Jeb Bush Governor



John O. Agwunobi, M.D., M.B.A Secretary

December 2001

Bureau of Radiation Control RADIOACTIVE MATERIALS SECTION Information Notice 2001-06

Revision 5 Filing Instructions: Changes to Chapter 64E-5, Florida Administrative Code (F.A.C.)

Changes were made to "Control of Radiation Hazard Regulations," Chapter 64E-5, F.A.C., which became effective December 19, 2001. **These changes are indicated as Revision 5 or (R5) in the margin.** Enclosed are copies of the pages to be inserted. This update is printed on **purple** paper.

These instructions apply to the complete version (brown cover) of Chapter 64E-5, F.A.C. Be sure that Revisions 1, 2, 3, and 4 changes have been made before making these changes. This can be verified by checking page ii of the index.

PART	PAGES TO BE REMOVED	PAGES TO BE INSERTED
	Page Number	Page Number
Index	i through xii	i through xii
l General Provisions	Part I Index I-1 through I-6 I-15 through I-16 I-21 through I-22	Part I Index I-1 through I-6 I-15 through I-16 I-21 through I-22
II Licensing of Radioactive Materials	Part II Index II-60a through II-60b II-61 through II-64 	Part II Index II-60a through II-60b II-61 through II-64 II-78a through II-78d
IX Notices, Instructions and Reports to Workers; Inspections	Part IX Index IX-1 through IX-2	Part IX Index IX-1 through IX-2
Attachment Notice to Employees Form DH-1081 Edition 05/1997	Notice to Employees Form DH-1081 Edition 05/1997	Notice to Employees 3/01

Below is a brief summary of the substantive changes. This list only identifies substantive changes. Please refer to the actual text for details.

Part I: Definitions for "critical group," "distinguishable from background," "residual radioactivity" were added.

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- Part II: The requirements to terminate a license are listed. These requirements are based on the radiation dose an individual may receive in a year's time. These changes impact all licensees that leave a site contaminated with radioactive materials. *Be advised that these requirements are in addition to any requirements the U.S. Environmental Protection Agency (EPA) requires. Currently the EPA requires stricter limits.*
- Part IX: Replaces the "Notice to Employees" document. **This document is required to be posted in conspicuous places for workers to observe going to or from work.** We will allow a grace period until December 31, 2002 or until your next radioactive materials license inspection, whichever comes first, to post this document. Failure to post this document will be a violation of the regulations. Be sure to fill in the required information and make photocopies to post in conspicuous places.

Posting of the "Notice to Employees" document is required. No written response or confirmation of posting this document is required. If you have any questions or need additional information, please call the Radioactive Materials Section at (850) 245-4545.

RULES OF THE STATE OF FLORIDA DEPARTMENT OF HEALTH CHAPTER 64E-5 CONTROL OF RADIATION HAZARD REGULATIONS

This copy of these regulations may not contain certain parts applicable to a particular section. Contact the applicable Bureau of Radiation Control Section or the Bureau of Environmental Toxicology – Radon and Indoor Air Quality Section for a copy of parts not herein contained.

PARTS I, III, IV, V, VII, VIII, IX and Attachments

Department of Health Bureau of Radiation Control Radiation Machine Section P.O. Box 210 Jacksonville, FL 32231 Telephone: (904) 359-6363 Fax: (904) 359-6362

PARTS I, II, III, IV, VI, IX, X, XI, XIII, XIV, XV and Attachments

Department of Health Bureau of Radiation Control Radioactive Materials Section Bin #C21 4052 Bald Cypress Way Tallahassee, FL 32399-1741 Telephone: (850) 245-4545 Fax: (850) 921-6364

PARTS X and XII

Department of Health Bureau of Facilities Program Radon and Indoor Air Quality Section Bin #C22 4052 Bald Cypress Way Tallahassee, FL 32399-1742 Telephone: (850) 245-4277 Fax: (850) 487-0864

This is an "unofficial" copy that has been re-formatted for ease of use and to provide attachments. Electronic versions of these regulations are posted on the Bureau's website: <u>http://www.doh.state.fl.us/environment/radiation</u>. Chapter 64E-5 and all other Florida Administrative Codes are available at http://fac.dos.state.fl.us/.

	Chronology of Rule Revisions		
Revision	Effective Date	Sections Affected	
R1	May 18, 1998	64E-5.101, 64E-5.204, 64E-5.213, 64E-5.214, 64E-5.319, 64E-5.332, 64E-5.333, 64E-5.334, 64E-5.347, 64E-5.402, 64E-5.422, 64E-5.502, 64E-5.504, 64E-5.510, 64E-5.617, 64E-5.902, 64E-5.1513, Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifest, July 1997.	
R2	October 8, 2000	64E-5.101, 64E-5.201, 64E-5.203, 64E-5.204, 64E-5.214, 64E-5.216, 64E-5.301, 64E-5.303, 64E-5.304, 64E-5.309, 64E-5.311, 64E-5.312, 64E-5.314, 64E-5.315, 64E-5.323, 64E-5.326, 64E-5.334, 64E-5.339, 64E-5.344, 64E-5.345, 64E-5.414, 64E-5.420, 64E-5.422, 64E-5.505, 64E-5.622, 64E-5.625, 64E-5.643, 64E-5.645, 64E-5.1103, 64E-5.1112, 64E-5.1310, 64E-5.1406, 64E-5.1418, 64E-5.1502, 64E-5.1513 Radioactive Material Requiring Labeling, May 2000	
R3	August 6, 2001	64E-5.101, 64E-5.201, 64E-5.603, 64E-5.606. 64E-5.626, 64E-5.627, 64E-5.630	
R4	September 11, 2001	64E-5.401 - 64E-5.422 repealed and replaced with sections 64E-5.423, 64E-5.424, 64E-5.425, 64E-5.426, 64E-5.427, 64E-5.428, 64E-5.429, 64E-5.430, 64E-5.431, 64E-5.432, 64E-5.433, 64E-5.434, 64E-5.435, 64E-5.436, 64E-5.437, 64E-5.438, 64E-5.439, 64E-5.440, 64E-5.441	
R5	December 19, 2001	64E-5.101, 64E-5.214, 64E-5.221, 64E-5.222, 64E-5.223, 64E-5.224, 64E-5.225, 64E-5.226, 64E-5.901, Notice to Employees 3/01	

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PARTI

GENERAL PROVISIONS

64E-5.101 Definitions. As used in these rules, these terms have the definitions set forth below. Additional definitions used only in a certain part are defined in that respective part.

