



State of Utah

SPENCER J. COX  
Governor

DEIDRE HENDERSON  
Lieutenant Governor

Department of  
Environmental Quality

Kimberly D. Shelley  
Executive Director

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL

Douglas J. Hansen  
Director

December 16, 2021

Theresa V. Clark, Deputy Director  
Division of Materials Safety, Security, State and Tribal Programs  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
T8-E18  
Washington, D.C. 20555-001

RE: Proposed Rule Changes Associated with RATS ID 2015-3 and RATS ID 2019-2

Dear Ms. Clark:

Enclosed are copies of the proposed revisions to R313-12-3 and R313-19-100 of the Utah Radiation Control Rules, Utah Administrative Code, to incorporate regulations associated with RATS ID 2015-3 and RATS ID 2019-2.

The proposed rule changes are identified by underline/strikeout text and have been highlighted in yellow in the attached copies. Rule adoption crosswalks are also enclosed to aid in the review of the proposed rule changes.

<u>RATS ID</u>	<u>Title</u>	<u>State Sections</u>
2015-3	Revisions to Transportation Safety Requirements and Harmonization with International Atomic Energy Agency (IAEA) Transportation Requirements	R313-12-3, R313-19-100
2019-2	Organizational Changes and Conforming Amendments	R313-19-100

(Over)

Following the NRC's review, the proposed rule changes will be presented to the Utah Waste Management and Radiation Control Board (Board) for approval to proceed with formal rulemaking in accordance Utah's administrative rulemaking requirements, including an opportunity for public comment. We believe that the future adoption of these revisions will satisfy the compatibility and health and safety categories established in the Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-200.

If you have any questions, please call Tom Ball at (801) 536-0251.

Sincerely,



Douglas J. Hansen, Director

Division of Waste Management and Radiation Control

DJH/TIB/wa

Enclosures: Utah Rule R313-12-3 (DRC-2021-021782)  
Utah Rule R313-19-100 (DRC-2021-021784)  
Rule Adoption Crosswalk for RATS ID 2015-3 (DRC-2021-021786)  
Rule Adoption Crosswalk for RATS ID-2019-2 (DRC-2021-021788)

c: Michelle Beardsley, NRC, State Regulation Review Coordinator (Email)  
Spencer Wickham, Division of Waste Management and Radiation Control, UDEQ  
Theresa V. Clark, Deputy Director, Division of Materials Safety, Security, State and Tribal Programs (Email Only)

## **R313. Environmental Quality, Waste Management and Radiation Control, Radiation.**

### **R313-12. General Provisions.**

#### **R313-12-3. Definitions.**

As used in ~~these rules~~ Rules R313-12, R313-14 through R313-19, R313-21, R313-22, R313-24 through R313-26, R313-28, R313-30, R313-32, R313-34 through R313-38 and R313-70, these terms shall have the definitions set forth ~~below~~ in Section R313-12-3. Additional definitions used only in a certain rule will be found in that rule.

"A1" means the maximum activity of special form radioactive material permitted in a Type A package.

"A2" means the maximum activity of radioactive material, other than special form radioactive material, low specific activity, and surface contaminated object material permitted in a Type A package. These values are either listed in 10 CFR 71, Appendix A, which is incorporated by reference in Section R313-19-100 or may be derived in accordance with the procedures prescribed in 10 CFR 71, Appendix A, which is incorporated by reference in Section R313-19-100.

"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.

"Accelerator produced radioactive material" means material made radioactive by a particle accelerator.

"Act" means Utah Radiation Control Act, Title 19, Chapter 3.

"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).

"Adult" means an individual 18 or more years of age.

"Address of use" means the building or buildings that are identified on the license and where radioactive material may be received, used or stored.

"Advanced practice registered nurse" means an individual licensed by this state to engage in the practice of advanced practice registered nursing. See Sections 58-31b-101 through 58-31b-801, Nurse Practice Act.

"Agreement State" means a state with which the United States Nuclear Regulatory Commission or the Atomic Energy Commission has entered into an effective agreement under Section 274 b. of the Atomic Energy Act of 1954, as amended (73 Stat. 689).

"Airborne radioactive material" means a radioactive material dispersed in the air in the form of dusts, fumes, particulates, mists, vapors, or gases.

"Airborne radioactivity area" means: a room, enclosure, or area in which airborne radioactive material exists in concentrations:

(a) In excess of the derived air concentrations (DACs), specified in Rule R313-15~~5~~; 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.

"As low as reasonably achievable" (ALARA) means making every reasonable effort to maintain exposures to radiation as far below the dose limits as is 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 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 utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

"Area of use" means a portion of an address of use that has been set aside for the purpose of receiving, using, or storing radioactive material.

"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 and are not under the control of the licensee. "Background radiation" does not include sources of radiation from radioactive materials regulated by the Division of Waste Management and Radiation Control under the Radiation Control Act or Rules.

"Becquerel" (Bq) means the SI unit of activity. One becquerel is equal to one disintegration or transformation per second.

"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.

"Board" means the Waste Management and Radiation Control Board created under Section 19-1-106.

"Byproduct material" means:

(a) a radioactive material, with the exception of special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material;

(b) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "byproduct material" within this definition;

(c) (i) a discrete source of radium-226 that is produced, extracted, or converted after extraction, before, on, or after August 8, 2005, for use for a commercial, medical, or research activity; or

(ii) material that

(A) has been made radioactive by use of a particle accelerator; and

(B) is produced, extracted, or converted after extraction, before, on, or after August 8, 2005, for use for a commercial, medical, or research activity; and

(d) a discrete source of naturally occurring radioactive material, other than source material, that

(i) The Commission, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of Homeland Security, and the head of any other appropriate Federal agency, has determined would pose a threat similar to the threat posed by a discrete source of radium-226 to the public health and safety or the common defense and security; and

(ii) Before, on, or after August 8, 2005, is extracted or converted after extraction for use in a commercial, medical, or research activity.

"Calibration" means the determination of:

(a) the response or reading of an instrument relative to a series of known radiation values over the range of the instrument;

or

(b) the strength of a source of radiation relative to a standard.

"CFR" means Code of Federal Regulations.

