180. IONIZING RADIATION

01. Scope

Ionizing radiation exposure shall conform to all other applicable requirements of this standard, as well as the following provisions. Nothing in this standard shall be construed to prohibit better or otherwise safer conditions than specified herein. (7-1-97)

02. Definitions

For definitions of other terms used in this section, see sub-section 010 of this standard. (7-1-97)

a. Airborne Radioactivity Area is any room, enclosure, or operating area in which airborne radioactive materials, composed wholly or partly of radioactive material, exist in concentrations in excess of the amounts specified in column 1 or Table 1 of Appendix B to 10 CFR Part 20; or any room, enclosure or operating area in which airborne radioactive material exists in concentrations which averaged over the number of hours in any week during which individuals are in the area, exceed twenty-five (25) percent of the amounts specified in Column 1 of Table 1 of Appendix B to 10 CFR Part 20. (7-1-97)
b. Calendar Quarter is any three (3) month period. (7-1-97)

c. Dose is the quantity of ionizing radiation absorbed, per unit of mass, by the body or by any portion of the body. When the provisions of this section specify a dose during a period of time, the dose is the total quantity of radiation absorbed per unit of mass, by the body or by any portion of the body during such period of time. Several different units of dose are in current use. Definitions of units used in this section are set forth in sub-sections 180.02.f and g of this section. (7-1-97)

d. Exposed means that the individual is present in an airborne concentration. No allowance shall be made for the use of protective clothing or equipment, or particle size. (7-1-97)

e. High Radiation Area is any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of 100 milli-REM. (7-1-97)

f. Personnel Monitoring Equipment are devices designed to be worn or carried by an individual for the purpose of measuring the dose received (e.g., film badges, pocket chambers, pocket dosimeters, film rings, etc.). (7-1-97)

g. Radiation includes alpha particles, beta particles, gamma rays, x-rays, neutrons, high-speed electrons, high-speed protons, and other atomic particles, but such term does not include sound or radio waves, or visible light, or infrared or ultraviolet light. (7-1-97)

h. Radiation Area is any area accessible to personnel, in which there exists radiation in such levels that a major portion of the body could receive in any one (1) hour a dose in excess of five (5) milli-REM, or in any five (5) consecutive days a dose in excess of one-hundred (100) milli-REM. (7-1-97)

i. Radioactive Material is any material which emits, by spontaneous nuclear disintegration, corpuscular or electromagnetic emanations. (7-1-97)

j. Restricted Area is any area to which access is controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials. (7-1-97)

k. Rad is a measure of the dose of any ionizing radiation to body tissues in terms of the energy absorbed per unit of mass of the tissue. One rad is the dose corresponding to the absorption of one-hundred (100) ergs per gram of tissue (1 milli-rad [m-rad] = zero point zero-zero-one (0.001) rad). (7-1-97)

l. REM is a measure of the dose of any ionizing radiation to body tissue in terms of its estimated biological effect relative to a dose of one (1) roentgen (r) of x-rays (one (1) milli-REM [m-REM] - zero point zero-zero-one (0.001) REM). (7-1-97)
m. Survey is an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. (7-1-97)

n. Unrestricted Area is any area to which access is not controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials. (7-1-97)

03. General Requirements: (7-1-97)

a. The rules and regulations of the State Board of Health governing Idaho Radiation Control Regulations shall be complied with by every employer and shall be enforced as provided for by statute. (7-1-97)

04. Dose Units: (7-1-97)

a. The relation of the REM to other dose units depends upon the biological effect under consideration and upon the conditions for irradiation. Each of the following is considered to be equivalent to a dose of one (1) REM: (7-1-97)

i. A dose of one (1) roentgen due to x- or gamma radiation; (7-1-97)

ii. A dose of one (1) rad due to x-ray, gamma ray, or beta particle; (7-1-97)

iii. A dose of zero point one (0.1) rad due to neutrons or high energy protons; (7-1-97)

iv. A dose of zero point zero-five (0.05) rad due to particles heavier than protons and with sufficient energy to reach the lens of the eye. (7-1-97)

b. If it is more convenient to measure the neutron flux, or equivalent, than to determine the neutron dose in rads, as provided in sub-section 180.04.a. of this section, one (1) REM of neutron radiation may, for purpose of the provisions in this section, be assumed to be equivalent to fourteen (14) million neutrons per square centimeter incident upon the body; or, if there is sufficient information to estimate with reasonable accuracy the approximate distribution in energy of the neutrons, the incident number of neutrons per square centimeter equivalent to 1 REM may be estimated from Table 180.04-A. (7-1-97)