- (1) "A₁" means the maximum activity of special form radioactive material permitted in a Type A package.
- (2) "A₂" means the maximum activity of radioactive material, other than special form or low specific activity radioactive material, permitted in a Type A package.
- (3) "Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. The units of absorbed dose are the gray (Gy) and the rad.
- (4) "Accelerator-produced material" means any material made radioactive by a particle accelerator.
- (5) "Act" means the Florida Radiation Protection Act, Chapter 404, Florida Statutes.
- (6) "Activity" means the rate of disintegration or transformation or decay of radioactive material. The units of activity are the becquerel (Bq) and the curie (Ci).
- (7) "Address of use" means the building or buildings that are identified on the license and where radioactive material may be received, used, or stored.
- (8) "Adult" means an individual 18 or more years of age.
- (9) "Airborne radioactive material" means any radioactive material dispersed in the air in the form of dusts, fumes, particulates, mists, vapors or gases.
- (10) "Airborne radioactivity area" means a room, enclosure or operating area in which airborne radioactive materials exist in concentrations:
 - (a) In excess of the derived air concentrations (DACs) specified in State of Florida Bureau of Radiation Control ALIs, DACs, and Effluent Concentrations, July 1993, which is herein incorporated by reference and which is available from the department, or
 - (b) To such a degree that an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6 percent of the annual limit on intake (ALI) or 12 DAC-hours.

- (11) "ALARA" means as low as reasonably acheivable making every reasonable effort to maintain exposures to radiation as far below the dose limits in these rules as practical, consistent with the purpose for which the licensed or registered 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 benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to use of nuclear energy and licensed or registered sources of radiation in the public interest.
- (12) "Analytical x-ray equipment" means equipment used for x-ray diffraction or fluorescence analysis.
- (13) "Analytical x-ray system" means a group of components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials.
- (14) "Annual limit on intake" (ALI) means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by Reference Man that would result in a committed effective dose equivalent of 5 rem (0.05 sievert) or a committed dose equivalent of 50 rem (0.5 sievert) to any individual organ or tissue. ALI values for intake by ingestion and by inhalation of selected radionuclides are given in State of Florida Bureau of Radiation Control ALIs, DACs, and Effluent Concentrations, July 1993, Table I, Columns 1 and 2.
- (15) "Area of use" means a portion of a physical structure that has been set aside to receive, use, or store radioactive material.
- (177) "Authorized nuclear pharmacist" means a pharmacist who is actively licensed as a nuclear pharmacist by the Board of Pharmacy as specified in Rule 64B16-28.903, F.A.C., and is authorized on a radioactive materials license by the department.

R3

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- (16) "Authorized user" means a physician, dentist or podiatrist who is identified as an authorized user on a department, U.S. Nuclear Regulatory Commission, agreement state, or licensing state license that authorizes the medical use of radioactive material.
- (17) "Background radiation" means radiation from cosmic sources; naturally occurring radioactive materials, including radon, except as a decay product of source or special nuclear material, and including global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation. Background radiation does not include sources of radiation from radioactive materials regulated by the department.
- R4(18) "Baggage x-ray system" means a cabinet x-ray system with a maximum energy lessR4than 120 kVp that produces only fluoroscopic images and that is used for packagesR4or carry-on baggage.
- R4 (19) "Becquerel" (Bq) means the SI unit of activity. One becquerel is equal to 1 disintegration or transformation per second (s^{-1}).

- R4 (20) "Bioassay" means the determination of kinds, quantities or concentrations, and in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.
- R4 (21) "Brachytherapy" means a method of radiation therapy in which sealed sources are used to deliver a radiation dose by surface, intracavitary, or interstitial application.
- R4 (22) "Byproduct material" means:
 - (a) Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and
 - (b) The tailings or wastes produced by the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface waste resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute byproduct material within this definition.
- (<mark>23</mark>) R4 "Cabinet x-ray system" means an x-ray system with the x-ray tube installed in an R4 enclosure or cabinet that, independently of existing architectural structures except R4 the floor on which it is placed, is intended to contain at least the portion of the material being irradiated, to provide radiation attenuation, and to exclude persons R4 R4 from its interior during generation of x-radiation. An x-ray tube used within a R4 shielded part of a building or x-ray equipment that temporarily or occasionally incorporates portable shielding is not considered a cabinet x-ray system. R4 R4
 - (24) "Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin on January 1 and subsequent calendar quarters shall be arranged so that no day is included in more than 1 calendar quarter, no calendar quarter, or part thereof, is included in more than 1 calendar year, and no day in any 1 year is omitted from inclusion within a calendar quarter. No licensee or registrant shall change the method observed by him to determine calendar quarters for purposes of these rules except at the beginning of a calendar year.
- R4 (25) "Calibration" means:

R4

- (a) The determination of the response or reading of an instrument relative to a series of known radiation values over the range of the instrument; or
- (b) The determination of the strength of a source of radiation relative to a standard.

R4	(<mark>26</mark>)	"Carrier" means a person engaged in the transportation of passengers or property by land or water as a common, contract, or private carrier or by civil aircraft.
R4	(<mark>27</mark>)	"Class" means a classification scheme for inhaled material according to its rate of clearance from the pulmonary region of the lung. Materials are classified as D, W, or Y, which applies to a range of clearance half-times: for Class D, Days, of less than 10 days, for Class W, Weeks, from 10 to 100 days, and for Class Y, Years, of greater than 100 days. For purposes of these rules, "lung class" and "inhalation class" are equivalent terms.
R4	(<mark>28</mark>)	"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.
R4	(<mark>29</mark>)	"Committed dose equivalent" $(H_{T,50})$ means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.
R4	(30)	"Committed effective dose equivalent" ($H_{E,50}$) is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues ($H_{E,50} = SW_TH_{T,50}$).
R4 R2	(<mark>31)</mark>	"Constraint" or "dose constraint" means a value above which specified licensee actions are required.
R5 R5	<mark>(178)</mark>	"Critical Group" means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.
R4	<mark>(32)</mark>	"Curie" means a unit of quantity of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 3.7×10^{10} transformations per second (tps).
R4 R2 R2	<mark>(33)</mark>	"Declared pregnant woman" means a woman who has voluntarily informed her employer in writing of her pregnancy and the estimated date of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing or is no longer pregnant.
R4	<mark>(34)</mark>	"Dedicated check source" means a radioactive source that is used to assure the consistent operation of a radiation detection or measurement device over several months or years. This source may also be used for other purposes.
R4	<mark>(35)</mark>	"Deep dose equivalent" (H_d), which applies to external whole body exposure, means the dose equivalent at a tissue depth of 1 centimeter (1,000 mg/cm ²).
R4 R5 R5	<mark>(36)</mark>	"Decommission" means to remove a facility safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of license or release of the property under restricted conditions and the termination of the license.
R4	<mark>(37)</mark>	"Depleted uranium" means the source material uranium in which the isotope uranium 235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

