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May 8, 2017

The Honorable Ken Helm
Chair, House Environment and Energy Committee
900 Court St NE, H-490
Salem, OR 97301

RE: Senate Bill 990—OPPOSE

Dear Chairman Helm,

On behalf of the Union of Concerned Scientists (UCS) and our 13,000 supporters in the state of Oregon, I am writing to express our opposition to Oregon Senate Bill 990, which was recently passed by the Senate. UCS, a nuclear power safety and security watchdog for nearly 50 years, is committed to ensuring that sound science underlies the basis of any legislation that could impact public health and safety. SB 990 fails that test and should be rejected.

The bill would exempt small modular reactors, defined as nuclear fission reactors with electrical outputs less than or equal to 300 megawatts, from the legal requirement that a statewide vote be held before any nuclear power plant can be sited in Oregon, provided that the "emergency planning zone established by the United States Nuclear Regulatory Commission" lies within an area within the jurisdiction of a city or county that has approved such a reactor. This exemption implies that a reactor meeting such criteria would have no significant impact on public health and safety beyond the emergency planning zone and hence outside of the local jurisdiction where the reactor is located. There is no technical justification for such a provision.

First, the Nuclear Regulatory Commission (NRC) requires the establishment of two emergency planning zones (EPZs), not one as implied by SB 990. Within the first zone, with a nominal radius of 10 miles, the NRC requires evacuation planning to protect residents from direct inhalation exposure to the radioactive plume from a nuclear accident. Within the second zone, with a nominal radius of 50 miles, the NRC requires other protective actions to reduce the risk to the public from ingesting radioactively contaminated food and water. But in both cases, the sizes of these zones were set only to cover the populations and areas that would be at greatest risk in the event of a nuclear accident. Significant radiation could still spread beyond the EPZs and county borders. Oregon residents should not lose their legal right to have a say on whether to accept such risks from reactors sited in neighboring jurisdictions.

Few Oregon counties could accommodate a 50-mile radius ingestion EPZ within their borders. SB 990 presumably is based on the expectation that the NRC will approve reductions in EPZ sizes (both for inhalation and for ingestion) for small modular reactors, given that the amount of radioactivity in their cores would be less than that in the larger reactors currently in operation. However, it is far from assured that the NRC will grant such

approvals. And even if the reactors are smaller, the highly radioactive spent fuel stored on site would present hazards of its own in the event of an accident or terrorist attack. Because spent fuel will need to cool for several years after discharge from the reactors in vulnerable storage pools before it can be moved off-site, it will present a serious additional risk as long as the reactors operate. Moreover, the risk will increase with time because the spent fuel will accumulate on site until the US government is able to find a centralized location where spent fuel can be moved, a highly uncertain proposition.

In summary, SB 990 is not based on sound science. We do not believe SB 990 is sensible public policy and we urge you to reject it.

Sincerely,

Edwin Lyman, PhD
Senior Scientist, Global Security Program

Jason Barbose
Western States Policy Manager