<table>
<thead>
<tr>
<th>Neutron energy (million electron volts (Mev))</th>
<th>Number of neutrons of neutrons per square centimeter equivalent to a dose of 1 rem (neutrons/cm²)</th>
<th>Average flux to deliver 100 milli-REMs in 40 hours (neutrons/cm² per sec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal</td>
<td>970 X 10 (6)</td>
<td>670</td>
</tr>
</tbody>
</table>
For determining exposures to x-ray or gamma rays up to three (3) Mev., the dose limits specified in this section may be assumed to be equivalent to the "air dose" means that the dose is measured by a properly calibrated appropriate instrument in the air at or near the body surface in the region of the highest dosage rate. (7-1-97)

**05. Exposure of Individuals to Radiation in Restricted Areas:** (7-1-97)

**a.** Except as provided in sub-section 180.05.b of this section, no employer shall possess, use, or transfer sources of ionizing radiation in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from sources in the employer's possession or control a dose in excess of the limits specified in Table 180.05-A. (7-1-97)

<table>
<thead>
<tr>
<th>TABLE 180.05-A</th>
<th>REMs per calendar quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole body: Head and Trunk; active blood-forming organs; lens of eyes; or gonads</td>
<td>1 1/4</td>
</tr>
<tr>
<td>Hands and forearms; feet and ankles</td>
<td>18 3/4</td>
</tr>
<tr>
<td>Skin of whole body</td>
<td>7 1/2</td>
</tr>
</tbody>
</table>

**b.** An employer may permit an individual in a restricted area to receive doses to the whole body greater than those permitted under sub-section 180.04.a. of this section so long as: during any calendar quarter the dose to the whole body shall not exceed three (3) REMs, and the dose to the whole body, when added to the accumulated occupational dose to the whole body, shall not
exceed five (5) (N-18) REMs, where "N" equals the individual's age in years at his last birthday; and the employer maintains adequate past and current exposure records which show the addition of such a dose will not cause the individual to exceed the amount authorized in this subsection. As used in this subsection "dose to the whole body" shall be deemed to include any dose to the whole body, gonad, active blood-forming organs, head and trunk, or lens of the eye. (7-1-97)

c. No employer shall permit any employee who is less than eighteen (18) years of age to receive in any period of one (1) calendar quarter a dose in excess of ten (10) percent of the limits specified in Table 180.05-A. (7-1-97)

06. Calendar Quarter Determination: (7-1-97)

a. The first period of any year may begin on any date in January; provided, that the second, third and fourth periods accordingly begin on the same date in April, July and October, respectively, and that the fourth period extends into January of the succeeding year, if necessary to complete a three (3) month quarter. (7-1-97)

b. During the first year of use of this method of determination, the first period for that year shall also include any additional days in January preceding the starting date for the first period; or The first period in a calendar year of thirteen (13) complete, consecutive calendar weeks; the second period in a calendar year of thirteen (13) complete consecutive weeks; the third period in a calendar year of thirteen (13) complete consecutive calendar weeks; the fourth period in a calendar year of thirteen (13) complete consecutive calendar weeks. If at the end of a calendar year there are any days not falling within a complete calendar week of that year, such days shall be included within the last complete calendar week of that year. If at the beginning of any calendar year there are days not falling within a complete calendar week of that year, such days shall be included within the last complete calendar week of the previous year. (7-1-97)

c. The four periods in a calendar year may consist of the first fourteen (14) complete, consecutive calendar weeks; the next twelve (12) complete consecutive calendar weeks; the next fourteen (14) complete, consecutive calendar weeks, and the last twelve (12) complete, consecutive calendar weeks. If at the end of a calendar year there are any days not falling within a complete calendar week of that year, such days shall be included (for purposes of this section) within the last complete calendar week of the year. If at the beginning of any calendar year there are days not falling within the complete calendar week of that year, such days shall be included (for purposes of this section) within the last complete week of the previous year. (7-1-97)