- R4 (38) "Derived air concentration" (DAC) means the concentration of a given radionuclide in air which, if breathed by Reference Man for a working year of 2,000 hours under conditions of light work, results in an intake of one ALI. For purposes of these rules, the condition of light work is an inhalation rate of 1.2 cubic meters of air per hour for 2,000 hours in a year. DAC values are given in State of Florida Bureau of Radiation Control ALIs, DACs, and Effluent Concentrations, July 1993, Table I, Column 3.
 R4 (39) "Derived air concentration-hour" (DAC-hour) means the product of the concentration of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for any state of an analysis.
 - of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for each radionuclide, and the time of exposure to that radionuclide, in hours. A licensee can take 2,000 DAC-hours to represent one ALI, equivalent to a committed effective dose equivalent of 5 rem (0.05 sievert).
- R4 (40) "Diagnostic clinical procedures manual" means a collection of written procedures that describes each method and other instructions and precautions by which the licensee shall perform diagnostic clinical procedures. Each diagnostic clinical procedure shall be approved by the authorized user and shall include the radiopharmaceutical, dosage, and route of administration.
- R5 (179) "Distinguishable from background" means that the detectable concentration of a
 R5 radionuclide is statistically different from the background concentrations of that
 R5 radionuclide in the vicinity of the site or, in the case of structures, in similar materials
 R5 using adequate measurement technology, survey, and statistical techniques.
- R4 (41) "Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, or total effective dose equivalent. For the purposes of these rules, "radiation dose " is an equivalent term.
- R4 (42) "Dose equivalent" (H_T) means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.
- R4 (43) "Dose limits" means the permissible upper bounds of radiation doses established as specified in these rules. For the purpose of these rules, "limits" is an equivalent term.
- R4 (44) "Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices to determine the radiation dose delivered to the monitoring devices.
- R4 (45) "Effective dose equivalent" (H_E) means the sum of the products of the dose equivalent to each organ or tissue (H_T) and the weighting factor (W_T) applicable to each of the body organs or tissues that are irradiated ($H_E = SW_TH_T$).
- R4 (46) "Embryo" or "fetus" means the developing human organism from conception until birth.

- R4 (47) "Entrance or access point" means any opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed or registered radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.
- R4 (48) "Exposure", when used as a noun, means the quotient of dQ by dm, where "dQ" is the absolute value of the total charge of the ions of 1 sign produced in air when all the electrons, negatrons and positrons, liberated by photons in a volume element of air having mass "dm" are completely stopped in air. "Exposure", when used as a verb, means being exposed to ionizing radiation or to radioactive material. The special unit of exposure is the roentgen (R). See 64E-5.106 for the SI equivalent.
- R4 (49) "Exposure rate" means the exposure per unit of time, such as roentgen per minute and milliroentgen per hour.
- R4 (50) "External dose" means that portion of the dose equivalent received from any source of radiation outside the body.
- R4 (51) "Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.
- R4 (52) "Eye dose equivalent" means the external dose equivalent to the lens of the eye at a tissue depth of 0.3 centimeter (300 mg/cm²).
- R4 (53) "Fail-safe characteristics" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.
- R4 (54) "Field station" means a temporary or portable facility where radioactive sources may be stored or used and from which equipment is dispatched to temporary job sites.
- R4 (55) "Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.
- R4 (56) "Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency (EPA) under the authority of the Atomic Energy Act of 1954, as amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material.

- R4 (117) "Radiation Safety Officer or RSO" means a person who has the knowledge and responsibility to apply appropriate radiation protection rules. R4 (118) "Radioactive marker" means radioactive material placed subsurface or on a structure intended for subsurface use for the purpose of depth determination or direction orientation. R4 (119) "Radioactivity" means the transformation of unstable atomic nuclei by the emission of radiation. R4 (120) "Radiographer" means any individual who has completed successfully the training and testing requirements specified in Rule 64E-5.434(2), F.A.C., performs or R4 personally supervises radiographic operations and is responsible to the licensee or registrant for assuring compliance with the requirements of these rules and all license or certificate of registration conditions. R4 (121) "Radiographer's assistant or assistant radiographer" means any individual who has R4 completed successfully the training and testing requirements specified in Rule 64E-R4 5.434(1), F.A.C., and who, under the personal supervision of a radiographer, R4 conducts radiographic operations. R4 (122) "Radiographic exposure device" means any instrument containing a sealed source R4 that is used to make a radiographic exposure. It also is known as a camera or a R4 projector. R4 (123) "Recordable event" means the administration of: (a) A radiopharmaceutical or radiation without a written directive where a written directive is required; (b) A radiopharmaceutical or radiation where a written directive is required without daily recording of each administered radiopharmaceutical dosage or radiation dose in the appropriate record; lodine 123, iodine 125 or iodine 131 as sodium iodide in quantities greater (C) than 30 microcuries (1.11 megabecquerels) when: 1. The administered dosage differs from the prescribed dosage by more than 10 percent of the prescribed dosage; and 2. The difference between the administered dosage and the prescribed dosage exceeds 15 microcuries. (d) A therapeutic administration of a radiopharmaceutical other than iodine 123, iodine 125 or iodine 131 as sodium iodide, when the administered dosage differs from the prescribed dosage by more than 10 percent from the prescribed dosage; A brachytherapy radiation dose when the calculated administered dose (e)
 - differs from the prescribed dose by more than 10 percent of the prescribed dose dose; or

