

X-ray Protective Garment Testing Policy

For

The University of Pennsylvania

The University of Pennsylvania Health System

Children's Hospital of Philadelphia

Environmental Health and Radiation Safety Office (EHRS)

University of Pennsylvania

Purpose

This protocol describes the radiation safety procedures for testing x-ray protective garments along with required remedial actions.

Scope and Applicability

Protective garments that need testing include:

- Aprons (including vests and skirts)
- Gloves
- Thyroid collars
- Humeral shields
- Patient gonadal shields

Procedures

USERS PROTECTIVE GARMENTS

Individuals using protective garments should confirm the following each time the garment is used:

1. The garment has been evaluated by checking the date on the inside of the apron;
2. The straps and fasteners (e.g., Velcro or clips) are operational.

If the garment has not been checked or the straps and fasteners aren't functional, the garment should not be used and the area supervisor notified.

TESTING PERSONNEL

Only individuals properly trained to use fluoroscopic units may operate a fluoroscope.

TESTING FREQUENCY

Perform testing before protective garment is put into service, if possible, and at least every two years thereafter. Each department should notify the appropriate individual when a new garment is purchased.

TEST PROCEDURE

1. Lay out the garment to be checked on a table.
2. Examine the entire garment for any voids using a fluoroscope. If a fluoroscope is not available, use palpation to check for voids.
3. If the garment is acceptable, record date checked and results on the apron with a permanent marker.
4. If the garment is unacceptable, notify the appropriate individual in the department and remove it from service.

INDICATIONS THAT GARMENTS ARE “UNACCEPTABLE”

- Voids in lead of 1 cm or larger.
- Voids of any size that are deemed not acceptable by the evaluator.
- Any other issue that causes the evaluator to deem the garment unacceptable.

NOTIFICATIONS OF RESULTS

Notify the appropriate individual within the department immediately when garments are found to be unacceptable.

DATA TO BE RECORDED

The following data should be recorded on the apron:

- Date of test (month and year)
- Test result (e.g. “OK”)

CLEANING GARMENTS

- The user of the garment or department supervisor should routinely evaluate the need for cleaning.
- Each department is responsible for cleaning their lead garments.
- When cleaning aprons, the manufacturer’s instructions should be followed. In general, clean with soap and water and disinfect with isopropyl alcohol. Never immerse in any fluids.

DISPOSAL OF GARMENTS

Aprons may be disposed of by returning to the vender, the safety office, or by contacting EHRIS at (215) 898-7187 for further information.