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December 22, 2025

Oregon Department of Energy
Attn: Tom Jackman
Rules Coordinator for Energy Facility Siting Council
550 Capitol St. NE
Salem, OR 97301

Comments submitted via email to Tom.Jackman@energy.oregon.gov,

RE: Comments on Draft Language Updates to OAR 345-060-0001, 0003, 0004, 0005, 0006, 0007, 0015, 0025, 0030, 0040, 0045, 0050, 0055.

Dear Oregon Department of Energy (ODOE),

Columbia Riverkeeper is a non-profit organization with a mission to restore and protect the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean. Columbia Riverkeeper has over 16,000 members and supporters who live, work, and recreate throughout the Columbia River Basin, including thousands of members and supporters in Oregon and Washington. For over two decades, Columbia Riverkeeper has worked with Tribal Nations and people in communities throughout the Northwest who rely on a clean Columbia to address toxic and radioactive waste at the Hanford Nuclear Site. Based on this experience, our organization has seen firsthand the complex challenges, and unanswered questions, when it comes to long-term management of nuclear waste.

Columbia Riverkeeper submits the following comments on the OAR 345 Division 60 draft rules, as part of the informal RAC comment period.

1. **Specific Section Comments**

a. **OAR 345-060-0001 Definitions**

In section (2) of the draft rule, the definition of *Radioactive material* is defined in 49 CFR 173.403, which reads: "*Radioactive material* means any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the table in § 173.436 or values derived according to the instructions in § 173.433." The OAR definitions should include the language above and the specific values and instructions that the state supports and are in effect now, not just a reference to the law coupled with broad in effect language. Recent federal executive orders have sought to decimate radiation exposure standards, could this impact federal definitions of radioactivity standards and values? Recent federal upheaval supports making the OAR definitions as clear as possible to maintain the health and safety standards supported by Oregon.

Additionally, the definitions section should include a definition of solid and liquid radioactive waste. The definitions under Class 7 (radioactive material), make it really challenging to differentiate between solid and liquid radioactive waste. However, transportation of the two different physical forms, has tangible differences in risks to people and the environment and requires different emergency responses, which in turn cost more. The definitions section should define what Oregon would classify as liquid versus solid radioactive waste.

b. OAR 345-060-0003 Applicability and Scope

In section (1), Columbia Riverkeeper strongly supports the inclusion of rail shippers; they should not be exempted from this rule. In other instances, ODOE has charged a fee on rail carriers for oil transportation and the case law makes a strong case for why this type of fee is not preempted by federal law.

Generally, the 9th Circuit has held that states have the power to assess a fee onto rail carriers under the Hazardous Materials Transportation Act (HMTA), Pub. L. No. 93-633, Title I, 88 Stat. 2156 (1975). *See* BNSF Railway Co. v. California Department of Tax and Fee Administration (CDTFA), 904 F.3d, 761 (9th Circ. 2018), BNSF Ry. Co. v. Clark County 11 F. 4th 961(9th Circ. 2021).

In CDTFA, the court looked at a state fee scheme, where BNSF argued that the fee was preempted by the Interstate Commerce Commission Termination Act (ICCTA), 49 U.S.C. §10706. BNSF Railway Co. 904 F.3d at 761. The court determined that if "considered in isolation, the ICCTA would preempt SB 84. However, another federal statute, the HMTA, protects from preemption certain state, local and tribal fees related to the transportation of hazardous materials." *Id.* In CDTFA, the court explained that the HMTA "authorize[s] a State to charge a fee for transportation of hazardous materials, and cited a House Committee Report that "unambiguously stated that a State's authority to charge fees under §5125(f)(1) extended to transportation by rail." *Id.* at 763-65. The court explained that under the HMTA "a state may impose a fee related to transporting hazardous material only if the fee is fair," *Id.* at 761. However, the court agreed with the railroad that the fee at issue was not fair because the state did not charge an equivalent fee on both the railroad and trucking companies, ultimately favoring trucking companies. *Id.* at 767. Unlike CDTFA, the fee imposed by the state of Oregon is equivalent across all shippers, making it protected from preemption under the HMTA. To that end, should this rule include all manners in which radioactive waste is transported across the state, i.e. barge transportation?

In section (2), shouldn't this also include Tribal Nation carriers and vehicles?

Could an example be provided that would fit the exemption outlined in section (2)?

Section (3) includes the statement, " In accordance with ORS 469.603 and 469.607, it is the intent of these rules to be consistent with the United States Department of Transportation and Nuclear Regulatory Commission rules." Legally, the state is allowed to promulgate laws that are more protective than federal laws, does Oregon want to be consistent with the federal government or more protective? Again, it seems like recent federal upheaval, which has included strong deregulation, would incentivize Oregon to ensure that its laws remain as protective as intended.

c. OAR 345-060-0003 Permits

In regards to section (3), has ODOE issued an emergency permit in the past and under what circumstances?