07. Exposure to Airborne Radioactive Material: (7-1-97)

a. No employer shall possess, use or transport radioactive material in such a manner as to cause any employee, within a restricted area, to be exposed to airborne radioactive material in an average concentration in excess of the limits specified in Table 1 of Appendix B to 10 CFR Part 20. The limits given in Table 1 are for exposure to the concentrations specified for forty (40) hours in any work-week of seven (7) consecutive days. In any such period where the number of hours of exposure is less than forty (40), the limits specified in the table may be increased
proportionately. In any such period where the number of hours of exposure is greater than forty (40), the limits specified in the table shall be decreased proportionately. (7-1-97)

b. No employer shall possess, use or transfer radioactive material in such a manner as to cause any individual within a restricted area, who is less than eighteen (18) years of age to be exposed to airborne radioactive material in an average concentration in excess of the limits specified in Table II of Appendix B to 10 CFR Part 20. For the purpose of this subsection, concentrations may be averaged over periods not greater than one (1) week. (7-1-97)

**08. Precautionary Procedures and Personnel Monitoring**: (7-1-97)

a. Every employer shall make such surveys as may be necessary for him to comply with the provisions in this section. (7-1-97)

b. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present. (7-1-97)

c. Every employer shall supply appropriate personnel monitoring equipment, such as film badges, pocket chambers, pocket dosimeters, or film rings to, and shall require the use of such equipment, by: each employee who enters a restricted area under such circumstances that he receives, or is likely to receive a dose in any calendar quarter in excess of twenty-five (25) percent of the applicable value specified in sub-section 180.02.a. of this section; and each employee less than eighteen (18) years of age who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of five (5) percent of the applicable value specified in sub-section 180.02.a. of this section; and each employee who enters a high radiation area. (7-1-97)

**09. Caution Signs, Labels and Signals**: (7-1-97)

a. Symbols prescribed by this section shall use the conventional radiation caution colors (magenta or purple on yellow background). The symbol prescribed by this section is the conventional three-bladed design (see figure 180.09-A). (7-1-97)

**FIGURE 180.09-A RADIATION SYMBOL**
Cross-hatched area is to be magenta or purple

Background is to be yellow

b. Each radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol described in sub-section 180.09.a. of this section and the words: CAUTION - RADIATION AREA. (7-1-97)

c. Each high radiation area shall be conspicuously posted with a sign bearing the radiation caution symbol and the words: CAUTION - HIGH RADIATION AREA. (7-1-97)

d. Each high radiation area shall be equipped with a control device which shall either cause the level of radiation to be received below that at which an individual might receive a dose of one-hundred (100) milli-REMS in one (1) hour upon entry into the area or shall energize a conspicuous visible or audible alarm signal in such a manner that the individual entering and the employer or a supervisor of the activity are made aware of the entry. In the case of a high radiation area established for a period of thirty (30) days or less, such control device is not required. (7-1-97)

e. Each airborne radioactivity area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: CAUTION - AIRBORNE RADIOACTIVITY AREA. (7-1-97)

f. Each area or room in which radioactive material is used or stored and which contains any radioactive material (other than natural uranium or thorium) in any amount exceeding 10 times the quantity of such material specified in Appendix C of 10 CFR Part 20 shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: CAUTION - RADIOACTIVE MATERIALS. EXCEPTIONS FROM POSTING REQUIREMENTS: (Notwithstanding the provisions of this section) (7-1-97)
i. A room or area is not required to be posted with a caution sign because of the presence of a sealed source, provided the radiation level twelve (12) inches from the surface of the source contain or housing does not exceed five (5) milli-REM per hour; (7-1-97)

ii. Rooms or other areas in on site medical facilities are not required to be posted with caution signs because of the presence of patients containing radioactive material, provided that there are personnel in attendance who shall take the precautions necessary to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established in the provisions of this section; (7-1-97)

iii. Caution signs are not required to be posted at areas or rooms containing radioactive materials for periods of less than eight (8) hours: provided that, the materials are constantly attended during such periods by an individual who shall take the precautions necessary to prevent the exposure of any individual to radiation or radioactive materials in excess of the limits established in the provisions of this section; and such area or room is subject to the employer's control. (7-1-97)