"Chelating agent" means a chemical ligand that can form coordination compounds in which the ligand occupies more than one coordination position. The agents include beta diketones, certain proteins, amine polycarboxylic acids, hydroxycarboxylic acids, gluconic acid, and polycarboxylic acids.

"Chiropractor" means an individual licensed by this state to engage in the practice of chiropractic. See Sections 58-73-101 through 58-73-701, Chiropractic Physician Practice Act.

"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.

"Commencement of construction" means taking any action defined as "construction" or any other activity at the site of a facility subject to these rules that have a reasonable nexus to radiological health and safety.

"Commission" means the U.S. Nuclear Regulatory Commission.

"Committed dose equivalent" (HT,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.

"Committed effective dose equivalent" (HE,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.

"Consortium" means an association of medical use licensees and a PET radionuclide production facility in the same geographical area that jointly own or share in the operation and maintenance cost of the PET radionuclide production facility that produces PET radionuclides for use in producing radioactive drugs within the consortium for noncommercial distributions among its associated members for medical use. The PET radionuclide production facility within the consortium **must/shall** be located at an educational institution, a Federal facility, or a medical facility.

"Construction" means the installation of wells associated with radiological operations; for example, production, injection, or monitoring well networks associated with in-situ recovery or other facilities; the installation of foundations, or in-place assembly, erection, fabrication, or testing for any structure, system, or component of a facility or activity subject to these rules that are related to radiological safety or security. The term "construction" does not include:

(a) changes for temporary use of the land for public recreational purposes;

(b) site exploration, including necessary borings to determine foundation conditions or other preconstruction monitoring to establish background information related to the suitability of the site, the environmental impacts of construction or operation, or the protection of environmental values;

(c) preparation of the site for construction of the facility, including clearing of the site, grading, installation of drainage, erosion and other environmental mitigation measures, and construction of temporary roads and borrow areas;

(d) erection of fences and other access control measures that are not related to the safe use of, or security of, radiological materials subject to this part;

(e) excavation;

(f) erection of support buildings; for example, construction equipment storage sheds, warehouse and shop facilities, utilities, concrete mixing plants, docking and unloading facilities, and office buildings; for use in connection with the construction of the facility;

(g) building of service facilities; for example, paved roads, parking lots, railroad spurs, exterior utility and lighting systems, potable water systems, sanitary sewerage treatment facilities, and transmission lines;

(h) procurement or fabrication of components or portions of the proposed facility occurring at other than the final, in-place location at the facility; or

(i) taking any other action that has no reasonable nexus to radiological health and safety.

"Controlled area" means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee or registrant for any reason.

"Critical group" means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

"Curie" means a unit of measurement of activity. One curie (Ci) is that quantity of radioactive material which decays at the rate of  $3.7 \times 10^{10}$  to the tenth power disintegrations or transformations per second (dps or tps).

"Cyclotron" means a particle accelerator in which the charged particles travel in an outward spiral or circular path. A cyclotron accelerates charged particles at energies usually in excess of 10 megaelectron volts and is commonly used for production of short half-life radionuclides for medical use.

"Decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits:

(a) release of property for unrestricted use and termination of the license; or

(b) release of the property under restricted conditions and termination of the license.

"Deep dose equivalent" ( $H_d$ ), which applies to external whole body exposure, means the dose equivalent at a tissue depth of one centimeter (1000 mg/cm<sup>2</sup>).

"Dentist" means an individual licensed by this state to engage in the practice of dentistry. See [s] Sections 58-69-101 through 58-69-806, Dentist and Dental Hygienist Practice Act.

"Department" means the Utah Department of Environmental Quality.

"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.

"Diffuse source" means a radionuclide that has been unintentionally produced or concentrated during the processing of materials for use for commercial, medical, or research activities.

"Director" means the Director of the Division of Waste Management and Radiation Control.

"Discrete source" means a radionuclide that has been processed so that its concentration within a material has been purposely increased for use for commercial, medical, or research activities.

"Distinguishable from background" means that the detectable concentration of a radionuclide is statistically different from the background concentration of that radionuclide in the vicinity of the site or, in the case of structures, in similar materials using adequate measurement technology, survey, and statistical techniques.

"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 purposes of these rules, "radiation dose" is an equivalent term.

"Dose equivalent" ( $H_T$ ), means the product of the absorbed dose in tissue, quality factor, and other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.

"Dose limits" means the permissible upper bounds of radiation doses established in accordance with these rules. For purpose of these rules, "limits" is an equivalent term.

"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.

"Embryo/fetus" means the developing human organism from conception until the time of birth.

"Entrance or access point" means an 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.

"Explosive material" means a chemical compound, mixture, or device which produces a substantial instantaneous release of gas and heat spontaneously or by contact with sparks or flame.

"EXPOSURE" when capitalized, means the quotient of  $dQ$  by  $dm$  where "dQ" is the absolute value of the total charge of the ions of one sign produced in air when all the electrons, both negatrons and positrons, liberated by photons in a volume element of air having a mass of "dm" are completely stopped in air. The special unit of EXPOSURE is the roentgen (R). See Section R313-12-20 Units of exposure and dose for the SI equivalent. For purposes of these rules, this term is used as a noun.

"Exposure" when not capitalized[as the above term], means being exposed to ionizing radiation or to radioactive material. For purposes of these rules, this term is used as a verb.

"EXPOSURE rate" means the EXPOSURE per unit of time, such as roentgen per minute and milliroentgen per hour.

"External dose" means that portion of the dose equivalent received from a source of radiation outside the body.

"Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

"Facility" means the location within one building, vehicle, or under one roof and under the same administrative control

(a) at which the use, processing or storage of radioactive material is or was authorized; or

(b) at which one or more radiation-producing machines or radioactivity-inducing machines are installed or located.

"Former United States Atomic Energy Commission (AEC) or United States 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.

"Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency 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.

"Gray" (Gy) means the SI unit of absorbed dose. One gray is equal to an absorbed dose of one joule per kilogram.

"Hazardous waste" means those wastes designated as hazardous by the U.S. Environmental Protection Agency rules in 40 CFR Part 261.

"Healing arts" means the disciplines of medicine, dentistry, osteopathy, chiropractic, and podiatry.