		64E-5	Florida Administrative Code	64E-5.101	
		(f) A teleth dose w than th	herapy, particle accelerator or therape when the calculated weekly administer he weekly prescribed dose.	utic x-ray machine radiation ed dose is 15 percent greater	
R4	<mark>(124)</mark>	"Reference M physiological characteristics standardize re A description Radiological F Reference Ma	Ian" means a hypothetical aggregation characteristics determined by internati s can be used by researchers and pub esults of experiments and to relate biol of Reference Man is contained in the I Protection report, ICRP Publication 23 an."	of human physical and onal consensus. These lic health workers to ogical insult to a common base. nternational Commission on , "Report of the Task Group on	
R4	<mark>(125)</mark>	"Registrant" m obliged to regi	neans any person who is registered wi jister with the department pursuant to t	th the department and is legally hese rules and the Act.	
R4	<mark>(126)</mark>	"Regulations of CFR, Parts 10	of the U.S. Department of Transportati 00-189.	on" means the regulations in 49	
R4	<mark>(127)</mark>	"Rem" means The dose equ quality factor ("Rem" means the special unit of any of the quantities expressed as dose equivalent. The dose equivalent in rem is equal to the absorbed dose in rad multiplied by the quality factor (1 rem = 0.01 sievert).		
R4	<mark>(128)</mark>	"Research an	nd development" means:		
		(a) Theore	etical analysis, exploration or experime	ntation; or	
		(b) The ex technic purpos devices does n radioad	Atension of investigative findings and the cal nature into practical application for ses, including the experimental product as, equipment, materials and processes not include the internal or external admi- ctive material to human beings.	neories of a scientific or experimental and demonstration tion and testing of models, s. Research and development inistration of radiation or	
R4	<mark>(129)</mark>	"Respiratory p to reduce an i	protective equipment" means an appai individual's intake of airborne radioacti	ratus, such as a respirator, used ve materials.	
R5 R5 R5 R5 R5 R5 R5	<mark>(180)</mark>	"Residual radi groundwater, control. This i the licensee b material as a site and previo specified in Pa	lioactivity" means radioactivity in struct and other media at a site resulting from includes radioactivity from all licensed out excludes background radiation. It a result of routine or accidental releases ous burials at the site even if those bur art III of this Chapter.	ures, materials, soils, n activities under the licensee's and unlicensed sources used by also includes radioactive of radioactive material at the rial sites were made as	
R4	<mark>(130)</mark>	"Restricted ar registrant to p radiation. A re separate room	rea" means an area, access to which is protect individuals against undue risks f restricted area does not include areas ms in a residential building can be set	s limited by the licensee or from exposure to sources of used as residential quarters, but apart as a restricted area.	
R4	<mark>(131)</mark>	"Roentgen" m 2.58 x 10 ⁻⁴ co	neans the special unit of exposure. On pulombs per kilogram of air.	e roentgen (R) equals	

- R4 (166) "Well-bore" means a drilled hole in which wireline service operations and subsurface tracer studies are performed
- R4 (167) "Well-logging" means the lowering and raising of measuring devices or tools which may contain sources of radiation into well-bores or cavities for the purpose of obtaining information about the well or adjacent formations.
- R4 (168) "Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knee.
- R4 (169) "Wireline" means a cable containing one or more electrical conductors which is used to lower and raise logging tools in the well-bore.
- R4 (170) "Wireline service operation" means any evaluation or mechanical service which is performed in the well-bore using devices on a wireline.
- R4 (171) "Worker" means an individual engaged in work in a restricted area under the authority of a license or registration issued by the department.
- R4 (172) "Working level" (WL) means any combination of short-lived radon daughters in 1 liter of air that will result in the ultimate emission of 1.3 x 10⁵ MeV of potential alpha particle energy. The short-lived radon daughters are:
 - (a) For radon 222: polonium 218, lead 214, bismuth 214, and polonium 214;
 - (b) For radon 220: polonium 216, lead 212, bismuth 212, and polonium 212.
- R4 (173) "Working level month" (WLM) means an exposure to 1 working level for 170 hours. Two thousand working hours per year divided by 12 months per year is approximately equal to 170 hours per month.
- R4 (174) "Written directive" means a written order for a specific patient, dated and signed by an authorized user prior to the administration of a radiopharmaceutical or radiation, which shall contain the following information:
 - (a) For a therapeutic administration of a radiopharmaceutical other than iodine 123, iodine 125 or iodine 131 as sodium iodide, the radiopharmaceutical, dosage, and route of administration;
 - (b) For any administration of iodine 123, iodine 125 or iodine 131 as sodium iodide in quantities greater than 30 microcuries (1.11 megabecquerels), the dosage;
 - (c) For gamma stereotactic radiosurgery, target coordinates, collimator size, plug pattern, and total dose;
 - (d) For teletherapy, particle accelerator or therapeutic x-ray machine, the total dose, dose per fraction, treatment site, and overall treatment period;

- (e) For high dose rate remote afterloading brachytherapy, the radioisotope, treatment site, and total dose; and
- (f) For all other brachytherapy,
 - 1. Prior to implantation, the radioisotope, number of sources, and source strengths; and
 - 2. After implantation but prior to completion of the procedure, the radioisotope, treatment site, total source strength and exposure time or total dose.
- R4 (175) "Year" means the period of time beginning in January used to determine compliance with the provisions of these rules. The licensee or registrant can change the starting date of the year used to determine compliance by the licensee or registrant if the change is made at the beginning of the year and if no day is omitted or duplicated in consecutive years.
 - R1 Editor's Note: Definitions have been alphabetized effective, May 15, 1996. (Principal activity (176)
 - R2 added alphabetically May 18, 1998. Authorized Nuclear Pharmacist (177) added August 8, 2001
 - R5 (178) Critical Group, (179) Distinguishable from background, (180) Residual radioactivity added
- R5 alphabetically December 19, 2001.) Specific Authority: 404.051, 404.061, F.S. Law Implemented: 404.031, 404.061(2), 404.20, 404.22, 404.30, F.S. History: New July 17, 1985, Amended April 4, 1989, Amended May 12, 1993, Amended January 1, 1994,
 R2 Amended May 15, 1996, Formerly 10D-91.102, Amended May 18, 1998, Amended October 8, 2000.,
 R3,R4,R5 Amended August 6, 2001, Amended September 11, 2001, December 19, 2001.

64E-5.102 Exemptions.