g. Each container in which natural uranium or thorium is transported, stored, or used in a quantity greater than ten (10) times the quantity specified in Appendix C to 10 CFR Part 20 shall bear a durable, clearly visible label bearing the radiation caution symbol and the words: CAUTION - RADIOACTIVE MATERIALS. (7-1-97)

h. Notwithstanding the provisions of sub-sections 180.08.f. and g. of this section, a label shall not be required if the concentration of the material in the container does not exceed that specified in column 2 of Table 1 of Appendix B to 10 CFR Part 20; or for laboratory containers, such as beakers, flasks, and test tubes, used transiently in laboratory procedures, when the user is present. (7-1-97)

i. Where containers are used for storage, the labels required in this subsection shall state also the quantities and kinds of radioactive materials in the containers and the date of measurement of the quantities. (7-1-97)

j. Radioactive materials packaged and labeled in accordance with regulations of the Department of Transportation published in 49 CFR Chapter I, are exempt from the labeling and posting requirements of this subsection during shipment, provided that the inside containers are labeled in accordance with the provisions of this section. (7-1-97)

10. Immediate Evacuation Warning Signal: (7-1-97)

a. The evacuation signal shall be mid-frequency complex sound wave amplitude modulated at a subsonic frequency. The complex sound wave in free space shall have a fundamental frequency (f1) between four-hundred-fifty (450) and five-hundred (500) hertz (Hz) modulated at a subsonic rate between four (4) and five (5) hertz. (7-1-97)
b. The evacuation signal generator shall not be less than seventy-five (75) decibels at every location where an individual may be present whose immediate, rapid and complete evacuation is essential. (7-1-97)

c. A sufficient number of signal units shall be installed such that the requirements of this section are met at every location where an individual may be present whose immediate, rapid, and complete evacuation is essential. (7-1-97)

d. The evacuation signal shall be unique in the facility in which it is installed. (7-1-97)

e. The minimum duration of the evacuation signal shall be sufficient to insure that all affected persons hear the signal. (7-1-97)

f. The evacuation signal-generating system shall respond automatically to an initiating event without requiring any human action to sound the signal. (7-1-97)

g. The evacuation signal-generating systems shall be designed to incorporate components which enable the system to produce the desired signal each time it is activated within one-half second of activation. (7-1-97)

h. The evacuation signal-generating system shall be provided with an automatically activated secondary power supply which is adequate to simultaneously power all emergency equipment to which it is connected, if operation during power failure is necessary, except in those systems using batteries as the primary source of power. (7-1-97)

i. All components of the evacuation signal-generating system shall be located to provide maximum practicable protection against damage in case of fire, explosion, corrosive atmosphere, or other environmental extremes consistent with adequate system performance. (7-1-97)

j. The evacuation signal-generating system shall be designed with the minimum number of components necessary to make it function as intended, and should utilize components which do not require frequent servicing such as lubrication or cleaning. (7-1-97)

k. Where several activating devices feed activating information to a central signal generator, failure of any activating device shall not render the signal-generator system inoperable to activating information from the remaining devices. (7-1-97)

l. The evacuation signal-generating system shall be designed to enhance the probability that alarm occurs only when immediate evacuation is warranted. The number of false alarms shall not be so great that the signal will come to be disregarded and shall be low enough to minimize personal injuries or excessive property damage that might result from such evacuation. (7-1-97)

m. Initial tests, inspections and checks of the evacuation signal generating systems shall be made to verify that the fabrication and installation were made in accordance with design plans and specifications and to develop a thorough knowledge of the performance of the system and all components under normal and hostile conditions. (7-1-97)
n. Once the system has been placed in service, periodic tests, inspections and checks shall be made to minimize the possibility of malfunction. (7-1-97)

o. Following significant alterations or revisions to the evacuation system, tests and checks similar to the initial installation tests shall be made. (7-1-97)

p. Tests shall be designed to minimize hazards while conducting the tests. (7-1-97)

q. Prior to normal operation the signal-generating system shall be checked physically and functionally to assure reliability and to demonstrate accuracy and performance. Specific tests shall include: (7-1-97)

