WSR 24-19-100
PROPOSED RULES
DEPARTMENT OF HEALTH
[Filed September 18, 2024, 9:32 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 22-17-145.

Title of Rule and Other Identifying Information: Chapter 246-230 WAC, Security screening systems. The department of health (department) is proposing to create a new chapter that establishes radiation safety standards for the use of ionizing radiation for security purposes, while making every reasonable effort to maintain exposures to radiation as low as reasonably achievable to protect public health and safety.

Hearing Location(s): On November 20, 2024, at 11:30 a.m., at the Department of Health, Town Center 2, Room 166, 111 Israel Road S.E., Tumwater, WA 98501; or virtual. Register in advance for this webinar https://us02web.zoom.us/webinar/register/WN_a4j8zh4qT26MMXez8aObDg. After registering, you will receive a confirmation email containing information about joining the webinar. Individuals may attend the rules hearing either in person or virtually.

Date of Intended Adoption: November 27, 2024.

Submit Written Comments to: Department of Health c/o Ashlie Laydon, P.O. Box 47822, Olympia, WA 98504-7822, email ashlie.laydon@doh.wa.gov, https://fortress.wa.gov/doh/policyreview, beginning date and time of filing, by November 20, 2024, at 11:59 p.m.

Assistance for Persons with Disabilities: Contact Ashlie Laydon, TTY 711, email ashlie.laydon@doh.wa.gov, by November 5, 2024.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: The proposed rules outline registration requirements, authorized use, and system and operational requirements; establish dose limits; outline requirements for tracking the dose of radiation an individual receives; specify what information must be provided to an individual prior to screening; outline requirements for radiation surveys; address records maintenance and retention; and outline the process for requesting a variance. These rules are necessary to maintain exposures to radiation as low as reasonably achievable to protect public health and safety.

Reasons Supporting Proposal: 2SSB 5695, chapter 160, Laws of 2022, codified as RCW 72.09.775, required the Washington state department of corrections (corrections) to establish a comprehensive security screening pilot program, using ionizing radiation, as an effort to protect human dignity by reducing or eliminating strip searches and to increase public health and safety by reducing access to drugs and alcohol within correction facilities. Prior to the passage of 2SSB 5695, security screening systems using ionizing radiation were not authorized in Washington state. The practice of intentionally exposing a person to ionizing radiation was previously limited to healing arts purposes. 2SSB 5695 authorized the use of security screening systems using ionizing radiation at two corrections facilities.

The department is the state radiation control agency with sole responsibility for administration of regulatory, licensing, and radiation control laws. The department therefore must adopt rules to establish radiation safety standards for the use of ionizing radiation for security purposes to protect public health and safety from overexposure to radiation.

RCW 72.09.775 expired on June 30, 2024; however, during the development of these rules, the department discovered that other entities such as local and county jails and juvenile detention centers, are operating these systems. The proposed rules apply to all registrants using security screening systems using ionizing radiation and limit the use to individuals who have been committed to a correctional facility or who have been presented for confinement in a jail or detention facility.

Statutory Authority for Adoption: RCW 70A.388.040.

Statute Being Implemented: RCW 70A.388.040.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Governmental.

Name of Agency Personnel Responsible for Drafting: Ashlie Laydon, Rules Coordinator, 111 Israel Road S.E., Tumwater, WA 98501; Implementation and Enforcement: Christopher Haigh, Radiation Health Physicist or Richard Montemarano, Radiation Health Physicist, 111 Israel Road S.E., Tumwater, WA 98501, 253-395-6758.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Ashlie Laydon, P.O. Box 47822, Olympia, WA 98504-7822, TTY 711, email ashlie.laydon@doh.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules relate only to internal governmental operations that are not subject to violation by a nongovernment party.

Is exempt under RCW 19.85.025(4).

Explanation of exemptions: The proposed rules only affect internal government operations and do not affect small businesses.

Scope of exemption for rule proposal:

Is fully exempt.

September 18, 2024
Kristin Peterson, JD
Chief of Policy
for Umair A. Shah, MD, MPH
Secretary

OTS-4503.10

Chapter 246-230 WAC
SECURITY SCREENING SYSTEMS

NEW SECTION

WAC 246-230-001 Authority, purpose, and scope. The requirements of this chapter are adopted pursuant to the provisions of chapter

70A.388 RCW. This chapter establishes radiation safety standards for the use of security screening systems that emit ionizing radiation to detect contraband under clothing and within body cavities of individuals who have been committed to a correctional facility or who have been presented for confinement in a jail or detention facility.

NEW SECTION

WAC 246-230-005 Relationship to other regulations. In addition to the requirements established in this chapter, registrants shall also comply with applicable requirements including, but not limited to, the following:

(1) Chapter 246-220 WAC;
(2) Chapter 246-221 WAC;
(3) Chapter 246-222 WAC; and
(4) Chapter 246-224 WAC.