"High radiation area" means an area, accessible to individuals, in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of one mSv (0.1 rem), in one hour at 30 centimeters from the source of radiation or from a surface that the radiation penetrates. For purposes of these rules, rooms or areas in which diagnostic x-ray systems are used for healing arts purposes are not considered high radiation areas.

"Human use" means the intentional internal or external administration of radiation or radioactive material to human beings.

"Individual" means a human being.

"Individual monitoring" means the assessment of:

(a) dose equivalent, by the use of individual monitoring devices or, by the use of survey data; or

(b) committed effective dose equivalent by bioassay or by determination of the time weighted air concentrations to which an individual has been exposed, that is, DAC-hours.

"Individual monitoring devices" means devices designed to be worn by a single individual for the assessment of dose equivalent. For purposes of these rules, individual monitoring equipment and personnel monitoring equipment are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescence dosimeters (TLD's), pocket ionization chambers, and personal air sampling devices.

"Inspection" means an official examination or observation including, but not limited to, tests, surveys, and monitoring to determine compliance with rules, orders, requirements and conditions applicable to radiation sources.

"Interlock" means a device arranged or connected requiring the occurrence of an event or condition before a second condition can occur or continue to occur.

"Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.

"Lens dose equivalent" (LDE) applies to the external exposure of the lens of the eye and is taken as the dose equivalent at a tissue depth of 0.3 centimeter (300 mg/cm<sup>2</sup>).

"License" means a license issued by the Director in accordance with the rules adopted by the Board.

"Licensee" means a person who is licensed by the Department in accordance with these rules and the Act.

"Licensed or registered material" means radioactive material, received, possessed, used or transferred or disposed of under a general or specific license issued by the Director.

"Licensing state" means a state which, prior to November 30, 2007, was provisionally or finally designated as such by the Conference of Radiation Control Program Directors, Inc., which reviewed state regulations to establish equivalency with the Suggested State Regulations and ascertained whether a State has an effective program for control of natural occurring or accelerator produced radioactive material.

"Limits". See "Dose limits".

"Lost or missing source of radiation" means licensed or registered sources of radiation whose location is unknown. This definition includes **[-, but is not limited to,]** radioactive material that has been shipped but has not reached its planned destination and whose location cannot be readily traced in the transportation system.

"Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material, or exceeding four times Type B quantities as sealed sources, but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 10 CFR 71.4.

"Member of the public" means an individual except when that individual is receiving an occupational dose.

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

"Monitoring" means the measurement of radiation, radioactive material concentrations, surface area activities or quantities of radioactive material, and the use of the results of these measurements to evaluate potential exposures and doses. For purposes of these rules, radiation monitoring and radiation protection monitoring are equivalent terms.

"Natural radioactivity" means radioactivity of naturally occurring nuclides.

"Nuclear Regulatory Commission" (NRC) means the U.S. Nuclear Regulatory Commission or its duly authorized representatives.

"Occupational dose" means the dose received by an individual in the course of employment in which the individual's assigned duties for the licensee or registrant involve exposure to sources of radiation, whether or not the sources of radiation are in the possession of the licensee, registrant, or other person. Occupational dose does not include doses received from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Rule R313-32, from voluntary participation in medical research programs, or as a member of the public.

"Package" means the packaging together with its radioactive contents as presented for transport.

"Particle accelerator" means a machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of one megaelectron volt. For purposes of these rules, "accelerator" is an equivalent term.

"Permit" means a permit issued by the Director in accordance with the rules adopted by the Board.

"Permitee" means a person who is permitted by the Director in accordance with these rules and the Act.

"Person" means an individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, or another state or political subdivision or agency thereof, and a legal successor, representative, agent or agency of the foregoing.

"Personnel monitoring equipment," see individual monitoring devices.

"Pharmacist" means an individual licensed by this state to engage in the practice of pharmacy. See Sections 58-17b-101 through 58-17b-806, Pharmacy Practice Act.

"Physician" means both physicians and surgeons licensed under Section 58-67-301, Utah Medical Practice Act, and osteopathic physicians and surgeons licensed under Section 58-68-301, Utah Osteopathic Medical Practice Act.

"Physician assistant" means an individual licensed by this state to engage in practice as a physician assistant. See Sections 58-70a-101 through 58-70a-504, Physician Assistant Act.

"Podiatrist" means an individual licensed by this state to engage in the practice of podiatry. See Sections 58-5a-101 through 58-5a-501, Podiatric Physician Licensing Act.

"Practitioner" means an individual licensed by this state in the practice of a healing art. For these rules, only the following are considered to be a practitioner: physician, dentist, podiatrist, chiropractor, physician assistant, and advanced practice registered nurse.

"Protective apron" means an apron made of radiation-attenuating materials used to reduce exposure to radiation.

"Public dose" means the dose received by a member of the public from exposure to radiation or to radioactive materials released by a licensee, or to any other source of radiation under the control of a licensee or registrant. Public dose does not include occupational dose or doses received from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Rule R313-32, or from voluntary participation in medical research programs.

"Pyrophoric material" means any liquid that ignites spontaneously in dry or moist air at or below 130 degrees Fahrenheit (54.4 degrees Celsius) or any solid material, other than one classed as an explosive, which under normal conditions is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited and, when ignited, burns so vigorously and persistently as to create a serious transportation, handling, or disposal hazard. Included are spontaneously combustible and water-reactive materials.

"Quality factor" (Q) means the modifying factor, listed in Tables 1 and 2 of Section R313-12-20 that is used to derive dose equivalent from absorbed dose.

"Rad" means the special unit of absorbed dose. One rad is equal to an absorbed dose of 100 erg per gram or 0.01 joule per kilogram

"Radiation" means alpha particles, beta particles, gamma rays, x-rays, neutrons, high speed electrons, high speed protons, and other particles capable of producing ions. For purposes of these rules, ionizing radiation is an equivalent term. Radiation, as used in these rules, does not include non-ionizing radiation, like radiowaves or microwaves, visible, infrared, or ultraviolet light.

"Radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.05 mSv (0.005 rem), in one hour at 30 centimeters from the source of radiation or from a surface that the radiation penetrates.

"Radiation machine" means a device capable of producing radiation except those devices with radioactive material as the only source of radiation.