In section (4)(c), Columbia Riverkeeper recommends that carriers should be required to provide precise information, why does the current rule state that this is not required? Could ODOE provide an example of when precise information was not available? As written, this rule requires self reporting, as opposed to carriers needing to show that precise information is not available. Knowing this information seems vital to emergency services responses if there were to be an accident.

In section 4(e), the rule should require any violations of law related to radioactive transport, not just those within the last two years. It should also cover radioactive and hazardous waste transport. This would allow for more informed risk assessments when issuing permits and provide more information for emergency preparedness. How many carriers in the past two years had violations related to radioactive transport?

In section (15) self reporting seems to defeat the purpose of this section. Carriers, including rail, should be required to report prior to transporting radioactive materials through Oregon. Reporting after the fact does not allow for proper identification of radioactive materials moving through the state, the rail and roads they will travel on, and the communities they will travel through. Having this information ahead of time would better prepare emergency responders and allow for better response time. With an online option, it doesn't seem too challenging to report ahead of time if not traveling through an Oregon port of entry. Since rail carriers do not enter through an Oregon port of entry it seems like the state could work with these carriers ahead of time instead of relying on self-reporting that may occur after transport has taken place.

d. OAR 345-060-0005 Notification for Inspection

Does the term "spent nuclear reactor fuel" need to be defined in the definitions? Would this term include tank waste, high level waste?

Section (2)(b) should also require that carriers submit a written explanation of why they could not comply with the 48 hours notice, this would allow for more public transparency and a written record to determine if certain carriers have a pattern of noncompliance.

e. OAR 345-060-0006 Fees

Section (1) should use a risk based model for addressing fees. Columbia Riverkeeper suggests requiring a $125 fee for solid waste and $175 for liquid waste shipments (however see comments below about the fee increase). The purpose of increasing fees on carriers of radioactive materials is to provide more funds for emergency responders and prepare for increased shipments coming out of the Hanford Nuclear Site, as well as other sources in the region, such as radioactive fracking waste. Currently, ODOE is already anticipating an increase of 60-110 shipments per year due to Hanford's 200 West project alone. In 2024, ODOT reported 12 class 7 shipments (half exempted military transports). This means ODOE is expecting a minimum 10x increase of the most dangerous waste traveling across the state. Oregon has come out strongly opposing the shipment of radioactive liquid waste through the state. However, Oregon has no say in whether the U.S. Department of Energy will or will not ship liquid or grouted waste from Hanford for

offsite storage. That being said, liquid radioactive waste poses different and unique challenges than solid waste if an accident occurs. Due to this, transporting liquid waste should incur a higher fee.

The fee increase proposed in Section (1) should be adjusted higher. It's Columbia Riverkeeper's understanding that the proposed fee is the minimum amount to keep things where they are at. However, ODOE stated to the RAC that currently ODOE does not have enough funds to provide service and training to emergency responders when it comes to radioactive transport issues. Therefore, with the 10x increase in shipments expected from one Hanford project alone, and the increase in TRU waste shipments to the Waste Isolation Pilot Plant from the site, it seems like the fee increase is already insufficient and therefore should be higher.

Section (6)(a) should require more frequent cost adjustment to ensure that fees collected are reflecting increased costs in emergency responses.

Generally, this section should include a fee increase for carriers who have caused an emergency response.

f. OAR 345-060-0007 Inspections

This section uses the term ""irradiated reactor fuel" (defined in 10 CFR 73.37 in effect as of the date of this rule,"" which is different than the term used in **OAR 345-060-0005,** "spent nuclear fuel." Columbia Riverkeeper suggests using the same term in both sections and defining the consistent term in the definitions.

g. OAR 345-060-00015 Vehicles, Operator, Equipment

No comments.

h. OAR 345-060-0030 Reporting and Emergency Response

This section should include a requirement that carriers must contact local Tribal emergency response authorities if they are on or within 20 miles of reservation land.

i. OAR 345-060-0040 Highway Routes

No comments.

j. OAR 345-060-0045 Financial Assurances

Section (4) should include indemnification language for any Tribe on whose reservation an accident occurs on. It should also cover off-reservation accidents that result in damage or destruction of cultural resources covered under treaty-reserved rights.

k. OAR 345-060-0050 Weather and Road Conditions

Are there any related provisions to include for rail carriers?

l. OAR 345-060-0055 Enforcement

No comments.

2. **General Comments**

Columbia Riverkeeper is appreciative of the state of Oregon providing services and training to emergency responders in the case of an accident involving radioactive materials. We also support increases to this fee to ensure that services and training may continue and increase as necessary to meet the demands of increased shipments of radioactive material through the state. As a general comment, we also support a portion of these funds and/or services and training be provided to Tribal emergency responders as well.