NEW SECTION

WAC 246-230-010 Definitions. The definitions in this section apply throughout this chapter unless the context clearly indicates otherwise.

(1) "ALARA" (as low as reasonably achievable or as low as is reasonably achievable) means making every reasonable effort to maintain exposures to radiation as far below the dose limits in this chapter as is practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to the state of technology, the economics of improvements in relation to the benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of nuclear energy and licensed materials in the public interest.

(2) "Correctional facility" means a facility or institution operated directly or by contract by the secretary of corrections or his or her designee for the purposes of incarcerating adults in total or partial confinement, as defined in RCW 9.94A.030.

(3) "Department" means the Washington state department of health, which has been designated as the state radiation control agency under chapter 70A.388 RCW.

(4) "Detention facility" means a county facility, paid for by the county, for the physical confinement of a juvenile alleges to have committed an offense or an adjudicated offender subject to a disposition or modification order. "Detention facility" includes county group homes, inpatient substance abuse programs, juvenile basic training camps, and electronic monitoring.

(5) "Dose record" means a record for each individual subject to screening and includes:

(a) Name of individual;
(b) Date and time of screening; and
(c) Dose of radiation received at time of screening.

This record does not include images produced by the security screening system.

(6) "Engineering control" means a safety component of the security screening system designed to prevent improper operation or unintended radiation exposure.

(7) "General-use security screening system" means a security screening system that delivers an effective radiation dose equal to or less than 0.25 µSv (25 µrem) per screening.

(8) "Jail" means any holding, detention, special detention, or correctional facility as defined in RCW 70.48.020.

(9) "Limited-use security screening system" means a security screening system that is capable of delivering an effective dose greater than 0.25 µSv (25 µrem) per screening, but must not exceed an effective dose of 10 µSv (1 mrem) per screening.

(10) "Minor" means an individual less than 18 years of age.

(11) "Operator" means a trained employee associated with the operation of the security screening system whose responsibilities include at least one of the following:

(a) Initiating or stopping a scan;

(b) Verifying the security screening system is operating correctly;

(c) Providing information and instructions to screened individuals; or

(d) Controlling access to the radiation screening zone.

(12) "Primary beam" means the beam of radiation emanating from the security screening system intended to reach the individual being scanned. This excludes scattered radiation and radiation transmitted through shielding.

(13) "Qualified expert" means the same as in WAC 246-220-010.

(14) "Radiation screening zone" means the general area established for the purpose of limiting or controlling access to the area where screening will be performed.

(15) "Registrant" means any person who is registered by the department or is legally obligated to register with the department in accordance with these rules and the act.

(16) "Safety interlock" means a device that is intended to automatically prevent or interrupt the radiation hazard whenever safety is compromised by access to the interior of the system, unauthorized access to a radiation area, or by an operational malfunction.

(17) "Screening" means the sum of radiation exposures or scans necessary to image objects concealed on all sides of the body as intended by the system design under normal conditions. A screening consists of one scan. If more than one scan needs to be performed to determine if the individual is concealing contraband, all additional scans are considered repeat screenings.

(18) "Security screening system" means a screening system that intentionally exposes an individual to ionizing radiation for the purpose of detecting contraband hidden in an individual's body or under clothing. Security screening systems must use transmission X-ray.

(19) "Shutter" means a device attached to the tube housing assembly which can totally intercept the entire cross sectional area of the useful beam and which has a lead equivalency at least that of the tube housing assembly.

(20) "Technique factors" means the X-ray settings, including:

(a) The peak kilovoltage applied to the X-ray tube;

(b) The electric current passing through the X-ray tube; and

(c) The scan time.

(21) "Transmission X-ray" means a security screening system that uses conventional means of radiographic imaging, in which X-rays or

gamma rays pass through an individual to create shadow-grams of enclosed contraband based on their radiation attenuating properties. For the purposes of this chapter, any transmission X-ray system for which at least one dimension of the scan area is greater than 50 cm is considered a security screening system.

NEW SECTION

WAC 246-230-015 Registration. The owner or controller of the security screening system who is responsible for the safe operation of the security screening system shall register the security screening system facility and security screening system with the department in accordance with chapter 246-224 WAC.

NEW SECTION

WAC 246-230-020 Security screening system requirements. (1) A security screening system must meet the definition of a general-use security screening system unless a variance, as outlined in WAC 246-230-090, is obtained from the department to operate a limited-use security screening system. If a security screening system is capable of functioning as both a general-use security screening system and a limited-use security screening system, the limited-use function must be disabled unless a variance to operate it as a limited-use security screening system has been obtained from the department.

(2) There must be at least one indicator, clearly visible from any location, indicating when a scan is in progress.