- (1) The department may, upon application therefor or upon its own initiative, grant such exemptions or exceptions from the requirements of these regulations as it determines are authorized by law and will not result in undue hazard to public health and safety or property or the environment.
- (2) Any U.S. Department of Energy contractor or subcontractor and any U.S. Nuclear Regulatory Commission contractor or subcontractor of the following categories operating within this state is exempt from these regulations to the extent that such contractor or subcontractor under his contract receives, possesses, uses, transfers, transports or acquires sources of radiation:
 - (a) Prime contractors performing work for the U.S. Department of Energy at U.S. Government-owned or -controlled sites, including the transportation of sources of radiation to or from such sites and the performance of contract services during temporary interruptions of such transportation;
 - (b) Prime contractors of the U.S. Department of Energy performing research in, or development, manufacture, storage, testing, or transportation of, atomic weapons or components thereof;
 - (c) Prime contractors of the U.S. Department of Energy using or operating nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel; and

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SUBPART G RADIOLOGICAL CRITERIA FOR LICENSE TERMINATION

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	1.	Terminate the use of radioactive material;			
R5	2. Remove <mark>residual</mark> department;			dual radioactivity to the extent acceptable to the	
	3.	Prope	rly disp	ose of the radioactive material;	
	4.	Submi incorp	it a prop orated	perly completed DH Form 1059, which is herein by reference effective July 17, 1985; and	
R5 R5	5.	Submi materi license other r	it a radi ials or t ee dem manner	ation survey report to confirm the absence of radioactive o establish the levels of residual <mark>radioactivity</mark> , unless the onstrates the absence of residual <mark>radioactivity</mark> in some . The licensee shall, as appropriate:	
		a.	For ga micror surfac	mma radiation, report levels of radiation in units of coentgens per hour at 10 centimeters and at 1 meter from es.	
		b.	For alp units c 100 sc microc contar	oha and beta radiation, report levels of radioactivity in of transformations per minute or microcuries per quare centimeters removable and fixed on surfaces, curies per milliliter in water, and picocuries per gram in minated solids such as soils or concrete; and	
		C.	Specif proper	y the instruments used and certify that each instrument is ly calibrated or tested.	
R5	(b)	 If no residual radioactivity attributable to activities conducted under the license is detected, the licensee shall submit a 			
R5			certification that no detectable residual radioactivity was found. The department will notify the licensee, in writing, of the termination of the license.		
R5		2.	Specif by writ detern	ic licenses including expired licenses will be terminated ten notice to the licensee when the department nines that:	
			a.	Radioactive material has been properly disposed; and	
R5 R5 R5			b.	A radiation survey has been performed which demonstrates that the premises are suitable for release for unrestricted use or satisfies the requirements specified in Rules 64E-5.221, 64E-5.222, 64E-5.223, or 64E-5.224, F.A.C.; or	
R5 R5 R5			C.	Other information submitted by the licensee is sufficient to demonstrate that the premises are suitable for release for unrestricted use or satisfies the requirements specified in Rules 64E-5.221, 64E-5.222, 64E-5.223, or 64E-5.224, F.A.C.	

R2 R2	<mark>d. D</mark> re	Pepartment has received the following records, if equested:
R2 R2 R2	<mark>(</mark> [) Disposal records specified in Rules 64E-5.330, 64E-5.331(1)(a)(c), (2), (3), or 64E-5.336(2)(d), F.A.C.; and
R2	<mark>(II</mark>	I) Records specified in Rule 64E-5.214(6), F.A.C.

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- R5 (c) 1. If detectable levels of residual radioactivity attributable to activities R1 conducted under the license are found or licensee possesses other R1 radioactive materials, the license continues in effect beyond the expiration date, if necessary, with respect to possession of residual R5 radioactivity present or possession of radioactive material, until the department notifies the licensee in writing that the license is terminated. During this time, the licensee is subject to the provisions of (5), below.
 - 2. In addition to the information submitted under (4)(a)4. and 5., above, the licensee shall submit a plan for decommissioning if decommissioning procedures have not been approved previously by the department and could impact the health and safety of workers or the public as follows:
 - a. More than routine cleanup and maintenance is required;
 - b. Workers will be in areas with significantly increased surface contamination or radiation levels;
 - c. Procedures will result in significantly greater airborne concentrations of radioactive materials; or
 - d. Procedures will result in significantly greater releases of radioactive material to the environment.
 - 3. Procedures which could potentially impact health, safety and the environment may not be performed until the decommissioning plan has been approved.
 - 4. The proposed decommissioning plan must include:
 - a. A description of the planned decommissioning activities;
 - A description of the methods used to assure protection of workers and the environment against radiation hazards during decommissioning;
 - c. The time required to complete the decommissioning plan; and
 - d. A description of the planned final radiation survey.
 - 5. The proposed decommissioning plan will be reviewed by the department and approved or additional information will be requested within 60 days.

		6.	Upon approval of the decommissioning plan by the department, the licensee shall complete decommissioning in accordance with the approved plan. As a final step in decommissioning, the licensee shall again submit the information required in (4)(a)5., above, of this section and shall certify the disposition of accumulated wastes from decommissioning.
R5 R5 R5		7.	If the information submitted as specified in (4)(a)5. or (4)(c)6. of this section does not adequately demonstrate that the premises are suitable for release for unrestricted use or does not satisfy the requirements specified in Rules 64E-5.221, 64E-5.222, 64E-5.223, or 64E-5.224, F.A.C., the department will inform the licensee of the appropriate further actions required for termination of the license.
R1	(5)	Each licensee who possesses radioactive material under (4)(c), above, following the expiration date specified in the license shall:	
R1		(a) Limit deco prepa	actions involving radioactive material to those related to ntamination, decommissioning, and other activities related to aration for release for unrestricted use; and
		(b) Cont for u the li	inue to control entry to restricted areas until they are suitable for release nrestricted use and the department notifies the licensee, in writing, that cense is terminated.
	(6)	Each licensee shall keep records of the decommissioning of the facility in an identified location until the license is terminated by the department. If records of relevant information are kept for other purposes, reference to these records and their location can be used. Records which must be kept include:	
		(a) Reco conta	ords of spills or other unusual occurrences involving the spread of amination in and around the facility, equipment, or site. These records

- (a) Records of spills of other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records can be limited to instances when contamination remains after cleanup procedures or when contaminants may have spread to inaccessible areas such as possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations;
- (b) Drawings of structures as originally built, of modifications, and of equipment in restricted areas where radioactive materials are used or stored, and of locations of possible inaccessible contamination such as buried pipes which can be subject to contamination. Drawings and their location can be referenced if not on site. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.