"Radiation safety officer" means an individual who has the knowledge and responsibility to apply appropriate radiation protection rules and has been assigned **[such]this** responsibility by the licensee or registrant. For a licensee authorized to use radioactive materials in accordance with the requirements of Rule R313-32,

(1) the individual named as the "Radiation Safety Officer" **[must]shall** meet the training requirements for a Radiation Safety Officer as stated in Rule R313-32; or

(2) the individual **[must]shall** be identified as a "Radiation Safety Officer" on

(a) a specific license issued by the Director, the U.S. Nuclear Regulatory Commission, or an Agreement State that authorizes the medical use of radioactive materials; or

(b) a medical use permit issued by a U.S. Nuclear Regulatory Commission master material licensee.

"Radiation source". See "Source of radiation."

"Radioactive material" means a solid, liquid, or gas which emits radiation spontaneously.

"Radioactivity" means the transformation of unstable atomic nuclei by the emission of radiation.

"Radiobioassay". See "Bioassay".

"Registrant" means any person who is registered with respect to radioactive materials or radiation machines with the Director or is legally obligated to register with the Director pursuant to these rules and the Act.

"Registration" means registration with the Director in accordance with the rules adopted by the Board.

"Regulations of the U.S. Department of Transportation" means 49 CFR 100 through 189 and 49 CFR 390 through 397, as referenced in 49 CFR 177.

"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. One rem equals 0.01 sievert (Sv).

"Research and development" means:

(a) theoretical analysis, exploration, or experimentation; or

(b) the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes. Research and development does not include the internal or external administration of radiation or radioactive material to human beings.

"Residual radioactivity" means radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's control. This includes radioactivity from **[at]any** licensed and unlicensed sources used by the licensee, but excludes background radiation. It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site and previous burials at the site, even if those burials were made in accordance with **[the provisions of]** Rule R313-15.

"Restricted area" means an area, access to which is limited by the licensee or registrant for the purpose of protecting individuals against undue risks from exposure to sources of radiation. A "Restricted area" does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.

"Roentgen" (R) means the special unit of EXPOSURE. One roentgen equals  $2.58 \times 10^{-4}$  coulombs per kilogram of air. See EXPOSURE.

"Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.

"Sealed source and device registry" means the national registry that contains all the registration certificates, generated by both NRC and the Agreement States, that summarize the radiation safety information for the sealed sources and devices and describe the licensing and use conditions approved for the product.

"Shallow dose equivalent" (Hs) which applies to the external exposure of the skin of the whole body or the skin of an extremity, is taken as the dose equivalent at a tissue depth of 0.007 centimeter (seven mg per square centimeter).

"SI" means an abbreviation of the International System of Units.

"Sievert" (Sv) means the SI unit of any of the quantities expressed as dose equivalent. The dose equivalent in sievert is equal to the absorbed dose in gray multiplied by the quality factor. One Sv equals 100 rem.

"Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee or registrant.

"Source container" means a device in which sealed sources are transported or stored.

"Source material" means:

(a) uranium or thorium, or any combination thereof, in any physical or chemical form, or  
(b) ores that contain by weight one-twentieth of one percent (0.05 percent), or more of, uranium, thorium, or any combination of uranium and thorium. Source material does not include special nuclear material.

"Source material milling" means any activity that results in the production of byproduct material as defined by (b) of "byproduct material".

"Source of radiation" means any radioactive material, or a device or equipment emitting or capable of producing ionizing radiation.

"Special form radioactive material" means radioactive material which satisfies the following conditions:

(a) it is either a single solid piece or is contained in a sealed capsule that can be opened only by destroying the capsule;  
(b) the piece or capsule has at least one dimension not less than five millimeters (0.197 inch); and  
(c) it satisfies the test requirements specified by the U.S. Nuclear Regulatory Commission in 10 CFR 71.75. A special form encapsulation designed in accordance with the U.S. Nuclear Regulatory Commission requirements of 10 CFR 71.4 in effect on June 30, 1983, and constructed prior to July 1, 1985, may continue to be used. A special form encapsulation designed in accordance with the requirements of 10 CFR 71.4 in effect on March 31, 1996, [see 10 CFR 71 revised January 1, 1983, 1996], and constructed before April 1, 1998, and special form material that was successfully tested before September 10, 2015 in accordance with the requirements of 10 CFR 71.75(d) in effect before September 10, 2015 may continue to be used. Any other special form encapsulation must/shall meet the specifications of this definition.

"Special nuclear material" means:

(a) plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and other material that the U.S. Nuclear Regulatory Commission, pursuant to the provisions of Section 51 of the Atomic Energy Act of 1954, as amended, determines to be special nuclear material, but does not include source material; or

(b) any material artificially enriched by any of the foregoing but does not include source material.

"Special nuclear material in quantities not sufficient to form a critical mass" means uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; uranium-233 in quantities not exceeding 200 grams; plutonium in quantities not exceeding 200 grams or a combination of them in accordance with the following formula: For each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such/the ratios for all of the kinds of special nuclear material in combination shall not exceed one. For example, the following quantities in combination would not exceed the limitation and are within the formula:

$((175(\text{Grams contained U-235})/350) + (50(\text{Grams U-233}/200) + (50(\text{Grams Pu}/200)))$  is equal to one.

"Survey" means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of sources of radiation. When appropriate, such/this evaluation includes, -but is not limited to, tests, physical examinations and measurements of levels of radiation or concentrations of radioactive material present.

"Test" means the process of verifying compliance with an applicable rule.

"These rules" means "Utah Radiation Control Rules R313-12, R313-14 through R313-19, R313-21, R313-22, R313-24 through R313-26, R313-28, R313-30, R313-32, R313-34 through R313-38 and R313-70".

"Total effective dose equivalent" (TEDE) means the sum of the effective dose equivalent for external exposures and the committed effective dose equivalent for internal exposures.

"Total organ dose equivalent" (TODE) means the sum of the deep dose equivalent and the committed dose equivalent to the organ receiving the highest dose as described in Subsection R313-15-1107(1)(f).

