U.S. DEPARTMENT OF ENERGY

DRAFT TANK CLOSURE AND WASTE MANAGEMENT
ENVIRONMENTAL IMPACT STATEMENT

PUBLIC HEARING

March 8, 2010
6:00 p.m.

Seattle Center
305 Harrison Street
Seattle, Washington 98109

Mr. James Parham, Facilitator

PANEL MEMBERS:

Ms. Mary Beth Burandt, U.S. Department of Energy.
Office of River Protection

Mr. Jeff Lyon, Washington State Department of Ecology,
Hanford Project Office
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MR. PARHAM: Thank you. So we are going to get started with that, okay. I have said this a couple of times, three minutes on comments, period.

This is a -- you have heard a lot of people up here talk, now it is time for you to talk. Our first person to speak is someone who has already been up and that is Gerry Pollet from Heart of America Northwest.

Gerry, do you want to make any additional comments?

MS. POLLET: I prefer someone else and I will come back.

MR. PARHAM: He will come back.

Richard Heggen, any additional comments at this time?

MR. HEGGEN: Not at this time.

MR. PARHAM: Okay, thank you.

Next, Toby Nixon.

MR. NIXON: I am Toby Nixon from Kirkland, Washington, former state representative for the 45th Legislative District of Washington, member of the board of directors of Heart of America Northwest, and former board member for Republicans for Environmental Protection.

We just saw the results of a magnitude
8.8 earthquake in Chile. It was quite impressive and we just learned in the newspaper today that the city of Concepcion actually moved ten feet west, so we can see -- and our area is geologically similar to that area -- that my understanding is that the draft EIS shows that there is an earthquake fault right on the site that could produce up to a magnitude 6.5 earthquake right on the Hanford site, so imagine what that kind of a quake would produce in the way of disturbance of the soil, liquefaction, those types of things.

I think it is terribly irresponsible for us to even consider leaving any of this radioactive waste behind when the potential for a very large earthquake, it could happen today, we are told it happens about every 300 years in this area and it has been 300 years since the last one. We owe it to the future generations to do everything we can to clean up our mess as much as possible. We need to remove 99.9 percent or more of the waste from the tanks and not leave it behind, and that is to be simply in compliance with Washington State law. We need to have a clean closure and restoration of the Hanford site as much as possible to what it was before the Department of Defense took it over.
You have got to keep in mind, back on the earthquake issue, they didn't choose that site because of its geological stability, they chose it because of plentiful cold water, plentiful electricity and its remoteness so they could just move everybody off the site. Geological stability just wasn't the issue.

I have recently, just to conclude my comments, read an article in the IEEE Spectrum magazine in which they talked about the deep geological storage of radioactive materials in Finland. And Finland isn't, you know, considered to be a real conservative area, they're very concerned about radioactive materials there, too, and yet they, in Finland, have figured out how to deal with this kind of a problem. We are a wealthier country, we are at least as smart as the Fins, we should be able to figure this out, too, and I expect that the Department of Energy and the Department of Ecology to do exactly that. Thank you.

MR. PARHAM: Thank you, sir. Next up is Eva Kosmos, and after Eva will be Jim Kelley. So, Eva.

MS. KOSMAS: I am Eva Kosmas, I am from Portland, Oregon, and I just have a real quick statement. I feel that clean closure is the best solution to this issue and is the absolute best to
preserve the health and safety of our environment and
the future populations of the Pacific Northwest. If
99.9 percent cleanup is a possibility, which it is,
then it is the best and should be the only solution.

MR. PARHAM: Thank you.

Jim Kelley, followed by Elizabeth Heffron.

Jim? No? How about Elizabeth, are you here?

MS. HEFFRON: Hi, I'm Elizabeth Heffron, I am
a writer and a teacher and I live in Washington State
with my husband and two children. I feel it is
extremely important that Governor Gregoire and you
guys with the Washington State Department of Ecology
take an active, not a passive stance in protecting
current and future Washington citizens. I think you
should take all steps necessary to fight for a full
cleanup of the existing waste, so that includes a
clean closure of the tanks and cleaning up all of that
soil that is under those tanks and everywhere else in
those unlined ditches.

I also would like you to do everything in
your power to prevent the DOE from importing
additional off-site waste to Hanford, no matter what
classification it is. Over the last 50 years,
Washington citizens have taken on more than their fair
share of the hazards from our national nuclear
policies. It is time for our state to stand up and say "no more." Thank you.

MR. PARHAM: Thank you.

Lisa? After Lisa, will be Lisa Lightner.