(c)	Except for areas containing only radioactive materials having half-lives of
	less than 65 days or sealed sources that either have not leaked or no
	contamination remains after any leak, a list contained in a single document
	and updated every 2 years, of the following:

- 1. All areas designated and formerly designated restricted areas as defined in 64E-5.101;
- 2. All areas outside of restricted areas that require documentation under 64E-5.214(6)(a);
- 3. All areas outside of restricted areas where current and previous wastes have been buried as documented under 64E-5.340; and
- 4. All areas outside of restricted areas which contain material such that, if the license expired, the licensee would be required to either decontaminate the area to unrestricted release levels or satisfy the requirements specified in Rules 64E-5.221, 64E-5.222, 64E-5.223, or 64E-5.224, F.A.C.; and
- (d) Records of the cost estimate performed for the performance bond required in 64E-5.217 and records of the funding method used.
- (7) Confirmatory or closeout surveys will be performed by the department according to the Closeout Inspection and Survey Procedures, November 1991, which are herein incorporated by reference and which are available from the department.
- R1 Specific Authority: 404.051, 404.061, 404.081, 404.141, F.S.
- R1 Law Implemented: 404.051(1),(4),(9), 404.061(2), 404.081(1), 404.141, F.S.
- R1 History: New July 17, 1985, Amended May 12, 1993, Amended August 14, 1996, Formerly 10D-91.315,
- R2, R5 Amended May 18, 1998, Amended October 8, 2000, Amended December 19, 2001.

64E-5.215 Transfer of Material.

- (1) No licensee shall transfer radioactive material except as authorized pursuant to this section.
- (2) Except as otherwise provided in his license and subject to the provisions of (3) and
 (4), below, a licensee may transfer radioactive material:
 - (a) To the department after receiving approval from the department;
 - (b) To the U.S. Department of Energy;
 - (c) To any person exempt from these regulations to the extent permitted under such exemption;

R5 R5 R5

- (d) To any person authorized to receive such material under terms of a general license or its equivalent, or a specific license or equivalent licensing document, issued by the department, the U.S. Nuclear Regulatory Commission, an agreement state, a licensing state, or to any person otherwise authorized to receive such material by the Federal Government or any agency thereof, the department, an agreement state or a Licensing State.
- (3) Before transferring radioactive material to a specific licensee of the department, the U.S. Nuclear Regulatory Commission, an agreement state, a licensing state or to a general licensee who is required to register with the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state, prior to receipt of the radioactive material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form and quantity of radioactive material to be transferred.
- (4) Any of the following methods for the verification required by (3), above, are applicable:
 - (a) The transferor may possess and read a current copy of the transferee's specific or general license.
 - (b) The transferor may possess a written certification by the transferee that the transferee is authorized by license to receive the type, form and quantity of radioactive material to be transferred, specifying the license number, issuing agency and expiration date.
 - (c) For emergency shipments, the transferor may accept oral certification by the transferee that the transferee is authorized by license to receive the type, form and quantity of radioactive material to be transferred, specifying the license number, issuing agency, and expiration date; provided, that the oral certification is confirmed in writing within 10 days.
 - (d) The transferor may obtain other information compiled by a reporting service from official records of the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state regarding the identity of licensees and the scope and expiration dates of the licenses.
 - (e) When none of the methods of verification described in (4)(a) through (d), above, are readily available or when a transferor desires to verify that information received by one of such methods is correct or up-to-date, the transferor may obtain and record confirmation for the department, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state that the transferee is licensed to receive the radioactive material.

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SUBPART G RADIOLOGICAL CRITERIA FOR LICENSE TERMINATION

R5 Radiological criteria for license termination. The criteria in this subpart 64E-5.221 R5 apply to the decommissioning of facilities licensed under this chapter but do not apply to uranium R5 and thorium recovery facilities as specified in Rule 64E-5.211, F.A.C., or to sites which previously R5 have submitted and received department approval of a license termination plan or R5 decommissioning plan as specified in Rule 64E-5.214(2), F.A.C.

- R5 (1) After a site has been decommissioned and the license terminated in accordance R5 with the criteria in this subpart, the department will require additional cleanup only if R5 based on new information or if it determines that the criteria of this subpart were not R5 met and residual activity remaining at the site could result in significant threat to R5 public health and safety.
- R5 (2) When calculating total effective dose equivalent to the average member of the R5 critical group, the licensee shall determine the peak annual total effective dose R5 equivalent expected within the first 1,000 years after decommissioning.

Specific Authority: 404.051(4)(6)(9), 404.061(2), 404.081, F.S. R5

Law Implemented: 404.051(4)(6)(9), 404.061(2), 404.081, F.S. R5

R5 History: New December 19, 2001.

R5 64E-5.222 Radiological criteria for unrestricted use. A site is acceptable for R5 unrestricted use if the total effective dose equivalent to an average member of the critical group R5 from the residual radioactivity that is distinguishable from background radiation does not exceed R5 25 millirem (0.25 mSv) per year including radioactivity from groundwater sources of drinking water R5 and the residual radioactivity levels are as low as reasonably achievable. Determination of the R5 ALARA levels must take into account any detriments such as deaths from transportation accidents R5 potentially expected to result from decontamination and waste disposal. R5

Specific Authority: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.

Law Implemented: 404.051(4)(6)(9), 404.061(2), 404.081, F.S. R5

History: New December 19, 2001. R5

R5 64E-5.223 Criteria for license termination under restricted conditions. A site is R5 acceptable for license termination under restricted conditions if it meets the criteria below.

- R5 (1) The residual levels associated with restricted conditions are ALARA or the licensee R5 can demonstrate that further reductions in residual radioactivity to comply with the R5 provisions of Rule 64E-5.222, F.A.C., would result in an increase in public or R5 environmental harm. Determination of the ALARA levels must take into account any R5 detriments such as traffic accidents potentially expected to result from R5 decontamination and waste disposal.
- R5 The licensee has made provisions for legally enforceable institutional controls that (2) R5 provide reasonable assurance that the total effective dose equivalent from residual R5 radioactivity distinguishable from background to the average member of the critical R5 group will not exceed 25 millirem (0.25 mSv) per year.

