Name of Policy:	**LEAD GARAMENT INSPECTION, IDENTIFICATION AND CARE**
Policy Number:	3364-135-152
Department:	Radiology
Approving Officer:	Director, Radiology - UTMC
Responsible Agent:	Chairman & Professor, Radiology
Scope:	Radiology

THE UNIVERSITY OF TOLEDO MEDICAL CENTER

Effective Date: 2/1/2024

Initial Effective Date: 11/1/2018

_____ New policy proposal	____ Minor/technical revision of existing policy
_____ Major revision of existing policy	__X__ Reaffirmation of existing policy

(A) POLICY STATEMENT

All lead (referring to lead or lead equivalent) garments such as aprons, vests, kilts, and thyroid shields will be inspected annually for lead integrity, identifying barcode tag, and corresponding yearly compliance vinyl discs. all lead garments will be hung appropriately and cleaned in accordance with manufacturers recommendations and University of Toledo Infection Control department recommendations.

(B) PURPOSE OF POLICY

To uniquely identify each piece of lead garment, to establish a rejection criteria for each lead garment, and to Define proper handling and care of lead garments.

(C) PROCEDURE

INSPECTION OF LEAD GARMENTS:

1. Each individual piece of a lead garment shall be inspected annually by the following means:

   - The Radiation Safety Department will perform a visual and tactile inspection.
   - Look for visible damage (wear and tear) and feel for sagging and deformities.
   - In cases of questionable condition, one can choose to use fluoroscopy or radiography to look for holes and cracks.
   - During fluoroscopic examination, use manual settings and low technique factors (e.g. 80 KVp). Do not use the automatic brightness control, as this will drive the tube current and high voltage up, resulting in unnecessary radiation exposure to personnel and wear on the tube. Lead garments can also be examined radiographically.

2. Lead garments are to be taken out of service and discarded if inspections determine there is:
   - A defect greater than 15 square mm found on parts of the apron, kilt, or vest shielding a critical organ (e.g.,chest, pelvic area).
   - A defect greater than 670 square mm along the seam, in overlapped areas, or on the back of the lead garment.
   - Thyroid shields with defects greater than 11 square mm.

3. All existing lead garments or new lead garments must be made of a minimum a 0.25 mm lead thickness or Lead equivalent. Although not required, a 0.35 mm or 0.50 mm lead or lead equivalent thickness is recommended for fluoroscopic procedures.

4. All lead garment vinyl disc year indicators will be changed to reflect the year of the date it was inspected.

5. All new purchases of lead garments must be confirmed and approved by the Radiation Safety Department prior to purchase and will be required to be inspected, tagged, and logged before being put into service

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6. Lead tends to travel from Department to Department, please attempt to keep track of your department's own lead garments. The Radiation Safety Department is not responsible for returning lead garments from one department to the other. If your department's lead cannot be located then it cannot be inspected which would be a violation of our policy.

IDENTIFICATION OF LEAD GARMENTS:

1. Effective January 2017 the Radiation Safety Department began tagging each individual piece of lead garment (Apron, Vest, Kilt, Thyroid Shield) with a plastic numbered and barcoded band tag. The tag is the unique identifier for all pieces of lead. A small vinyl disc is attached to the tag annually. The vinyl tag will have a year printed on it and will be a different color each year. The tag is used to identify each piece of lead garment and the vinyl disc is a visual indicator of when the lead garment was last inspected. DO NOT remove the barcoded tag or vinyl disc for any reason.

2. All new purchases of lead garments must be confirmed and approved by the Radiation Safety Department Prior to purchase and will be required to be inspected, tagged, and logged before being put into service.

3. It is the responsibility of each department to inform the Radiation Safety Department of any individual piece of lead garment in their department that does not have a tag or vinyl disc so that it can be inspected and tagged. The tags are extremely difficult to remove, if your staff does not attempt to remove them they should remain attached.

4. Any Physician who brings his/her own lead garment to this institution must have his/her lead tagged by the Radiation Safety Department before being put into service. If the Physician refuses then the lead garment may not be used at the University of Toledo and must be removed.

CARE OF LEAD:

1. When not in use, lead garments must be hung by hangers, wall peg hangers, or must be laid flat. Thyroid shields should remain attached to the lead vest, apron, or even kilt whenever possible to prevent them from getting lost. When not attached they can also be secured to the lead garment with the velcro or clip (depending on the thyroid shield). At no time should a lead garment be folded and put into a drawer, folded and set on a table, or folded and laying over the back of a chair or any surface. Lead that is folded repeatedly will develop creases or cracks and jeopardizes the integrity of the lead and its ability to properly shield the individual from radiation. It is the responsibility of each department to see that their lead is hanging properly and never folded in any way.

2. All cleaning of lead shall be performed according to manufacturer's recommendations and the University of Toledo Infection Control Department's recommendations. The Radiation Safety Department is not Responsible for cleaning any department's lead garments or monitoring compliance with cleaning responsibilities. It is the responsibility of each department to clean their lead with the proper cleaning materials at an interval designated by Infection Control.

Approved by: /s/ Haitham Elsamaloty, MD Chairman & Professor, Radiology Date /s/ Ryan Landis, BSRT, (R) (CT) Director, Radiology Date	**Review/Revision Date:** 11/16/2018 11/1/2021 12/1/2022 2/1/2024 **Next Review Date:** 2/1/2027