MS. VAN DYK: Hi, I am Lisa Van Dyk, I am a field organizer at Heart of America Northwest. I just wanted to thank the Department of Energy for holding eight hearings on this document, even though I am absolutely exhausted after organizing for all of them, and thank everyone who's here for coming out tonight.

The more I learn about this EIS, and I've written down some of the more detailed written comments later, but as a resident of Washington, I am simply stunned. When I look at the maps of groundwater of contamination in the EIS, it is extremely obvious that Hanford is an inappropriate location for a national radioactive waste dump. It simply doesn't make any sense that the Department of Energy is taking this decades old plan to import waste to Hanford. That is assuming that DOE has looked at the impact analysis in the EIS. So tonight, I just have a few points.

Empty the tanks to the limit of technology, which is 99.9 percent or more; do not leave the tanks and tank leaks in the ground where they will only
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contaminate the groundwater again in the future; vitrify all of the waste; and please, make an enforceable ban on no off-site waste coming to Hanford. Thank you.

MR. PARHAM: Lisa Lightner. After Lisa will be Janice Faris.

MS. LIGHTNER: Thank you. My name is Lisa Lightner, I am a resident of Seattle, Washington. Upon learning the history of Hanford, I have found that there are way too many examples of the US DOE using flawed and piecemeal EIS reports and not following through with what is necessary to protect our health and our environment. We need clean closure. The preferred alternative does not go far enough. The reason for not using clean closure is risk to workers, but I wonder what impact and risks to further generations will follow. Somehow this seems more of a political play than a concern for our future and our generations -- and following generations. But most importantly, do not add off-site waste to this site. Not in ten years, not ever.

MR. PARHAM: Thank you.

Janice Faris. After Janice will be David Ortman.

MS. FARIS: I am Janice Faris from Renton,
Washington. I have had many friends and relatives who were so-called downwinders, who were cut from here down to their chest when they were 18 years old to remove cancerous tumors and their thyroid gland. Okay.

Passing on nuclear waste to future generations is cruel. It is our moral responsibility to not create more waste and to treat and dispose of current waste in the safest manner possible. That means on-site, not hauling radioactive waste down the freeway to Idaho National Lab or bringing more to Hanford. We all know the hazards involved with highway travel and with rail travel, too. Given the vulnerability of any cargo container that is in motion, one can easily imagine it to be a perfect target for a terrorist or mentally unstable person, to say nothing of weather-related accidents or driver error -- which, of course, never happens.

So what about the vitrification plant? How many years behind and millions of dollars overbudget is it? How are the design plans coming? These are all rhetorical questions. Are there design plans or does it continue to be design-as-you-go, or should we really be calling it the Forever Project? We have all feared an insane sociopathic leader whose finger could
ignite a worldwide nuclear war, but now we are faced with an insane sociopathic alternative presented by DOE which are just as fatal. "This is the way the world ends. This is the way the world ends. This is the way the world ends. Not with a bang but a whimper," T.S. Elliott.

Check out how-to websites and books to learn how radioactive contamination acts on all living cells. Google depleted uranium and birth defects in Fallujah to see what uses our spent nuclear waste have been put to. I think once you are informed, you will agree that the use of depleted uranium should be declared a crime against humanity, as should many of these DOE alternatives. Thank you.

MR. PARHAM: David Ortman. And after David will be Robert MacDonald.

MR. ORTMAN: Thank you. My name is David Ortman, I live here in Seattle, Washington, and after following Hanford issues for about 35 years, I have concluded that Hanford must stand for half-ass energy foot-dragging on radioactive decontamination. Three minutes to cover 6,000 --

MR. BLANK: That is brilliant.

MS. BLANK: Could you say that again?

MR. ORTMAN: You can put it on a bumper
sticker.

Three minutes for 6,000 pages is a bit formidable, so let me just cover four short points here. One is looking through the summary and the DOE material, Department of Energy material that is out there, it is very clear they have a preference for the word closure, not cleanup. I think most members of the public would be surprised to learn that somehow these tanks are still open for business. I think there was an assumption that these tanks had long since been closed, and the use of the term closure, I think, just simply muddied the water in terms of what it is really needed, which is cleanup, because the time for cleanup is now and no new waste should be imported into Hanford.

Secondly, there is virtually nothing except for the occasional pretty picture on the Columbia River. The ecology documents talk about things that have leaked and where waste may reach the Columbia River, but even the history of Hanford in the summary document really has nothing about the Columbia River, which is one of the main things we are trying to protect.

