

PSE Rate Case UE 170033 & UG-170034

My name is Randal W. Samstag and I live on Bainbridge Island in Kitsap County. I wish to address the question of allocation of costs for cleanup of the Colstrip, Montana generating station ash ponds between shareholders and ratepayers. I am a registered civil and sanitary engineer in Washington State who has designed both earthen basins to infiltrate treated wastewater into the groundwater system and waste containment basins designed to ensure that contaminated waste does not reach groundwater. I have been a PSE customer in Kitsap County since 1977.

I have reviewed several reports describing the process water system at the Colstrip power station, including a 1986 report prepared by the Montana Power Company Thermal Generation Engineering Department reviewing alternatives for management of ash from the Colstrip Generating Units Numbers 1 and 2 and the 2012 Plant Site Report prepared by Hydrometrics, Inc. for PPL Montana (PPLM) as required by the Montana Department of Environmental Quality (MDEQ) Administrative Order On Consent (AOC).

What these reports make clear is that most of this extensive pond system (nearly 150 acres of water surface) was originally constructed with a clay lining that has permitted significant seepage over the years since these ponds were first constructed in 1975. While the PPLM report makes continuous mention of the "closed loop" nature of this pond system, it seems that from 1975 through 2004 to 2006 much of this extensive pond system had only a clay liner and no leachate recovery. That is approximately 30 years of pollution from these ponds to the adjacent groundwater system with total dissolved solids concentrations as high as 30,000 mg/L and sulfate concentrations as high as 21,000 mg/L.

It is clear from the 1986 report that at least since then, the owners of the facility had the option of an alternative to this polluting pond system for processing of liquid residuals from the power station: a dry process using mechanical dewatering equipment with supernatant treatment. The owners chose not to install this kind of system that would have prevented seepage of thousands of gallons of leachate to adjacent ground water. It is only since the 2016 Settlement Agreement of the lawsuit filed by the Sierra Club and the World Wildlife Federation that the owners have

finally committed to dry ash storage in the Units 3 and 4 Effluent Holding Ponds (EHPs) and that commitment will be implemented only by 2022.

As a Puget Power and PSE ratepayer for 40 years I welcome paying for measures to eliminate pollution from generation of the power I use, both in disposal of liquid wastes from its generation plants and in carbon pollution from its fossil fuel generation plants. My family pays an extra cent per kilowatt hour tariff for "green power" from PSE to prevent atmospheric and groundwater pollution. But I think it is inappropriate for ratepayers to bear any of the burdens for cleaning up pollution from these plants that was clearly preventable and the result of decisions made by the owners alone. This seems to be the case for the pollution from the ash ponds for the Colstrip generating station. The company didn't ask me whether to use a less expensive and more uncertain method to handle liquid residuals from their power station. Now that their ash ponds have polluted groundwater for at least 30 years, it should be the sole responsibility of the shareholders to pay for remediation of the damage that these decisions have caused.

Randal W. Samstag, PE

Civil and Sanitary Engineer

PO Box 10129

Bainbridge Island, WA 98110

Email: rsamstag@rsamstag.com