"U.S. Department of Energy" means the Department of Energy established by Public Law 95-91, August 4, 1977, 91 Stat. 565, 42 U.S.C. 7101 et seq., to the extent that the Department exercises functions formerly vested in the U.S. Atomic Energy Commission, its Chairman, members, officers and components and transferred to the U.S. Energy Research and Development Administration and to the Administrator thereof pursuant to [s]Sections 104(b), (c), and (d) of Public Law 93-438, October 11, 1974, 88 Stat. 1233 at 1237, effective January 19, 1975 known as the Energy Reorganization Act of 1974, and retransferred to the Secretary of Energy pursuant to [s]Section 301(a) of Public Law 95-91, August 14, 1977, 91 Stat. 565 at 577-578, 42 U.S.C. 7151, effective October 1, 1977 known as the Department of Energy Organization Act.

"Unrefined and unprocessed ore" means ore in its natural form prior to processing, like grinding, roasting or beneficiating, or refining. Processing does not include sieving or encapsulation of ore or preparation of samples for laboratory analysis.

"Unrestricted area" means an area, to which access is neither limited nor controlled by the licensee or registrant. For purposes of these rules, "uncontrolled area" is an equivalent term.



"Waste" means those low-level radioactive wastes containing radioactive material that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level radioactive waste means radioactive waste not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in paragraphs (b), (c), and (d) of the definition of byproduct material found in Section R313-12-3.

"Week" means seven consecutive days starting on Sunday.

"Whole body" means, for purposes of external exposure, head, trunk including male gonads, arms above the elbow, or legs above the knees.

"Worker" means an individual engaged in work under a license or registration issued by the Director and controlled by a licensee or registrant, but does not include the licensee or registrant.

"Working level" (WL), means any combination of short-lived radon daughters in one liter of air that will result in the ultimate emission of  $1.3 \times 10^5$  MeV of potential alpha particle energy. The short-lived radon daughters are, for radon-222: polonium-218, lead-214, bismuth-214, and polonium-214; and for radon 220: polonium-216, lead-212, bismuth-212, and polonium-212.

"Working level month" (WLM), means an exposure to one working level for 170 hours. 2,000 working hours per year divided by 12 months per year is approximately equal to 170 hours per month.

"Year" means the period of time beginning in January used to determine compliance with ~~the provisions of~~ these rules. The licensee or registrant may change the starting date of the year used to determine compliance by the licensee or registrant ~~provided that~~ if the decision to make the change is made not later than December 31 of the previous year. If a licensee or registrant changes in a year, the licensee or registrant shall assure that no day is omitted or duplicated in consecutive years.

**KEY: definitions, units, inspections, exemptions**

**Date of Enactment or Last Substantive Amendment: October 13, 2017**

**Notice of Continuation: April 8, 2021**

**Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-6-104**

**R313. Environmental Quality, Waste Management and Radiation Control, Radiation.**  
**R313-19. Requirements of General Applicability to Licensing of Radioactive Material.**

**R313-19-100. Transportation.**

For purposes of Section R313-19-100, 10 CFR 71.0(c), 71.0(d)(1), 71.1(a), 71.3, 71.4, 71.13, 71.14(a), 71.15, 71.17, 71.19(a), 71.19(b), 71.19(c), 71.20, 71.21 through 71.23, 71.47, 71.83, 71.85 introductory paragraph, 71.85(d), 71.87 through 71.89, 71.91(a), 71.91(c), 71.91(d), 71.97, 71.101(a), 71.101(b), 71.101(c)(1), 71.101(g), 71.103(a), 71.103(b), 71.105, 71.106, 71.127, 71.129, 71.131, 71.133, 71.135, through 71.137, and Appendix A to Part 71 (2019)2020 are incorporated by reference with the following clarifications or exceptions:

- (1) The exclusion of the following:
  - (a) In 10 CFR 71.4 the following definitions:
    - (i) "close reflection by water";
    - (ii) "licensed material";
    - (iii) "optimum interspersed hydrogenous moderation";
    - (iv) "spent nuclear fuel or spent fuel"; ~~and~~
    - (v) "special form radioactive material", since this definition exists in Section R313-12-3; and
    - (vi) "state."
  - (b) In 10 CFR 71.91(c) and 71.91(d), the phrase "certificate holder and applicant for a CoC";
  - (c) In 10 CFR 71.101(a), the sentence "Each certificate holder and applicant for a package approval is responsible for satisfying the quality assurance requirements that apply to the design, fabrication, testing, and modification of package subject to this subpart;" and
  - (d) In 10 CFR 71.101(b), each instance of "certification holder, and applicant for a CoC."
- (2) The substitution of the date reference "October 1, 2011" for "October 1, 2008".
- (3)(2) The substitution of the following rule references:
  - (a) "Rule R313-36 (incorporating 10 CFR 34.31(b) by reference)" for "Sec. 34.31(b) of this chapter" as found in 10 CFR 71.101(g);
  - (b) "Section R313-15-502" for reference to "10 CFR 20.1502";
  - (c) "Rule R313-14" for reference to "10 CFR Part 2 Subpart B";
  - (d) "Rule R313-32, 10 CFR Part 35," for reference to "10 CFR part 35";
  - (e) "Subsection R313-15-906(5)" for reference to "10 CFR 20.1906(e)";
  - (f) "Subsection R313-19-100(5)" for "Sec.71.5";
  - (g)(i) "10 CFR 71.101(a), 71.101(b), 71.101(c)(1), 71.101(g), 71.103(a), 71.103(b), 71.105, 71.106, and 71.127 through 71.137" for "subpart H of this part" or for "subpart H" ~~except in 10 CFR 71.17(b), 71.20(b), 71.21(b), 71.22(b), 71.23(b);~~
  - (ii) "10 CFR 71.101(a), 71.101(b), 71.101(c)(1), 71.101(g), 71.103(a), 71.103(b), 71.105, 71.106, and 71.127 through 71.137" for "this subpart" in 71.101(a) and 71.101(c)(1);
  - (h) "10 CFR 71.0(c), 71.0(d)(1), 71.1(a), 71.3, 71.4, Subsection R313-19-100(5), Sections R313-19-1 and R313-19-5, 71.17(e)(2), 71.20(e)(2), 71.24(d)(2), 71.83, 71.85 introductory paragraph, 71.85(d) through 71.89, 71.91(a), 71.91(c), 71.91(d), 71.97, 71.101(a), 71.101(b), 71.101(c)(1), 71.101(g), 71.103(a), 71.103(b), 71.105, 71.106, and 71.127 through 71.137" for "subparts A, G, and H of this part";
  - (i) "10 CFR 71.47" for "subparts E and F of this part"; ~~and~~
  - (j) "10 CFR 71.101(a), 71.101(b), 71.101(c)(1), 71.101(g), 71.103(a), 71.103(b), 71.105, 71.106, and 71.127 through 71.137" for "Sec. Sec. 71.101 through 71.137." in 71.101(b) and 71.105(a);
  - (k) "10 CFR 71.85(a) through (c)" for "paragraphs (a) through (c) of this section" in 71.85(d);
  - (l) "10 CFR 73.24" for "73.24 of this chapter" in 71.88(b);
  - (m) "71.14(a)" for "71.14" in 71.91(a);
  - (n) "R313-12-110" for "Sec. 71.1(a)" and for the NRC contact information in 71.101(c)(1) and 71.106(b); and
  - (o) "10 CFR 71.111" for "Sec. 71.111" in 71.135.
- (4)(3) The substitution of the following terms:
  - (a) "Director" for:
    - (i) "Commission" in 10 CFR 71.0(c), 71.17(a), 71.17(b)71.20(a), 71.21(a), 71.21(b), 71.22(a), 71.22(b), 71.23(a), 71.23(b), 71.91(c), and 71.101(c)(1);
    - (ii) "NRC" in 10 CFR 71.101(f);
  - (b) "Director, the U.S. Nuclear Regulatory Commission, or an Agreement State" for "Commission" in 10 CFR 71.3;
  - (c) "The Governor of Utah" for:
    - (i) "the governor of a State" in 71.97(a);
    - (ii) "each appropriate governor" in 10 CFR 71.97(c)(1);
    - (iii) "the governor" in 10 CFR 71.97(c)(3);
    - (iv) "the governor of the state" in 10 CFR 71.97(e);
    - (v) "the governor of each state" in 10 CFR 71.97(f)(1);
    - (vi) "a governor" in 10 CFR 71.97(e);
  - (d) "State of Utah" for "State" in 71.97(a), 71.97(b)(2), and 71.97(d)(4);
  - (e) "the Governor of Utah's" for:
    - (i) "the governor's" in 10 CFR 71.97(a), 71.97(c)(3), 71.97(e)(3)(iii), 71.97(e), and 71.97(f)(1);