Third is you have to go through those 6,000 pages all the way through Appendix Q to find out any
useful information or useful can be about half-lives
of the radionuclides that are filtering through the
groundwater and elsewhere. This type of information
needs to be summarized and put into the summary and
into the fact sheets in a much better fashion so
people can understand what is at risk, not having to
plow through to some Appendix Q in some Alice and
Wonderland hole to find out what is going on.

Finally, although there is a mention that the
Bureau of Reclamation's EIS in the Yakima Basin water
storage has determined that no new irrigation dams in
the Yakima Basin has had a positive benefit cost
ratio, which is no kidding, including the proposed
black water project, the Yakima Irrigation District
lobbied the Bureau of Reclamation not to make a
finding record of decision on this particular
conclusion, which simply keeps the door open, and I am
here to tell you that former Congressman Sid Morrison
has not given up on this project and this is going to
come back and I would like to encourage both Ecology
and Department of Energy to keep the lid on that
particular irrigation proposal as it would potentially
have an adverse impact on Hanford as water may seep
out of the dam through Hanford and take things back.
Thank you very much for the opportunity and we will
see what happens next.

MR. PARHAM: Robert MacDonald? Robert?
Robert MacDonald? No? Cherie Eichholz, from
Physicians of Washington, and after Cherie will be
Thomas Buchanan.

MS. EICHHOLZ: Hello, my name is
Cherie Eichholz, I am with Washington Physicians for
Social Responsibility, I am the executive director.
PSR is a nonprofit advocacy organization that is a
medical and public health voice for policies to
prevent nuclear war and proliferation and to slow,
stop or reverse global warming and toxic degradation
of the environment.

As a public organization, we represent
approximately 5,000 health care professionals
throughout Washington State. We have worked hard to
promote the safe, effective and timely cleanup of the
Hanford Nuclear Reservation and to educate the public
regarding the disastrous consequences of nuclear
weapons. We strongly believe that failing to take
action today is a prescription for a deadly future.

In addition to my work at PSR, I'm a veteran
of the US Army. I served in 2003 and 2004, and since
serving, I have had the opportunity to meet many other
veterans, including many poisoned by depleted uranium
and Agent Orange. These men and women carry these effects of these poisons, and some may have cancer, others have had trouble conceiving children. These veterans carry scars similar to many residents of the Columbia corridor who have been poisoned by waste hidden on the Hanford Reservation which has seeped into the soil and water. Most veterans who have been poisoned by DU or Agent Orange had no choice in the matter, nor did the native victims of those respective countries, but the people of Washington State have a choice.

The EIS as presented and if it's accepted will poison hundreds of people in the near future and thousands within a generation. In effect, in accepting this EIS, we will sign the death sentence for thousands when other alternatives are available.

What specifically am I advocating? I am asking that this panel and the powers that be consider this EIS with an eye on the future and respect for the millions of people who will be impacted. Permitting anything less than 99.9 percent of tank waste to be removed would be a danger to public health and unconscionable. Using the clean closure standards is the best way to protect current and future generations.
In addition, the idea of transporting hazardous waste to Hanford should be taken off of the table. The dangers to those who live along the shipping roads, coupled with the risks associated with adding additional waste to a still contaminated area make this an unreasonable proposal. Hanford cleanup must center on removing the toxic threat that already exists and is still not adequately dealt with.

Veterans know that war is easy to start, hard to stop, and that those most often hurt are bystanders, and physicians similarly recognize that taking action after the fact or after harm has been caused is a poor second choice to taking preventive action. I urge the US DOE to consider the standards involved and take action that prevents further harm.

Thank you.

MR. PARHAM: Thank you. Thomas Buchanan, and after Thomas Buchanan will be Amy Easton.

MR. BUCHANAN: Can I face the people?

MR. PARHAM: Just there.

MR. BUCHANAN: My name is Thomas Buchanan, also with Physicians for Social Responsibility. Thank you to the panel for at least giving citizens of this Seattle area a time to comment on the 6,000-page document. But let's be perfectly clear about some of
Given the unsafe and intensively radioactive waste in the forms of leaking single- and double-shell tanks and the billions of gallons of radioactive and chemical toxic waste already escaping from Hanford, we will not accept any more importing of so-called off-site waste until the present storage is safe in the environment that it is in now. Imagine 17,000 truckloads of radioactive waste on our nation's highways from private nuclear waste to Hanford. That is a nightmare waiting to happen. We will oppose any new shipments of these new wastes into Hanford.

Further, this EIS has no consideration for an option of dry test storage on radioactive waste sites, including the power plant sites, as an option not to store it in a central repository. That dry option is safe, it is above ground, it is can be easily monitored, and there's no -- not a mention of it in this 6,000-page document.

