



Ohio Administrative Code

Rule 3701:1-38-14 Survey and monitoring requirements.

Effective: August 30, 2015

(A) Each licensee or registrant shall:

(1) Make, or cause to be made, surveys of areas, including the subsurface, that are:

(a) Necessary to comply with this chapter: and

(b) Reasonable under the circumstances to evaluate:

(i) Radiation levels;

(ii) Concentrations or quantities of residual radioactivity; and

(iii) The potential radiological hazards of the radiation levels and residual radioactivity detected.

(2) Notwithstanding paragraph (C) of rule 3701:1-38-20 of the Administrative Code, records from surveys describing the location and amount of subsurface residual radioactivity identified at the site must be kept with records important for decommissioning, and such records must be retained in accordance with paragraph (I) of rule 3701:1-40-17, paragraph (F) of rule 3701:1-44-18, and paragraph (D) of rule 3701:1-56-19 of the Administrative Code, as applicable.

(3) Ensure that instruments and equipment used for quantitative radiation measurements, such as dose rate and effluent monitoring, are calibrated annually for the radiation measured, except as otherwise specified in Chapter 3748. of the Revised Code, rules adopted thereunder, or a license condition.

(4) Ensure that all personnel dosimeters, except for direct and indirect reading dosimeters used to measure the dose to any extremity, that require processing to determine the radiation dose and that are used to comply with paragraph (A) of rule 3701:1-38-12 of the Administrative Code, with other



applicable provisions of these regulations, or with conditions specified in a license or registration shall be processed and evaluated by a dosimetry processor that:

(a) Holds a current personnel dosimetry accreditation from the national voluntary laboratory accreditation program of the national institute of standards and technology; and

(b) Is approved in this accreditation process for the type of radiation or radiations included in the national voluntary laboratory accreditation program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored; and

(5) Have procedures in place to minimize the likelihood of a deceptive exposure of an individual monitoring device, and in the event of a suspected deceptive exposure, an investigation should be conducted by the radiation safety officer for licensees or individual responsible for radiation protection for registrants which will lead to corrective action as necessary.

(B) Conditions requiring individual monitoring of external and internal occupational dose are as follows:

(1) Each licensee or registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of rule 3701:1-38-12 of the Administrative Code. Each licensee or registrant shall monitor occupational exposure to radiation from sources of radiation under the control of the licensee or registrant and shall supply and require the use of individual monitoring devices by:

(a) Adults likely to receive, in one year from sources of radiation external to the body, a dose in excess of ten per cent of the limits in paragraph (A) of rule 3701:1-38-12 of the Administrative Code;

(b) Minors likely to receive, in one year, from radiation sources external to the body, a deep dose equivalent in excess of one millisievert (0.1 rem), a lens dose equivalent in excess of 1.5 millisievert (0.15 rem), or a shallow dose equivalent to the skin or to the extremities in excess of five millisievert (0.5 rem);



(c) Declared pregnant women likely to receive during the entire pregnancy, from radiation sources external to the body, a deep dose equivalent in excess of one millisievert (0.1 rem); and

(d) Individuals entering a high or very high radiation area.

(2) To determine compliance with paragraph (D) of rule 3701:1-38-12 of the Administrative Code, each licensee shall monitor the occupational intake of radioactive material by and assess the committed effective dose equivalent to:

(a) Adults likely to receive, in one year, an intake in excess of ten per cent of the applicable ALI in appendix C to rule 3701:1-38-12 of the Administrative Code;

(b) Minors likely to receive, in one year, a committed effective dose equivalent in excess of one millisievert (0.1 rem); and

(c) Declared pregnant women likely to receive, during the entire pregnancy, a committed effective dose equivalent in excess of one millisievert (0.1 rem).

(C) Each licensee or registrant shall ensure that any individual who is required to monitor occupational doses in accordance with paragraph (B)(1) of this rule wears an individual monitoring device as follows:

(1) An individual monitoring device, used for monitoring the dose to the whole body, shall be worn at the unshielded location of the whole body likely to receive the highest exposure. When a protective apron is worn, the location of the individual monitoring device is typically at the neck.

(2) An individual monitoring device, used for monitoring the dose to an embryo or fetus of a declared pregnant woman pursuant to paragraph (H) of rule 3701:1-38-12 of the Administrative Code, shall be located at the waist under any protective apron being worn by the woman.

(3) An individual monitoring device, used for monitoring the lens dose equivalent, to demonstrate compliance with paragraph (A) of rule 3701:1-38-12 of the Administrative Code, shall be located at the neck outside any protective apron being worn by the monitored individual, or at an unshielded



location close to the eye.

(4) An individual monitoring device, used for monitoring the dose to the extremities, to demonstrate compliance with paragraph (A)(2) of rule 3701:1-38-12 of the Administrative Code, shall be worn on the extremity likely to receive the highest exposure. Each individual monitoring device shall be oriented to measure the highest dose to the extremity being monitored.

(5) When only one individual monitoring device is used to determine the effective dose equivalent for external radiation pursuant to paragraph (A)(4)(b) of rule 3701:1-38-12 of the Administrative Code, it shall be located at the neck outside the protective apron. When a second individual monitoring device is used for the same purpose, it shall be located under the protective apron at the waist. The second individual monitoring device is required for a declared pregnant woman.