(3) Security screening systems must have the following engineering controls in place:

(a) Power to the security screening system must be controlled by a key switch. The key must be captured (unable to be removed) whenever it is positioned to allow exposures to be initiated.

(b) A means for the operator to:

(i) Initiate the emission of radiation other than the function of an interlock or the main power control.

(ii) Terminate the emission of radiation other than the function of an interlock.

(c) Radiation emission must automatically terminate after a preset time or exposure.

(d) Technique factors for each mode of operation must be preset by the manufacturer and must not be alterable by the system operator. If a security screening system has more than one mode, prior to each scan, a mode indicator must be clearly visible to the operator.

(e) A warning label must be permanently affixed or inscribed on the security screening system at any location of any controls used to initiate the emission of radiation. The warning label must read "CAUTION: RADIATION PRODUCED WHEN ENERGIZED."

(4) Security screening systems must have safety interlocks in place:

(a) Failure of any single component of the security screening system must not cause failure of more than one safety interlock.

(b) A tool or key must be required to open or remove access panels. Each access panel to a radiation source must have at least one safety interlock to terminate radiation production when opened.

(c) Safety interlocks must terminate the primary beam in the event of any security screening system problem that may result in abnormal or unintended radiation emission. This includes, but is not limited to:

(i) Unintended stoppage of beam motion;

(ii) Abnormal or unintended radiation source output;

(iii) Computer safety system malfunction;

(iv) Termination malfunction; or

(v) Shutter mechanism malfunction.

(d) Resetting a safety interlock, following any interruption of radiation production by the functioning of any safety interlock, must not result in the production of radiation.

(5) Security screening systems must employ shielding requirements so that during operation, including under maximum operating parameters, the leakage equivalent dose at any point 30 cm from any external surface of the security screening system, outside of the primary beam, must not exceed 2.5 µSv (0.25 mrem) in any one hour.

NEW SECTION

WAC 246-230-025 Authorized use. (1) A security screening system may only be used to screen an individual who has been committed to a correctional facility or who has been presented for confinement in a jail or detention facility, and must not be used to screen such individuals who are:

(a) Minors;

(b) Pregnant or suspect they may be pregnant;

(c) Health compromised as determined by a licensed health care practitioner; or

(d) Who have met the annual dosage limit established in WAC 246-230-040.

(2) Security screening systems may not be used for medical purposes.

NEW SECTION

WAC 246-230-030 Operating requirements of security screening system. (1) Each operator of a security screening system shall complete radiation safety training prior to performing any security screening system operations. The registrant shall develop a training program in consultation with a qualified expert and must include, at a minimum:

(a) Radiation safety, including:

(i) Identification of radiation hazards associated with the use of the security screening system;

(ii) Operating and emergency procedures;

(iii) Proper procedures for reporting an actual or suspected overexposure;

(iv) Radiation units;

(v) Risk and biological effects associated with radiation;

(vi) Methods of controlling radiation dose, including:
(A) Time;
(B) Distance; and
(C) Shielding;
(vii) Concept of ALARA;
(b) Preoperational checks;
(c) Routine maintenance;
(d) Procedures to follow if the security screening system is damaged or malfunctions; and
(e) Supervised operations of the security screening system in accordance with the manufacturer's operations manual and facility procedures.

(2) Each operator must complete an annual refresher training, fulfilling the requirements of subsection (1) of this section, not to exceed 12 months between trainings.

(3) Written operating and emergency procedures must be immediately available to each operator. Written procedures must be consistent with manufacturer standards and include, at a minimum:
(a) Operational procedures to safely use security screening system;
(b) Warnings of potential safety hazards;
(c) Emergency procedures;
(d) Preoperational checks; and
(e) Routine maintenance requirements.

(4) For security screening systems with more than one mode, operating procedures must include technique factors for each operating mode and appropriate use of each mode.

(5) The following requirements apply when screening individuals using a security screening system:
(a) The operator must follow operating procedures for use of the security screening system;
(b) The operator must have a clear view of the radiation screening area. This may be direct line-of-sight, mirror view, or real-time video of the radiation screening area;
(c) Controls must be in place to prohibit anyone from entering or reentering the screening area while radiation is being produced; and
(d) If the operator cannot determine if an individual is concealing contraband from the initial screening, additional screening may occur, consistent with a written repeat screening policy developed in consultation with a qualified expert. Records of repeat screening must be kept in accordance with WAC 246-230-080(4).

NEW SECTION

WAC 246-230-040 Dose limits. (1) The registrant shall confirm that the manufacturer of the security screening system has ensured that operating parameters are optimized for the best performance at the lowest dose.

(2) The radiation dose delivered to an individual must be ALARA while meeting the required detection performance.

(3) The total effective dose to an individual must not exceed 0.25 mSV (25 mrem) in a calendar year from security screening systems.