R5	<mark>(3)</mark>	The licensee has provided sufficient financial assurance to enable an independent
R5		third party including a governmental custodian of a site to assume and carry out
R5		responsibilities for any necessary control and maintenance of the site. Acceptable
R5		financial assurance mechanisms are:
R5		(a) Funds sufficient to pay decommissioning costs placed into an account
R5		segregated from the licensee's assets and outside the licensee's
R5		administrative control before the start of decommissioning operations; or
R5		(b) A bond as specified in Rule 64E-5.217, F.A.C., or
R5		(c) An arrangement deemed acceptable by the governmental entity that is
R5		assuming custody and ownership of a site.
R5	<mark>(4)</mark>	The licensee has submitted a decommissioning or license termination plan as
R5		specified in Rule 64E-5.214(2), F.A.C., to the department indicating the licensee's
R5		intent to decommission in accordance with this part and specifying that the licensee
R5		intends to decommission by restricting use of the site. The licensee shall document
K5		in the license termination or decommissioning plan how the advice of individuals
K5		and institutions in the community who could be affected by the decommissioning
R5 R5		has been sought and incorporated, as appropriate, following analysis of that advice.
DE		
K5		(a) Licensees proposing to decommission by restricting use of the site shall
K5		seek advice from such affected parties regarding the following matters:
R5		1. Whether provisions for institutional controls proposed by the licensee:
R5		
R5		(I) Will provide reasonable assurance that the total effective dose
R5		equivalent from residual radioactivity distinguishable from
R5		background to the average member of the critical group will not
R5		exceed 25 millirem (0.25 mSv) per year;
R5		(II) Will be enforceable; and
R5		(III) Will not impose undue burdens on the local community or other
R5		affected parties.
R5		2. Whether the licensee has provided sufficient financial assurance to
R5		enable an independent third party including a governmental custodian
R5		of a site to assume and carry out responsibilities for any necessary
R5		control and maintenance of the site.

R5 R5		(b) In seeking advice on the issues identified in (a), above, the licensee shall provide for:
R5 R5 R5		 Participation by representatives of a broad cross section of community interests who could be affected by the decommissioning;
R5 R5		 An opportunity for a comprehensive, collective discussion on the issues by the participants represented; and
R5 R5 R5 R5		3. A publicly available summary of the results of all such discussions including a description of the individual viewpoints of the participants on the issues and the extent of agreement or disagreement among the participants on the issues.
R5 R5 R5 R5 R5	<mark>(5)</mark>	Residual radioactivity at the site has been reduced so that if the institutional controls were no longer in effect there is reasonable assurance that the total effective dose equivalent from residual radioactivity distinguishable from background to the average member of the critical group is as low as reasonably achievable and would not exceed 100 millirem (1 mSv) per year.
R5 R5 R5	Specific Authority: Law Implemented History: New <u>Dec</u>	404.051(4)(6)(9), 404.061(2), 404.081, F.S. : 404.051(4)(6)(9), 404.061(2), 404.081, F.S. ember 19, 2001.
R5 R5 R5	64E-5. license using and 64E-5.22	224 Alternate criteria for license termination. The department will terminate a alternate criteria greater than the dose criterion of Rules 64E-5.222, 64E-5.223(2), 3(4)(a)1.(I), F.A.C., if the licensee:
R5 R5 R5 R5 R5	<mark>(1)</mark>	Provides assurance that public health and safety would continue to be protected and that it is unlikely that the total effective dose equivalent from all combined man- made sources other than medical sources would be more than 100 millirem per year (1 millisievert per year) by submitting an analysis of possible sources of exposure;
R5 R5	<mark>(2)</mark>	Has employed restrictions to the extent practical on site use according to the provisions of Rule 64E-5.223, F.A.C., in minimizing exposures at the site;
R5 R5 R5	<mark>(3)</mark>	Reduces doses to ALARA levels considering any detriments such as traffic accidents potentially expected to result from decontamination and waste disposal; and
R5 R5 R5 R5 R5 R5 R5 R5	<mark>(4)</mark>	Has submitted a decommissioning or license termination plan to the department indicating the licensee's intent to decommission as specified in Rule 64E-5.214(2), F.A.C., and specifying that the licensee proposes to decommission by use of alternate criteria. The licensee shall document in the license termination or decommissioning plan how the advice of individuals and institutions in the community who could be affected by the decommissioning has been sought and addressed, as appropriate, following analysis of that advice. In seeking such advice, the licensee shall provide for:

R5	 Participation by representatives of a broad cross section of community
R5	interests who could be affected by the decommissioning;
R5	(b) An opportunity for a comprehensive, collective discussion on the issues by
R5	the participants represented; and
R5 R5 R5	(c) A publicly available summary of the results of all such discussions, including a description of the individual viewpoints of the participants on the issues and the extent of agreement and disagreement on the issues.
R5	(5) The use of alternate criteria to terminate a license requires the approval of the
R5	department after consideration of any comments provided by the U. S.
R5	Environmental Protection Agency and any public comments submitted as specified
R5	in Rule 64E-5.225, F.A.C.
R5	Specific Authority: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.
R5	Law Implemented: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.
R5	History: New <u>December 19, 2001.</u>
R5 R5 R5 R5	64E-5.225 Public notification and public participation. Upon the receipt of a license termination or decommissioning plan or a proposal for release of a site as specified in Rules 64E-5.223 or 64E-5.224, F.A.C., and the total effective dose equivalent will exceed 50 millirem (0.5 mSv), the department shall:
R5	(1) Notify and solicit comments from:
R5	(a) Local and other state governments in the vicinity of the site and any Indian
R5	Nation or other indigenous people that could be affected by the
R5	decommissioning; and
R5 R5	(b) The U. S. Environmental Protection Agency if the licensee proposes to release a site as specified in Rule 64E-5.224, F.A.C.
R5	(2) Publish a notice in the Florida Administrative Weekly to solicit comments from
R5	affected parties.
R5	Specific Authority: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.
R5	Law Implemented: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.
R5	History: New <u>December 19, 2001.</u>
R5 R5 R5 R5 R5 R5	64E-5.226 Minimizing contamination. After the effective date of this rule, applicants for licenses other than renewals shall describe in the application how facility design and procedures for operation will minimize contamination of the facility and the environment to the extent practical, facilitate eventual decommissioning, and minimize the generation of radioactive waste to the extent practical.
R5	Law Implemented: 404.051(4)(6)(9), 404.061(2), 404.081, F.S.

