



Veterinary Health Center

MANHATTAN, KANSAS

OFFICIAL PROTOCOL

RADIATION SAFETY PROCEDURES

Purpose: To provide clear direction on techniques that provide appropriate radiation safety for our staff, students, house officers and faculty.

I. Radiation Safety Badge

In accordance with Federal statutes and Kansas State University regulations, all faculty, residents, interns, staff, and students who may be exposed to any type of occupational radiation are required to wear a personalized Radiation Safety Badge. A Personnel Radiation Monitoring Service Request form must be completed prior to receiving a badge. Badges will be personalized by name for radiation monitoring purposes and will be read quarterly. Badges must be worn on the outside of lead aprons at the level of the thyroid.

Radiation badges are distributed to students at the beginning of their clinical year and to faculty and staff when appropriate. Badges are to remain in the Veterinary Health Center (VHC) at all times, except when radiographs are being taken on an off-site VHC rotation.

Radiation badges will be kept on a peg board in the Radiology corridor. The peg board is divided into four sections: Clinicians, Residents/Interns, students, and staff.

A radiology senior administrative assistant will inventory the badges on the second day and last day of each rotation. Persons whose badges are missing will be contacted and asked to return them immediately. If the badge is lost, the party responsible must contact KSU Radiation Safety (532-5856). No grade will be assigned for students until the badge is returned or the Radiation Safety protocol for lost badges is completed. Student badges must be returned on the last day of the radiology rotation.

II. Radiation Safety Protocol for Lost Badges.

If a badge is lost (not returnable to Environmental Health and Safety), the responsible party will be asked to write a statement that includes how often they might have been exposed to radiation (# of days, etc.), the approximate date the badge was lost, how many days they worked without a badge, and a statement of where they last remember having their badge. KSU Radiation Safety will review the letter and follow up with the individual and the Supervisor.

III. Daily Radiation Safety Badge Procedure

Students assigned to rotations, where imaging is performed that produces radiation, are

required to wear their designated badge.

1. Pick up your badge from the peg board in Radiology.
2. Return your badge to the correct section on the peg board in Radiology when finished taking radiographs.

V. Lead Shielding

To minimize exposure to ionizing radiation it is important to limit the amount of time you spend near the source, increase the distance between you the field of exposure and utilize shielding.

At the VHC, stationary units that produce radiation have a permanent lead wall as part of the room design to minimize exposure. In the dental suite a standing lead shield is utilized when both tables in the room are being used for patient care. The individuals who need to be shielded during the radiographic exposure should stand completely behind the lead wall or shield. A distance of greater than 6 feet can be utilized as an alternate option in urgent circumstances.

At the VHC we provide lead aprons, thyroid shields, and gloves that should be utilized as shielding when working in the field of exposure. Lead goggles are also provided as optional protection.

On an annual basis all lead shields are checked to ensure the lead has not been compromised. This information is maintained in a log and new shielding is purchased as needed.

IV. Pregnancy Protocol

A student, staff member or faculty member who is pregnant or suspects themselves pregnant and will be working with radiation emitting equipment as part of their employment or training, will need to complete the document stipulated by the Kansas State University Department of Environmental Health and Safety; Appendix 9.7: Declaration of Pregnancy for Laboratory Worker in order to have a fetal dosimeter assigned. A dosimeter will be made available to wear at waist level to measure fetal exposure will be assigned to pregnant workers, who have completed the KSU Declaration of Pregnancy.

V. Student Externships for 4th Year Students

While on externship, students should make every effort to avoid radiation exposure. Students must be out of the work area/radiology room to avoid exposure when radiographs are being performed. Protocol must align defined in Radiation Safety Protocol during KSU Externship find agreement at https://www.k-state.edu/safety/docs/radiation_safety_manual.pdf

Externships where the student is participating to gain additional experience in imaging, should provide a copy of the site protocols prior to the externship being approved. If the student will be directly involved in image acquisition, the student **must** obtain a radiation dosimetry device (radiation badge) from the site that meets the requirements of the state where the externship is located. The site should report any radiation exposure that is out of range back to the student once they receive the results. If the student is notified of an out-of-range device reading, the student will be referred to KSU Radiation Safety for consultation.