Title of rule and other identifying information: (Describe Subject)
Radiation Protection - Air Emissions, WAC 246-247-030 Definitions. The Department of Health is proposing to amend the definition of "license" in response to a petition for rule making.

Hearing location(s): Department of Health
Town Center Two, Room 145
111 Israel Road SE
Tumwater WA 98501

Date: 1/22/2014 Time: 2:00 p.m.

Submit written comments to:
Name: Michelle K Austin
Address: PO Box 47827
Olympia, WA 98504-7827
e-mail: http://www3.doh.wa.gov/policyreview/
fax 360-236-2266 by (date) 01/22/2014

Assistance for persons with disabilities: Contact Michelle K Austin by 01/15/2014
TTY (800) 833-6388 or () 711

Date of intended adoption: 01/29/2014
(Note: This is NOT the effective date)

Purpose of the proposal and its anticipated effects, including any changes in existing rules:
For the purpose of clarity, the Department of Health is proposing to revise the definition of "license" to accurately reflect the Department of Health actions and to clarify related actions by the Department of Ecology and the local air pollution control authorities.

Reasons supporting proposal:
The current definition of license describes it as either issued by the Department of Health or incorporated by the Department of Health as an applicable portion of the air operating permit. While the radioactive air emissions license is always issued by the Department of Health, incorporation of the license into the air operating permit is done by the Department of Ecology or the local air pollution control authorities under their authority.

Statutory authority for adoption:
RCW 70.98.050 and 70.98.080

Statute being implemented:
RCW 70.98.050 and 70.98.080

Is rule necessary because of a:
Federal Law? × Yes □ No
Federal Court Decision? □ Yes × No
State Court Decision? □ Yes × No

DATE
12/04/2013

NAME (type or print)
Jessica Todorovich for John Wiesman, DrPH, MPH

SIGNATURE

for John Wiesman, DrPH, MPH

TITLE
Deputy Secretary for Secretary of Health

(COMPLETE REVERSE SIDE)
Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters:

None

<table>
<thead>
<tr>
<th>Name of proponent: (person or organization)</th>
<th>Department of Health</th>
</tr>
</thead>
</table>

Name of agency personnel responsible for:

<table>
<thead>
<tr>
<th>Name</th>
<th>Office Location</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drafting.......John Martell</td>
<td>309 Bradley Blvd, Suite 201, Richland, WA 98352</td>
<td>509-946-3798</td>
</tr>
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<td>Implementation...John Martell</td>
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<tr>
<td>Enforcement.....John Martell</td>
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</table>

Has a small business economic impact statement been prepared under chapter 19.85 RCW or has a school district fiscal impact statement been prepared under section 1, chapter 210, Laws of 2012?

- Yes. Attach copy of small business economic impact statement.
  
  A copy of the statement may be obtained by contacting:
  
  Name:
  Address:
  
  phone
  fax
  e-mail

- No. Explain why no statement was prepared.

A small business economic impact statement (SBEIS) was not prepared. Under RCW 19.85.025 and 34.05.310(4)(d), a SBEIS is not required for proposed rules that only correct typographical errors, make address or name changes, or clarify the language of a rule without changing its effect.

Is a cost-benefit analysis required under RCW 34.05.328?

- Yes  A preliminary cost-benefit analysis may be obtained by contacting:
  
  Name:
  Address:
  
  phone
  fax
  e-mail

- No: Please explain:

The agency did not complete a cost benefit analysis under RCW 34.05.328. RCW 34.05.328(5)(b)(iv) exempts rules that only correct typographical errors, make address or name changes or clarify the language of a rule without change its effect.
WAC 246-247-030 Definitions. Terms used in this chapter have the definitions set forth below with reference to radioactive air emissions.

1) "Abatement technology" means any mechanism, process or method that has the potential to reduce public exposure to radioactive air emissions. Abatement control features include automatic mechanisms and administrative controls used in the operation and control of abatement technology from entry of radionuclides into the ventilated vapor space to release to the environment.

2) "Administrative control" means any policy or procedure that limits the emission of radionuclides.

3) "ALARA" means as low as reasonably achievable making every reasonable effort to maintain exposures to radiation as far below the dose standards in this chapter as is practical, consistent with the purpose for which the licensed 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 socioeconomic considerations, and in relation to the utilization of nuclear energy, ionizing radiation, and radioactive materials in the public interest. See WAC 246-220-007.