- (ii) "governor's" in 10 CFR 71.97(c)(1), and 71.97(e);
  - (f) "Specific or general" for "NRC" in 10 CFR 71.0(c);
  - (g) "The Director at the address specified in SecR313-12-110" for reference to "ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards" in 10 CFR 71.101(c)(1);
  - (h) "Each" for "Using an appropriate method listed in Sec. 71.1(a), each" in 10 CFR 71.101(c)(1);
  - (i) "The material must be contained in a Type A package meeting the requirements of 49 CFR 173.417(a)." for "The fissile material need not be contained in a package which meets the standards of subparts E and F of this part; however, the material must be contained in a Type A package. The Type A package must also meet the DOT requirements of 49 CFR 173.417(a)." as found in 10 CFR 71.22(a) and 71.23(a);
  - (j) "Licensee" for "licensee, certificate holder, and applicant for a COC"; and
  - (k) "Licensee is" for reference to "licensee, certificate holder, and applicant for a COC are."
  - (4) **The insertion of "NRC-issued" in 10 CFR 71.17(c)(1) immediately before "Certificate of Compliance."**
- (5) Transportation of licensed material
- (a) Each licensee who transports licensed material outside the site of usage, as specified in the license issued by the Director, the U.S. Nuclear Regulatory Commission or an Agreement State, or where transport is on public highways, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the U.S. Department of Transportation regulations in 49 CFR parts 107, 171 through 180, and 390 through 397 (~~2009~~2014), appropriate to the mode of transport.
- (i) The licensee shall particularly note DOT regulations in the following areas:
- (A) Packaging--49 CFR part 173: subparts A (49 CFR 173.1 through 49 CFR 173.13), B (49 CFR 173.21 through 49 CFR 173.40), and I (49 CFR 173.401 through 49 CFR 173.477).
- (B) Marking and labeling--49 CFR part 172: subpart D (49 CFR 172.300 through 49 CFR 172.338); and 49 CFR 172.400 through 49 CFR 172.407 and 49 CFR 172.436 through 49 CFR 172.441 of subpart E.
- (C) Placarding--49 CFR part 172: subpart F (49 CFR 172.500 through 49 CFR 172.560), especially 49 CFR 172.500 through 49 CFR 172.519 and 49 CFR 172.556; and appendices B and C.
- (D) Accident reporting--49 CFR part 171: 49 CFR 171.15 and 171.16.
- (E) Shipping papers and emergency information--49 CFR part 172: subparts C (49 CFR 172.200 through 49 CFR 172.205) and G (49 CFR 172.600 through 49 CFR 172.606).
- (F) Hazardous material employee training--49 CFR part 172: subpart H (49 CFR 172.700 through 49 CFR 172.704).
- (G) Security plans--49 CFR part 172: subpart I (49 CFR 172.800 through 49 CFR 172.804).
- (H) Hazardous material shipper or carrier registration--49 CFR part 107: subpart G (49 CFR 107.600 through 49 CFR 107.606).
- (ii) The licensee shall also note DOT regulations pertaining to the following modes of transportation:
- (A) Rail--49 CFR part 174: subparts A through D (49 CFR 174.1 through 49 CFR 174.86) and K (49 CFR 174.700 through 49 CFR 174.750).
- (B) Air--49 CFR part 175.
- (C) Vessel--49 CFR part 176: subparts A through F (49 CFR 176.1 through 49 CFR 176.99) and M (49 CFR 176.700 through 49 CFR 107.720).
- (D) Public Highway--49 CFR part 177 and parts 390 through 397.
- (b) If DOT regulations are not applicable to a shipment of licensed material, the licensee shall conform to the standards and requirements of the DOT specified in Subsection R313-19-100(5)(a) to the same extent as if the shipment or transportation were subject to DOT regulations. A request for modification, waiver, or exemption from those requirements, and any notification referred to in those requirements, must be filed with, or made to, the Director, P.O. Box 144850, Salt Lake City, Utah 84114-4850.