With all of the high-tech equipment, processing buildings, tank farms, and storage cribs storage at Hanford already, the principal storage medium of radioactive wastes at the Hanford site, just like the rest of America, is cardboard and dirt. From the most extremely radioactive nuclear fuel cell, to a
Mason jar of plutonium found in a safe in a trench at Hanford, to the corroding barrels of waste and Tank 105A, most of the wastes are kept in over 40 miles of unlined trenches, ditches, and holes at Hanford.

Most of these -- most importantly, these dirt and cardboard mediums leak into the environment and are now seeping into the Columbia. This national treasure, our Columbia River, is currently carrying micro curies of radioactive plutonium, uranium, iodine, tritium, technetium, cesium, zinc, and strontium downstream. These radionuclides have been detected as far as the Puget Sound and the Willapa Bay on the Washington coast.

I am going to skip a couple and then I will go to the final issues. When we also suggest that the first tank that be cleaned -- that should be cleaned, containing its wastes and leaks be Tank 105A. And the reason we suggest that is this a double-shelled tank, that when its contents were heated up in 1965, the emergency demanded more water be poured into the tank to cool it off and some of it was intentionally dumped into the ground. The excess heat still caused an explosion. That explosion, which blew out a hole in the tank about the size of a mini bus and dumped more waste and the zone of the surrounding soil, it still
measures now, that soil, at over 200 degrees of
temperature near that tank. This tank and some of its
known faults are an ideal test case of prototype. We
want to take the worst case and solve that and do it
safely.

So we want a small vitrification plant
facility, not the whole big project all at once. Make
it safe and a smaller operation, and we recommend that
the contractors also begin stabilizing the trenches
and begin the so-called capped landfills and dig
underneath and start emptying and cleaning up the
soils. These so-called low radioactive waste sites
are the principal storage of mediums right now for all
the radioactive waste and they need to be cleaned up
because it is not just a soil column that is
contaminated, the column has moved and it is in many
ways approaching and is already contaminating the
Columbia. So finally --

MR. PARHAM: Three minutes.

MR. BUCHANAN: -- this cleanup matters to all
of us.

We get started safely and with no more
radioactive waste imported into Hanford, no more
radioactive waste into the Columbia, make the cleaning
process legal, and accept outside state and EPA
inspectors on-site to monitor all parts of the cleanup process. Thank you very much.

MR. PARHAM: Thank you. Next is Amy Easton, and after Amy would be Michael Baron. Amy? No? Michael Baron? After Michael will be Joan Lawson.

MR. BARON: Thank you, Mr. Moderator, panelists, fellow speakers, fellow citizens, thank you for this opportunity to put my views into the record.

Hanford was created by the Department of Defense under their responsibility to protect our borders and our citizenry. I am a member of that population, as is my wife, my two children, my 83-year-old mother, my friends, my 1800 co-workers, as well as the six-and-a-half million citizens of Washington and the more than three-and-a-half million citizens of Oregon. With the transfer of the Hanford site to DOE, the responsibility for our protection that justified the very creation and the operation of that facility does not just evaporate as if we had made an investment with dirty math. That responsibility to no small degree is now in your hands, therefore, you have two choices.

Option one, cleanup Hanford completely and without delay. Completely means clean closure.

Treating this exceptional site as if it were an
ordinary landfill is an approach worthy of Milo Minderbinder. Completely means dismantle site cleanup -- dismantle and site cleanup for FFTF. Completely means not bringing in more radioactive waste to the shores of the Columbia River.

Or option two -- I hope you like this -- reinstate the draft. Then draft all citizens whose health will be negatively impacted by radiation releases you're allowing so that their injury or deaths can be rationalized as the unavoidable consequences of war.

If you cannot muster the political will to enact option one, then at least arm us with option two. That way the Geneva Convention might afford the 10 million residents of the states through which the Columbia River flows, the protection these vocal citizen advocates have been fighting for for over three decades and will continue to fight for.

MR. PARHAM: Joan Lawson. After Joan is Al Rasmussen.

MS. LAWSON: Hello, my name is Joan Lawson, I am from Seattle, Washington. I have a friend whose neighbor probably said to his dog, "not in my back yard," so the dog dumps his waste in my friend's back yard. My friend takes his shovel and throws the poop
back over the fence. If only we could do the same
with the nuclear waste. We in Washington State do not
even want our own nuclear waste and are waiting,
waiting, waiting, for the solution for its disposal,
so surely we don't want our neighbors' waste.

