminated with Radioactive Material

HSD-RSC-003 Rev. 1

This information is for your use and as a way of providing consistent information. There is no response required.

UCHSC Health and Safety requires that green tags be applied to equipment that is going to be moved or disposed. Green tags are also required for rooms that are going to be remodeled or vacated. The following steps must be taken to Green-Tag a piece of equipment or a room that is potentially contaminated with radioactive materials.

Decontamination:

- Laboratory personnel must decontaminate all surfaces that are potentially contaminated with RAM.

Contamination surveys:

- Portable Detection Instrument survey: Laboratory personnel must perform an appropriate portable detection instrument (i.e. Geiger counter) survey on all surfaces that are potentially contaminated with RAM.
- Smear survey: Laboratory personnel must perform a smear survey for radioactive contamination on all surfaces that are potentially contaminated with RAM.
- If a survey result is greater than twice the background count, clean the area and resurvey by both portable instrument detection and smear survey.

Documentation:

- Laboratory personnel must document the contamination survey on the proper HSD form (<http://www.uchsc.edu/safety/radsaftey.htm>). This form and a copy of the LSC or Gamma counter printout from the survey must be submitted to HSD by fax (315-8026) or campus mail (Box C275). When a room is to be green tagged, survey locations should be detailed in the table on the form or a map with survey locations may be included.

Radiation Safety Review and Issuance of Green Tags:

- Radiation Safety Staff will review the contamination survey report submitted by the laboratory.
- If all of the survey results are no greater than twice the background count, the RS staff member will approve the survey and a member of the HSD staff will visit the laboratory to apply the Green Tag
- If any survey result is greater than twice the background count, the RS staff member will contact the laboratory and request that the contaminated surface be further decontaminated and surveyed. RS staff will provide assistance if needed.
- If an object is found to have fixed contamination, the object will need to be disposed through HSD or a RS staff member will make a determination on handling material based on the extent of the contamination level.

Special Equipment:

- The following is a list of equipment that may contain radioactive sources. If free from contamination, these items are exempt from transportation regulation requirements and do not have to be shipped by HSD. These items **do** require a green tag prior to disposal or moving.
- As many of these instruments are delicate, we encourage laboratory personnel to contact the manufacturer of the instrument for transportation precautions.

Item	Hazardous substance or condition	Lab. Personnel Responsibility	HSD Personnel Responsibility
liquid scintillation counters	Internal standard and check sources	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Contact manufacturer representative for advice • Report to Radiation Safety 	<ul style="list-style-type: none"> • Review smear survey results • Track unit and report new location to CDPHE • Package and move check sources and standards if any
gamma counters	Check sources and standards	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Contact manufacturer representative for advice • Report to Radiation Safety 	<ul style="list-style-type: none"> • Review smear survey results • Track unit and report new location to CDPHE • Package and move check sources and standards if any
electron capture chromatography	Ni-63 Electron Capture radioactive source	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Contact manufacturer representative for advice • Report to Radiation Safety 	<ul style="list-style-type: none"> • Leak test the source before and after move • Review smear survey results • Track unit and report new location to CDPHE
balances containing static eliminators	Static eliminator may contain radioactive source	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Check static eliminator for tri-foil symbol or the statement "Caution: Radioactive Material". • Report to Radiation Safety 	IF static eliminator is radioactive: <ul style="list-style-type: none"> • Leak test the source before and after move • Review smear survey results • Track unit and report new location to CDPHE
portable radiation detection instruments	Check source on the side of instrument	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Check side and bottom of instrument for a small (1" in diameter) radioactive check source • Report to Radiation Safety 	<ul style="list-style-type: none"> • Review smear survey results • Track unit and report new location to CDPHE • Package and move check source if any
electron microscopes	Produces ionizing radiation when energized	<ul style="list-style-type: none"> • Perform smear survey - Green tag • Contact manufacturer representative for advice • Report to Radiation Safety 	<ul style="list-style-type: none"> • Review smear survey results • Track unit
x-ray machines (CT's, Gamma cameras, mammography, bone densitometers, fluoroscopy, crystallography, etc.).		<ul style="list-style-type: none"> • Perform smear survey - Green tag • Contact manufacturer representative for advice • Report to Radiation Safety 	<ul style="list-style-type: none"> • Review smear survey results • Register unit with CDPHE