While generally supportive of this rule, Columbia Riverkeeper would like to mention recent studies which point to the disparate harm from ionizing radiation released into the environment to underscore that rules must ensure a higher level of protection. We encourage Oregon to consider this harm and urge the state to not exclude wealthy railroad companies from the rules when they are potentially moving material through communities that could cause great harm.

The studies listed below provide a guideline for how Oregon can update its current rules to be actually be protective of those most at risk. It's essential that the funds gathered through this current rule update provide for accurate services and training to address radioactive transport emergencies and keep people and the environment as safe as possible.

Studies:

1. Amanda M. Nichols and Mary Olson. Gender and Ionizing Radiation: Towards a New Research Agenda Addressing Disproportionate Harm. Geneva, Switzerland: UNIDIR, 2024.

2. Folkers, Cindy. "Disproportionate Impacts of Radiation Exposure on Women, Children, and Pregnancy: Taking Back our Narrative," Journal of the History of Biology 54 (2021): 31–66. https://doi.org/10.1007/ s10739-021-09630-z.

3. Folkers, Cindy, and Linda Pentz Gunter. "Radioactive Releases from the Nuclear Power Sector and Implications for Child Health," BMJ Paediatrics Open 6, no. 1 (2022): 1–9. https://doi.org/10.1136/bmjpo2021-001326.

Generally, it's important to bear in mind that the standards for radiation dosage are not protective for the majority of the population,

> Current U.S. regulations allow a radiation dose to the public (100 mrem per year) which poses a lifetime cancer risk to the Reference Man model of 1 person in 143. This is despite the EPA's acceptable risk range for lifetime cancer risk from toxics being 1 person in 1 million to 1 person in 10,000.[12] As noted by the EPA, this gives radiation a 'privileged pollutant' status.[13] Additionally, biokinetic models for radioisotopes are not sex-specific. A male model is still used for females. The models are also not fully age-dependent.[14] Radiation damage models also fail to account for a whole host of childhood and pregnancy damage.[1]

> There are known 'windows of susceptibility' in a lifetime, 'includ[ing] periods of active cell differentiation and growth in the womb and in early childhood as well as adolescence, when the brain is continuing to develop' during which '[c]hemicals can act like hormones and drugs to disrupt the control of development and function at very low doses…[i]n some cases, a susceptibility to disease also can persist long after the initial insult or exposure has ended'.[15]
>
> Women and children in underserved communities are at still greater risk because of unique exposure pathways and systemic inequities. Traditional lifestyle and cultural patterns can also lead to increases in exposure. In the case of some Native Americans, exposure to toxics and radiation has been multigenerational, enduring over a period of 150 years.[16] Folkers, Cindy, and Linda Pentz Gunter. "Radioactive Releases from the Nuclear Power Sector and Implications for Child Health,"

In addition, the U.S. Department of Energy has looked at risks from railcars when shipping Greater Than Class C (GTCC) waste

> Individuals in the vicinity of a severe accident could receive much higher doses, as shown in Table 5.3.9-4. A CEDE of up to 62 rem could be received by a nearby person downwind of the sealed source railcar accident. This dose would be from inhalation during passage of the aerosolized radioactive material (plume) after the accident. No deaths or symptoms of acute radiation syndrome are expected, **but the increase in the lifetime risk of a fatal cancer would be 0.04.** U.S. Department of Energy, Final Environmental Impact Statement Disposal of Greater-Than-Class-C (GTCC) Low-Level Radioactive Waste and GTCC-Like Waste (DOE/EIS-0375) 2016, p. 5-87, available at https://www.energy.gov/sites/default/files/2016/02/f30/EIS-0375-FEIS_Volume%20I_Chapters%201-8.pdf.

It is surprising to see such a blunt acknowledgement that a railcar accident with GTCC waste could cause so much harm. The potential for grouted waste to become aerosolized in an accident is also a cause for concern with respect to the material railroads are handling coming from Hanford's tank farms, or from newly proposed nuclear fission facilities like power plants. In the case of GTCC waste, the risk from fatal cancer from acutely exposed people was astoundingly high - 4 in 100? Ramping up operations to move over 30 million gallons of tank waste, diluted or grouted, or both, would elevate the potential for accidents that dramatically increase cancer risks for people in potential transportation routes in Oregon. If Oregon's limits are to align with federal limits, then the fees must be commensurate with the new volumes of risk coming into the state. The systems of response are overburdened already.

Columbia Riverkeeper appreciates the opportunity to provide these initial comments and questions on the OAR 345 Division 60 draft rules, as part of the informal RAC comment period.

Sincerely,

Simone Anter

Senior Attorney & Hanford Program Director
Columbia Riverkeeper