(4) The area outside the radiation screening zone must not exceed 20 µSv (2 mrem) in any one hour.

NEW SECTION

WAC 246-230-050 Requirements for tracking dosage. (1) The registrant must ensure a method is in place to track the dose of radiation an individual receives as a result of security screening. The registrant must track the dose of radiation an individual receives from security screening systems:

(a) Per screening;

(b) Per calendar year; and

(c) In a lifetime.

(2) The registrant must ensure that dose records transfer with an individual between facilities.

(3) The registrant must ensure that dose records are provided to an individual upon request.

(4) The registrant must ensure that dose records are maintained for the lifetime of each individual.

NEW SECTION

WAC 246-230-060 Information to be provided to scanned individuals. Prior to screening, the registrant must ensure that the individual is informed:

(1) That the security screening system emits ionizing radiation;

(2) That the security screening system meets all requirements of this chapter; and

(3) Of any available alternative screening options.

NEW SECTION

WAC 246-230-070 Radiation surveys. (1) Radiation surveys must be conducted by a qualified expert to verify:

(a) Dose of radiation per screening and maximum allowable scans per year for any individual at stated dosage per screening;

(b) Radiation leakage at the surface, within radiation screening zone, at operator position, and surrounding areas. If the radiation survey conducted by a qualified expert indicates the operators could receive 10 percent of the occupational worker's annual dose limit of 5 rem, a dosimetry badge shall be worn while within the radiation screening zone;

(c) Safety interlocks are functioning properly;

(d) Operation and emergency procedures are in place and used as appropriate;

(e) Training program and training log are in place and used as appropriate; and

(f) Any other parameters specified by the manufacturer.

(2) The registrant must ensure that radiation surveys are completed:

(a) Prior to first use and upon replacement of security screening system;

(b) Every 10 to 14 months;

(c) Within 30 days following any maintenance that affects:

(i) Radiation shielding;

(ii) Shutter mechanism;

(iii) Radiation production components; and

(d) Within 30 days following any alteration or incident that may have damaged the system in a way that unintended radiation emission occurs.

(3) A qualified expert will provide a summary of each radiation survey to the registrant, outlining results and recommendations for corrections. Corrections must be made within 30 days of receiving the recommendations.

NEW SECTION

WAC 246-230-080 Records. The registrant must maintain the following records on-site and make them available to the department:

(1) Training records for each operator must be maintained for five years. Training records must document:

(a) Operator's name;

(b) Date of training; and

(c) Training curriculum provided.

(2) Radiation surveys conducted by a qualified expert must be maintained for five years. The following information must be documented:

(a) Security screening system make, model, serial number, and facility location;

(b) Name of qualified expert who completed the survey;

(c) Survey date;

(d) Make, model, serial number, and calibration dates of instrumentation used to conduct the survey;

(e) Results of the visual inspection of the security screening system safety interlocks;

(f) Background measurements;

(g) Radiation survey measurements;

(h) Survey diagram, including:

(i) Security screening system parameters at which measurements were made; and

(ii) Drawings must be to scale as applicable.

(3) Maintenance logs must be maintained for the life of the security screening system. Logs must document:

(a) Upgrades;

(b) Modifications;

(c) Maintenance or repairs made; and

(d) Replacement.

(4) Repeat screening log must be maintained for five years. Repeat screening log must be completed any time an operator cannot determine if an individual is concealing contraband from the initial screening, and additional screening occurs. The following must be documented:

(a) Name of operator conducting the screening;

(b) Name of individual screened;

(c) Number of repeated screens performed; and

(d) Justification for conducting the repeat screening.

NEW SECTION

WAC 246-230-090 Variance request. A registrant may submit a written request to the department for a variance from WAC 246-230-020(1). The registrant shall not use a security screening system on individuals until the department approves the variance request.

(1) The written request must be addressed to: X-ray Supervisor, Office of Radiation Protection, Department of Health, P.O. Box 47827, Olympia, Washington 98504-7827, and must include:

(a) An explanation of the circumstances involved, and the reason why a limited-use security screening system must be used;

(b) A description of how using a limited-use security screening system meets the intent of this chapter and how the registrant will protect individuals and operators;

(c) A description of the limited-use security screening system to be used with supporting pictures or documents; and

(d) The time period for which the variance is requested.

(2) If necessary, the department may require the registrant to submit additional information.

(3) The department may conduct an on-site variance inspection to verify the information provided, or if it otherwise determines that an inspection is necessary.

(4) As determined by the department, variances may be permanent or temporary.

(5) The department may impose conditions that may be necessary to protect human health and safety during the term of the variance in order to approve the request.

(6) The department may, at any time, revoke a variance approval if it is determined that the terms and conditions of the variance are not being followed.