  i. All power sources; (7-1-97)

  ii. Calibration and calibration stability; (7-1-97)

  iii. Trip levels and stability; (7-1-97)

  iv. Continuity of function with loss and return of required services such as AC or DC power, air pressure, etc.; (7-1-97)

  v. All indicators; (7-1-97)

  vi. Trouble indicator circuits and signals, where used; (7-1-97)

  vii. Air pressure (if used); (7-1-97)

  viii. Determine that sound level of the signal is within the limit of sub-section 180.09.a. and b. at all points that require immediate evacuation. (7-1-97)

r. In addition to the initial startup and operating tests, periodic scheduled performance tests and status checks shall be made to insure that the system is at all times operating within design limits and capable of the required response. Specific periodic tests or check or both shall include: (7-1-97)

  i. Adequacy of signal activation device; (7-1-97)

  ii. All power sources; (7-1-97)

  iii. Function of all alarm circuits and trouble indicator circuits including trip levels; (7-1-97)

  iv. Air pressure (if used); (7-1-97)

  v. Function of entire system including operation without power where required; (7-1-97)
vi. Complete operational tests including sounding of the signal and determination that sound levels are adequate. (7-1-97)

s. Periodic tests shall be scheduled on the basis of need, experience difficulty and disruption of operations. The entire system should be operationally tested at least quarterly. (7-1-97)

t. All employees whose work may necessitate their presence in an area covered by the signal shall be made familiar with the actual sound of the signal - preferably as it sounds at their work location. Before placing the system into operation, all employees normally working in the area shall be made acquainted with the signal by actual demonstration at their work location. (7-1-97)

11. Posting of these Standard and Operating Procedures. (7-1-97)

a. Employers regulated by the Nuclear Regulatory Commission shall be governed by 10 CFR Part 20 Standards. Employers in the State of Idaho shall be governed by the requirements of the laws and regulations of the State. (7-1-97)

b. All individuals working in or frequenting any portion of a radiation area shall be informed of the occurrence of radioactive materials or of radiation in such portions of the radiation area; (7-1-97)

i. Shall be instructed in the safety problems associated with exposure to such materials or radiation, and in precautions or devices to minimize exposure; (7-1-97)

ii. Shall be instructed in the applicable provisions of this section for the protection of employees from exposure to radiation or radioactive materials; (7-1-97)

iii. And shall be advised of reports of radiation exposure which employees may request pursuant to the regulations of this section. (7-1-97)

c. Each employer to whom this section applies shall post a current copy of its provisions and a copy of the operating procedures applicable to the work conspicuously in such locations as to insure that employees working in or frequenting radiation areas will observe these documents on the way to and from their place of employment, or shall keep such documents available for examination of employees upon request. (7-1-97)

12. Storage of Radioactive Materials: (7-1-97)

a. Radioactive materials stored in a non-radiation area shall be secured against unauthorized removal from the place of storage. (7-1-97)

13. Waste Disposal: (7-1-97)

a. No employer shall dispose of radioactive material except by transfer to an authorized recipient, or in a manner approved by the Nuclear Regulatory Commission and the State of Idaho. (7-1-97)
14. Notification of Incidents: (7-1-97)

a. Each employer shall immediately notify the Idaho Industrial Commission or their duly authorized representative, (for employees not protected by the Atomic Energy Commission by means of 10 CFR Part 20 or sub-section 180.16.a. of this section) by telegraph, or other expeditious means of any incident involving radiation which may have caused or threatens to cause: (7-1-97)

i. Exposure of the whole body of any individual to twenty-five (25) REMs or more of radiation; (7-1-97)

ii. Exposure of the skin of the whole body of any individual to one-hundred-fifty (150) REMs or more of radiation; (7-1-97)

iii. Exposure of the feet, ankles, hands, or forearms of any individual to three-hundred-seventy-five (375) REMs or more of radiation; (7-1-97)

iv. The release of radioactive material in concentrations which, if averaged over a period of twenty-four (24) hours, would exceed five-thousand (5,000) times the limit specified for such materials in Table II of appendix B to 10 CFR Part 20. (7-1-97)

