

## Karin Engstrom

I've read a long list of books on Hanford, but not as thorough as Steve Olson's *The Apocalypse Factory* that gave me meaningful insights from the discovery of fission, the coming together of scientists to explore the phenomena, through the establishment of the Manhattan Project, building of Hanford, the bombs and a story of Nagasaki. The last third of the book describes what was left behind! The book reads almost as good as a detective story! I gained a great deal of appreciation for what you have been dealing with all these years.

I am glad that the K Reactor Basin has been cleaned up. I've read the article on your website but have the following questions:

- After the water is treated, it says it will be disposed of – but where and how?
- What happens to the soils surrounding the area?

If I had one wish it would be that any development being considered affecting the planet would have to take full responsibility for clean up – mitigation aside! The scientists knew how dangerous this process was and they tested the river waters, fish and areas surrounding the reactors. What they didn't figure out in all their scientific pursuits was how to reverse the process or permanently store the waste that would be radioactive for thousands of years.

Why weren't the corporations that made money off the processing of plutonium, after WW II, held responsible for cleaning up this waste?

I've read articles on the plans that Finland developed with Sweden and that storage effort seems reasonable, but they are still playing with thousands of years for future generations and the planet's environment.

Thanks to Heart of America Northwest, Hanford Challenge and the Columbia Riverkeeper for their long-term knowledge and insights on the many issues surrounding the clean up of Hanford.

I agree with their lists of talking points and would encourage the agencies to truly consider the insights.

- With the changes in your Holistic Agreement, the public needed more outreach and time to organize meetings to go through the document.

I attended their online meetings and yours.

I wrote an article for my 34th Dems newsletter to ask for their participation, but it would have been better if we were able to do a presentation prior to our monthly meeting.

I sent my article with its web links to friends and family who live in other states, hoping to spread awareness of the critical need to keep following and funding the clean up process.

Agencies live and work with these issues, and your unique wordsmithing every day. The public literally needs translation to understand terminology and meaning. These organizations and individuals like me would have appreciated more time to meet in our communities.

You need to include more meetings in Eastern Washington, like Yakima, Spokane and the communities who have our universities.

- Some of the comments I heard during your public meetings were that those who participated in meetings and written comments were not listened to or that there was no response.

From the 1970's through the early 1990's I followed the Forest Service Land Management Planning process, revisions and regulatory changes throughout California, but mostly for Southern California. One thing they made available was to list comments and their responses. We were able to have meetings with them and use an appeal process.

Public meetings over such an important issue of cleaning up nuclear waste – where your decisions affect thousands of years – must be taken seriously in order to carry this forward after we have departed for the Great Beyond.

I researched the OSPI website for curriculum on Hanford and most is related to Hanford's relationship with our Tribes and not the issues of nuclear waste and its timeline. Our Department of Ecology offers a curriculum and will go out into schools to make presentations, but there is no requirement through the State Board of Education to really study the story and science of nuclear energy and its waste. In reality, that should be a national concern in our educational system.

- As I understand, the Agreement does not include doing Environmental Impact Studies specifically covering the transport of this waste to another site. I believe that is required by law. Certainly, in transporting this radioactive waste, no matter how it is stabilized with glass or other means, needs serious study and the public's knowledge of what is going through their community. There have been too many "accidents" with nuclear waste and our planet and its living beings are paying a price.

- As I understand and remember, studies have been completed on the removal of the waste from the tanks, particularly those that are leaking. From what I've read, enough radioactive waste has been sent to our river and affected groundwater. Due to timelines, building other double walled tanks to transfer the waste can answer the issue of the leaking tanks and threat it poses to the groundwater and river. That is what the Finish plan addresses.

- I believe that the tribes who are represented on the Advisory Committee need to be included in the Tri-Party Agreement. Their understanding of the land is valuable and they should be integral in your planning process. Does that take action by our State legislature or Governor?

So my final question! The story of Seeborg through the building of the graphite reactor in Chicago (close to my home town and I was alive then) through to the Manhattan Project. the building of Hanford and dropping the bombs is amazing, but they left behind a dangerous mess that far exceeds the initial cost.

Have you thought that it might be possible to have a team of scientists design a reversal process to radioactivity? I've been wondering this for a long time. Wondering is at the heart of science.

Submitted for good or bad! Thank you for reading my thoughts, comments and suggestions. I would appreciate a response. I will learn from you.