R5 History: New <u>December 19, 2001</u>.

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PART IX NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

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PART IX

NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

64E-5.901 Posting of Notices to Workers.

- (1) Each licensee or registrant shall post current copies of the following documents:
 - (a) The regulations in this part and in Part III;
 - (b) The license, conditions or documents incorporated into the license by reference and amendments thereto;
 - (c) The operating procedures applicable to activities under the license or registration;
 - Any notice of violation involving radiological working conditions, proposed imposition of administrative penalties, or order issued pursuant to Part I, and any response from the licensee or registrant;
 - (e) The certificate of registration; and
 - (f) The emergency procedures applicable to activities conducted under the license or registration.
- R5 (2) If posting of a document specified in paragraphs (a), (b), and (c) above is not physically practical, the licensee or registrant may post a notice which describes the document and states where it may be examined. The documents specified in paragraphs (d), (e) and (f) above must be posted in their entirety.
 - (3) "Notice to Employees 3/01", which is herein incorporated by reference and which is available from the department, shall be posted by each licensee or registrant as required by these regulations.
 - (4) Department documents posted pursuant to 64E-5.901(1)(d) shall be posted within 5 working days after receipt of the documents from the department; the licensee's or registrant's response, if any, shall be posted within 5 working days after dispatch from the licensee or registrant. Such documents shall remain posted for a minimum of 5 working days or until action correcting the violation has been completed, whichever is later.
 - (5) Documents, notices, or forms shall be posted to permit workers to observe them on the way to or from work, shall be conspicuous, and shall be replaced if defaced or altered.

Specific Authority: 404.051, 404.061, 404.081, F.S. Law Implemented: 404.022, 404.051(1)(4), 404.061(2), 404.081(1)(2), F.S. History: New July 17, 1985, Amended April 4, 1989, Amended May 12, 1993, Amended May 15, 1996, Formerly 10D-91.1002, <u>Amended December 19, 2001</u>.

R5

64E-5.902 Instructions to Workers.

- R1 (1) All individuals who in the course of employment are likely to receive an occupational dose in excess of 100 millirem (1 mSv) in a year:
 - (a) Shall be kept informed of the storage, transfer, or use of sources of radiation in the licensee's or registrant's facility;
 - (b) Shall be instructed in the health protection problems associated with exposure to radiation or radioactive material, in precautions or procedures to minimize exposures, and in the purposes and functions of protective devices employed;
 - (c) Shall be instructed in, and instructed to observe, to the extent within the worker's control, the applicable provisions of these regulations and licenses for the protection of personnel from exposures to radiation or radioactive material;
 - (d) Shall be instructed of their responsibility to report promptly to the licensee or registrant any condition which may constitute, lead to, or cause a violation of the Act, these regulations, and licenses or unnecessary exposure to radiation or radioactive material;
 - (e) Shall be instructed in the appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation or radioactive material; and
 - (f) Shall be advised as to the radiation exposure reports which workers shall be furnished pursuant to 64E-5.903.
- R1 (2) In determining those individuals subject to the requirements of (1),above, licensees or registrants shall consider assigned activities during normal and abnormal situations involving exposure to sources of radiation or radioactive material that reasonably can be expected to occur during the life of the licensee's or registrant's facility. The extent of these instructions shall be commensurate with potential radiological health protection problems present in the workplace.
- Specific Authority: 404.051, 404.061, 404.081, F.S.
- R1 Law Implemented: 404.051(1)(4), 404.061(2), 404.081(1), F.S.
- R1 History: New July 17, 1985, Amended January 1, 1994, Formerly 10D-91.1003, Amended <u>May 18, 1998</u>.



FLORIDA DEPARTMENT OF HEALTH



NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION; NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

POSTING REQUIREMENT

THIS NOTICE MUST BE POSTED IN PLACES THAT PERMIT EMPLOYEES IN A RESTRICTED AREA TO SEE A COPY ON THE WAY TO OR FROM THEIR PLACE OF EMPLOYMENT.

The Department of Health has established standards for protection against radiation hazards in Chapter 64E-5, Florida Administrative Code.

YOUR EMPLOYER IS REQUIRED TO:

- Post or provide you a copy of the Department of Health rules and operating procedures that apply to your work and explain them to you.
- Apply the rules to work involving radiation sources.
- Post or provide you any Notice of Violation involving radiological working conditions, proposed civil penalties, and orders.

YOU ARE REQUIRED TO:

- Become familiar with the rules and the operating procedures that apply to your work.
- Observe the requirements to protect yourself and your co-workers.

WHAT IS IN THESE RULES:

- Limits on exposure to radiation and radioactive material in restricted and unrestricted areas
- Actions to take after accidental exposure
- Personnel monitoring, surveys, and equipment
- Caution signs, labels, and safety interlocks
- Exposure records and reports
- Options for workers about Department of Health inspections
- Related matters

REPORTS ON RADIATION EXPOSURE

Your employer must give you a written report if you receive an exposure above the limits in the rules or in the license. The maximum limits for exposure to employees are in Part III of the rules. However, your employer should keep your radiation exposure as low as reasonably achievable.

If you work where personnel monitoring is required:

- Your employer must give you a written annual report of your radiation exposures.
- Your employer must give you a written report of your radiation exposures when you terminate employment.

INSPECTIONS

Representatives of the Department of Health inspect all licensed and registered activities. Any worker or worker representative who believes that there is a violation of Chapter 404, Florida Statutes; Chapter 64E-5, Florida Administrative Code; or the terms of the employer's license or registration can request an inspection by contacting the Bureau of Radiation Control, Bin C21, 4052 Bald Cypress Way, Tallahassee, FL 32399-1741 (850) 245-4266. The request must state specific reasons for the During inspections, Department of inspection. Health inspectors can confer privately with workers and any worker can bring to the attention of the inspectors any past or present condition that they believe contributed to or caused any violation.

Copies of Chapter 64E-5, F.A.C., the license or registration, operating procedures, any notice of violation about working conditions, penalty orders issued, and responses can be examined at: