Brookdale Community College
College Regulation

5.0042R DOSIMETER BADGE ACCOUNTABLITY REGULATION

I. Title of Regulation

5.0042R Dosimeter Badge Accountability Regulation

II. Objective of this Regulation

The purpose of this regulation is to help ensure that radiology program staff and students comply with the New Jersey state radiation safety regulations regarding the proper use, management, and monitoring of dosimeter badges in both laboratory and clinical settings. The school shall ensure that students are not: (i.) in the primary beam; (ii) permitted to remain in the x-ray room outside the control booth during an x-ray exposure unless the student is provided with a protective apron or shield that is at least 0.5 mm of lead equivalent; or (iii) permitted to engage in any other practices likely to result in unnecessary exposure to ionizing radiation (N.J.A.C. 7:2819.12(c) 11i-iii).

III. Authority

N.J.A.C. 7:28-19.12 and 19.13.

IV. Regulation Statement

Student Responsibilities

Brookdale radiology program staff and students are expected to follow all guidelines to protect themselves, their peers, and patients from unnecessary radiation exposure.

Badge Use

- Each student is issued personal dosimeter badge, specific to their program requirements. Badges are not to be shared.
- In labs: The badge must be worn before and during any x-ray exposures.
- In clinical settings: The badge must be worn at all times while on-site.
- Student ID badges must remain visible at all times during clinical assignments.

Badge Management

- Badges must be exchanged on the scheduled vendor cycle (monthly, bimonthly, or quarterly, as posted).
- Any lost or damaged badge must be reported immediately. Replacement costs may apply.

- Badges must be stored properly, away from radiation and heat sources. Do not store inside lead aprons.
- Badges must not be tampered with, altered, or self-read.
- Students must return the badge in order to receive their certificate of completion, if required per the applicable program.

Unacceptable Student Practices

Students may not engage in practices likely to result in unnecessary exposure to ionizing radiation [N.J.A.C. 7:28-19.12(c) 11 iii] such as:

- Students taking X-rays of other students or patients for non-diagnostic purposes.
- Students holding patients or the image receptor during the x-ray exposure.

The use of X-ray equipment in the laboratory by students is limited to when a Board-approved instructor directly supervises students.

Radiation Exposure Monitoring

Exposure Reports. Students will be notified of badge readings within 30 days after the program receives the official report.

When an Investigation Is Required

An investigation will be conducted if a badge report shows radiation exposure at or above:

- 50 mrem on a monthly report
- 100 mrem on a bimonthly report
- 150 mrem on a quarterly report
- Any exposure exceeding NJAC 7:28-6.1 occupational dose limits
- Investigations must be completed within 30 days, documented, and reviewed with the student.
- If applicable, reports will be submitted to the New Jersey Department of Environmental Protection (NJDEP).

Radiation Records

- Upon separation from the program, a complete exposure history will be provided to the student within 90 days.
- At no time may a student exceed the occupational dose limits set by N.J.A.C. 7:28-6.1.

Special Circumstances: Declared Pregnancy (Voluntary Disclosure)

The pregnancy policy must allow for voluntary declaration of pregnancy. Once pregnancy is declared, the school shall comply with N.J.A.C. 7:28-19.13(f)14. Our program policy for pregnant students, according to N.J.A.C. 7:28 -19.13 (f)14, includes:

- A student who voluntarily declares pregnancy in writing will receive radiation safety counseling and program adjustments to accommodate pregnancy
- If continuing with the program, the program will supply and mandate the use of two radiation-monitoring devices throughout pregnancy – one at neck level outside the apron, the other under the apron at waist level for procedures involving X-rays or fluoroscopy.
- The program will limit student exposure to adhere to NCRP limits, with a monthly equivalent dose limit of 50 mrem (0.5Sv) to the embryo-fetus.

- Pregnant students will be informed of exposure readings within seven days of receiving a radiation dosimetry report.
- If the monthly exposure is ≥ 50 mrem, the school will consult with a certified medical or health physicist.
- The school will submit a report to the NJDEP Bureau of X-ray Compliance, with a copy to the student within 21 days of receiving the dosimetry report detailing consultation outcomes, any recommendations, assignment modifications, and the student's exposure history as required.
- Dosimetry badges will be exchanged monthly.

If a student voluntarily declares their pregnancy and opts to stay in the program, their badging must be monthly.

Supervision and Radiation Safety

- All student exposures must occur under direct supervision by a:
    - Licensed dentist
    - Registered dental hygienist (RDH)
    - Licensed diagnostic or dental radiologic technologist

- As defined at N.J.A.C. 7:2819.12(c)11i-iii, the school and the clinical education center shall ensure that students are not:
    - In the primary beam
    - Permitted to remain in the x-ray room outside the control booth during an x-ray exposure unless the student is provided with a protective apron or shield that is at least 0.5 mm of lead equivalent; or
    - Permitted to engage in any other practices likely to result in unnecessary exposure to ionizing radiation. [N.J.A.C. 7:2819.12(c)11i-iii].

Acknowledgment

Radiology students are required to sign an Acknowledgment each semester that they agree to the requirements of the Dosimeter Badge Accountability Regulation while enrolled in a radiology program at Brookdale.

V. Responsibility for Implementation

Provost, Chief Academic Officer

Approved: 11/6/2025