4) "As low as reasonably achievable control technology" (ALARACT) means the use of radionuclide emission control technology that achieves emission levels that are consistent with the philosophy of ALARA. ALARACT compliance is demonstrated by evaluating the existing control system and proposed nonsignificant modifications in relation to applicable technology standards and other control technologies operated successfully in similar applications. In no event shall application of ALARACT result in emissions of radionuclides that could cause exceedance of the applicable standards of WAC 246-247-040. See the definition of ALARA in this section. Note that ALARACT is equivalent to, but replaces, RACT in the May 7, 1986, version of chapter 173-480 WAC.

5) "Annual possession quantity" means the sum of the quantity of a radionuclide on hand at the beginning of the calendar year and the quantity of that radionuclide received or produced during the calendar year.

6) "Best available radionuclide control technology" (BARCT) means technology that will result in a radionuclide emission limitation based on the maximum degree of reduction for radionuclides from any proposed newly constructed or significantly modified emission units that the licensing authority determines is achievable on a case-by-case basis. A BARCT compliance demonstration must consider energy, environmental, and economic impacts, and other costs through examination of production processes, and available methods, systems, and techniques for the control of radionuclide emissions. A BARCT compliance demonstration is the conclusion of an evaluative process that results in the selection of the most effective control technology from all known feasible alternatives. In no event shall application of BARCT result in emissions of radionuclides that could exceed the applicable standards of WAC 246-247-040. Control technology that meets BARCT requirements also meets ALARACT requirements. See WAC 173-480-030 and 246-247-120.
(7) "Committed effective dose equivalent" (CEDE) means the sum of the products of absorbed dose from internally deposited radionuclides and appropriate factors to account for differences in biological effectiveness due to the quality of radiation and its distribution in the body of reference man over a fifty-year period.

(8) "Construction" means fabrication, erection, or installation of a new building, structure, plant, process, or operation within a facility that has the potential to emit airborne radionuclides. Construction includes activities of a permanent nature aimed at completion of the emission unit, such as pouring concrete, putting in a foundation, or installing utilities directly related to the emission unit. It does not include preliminary activities such as tests to determine site suitability, equipment procurement and storage, site clearing and grading, and the construction of ancillary buildings.

(9) "Decommissioning" means actions taken to reduce or eliminate the potential public health and safety impacts of a building, structure, or plant that has permanently ceased operations, including, but not limited to, actions such as decontamination, demolition, and disposition.

(10) "Emission unit" means any single location that emits or has the potential to emit airborne radioactive material. This may be a point source, nonpoint source, or source of fugitive emissions.

(11) "Facility" means all buildings, structures, plants, processes, and operations on one contiguous site under control of the same owner or operator.

(12) "Fugitive emissions" are radioactive air emissions which do not and could not reasonably pass through a stack, vent, or other functionally equivalent structure, and which are not feasible to directly measure and quantify.

(13) "Indication device" means any method or apparatus used to monitor, or to enable monitoring, the operation of abatement controls or the potential or actual radioactive air emissions.

(14) "License" means a radioactive air emissions license((, either)) issued by the department ((or incorporated by the department as an applicable portion of an air operating permit issued by the department of ecology or a local air pollution control authority,)) with requirements and limitations listed therein ((to which the licensed or permitted party must comply)). Compliance with the license requirements ((shall be)) are determined and enforced by the department. The license will be incorporated as an applicable requirement in the air operating permit issued by the department of ecology or a local air pollution control authority when the department of ecology or a local air pollution control authority issues an air operating permit.

(15) "Maximally exposed individual" (MEI) means any member of the public (real or hypothetical) who abides or resides in an unrestricted area, and may receive the highest TEDE from the emission unit(s) under consideration, taking into account all exposure pathways affected by the radioactive air emissions.

(16) "Modification" means any physical change in, or change in the method of operation of, an emission unit that could increase the amount of radioactive materials emitted or may result in the emission of any radionuclide not previously emitted. This definition includes the cleanup of land contaminated with radioactive material, the decommissioning of buildings, structures, or plants where radioactive contamination exists, and changes that will cause an increase in the emission unit's operating design capacity. This definition excludes routine maintenance, routine repair, replacement-in-kind, any increa-
ses in the production rate or hours of operation, provided the emis-
sion unit does not exceed the release quantities specified in the li-
cense application or the operating design capacity approved by the de-
partment, addition of abatement technology as long as it is not less
environmentally beneficial than existing, approved controls, and
changes that result in an increase in the quantity of emissions of an
existing radionuclide that will be offset by an equal or greater de-
crease in the quantity of emissions of another radionuclide that is
deemed at least as hazardous with regard to its TEDE to the MEI.

