

**Lead Garments – Inventory, Evaluation,
and Storage**Procedure: 7.550
Version: 1.0Created: 10/31/2016
Revised:**A. Purpose**

New York City and State radiation protection regulations require the proper care and inspection of lead garments to reduce the wearer's exposure to ionizing radiation from radiological procedures that use Radiation Producing Equipment (RPE).

B. Applicability/scope

This policy applies across all Columbia University facilities that handle or use lead garments, and where radiation safety services are provided by the Columbia University Radiation Safety Program – including but not limited to Columbia University Medical Center, Columbia University Morningside, Columbia University Manhattanville, New York State Psychiatric Institute, Barnard College, Nevis Laboratories and Lamont-Doherty Earth Observatory.

C. Definitions

1. Lead garments –protective apparel that is designed to shield the body from harmful ionizing radiation including aprons, vests, skirts and collars.
2. Department – Refers to the department to which the lead garment belongs.

D. Procedures and Responsibilities

1. Lead garments must be inventoried and inspected (as described in sections 5 and 6) on an annual basis, at intervals not to exceed twelve months. This check must be performed by a designated individual within the department. The results of the inspection must be recorded and maintained by the local department or lab, with a copy made available to Radiation Safety as soon as possible after completion (Appendix A).
2. The data must include: date of the inspection, location of department responsible for the lead garment, detailed description of the item, inventory number or identification, whether it passed or failed (see Items 5 and 6 below), and full name of the inspector.
3. Hanging pegs, hanging arms, or hangers shall be available wherever lead garments are used or stored. Hanging will increase longevity and effectiveness. Storage sites for lead protective garments will be evaluated for adequate storage capacity to maintain lead integrity at the time that garments are inspected. Deficient storage sites should be reported to the Radiation Safety Officer via email by the designated department inspector.
4. It is the responsibility of the Department to ensure that the manufacturer's care and use recommendations are followed. Training of Licensed Radiographic Technologists (LRTs) on the

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proper care and usage of protective garments will be provided at department orientation and annually thereafter.

5. Protective garments that are worn by operators licensed to perform fluoroscopic procedures must be checked annually for defects such as holes, cracks and tears by using all of the following methods: visual investigation, tactile investigation, and x-ray imaging*. Defective garments must be removed from service at the time of discovery and disposed of as hazardous waste by contacting Environmental Health and Safety. Radiation Safety will remove the lead garment(s) from the inventory accordingly.

*Note: X-ray imaging testing can only be performed by a licensed radiologic technologist or by a health or medical physicist.

6. Protective garments that are worn by others who are not licensed to perform fluoroscopic procedures must be checked annually for defects such as holes, cracks and tears by using one of the following methods: visual investigation, tactile investigation, or x-ray imaging*. Defective garments must be removed from service at the time of discovery and disposed of as hazardous waste.

If the garment has any visible cracks in the x-ray image, it must be removed from service and disposed of as hazardous waste.

* Note: X-ray imaging testing can only be performed by a licensed radiologic technologist or, by a health physicist, or a medical physicist.

7. Garments with obvious condition problems (i.e. torn or missing straps, stains, etc.) should be immediately reported by the inspector to the Department supervisor or manager for further evaluation and, if justified, removed from use.
8. Inspection documents must be saved and made readily available for inspection for at least three years. Inspection results shall be documented in a central inventory available to Radiation Safety.

9. RESPONSIBILITIES:**a. (Local) Department:**

- Designate inspector(s)
- Ensure inspections are completed on time
- Maintain records of inspections
- Inform Radiation Safety of results upon request
- Immediately remove from service any garment that fails inspection
- Notify Radiation Safety for removal of failed garments

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Inspector:

- Perform inspection
- Document results
- Notify supervisor of garments that should be removed from service

b. Radiation Safety Program:

- Provide guidance as needed
- Collect and report results of inspections as requested
- Maintenance of comprehensive Lead Apron data base to show location, description, and inspection information.

c. Environmental Health and Safety:

- Provide appropriate disposal methods for lead garments
- Notify Radiation Safety if contacted for lead garment disposal

E. Emergency contact

- Radiation Safety: 212-305-0303

F. Medical Surveillance

- N/A

G. Recordkeeping

1. Current lead garment inventory and lead garment evaluation records should be maintained in an appropriate database.
2. Lead garment inventory and lead garment evaluation records should be kept for three years.

H. Appendices**I. Forms**

Suggested Lead Garment Inspection Template