**KEY: licenses, reciprocity, transportation, exemptions**

**Date of Last Change: September 13, 2021**

**Notice of Continuation: April 8, 2021**

**Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-6-104**



UTAH DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL  
RATS ID 2015-3

(80 FR 33987, Published June 12, 2015 and 80 FR 48683, Published August 14, 2015)

Revisions to Transportation Safety Requirements and Harmonization with IAEA Transportation Requirements

10 CFR Part 71

Rule Adoption Crosswalk

Code of Federal Regulations		Utah Administrative Code		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
<b>Proposed changes associated with RATS ID 2015-3</b>				
Purpose and Scope	§71.0(d)(1)	19-100, introductory paragraph renumbered 19-100(2)(h)	D	Reference to §71.0(d)(1) added to incorporation by reference list in the introductory paragraph and to the list of state rules in renumbered R313-19-100(2)(h) that substitute for references to the noted subparts in 10 CFR Part 71.
Definitions	§71.4	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> (80 FR 33987).
	Contamination	19-100, introductory paragraph	[B]	Definition for "Contamination" added with the change of the date of incorporation by reference to 2020 and also incorporates the correction published in the 8/14/2015 <i>Federal Register</i> (80 FR 48684).
	Criticality Safety Index	19-100, introductory paragraph	[B]	Definition for "Criticality Safety Index (CSI)" revised with the change of the date of incorporation by reference to 2020.
	Low Specific Activity Material	19-100, introductory paragraph	[B]	Definition of "Low Specific Activity Material" revised with the change of the date of the incorporation by reference to 2020.
	Special Form Radioactive Material	12-3	12-3  new 19-100(1)(a)(v)	[B]

Code of Federal Regulations		Utah Administrative Code		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
	Uranium - natural, depleted, enriched	19-100, introductory paragraph	[B]	Definition revised with the change of the date of incorporation by reference date to 2020.
ICR: OMB Approval	§71.6	N/A	D	
Exemption for Low-Level Materials	§71.14(a)(1) - (a)(3)	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
Exemption from Classification as Fissile Material	§71.15(d)	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
General License: NRC Approved Package	§71.17	19-100, introductory paragraph  renumbered 19-100(3)(a)  renumbered 19-100(2)(g)(i)  new 19-100(4)  renumbered 19-100(2)(h)	B	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .  Additional changes made per STC-17-060:  <b>71.17(a) and (b):</b> Revised state equivalent references for "Commission" in renumbered 19-100(3)(a).  <b>71.17(b):</b> State equivalent reference to "subpart H" revised in renumbered 19-100(2)(g)(i).  <b>71.17(c)(1):</b> New paragraph 19-100(4) added to insert "NRC-issued."  <b>71.17(c)(2):</b> Revised state equivalent references in renumbered 19-100(2)(h) for "Subpart A, G, and H."
Previously Approved Package	§71.19	19-100, introductory paragraph	NRC	In a letter dated January 28, 2008 (ML080300392), the Division notified the NRC of the need to incorporate by reference paragraphs 10 CFR 71.19 (a)-(c) for state enforcement purposes, including enforcement of the referenced requirements of 10 CFR 71.17(e). With the changes to 10 CFR 71.19, as published in the 6/12/2015 <i>Federal Register</i> , and the resulting paragraph renumbering, the reference to paragraph 71.19(c) is deleted.

Code of Federal Regulations		Utah Administrative Code		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
General License: Use of Foreign Approved Package	§71.21	19-100, introductory paragraph  renumbered 19-100(3)(a)  renumbered 19-100(2)(g)(i)  renumbered 19-100(2)(h)	B	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .  Additional changes made per STC-17-060.  <b>71.21(a) and (b):</b> State equivalent references for "Commission" revised in renumbered 19-100(3)(a).  <b>71.21(b):</b> State equivalent reference to "subpart H" revised in renumbered 19-100(2)(g)(i).  <b>71.21(d)(2):</b> State equivalent references revised in renumbered 19-100(2)(h) for "Subpart A, G, and H."
Contents of Application	§71.31(b)	N/A	NRC	
Renewal of Application	§71.38	N/A	NRC	
Incorporations by Reference	§71.70	N/A	NRC	
Qualification of Special Form RAM	§71.75	N/A	NRC	
Preliminary Determinations	§71.85(a) - (c)	N/A	NRC	
	§71.85(d)	19-100, introductory paragraph  new 19-100(2)(k)	B	Reference to 71.85(d) is added to the Incorporation by reference list and date of incorporation is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .  Additional change made per STC-17-060:  Revised equivalent reference with the addition of 19-100(2)(k).
Records	§71.91(a)	19-100, introductory paragraph	C	With the change in the compatibility category to C, the incorporation by reference is amended to include 10 CFR 71.91(a) and the date of incorporation is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
	§71.91(b)	N/A	NRC	

