

# Attachment 5

## DIVISION 50 - RADIOACTIVE WASTE MATERIALS

### 345-050-0006 - Disposal Prohibited

As provided under ORS 469.525, no radioactive waste shall be disposed of within this state, no person may arrange for disposal of radioactive waste within this state, no person may transport radioactive waste for disposal in this state and no waste disposal facility for any radioactive waste shall be established, operated or licensed within this state, except ~~Except~~ as provided in ORS chapter 469.525 and this division, a person shall not hold or place discarded or unwanted radioactive material for more than seven days at any geographical site in Oregon except the site at which the radioactive material was used or generated according to a license under ORS 453.635 or a site of a thermal power plant used for the temporary storage of radioactive material from that plant for which the Council issued a site certificate.

Statutory/Other Authority: ORS 469.470  
Statutes/Other Implemented: ORS 469.525

### 345-050-0010 - Purpose and Applicability

(1) Because virtually all materials contain some radioactivity, the purpose of the rules in OAR 345-050-0006 through 345-050-0039 ~~this division~~ is to identify those materials that present such small health hazards that they are ~~exempt from the provisions of ORS 469.525~~ not considered to be radioactive waste and may be disposed of within the state.

(2) OAR 345-050-0040 through 345-050-0130 ~~The rules in this division~~ establish standards for the siting of facilities for disposal of radioactive wastes that were generated before June 1, 1981, through industrial or manufacturing processes and that contain naturally occurring radioactive isotopes. These rules implement the requirements of ORS 469.375, 469.470 and 469.501 to 469.559 for such waste disposal facilities.

(3) Except as provided in OAR 345-050-0060, these rules do not apply to uranium mine overburden or uranium mill tailings, mill wastes or mill by-product material that are subject to OAR chapter 345, divisions 92 and 95.

(4) In accordance with ORS 469.525, the Department may establish an enforceable timeline or other requirements to determine whether a material is radioactive waste.

(5) For the purpose of these rules, disposal does not include:

(a) Temporary storage and staging of radioactive waste used or generated and stored or staged in accordance with a state license under ORS 453.635 as part of regular site operations

(b) Temporary storage of radioactive waste at the Trojan Spent Fuel Storage Installation until a federal waste repository is operational, subject to the provisions of OAR 345-026-0300 through 345-026-0390

(c) Temporary storage of radioactive waste from a reactor for which a site certificate has been issued pursuant to this chapter that is operated by a college, university or graduate center for research purposes and is not connected to the Northwest Power Grid; and

(d) Temporary storage of radioactive waste at a facility not licensed under ORS 453.635 pending lawful disposal out of this state, subject to the following:

(i) Any person that intends to temporarily store radioactive waste must report to the Department and Oregon Health Authority within 10 business days of discovery of such waste. The Department, in consultation with Oregon Health Authority, must determine that temporary storage of radioactive waste presents no significant risk to health and safety of the public and workforce. In order to determine that a radioactive waste presents no significant risk during temporary storage, it must be demonstrated that:

(A) the waste will be located in an area of a facility that is reasonably expected to be inaccessible to the public,

(B) the waste will be clearly marked and cordoned or otherwise isolated from workers, and must be stored in such a manner that minimizes risk of mobilization. This may include cover and/or secondary containment;

(C) workers will be informed and instructed on safety related to the waste;

(D) any other requirements as determined by the Department in consultation with Oregon Health Authority and the holder of the waste.

(ii) Temporary storage may not exceed 90 days without prior written authorization from the Department. To grant authorization to temporarily store radioactive waste for more than 90 days, the Department, in collaboration with Oregon Health Authority, must be assured that the waste will be properly disposed as soon as reasonably achievable, not to exceed 180 days in total.

Statutory/Other Authority: ORS 469.470

Statutes/Other Implemented: ORS 469.525

### **345-050-0020 - Exempt QuantitiesConcentrations**

(1) Materials that contain radionuclides in concentrations below the applicable concentration identified in **Table 1** are not radioactive waste for purposes of ORS 469.525 and these rules. Additionally, wastes with the following characteristics are considered to contain exempt concentrations:

(2) Radium-bearing materials containing less than 5 picocuries of radium-226 per gram of solid, regardless of quantity,

(3) Thorium-bearing materials containing less than 20 picocuries of radium-228 per gram of solid, if the radium-228 is present with the parent thorium-232, regardless of quantity, or

(4) Lead-210-bearing wastes which are not in equilibrium with uranium-238, are the result of fossil fuel-related production including refining, transport, or storage, and contain less than 10 picocuries per gram of solid regardless of quantity.

(1) Materials are exempt from provisions of ORS 469.525 if such materials contain radioactive material in individual quantities none of which exceeds the applicable quantity set forth in **Table 2** and if the number of individual quantities does not exceed 10.

(2) Burial of a human body containing radioactive materials used for diagnostic or therapeutic purposes is exempt from the provisions of ORS 469.525 if the burial is otherwise done in accordance with applicable Oregon law.