b. Twenty-Four (24) Hour Notification. Each employer shall, within twenty-four (24) hours following its occurrence, notify the Idaho Industrial Commission or its duly authorized representative for employees not protected by the Atomic Energy Commission by means of 10 CFR Part 2, section 180.16, or the requirements of the laws and applicable regulations of the State of Idaho as required by sub-section 180.16 of this section, by telephone, telegraph, or other expeditious means of any incident involving radiation which may have caused or threatens to cause: (7-1-97)

i. Exposure of the whole body of any individual to five (5) REMs or more of radiation; (7-1-97)

ii. Exposure of the skin of the whole body of any individual to thirty (30) REMs or more of radiation; (7-1-97)

iii. Exposure of the feet, ankles, hands, or forearms to seventy-five (75) REMs or more of radiation. (7-1-97)

15. Reports of Overexposure, Excessive Levels, and Concentrations: (7-1-97)

a. In addition to any notification required by sub-section 180.14 of this section each employer shall make a report in writing within thirty (30) days to the Assistant Secretary of Labor or his duly authorized representative, for employees not protected by the Nuclear Regulatory Commission by means of 10 CFR Part 20; or under Subsection 180.16.b. of this section, or the requirements of the laws and regulations of the State of Idaho, of each exposure of an individual to radiation or concentrations of radioactive material in excess of any applicable limit in this section. Each report required under this subsection shall describe the extent of exposure of
persons to radiation or to radioactive material; levels of radiation and concentration of radioactive material involved, the cause of the exposure, levels of concentrations; and corrective steps taken or planned to assure against a recurrence. (7-1-97)

b. In any case where an employer is required pursuant to the provisions of this subsection to report to the U. S. Department of Labor any exposure of an individual to radiation or to concentrations of radioactive material, the employer shall also notify such individual of the nature and extent of exposure. Such notice shall be in writing and shall contain the following statement: "You should preserve this report for future reference." (7-1-97)

16. Records: (7-1-97)

a. Every employer shall maintain records of the radiation exposure of all employees for whom personnel monitoring is required under sub-section 180.04 of this section and advise each of his employees of his individual exposure on at least an annual basis. (7-1-97)

b. Every employer shall maintain records in the same units used in tables in sub-section 180.04 of this section and Appendix B to 10 CFR Part 20. (7-1-97)

17. Disclosure to Former Employee of Individual Employee’s Record: (7-1-97)

a. At the request of a former employee an employer shall furnish to the employee a report of the employee's exposure to radiation as shown in records maintained by the employer pursuant to sub-section 180.14 of this section. Such report shall be furnished within thirty (30) days from the time the request is made, and shall cover each calendar quarter of the individual's employment involving exposure to radiation or such lesser period as may be requested by the employee. The report shall also include the results of any calculations and analysis of radioactive material deposited in the body of the employee. The report shall be in writing and contain the following statement: "You should preserve this report for future reference." (7-1-97)

18. Nuclear Regulatory Commission DOE contractors operating DOE plants and facilities -- DOE agreement, state licenses, or registrants: (7-1-97)

a. Any employer who possesses or uses source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of 1954, as amended, under a license issued by the Nuclear Regulatory Commission and in accordance with the requirements of 10 CFR Part 20 shall be deemed to be in compliance with the requirements of this section with respect to such possession and use. (7-1-97)

b. Any employer who possesses or uses source material, byproduct material, special nuclear material, or other radiation sources under a contract with the Department of Energy for the operation of DOE plants and facilities and in accordance with the standards, procedures and other requirements for radiation protection established by the Commission for such contract pursuant to the Atomic Energy Act of 1954 as amended (42 U.S.C. 2011 et seq.) shall be deemed to be in compliance with the requirements of this section with respect to such possession and use. (7-1-97)
c. Any employer who possesses or uses source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), and has either registered such sources with or is operating under a license issued by a State, and in accordance with the requirements of the State's laws and regulations, shall be deemed to be in compliance with the radiation requirements of this section, insofar as his possession and use of such material is concerned. (7-1-97)

d. Other sources. Any employer who possesses or uses radiation sources other than source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), and has either registered such sources with or is operating under a license issued by a State, and in accordance with the requirements of that State's laws and regulations shall be deemed to be in compliance with the radiation requirements of this section, insofar as his possession and use of such material is concerned. (7-1-97)