Code of Federal Regulations		Utah Administrative Code	
TITLE	10 CFR	R313-	COMPATIBILITY NOTES
	§71.91(c)	19-100, introductory paragraph  new 19-100(1)(b)	C  With the change in the compatibility category to C, the incorporation by reference is amended to include 10 CFR 71.91(c) and the date of incorporation is updated to 2020.  The phrase "certificate holder, and applicant for a CoC" is omitted with the addition of paragraph 19-100(1)(b).
	§71.91(d)	19-100, introductory paragraph  new 19-100(1)(b)	C  With the change in the compatibility category to C, the incorporation by reference is amended to include 10 CFR 71.91(d) and the date of incorporation is updated to 2020.  The phrase "certificate holder, and applicant for a CoC" is omitted with the addition of paragraph 19-100(1)(b).
QA Requirements	§71.101(a)	19-100, introductory paragraph  new 19-100(2)(g)(ii)  new 19-100(1)(c)	C  With the change in compatibility category, the incorporation by reference date is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .  Additional change made per STC-17-060.  <b>71.101(a):</b> State equivalent reference to "this subpart" added in new paragraph 19-100(2)(g)(ii). New paragraph, 19-100(1)(c), added to delete penultimate sentence in 71.101(a).
	§71.101(b) & (c)(1)	19-100, introductory paragraph  new 19-100(1)(d)  renumbered 19-100(2)(j)  new 19-100(2)(g)(ii)  renumbered 19-100(3)(a)  new 19-100(2)(n)	C  With the change in compatibility category, the incorporation by reference date is updated to 2020.  Additional changes made per STC-17-060 as follows:  <b>71.101(b):</b> Added new paragraph 19-100(1)(d) to omit each instance of "certificate holder, and applicant for a CoC." Revised renumbered 19-100(2)(j) to explicitly include 71.101(b).  <b>71.101(c)(1):</b> State equivalent reference to "this subpart" added in new paragraph 19-100(2)(g)(ii). State equivalent substitution for "Commission" already exists in renumbered 19-100(3)(a). Added new paragraph (n) to renumbered 19-100(2) to substitute state equivalent references to R313-12-110 for 71.1(a) and NRC contact information.

Code of Federal Regulations		Utah Administrative Code		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
	§71.101(c)(2)	N/A	NRC	
	§71.101(g)	19-100, introductory paragraph	C**	Incorporation by reference date updated to 2020.
QA Organization	§71.103(a)	19-100, introductory paragraph	C**	Incorporation by reference amended to include 10 CFR 71.103(a) and the date of incorporation is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
	§71.103(b)	19-100, introductory paragraph	C**	Incorporation by reference amended to include 10 CFR 71.103(b) and the date of incorporation is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
Changes to QA Program	§71.106	19-100, introductory paragraph	C	Incorporation by reference amended to include 10 CFR 71.106 and the date of incorporation is updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
QA Records	§71.135	19-100, introductory paragraph	C**	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 FR.
Determination of A1 & A2	Appendix A	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
A1 & A2 Values	Appendix A, Table A-1	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
Exempt Material Activity Concentrations ...	Appendix A, Table A-2	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .
General Values for A1 & A2	Appendix A, Table A-3	19-100, introductory paragraph	[B]	Incorporation by reference date updated to 2020. This results in incorporating the changes published in the 6/12/2015 <i>Federal Register</i> .

\*\* § 71.101(g) indicates that QA programs for industrial radiography Type B package users are covered by § 34/31(b). It also indicated that this section satisfies § 71.17(b) and therefore will satisfy those sections referenced in this provision (§§ 71.101 through 71.137).



Code of Federal Regulations		Utah Administrative Code	
TITLE	10 CFR	R313-	COMPATIBILITY
			NOTES

**Additional proposed changes related to RATS ID 2015-3**

N/A	N/A	19-100, introductory paragraph and deleted 19-100(2)	N/A	Deletion of obsolete reference to 71.20. 10 CFR 71.20 expired on 10/1/2008 (see 69 FR 6139 (2/10/2004)) and on 10/1/2011 in Utah.
N/A	N/A	renumbered 19-100(3) and (4)	N/A	Additional corrections to update list of state equivalent references to 10 CFR Part 71 that are not exclusive to NRC jurisdiction (i.e., Compatibility Category NRC) and that fall within subparts A, B, C, E, G, and H.
N/A	N/A	19-100(5)(a)	N/A	Update date of incorporation by reference to <b>2014</b> for references to selected parts of 49 CFR, Transportation, to incorporate the revisions made by DOT's final rule published on 7/11/2014 (79 FR 40590).
N/A	N/A	19-100, introductory paragraph	N/A	By updating the incorporation by reference date to 2020, paragraph 71.22(a) is updated to delete the previous penultimate sentence.
N/A	N/A	renumbered 19-100(2)(g)(i)	N/A	




UTAH DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL

RATS ID 2019-2

( 84 FR 65639, Published December 5, 2019)

Organizational Changes and Conforming Amendments

10 CFR Parts 1, 2, 37, 40, 50, 51, 52, 55, 71, 72, 73, 74, 100, 140, and 150

Rule Adoption Crosswalk

Code of Federal Regulations		Utah Administrative Code*		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
Communications	§37.7(a)	37-3 Introductory paragraph incorporates various sections of Part 37 by reference, but does not include 37.7	D	No changes to the Utah Radiation Control rules are necessary. However, R313-12-110 and R313-12-111 of the Utah rules designates the Director of our agency as the official recipient of information from licensees, similar to 10 CFR 37.7.
Reports	§40.64(a) & (b)(2)	N/A	NRC	
Communications and records	§71.1	19-100 Introductory paragraph incorporates 71.1(a) by reference	D	Date of the incorporation by reference is updated to 2020. This results in incorporating the applicable changes published in the 12/5/2019 Federal Register.
General License: NRC approved package	§71.17(c)(3)	19-100 Introductory paragraph incorporates 71.17 by reference	B	Date of the incorporation by reference is updated to 2020. This results in incorporating the applicable changes published in the 12/5/2019 Federal Register.
Reports	§71.95	N/A	D	No changes to the Utah Radiation Control rules are necessary.
Quality Assurance requirements	§71.101	19-100 Introductory paragraph incorporates 71.101(a), 71.101(b), 71.101(c)(1), and 71.101(g) by reference	C	Date of the incorporation by reference is updated to 2020. This results in incorporating the applicable changes published in the 12/5/2019 Federal Register.  The existing substitution of "Director" for "Commission" in R313-19-100(3)(a) results in the quality assurance plan required under 71.101(c)(1) be sent to the Director. No additional change is necessary.
	Part 71	19-100 Introductory paragraph incorporates various sections of Part 71 by reference.		Incorporation by reference is updated to incorporate additional sections of 10 CFR Part 71 for compatibility purposes.

Code of Federal Regulations		Utah Administrative Code*		
TITLE	10 CFR	R313-	COMPATIBILITY	NOTES
Submission to Commission of nuclear material transaction reports	§150.16	N/A	NRC	
Submission to Commission of nuclear material status reports	§150.17	N/A	NRC	

\* Official version of the Utah Radiation Control Rules can be obtained online at <https://adminrules.utah.gov/public/search//Current%20Rules>.