[ED. NOTE: The Table referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

~~Statutory/Other Authority: ORS 469~~

~~Statutes/Other Implemented: ORS 469.300, ORS 469.470 & ORS 469.525~~

~~Statutory/Other Authority: ORS 469.470~~

~~Statutes/Other Implemented: ORS 469.300 & ORS 97.153~~

### **345-050-0025 - Exempt QuantitiesConcentrations**

(1) Materials that contain radionuclides in individual quantities that do not exceed the applicable quantity identified in **Table 2** are not radioactive waste for the purposes of ORS 469.525 and these rules unless the number of individual radionuclides at their maximum allowable activity given in Table 2 exceeds 10. Additionally, wastes with the following characteristics are considered to contain exempt quantities:

(2) Radium-bearing material containing a total radium-226 activity of less than 10 microcuries, regardless of concentration.

(3) Thorium-bearing materials containing a total radium-228 activity of less than 100 microcuries, if the radium-228 is present with the parent thorium-232, regardless of concentration in the solid. ~~Materials are exempt from the provisions of ORS 469.525 provided that such materials contain radioactive materials in concentrations not in excess of those of **Table 1**.~~

[ED. NOTE: The Table referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

~~Statutory/Other Authority: ORS 469~~

~~Statutes/Other Implemented: ORS 469.300, ORS 469.470 & ORS 469.525~~

~~Statutory/Other Authority: ORS 469.470~~

~~Statutes/Other Implemented: ORS 469.300 & ORS 97.153~~

### **345-050-0030 - Specific Exemptions**

In addition to the exemptions under OAR 345-050-0020 and 345-050-0025, the following materials are exempt from the provisions of ORS 469.525 and OAR rule 345-050-0006:

(1) Radioactive material that has been incorporated into a consumer product manufactured under a license issued by the Nuclear Regulatory Commission (NRC) or by an Agreement State, if the NRC or the Agreement State that issued the license has determined that the possession, use, transfer and disposal of such consumer product are exempt from regulatory requirements. An "Agreement State" is a state to which the NRC has delegated its authority to license and regulate byproduct materials (radioisotopes), source materials (uranium and thorium) and certain quantities of special nuclear materials in accordance with section 274b of the Atomic Energy Act.

~~(2) Radium-bearing materials containing less than 5 picocuries of radium-226 per gram of solid, regardless of quantity.~~

~~(3) Radium-bearing material containing a total radium-226 activity of less than 10 microcuries, regardless of concentration.~~

~~(4) Thorium-bearing materials containing less than 20 picocuries of radium-228 per gram of solid, if the radium-228 is present with the parent thorium-232, regardless of quantity.~~

~~(5) Thorium-bearing materials containing a total radium-228 activity of less than 100 microcuries, if the radium-228 is present with the parent thorium-232, regardless of concentration in the solid.~~

(6) Medical, industrial and research laboratory wastes contained in small, sealed, discrete containers in which the radioactive material is dissolved or dispersed in an organic solvent or biological fluid for the purpose of liquid scintillation counting and experimental animal carcasses that are disposed of or treated at a hazardous waste disposal facility licensed by the U.S. Environmental Protection Agency (U.S. EPA), by the Oregon Department of Environmental Quality, or by another state delegated the responsibility to regulate the disposal or treatment of hazardous waste by the U.S. EPA.

(3) Burial of a human or animal body containing radioactive materials used for diagnostic or therapeutic purposes is exempt from the provisions of ORS 469.525 if the burial is otherwise done in accordance with applicable Oregon law.

(4) Waste that is identified as the result of metabolized isotopes used in medical treatment. A facility may only dispose of such waste in accordance with a facility-specific plan approved by the Department in consultation with Oregon Health Authority. The plan must ensure that the material presents no significant risk to the public, workers, or the environment. The plan, at a minimum, should include:

(a) how the facility will identify and confirm that waste is the result of metabolized isotopes used in medical treatment;

(b) information regarding worker safety and training;

(c) how the facility will manage waste that is determined to not be the result of metabolized isotopes used in medical treatment; and

(d) a tracking and reporting schedule for informing the Department and Oregon Health Authority of actions taken under the plan.

~~(7) Wastes generated before June 1, 1981, through industrial or manufacturing processes that contain only naturally occurring radioactive isotopes, if such wastes are disposed of at a facility for which the Council has issued a site certificate in accordance with ORS 469.375 and OAR 345-050-0040 through 345-050-0130.~~

~~(8) Maintenance of radioactive coal ash at the site of a thermal power plant for which the Council has issued a site certificate.~~

(9~~5~~) Wastes containing only naturally occurring radioactive isotopes other than those in the uranium and thorium decay series, as long as the isotopes exist in their naturally occurring isotopic concentrations.

(6) Wastes legally disposed before [DATE OF REVISION] provided the waste is not removed from the location of original disposal.

Statutory/Other Authority: ORS 469.470

Statutes/Other Implemented: ORS 469.525