

My name is John Howieson, MD

I am a retired radiologist formerly on the faculty at OHSU. I am currently a member of the U.S. Department of Energy Hanford Advisory Board and a member of the Oregon Hanford Cleanup Board.

I wish to declare my opposition to HB 3445.

The voters of Oregon made it clear in Ballot Measure 7 in 1980 that they did not want nuclear reactors licensed in Oregon until there was a depository to accept spent nuclear fuel. The dangers and costs associated with spent nuclear fuel have not changed at all since 1980.

The fuel from the closed Trojan nuclear power plant remains in dry cask storage at the Trojan site and there is not yet, nor in the foreseeable future a depository that would enable the removal of the spent fuel from Oregon.

Small modular reactors may offer increased safety of operation, but the liability associated with operation of a nuclear reactor, whether large or small, remains a potential burden on the taxpayers because the potential liability is too great to make commercial insurance coverage affordable to the nuclear industry.

It is important to be aware that every atom of nuclear fuel that is split results in lighter often highly radioactive atoms such as Cesium-137 and Strontium-90 each of which has a 30 year half life. This is as much true of a small modular reactor as of currently conventional power reactors and it does not matter whether the fuel is uranium, plutonium, thorium, or any other fissile material.

The experience with the Hanford Nuclear reservation where 56 million gallons of nuclear waste is contained in underground storage tanks should sound a loud and clear warning of the enormous cost and danger of producing more spent nuclear fuel. At Hanford more than \$19 billion has been spent to date on tank related projects and not one iota of waste has been processed for transfer to a hypothetical and as yet unattainable deep geologic repository (Report to Committee on Armed Services, U.S. Senate GAO-15-354).

Oregon should be proud of its stand against creation of additional dangerous waste for which no disposal path exists. Its involvement with small modular reactor development in hopes of mercenary benefit is a sad departure from the state's tradition of environmental concern.

I therefore urge opposition to HB 3445.

John Howieson, MD
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