(17) "Monitoring" means the measurement of radioactive material
released to the ambient air by means of an in-line radiation detector,
and/or by the withdrawal of representative samples from the effluent
stream. Ambient air measurements may be acceptable for nonpoint sour-
ces and fugitive emissions.

(18) "Nonpoint source" is a location at which radioactive air
emissions originate from an area, such as contaminated ground above a
near-surface waste disposal unit, whose extent may or may not be well-
defined.

(19) "Notice of construction" (NOC) is an application submitted
to the department by an applicant that contains information required
by WAC 246-247-060 for proposed construction or modification of a reg-
istered emission unit(s), or for modification of an existing, unregis-
tered emission unit(s).

(20) "Point source" is a discrete, well-defined location from
which radioactive air emissions originate, such as a stack, vent, or
other functionally equivalent structure.

(21) "Potential-to-emit" means the rate of release of radionu-
clides from an emission unit based on the actual or potential dis-
charge of the effluent stream that would result if all abatement con-
trol equipment did not exist, but operations are otherwise normal. De-
termine the potential-to-emit by one of the following methods:

(a) Multiply the annual possession quantity of each radionuclide
by the release fraction for that radionuclide, depending on its physi-
cal state. Use the following release fractions:

(i) 1 for gases;
(ii) \(10^{-3}\) for liquids or particulate solids; and
(iii) \(10^{-6}\) for solids.

Determine the physical state for each radionuclide by considering its
chemical form and the highest temperature to which it is subjected.
Use a release fraction of one if the radionuclide is subjected to tem-
peratures at or above its boiling point; use a release fraction of
\(10^{-3}\) if the radionuclide is subjected to temperatures at or above its
melting point, but below its boiling point. If the chemical form is
not known, use a release fraction of one for any radionuclide that is
heated to a temperature of one hundred degrees Celsius or more, boils
at a temperature of one hundred degrees Celsius or less, or is inten-
tionally dispersed into the environment. Other release fractions may
be used only with the department's approval; or

(b) Perform a back-calculation using measured emission rates and
in situ measurements of the control equipment efficiencies, as ap-
proved by the department; or

(c) Measure the quantities of radionuclides captured in each con-
trol device, coupled with in situ measurements of the control equip-
ment efficiencies, as approved by the department; or

(d) Sample the effluent upstream from all control devices, as ap-
proved by the department; or
(e) Use an alternative method approved by the department.

(22) "Replacement-in-kind" means the substitution of existing systems, equipment, components, or devices of an emission unit's control technology with systems, equipment, components, or devices with equivalent, or better, performance specifications that will perform the same function(s).

(23) "Routine" means:

(a) Maintenance, repair, or replacement-in-kind performed on systems, equipment, components, or devices of an emission unit's abatement technology as a planned part of an established inspection, maintenance, or quality assurance program that does not increase the emission unit's operating design capacity; or

(b) Normal, day-to-day operations of a facility.

(24) "Sealed source" means radioactive material that is permanently bonded or fixed in a capsule or matrix, or radioactive material in airtight containers, designed to prevent release and dispersal of the radioactive material under the most severe conditions encountered in normal use and handling.

(25) "Significant" means the potential-to-emit airborne radioactivity at a rate that could increase the TEDE to the MEI by at least 1.0 mrem/yr as a result of a proposed modification.

(26) "Total effective dose equivalent" (TEDE) means the sum of the dose equivalent due to external exposures and the CEDE due to internal exposures.

(27) "Uranium fuel cycle" means the operations of milling uranium ore, chemical conversion of uranium, isotopic enrichment of uranium, fabrication of uranium fuel, generation of electricity in a nuclear power plant that uses uranium fuel, and reprocessing of spent uranium fuel, to the extent that these operations solely support the production of electrical power for public use. Excluded are mining operations, waste disposal sites, transportation of any radioactive material, and the reuse of recovered nonuranium special nuclear and by-product materials from the cycle.