My brother worked at Hanford some years ago,
making good money as those whose tyranny for Hanford
also did, the contractors, the people who make the
tanks and build the facilities, and the executives
from companies with names like Clean Energy. He said
to me one day another container of liquid waste was
opened up and it too was empty. Where did the
contents go?

I saw a billboard today that said Washington
Poison Center. I looked it up on the web and see that
national poison prevention week begins March 14. I
suggest it begin tonight and that large signs be put
all over Hanford announcing Washington Poison Center.

MR. PARHAM: Thank you. Al Rasmussen, and
after Mr. Rasmussen will be Valerie Schubert.

MR. RASMUSSEN: Up here in Seattle we say
Rasmussen.

MR. PARHAM: Thank you. I am not from here,
that's true.

MR. RASMUSSEN: I know, you said that.
As with all important issues, the questions of cleanup at Hanford should be considered very broadly instead of with just narrow focus on the technical issues. A basic step in correcting a bad situation is simply to stop doing the things that make it worse. In the case of radioactive waste at Hanford, this basic step is simply to stop bringing in more waste. Considering the question broadly, which is how I started, this leads to examining the creation elsewhere of waste that cannot be successfully stored or treated. Weapons development and new nuclear power generation programs should both be abandoned --

(Audience applauds.)

MR. BUCHANAN: -- for substantial reasons of their own, as well as the addition of nuclear radioactive wastes that they produce.

Instead of sending radioactive waste from those places to Hanford, money saved by abandoning those projects instead should be sent to Hanford to accelerate the cleanup here.

(Audience applauds.)

MR. PARHAM: Thank you, sir.

Valerie Shubert, and after Valerie will be Bobbie Morgan.

MS. SHUBERT: I have already sent in some
written comments on this and I'm assuming that -- I am hoping that the comments I made on earlier versions have also been forwarded and are still being kept on file. Basically I have not been able to get through this document. I don't have a stable of readers, I don't have the time to do it myself, so I have gotten through most of the summary and there is a couple more comments I wanted to make before at this point and then I will make more later.

One was that I am getting through the definitions and I am glad there is a glossary, because frankly those definitions are nothing like the vernacular definition of the terms would be, and I would like to have some indication in the document of who developed those definitions and what the input was.

And the other thing is that there are statements in several places about endangered and threatened species, but they're not listed. Maybe they are listed somewhere else, I haven't gotten to that part yet, but they are not listed in the summary. And furthermore, they're not -- they are parts of communities and there are species that are not endangered or threatened yet that may be in the future and I would like to see an overall study of
what impacts these things will have on the environment in general. And that is basically what I had to say.

MR. PARHAM: Okay. Thank you. Bobbie Morgan and then Adrian Villarreal.

MS. MORGAN: Hello, my name is Bobbie Morgan and I live on Bainbridge Island. I am a retired speech language pathologist and so I have a long commitment to good communication. I am here with what seems to be a very simple message. We know what the right thing to do is here. This EIS statement needs to go back to the drawing board and you need to just cleanup Hanford, period.

I am also here because I am a grandmother, a brand-new grandmother. Last week our first grandchild was born and I want to be able to imagine her future, and I want to be able to pretend that 50 or 75 years from now, that I look back on her as a grown woman and possibly a grandmother, and I want to be able to say we did the right thing for you, sweetheart. You are able to drink water here, enjoy delicious salmon, play safely in our gem of the Columbia River. I don't want to have to imagine myself looking back from the mists of time and say I am sorry that you have cancer, we didn't do the right thing.

So I am here as a person, I want to call you
Mary Beth, I want to call you Jeff, that we have had a lot of facts, a lot of initials and acronyms, but we are here as people to remind you to do the right thing. Thank you.

MR. PARHAM: Thank you.

Adrian Villarreal, and after Adrian, it will be Robert Stagman.

MR. VILLARREAL: Good evening, everyone. I am from Bellingham, Washington, and I am a registered nurse, and when I first learned about this at the University of Washington, Bothell, when Gerry came over to do a presentation on the subject matter, after the end of the presentation, I was kind of like ready to hit my head up against the wall, because I couldn't understand how this complex matter was actually made into a bigger problem than it needs to be. I mean, it is not rocket science, okay? I mean, when it comes down to it, you have nuclear waste that is in the ground, okay, it is going to our groundwater, okay, and it is already contaminating the Columbia River, okay? Any type of radiation, okay, that human beings come in contact with, besides any other type of life form, okay, it puts that organism at risk for developing cancer, if not dying. I mean, there is no reason that the preferred plan should be just
99 percent, okay, removal of nuclear waste. It should be 99.9 percent or that 100 percent, okay? Whatever is humanly possible.

To hear this evening that the concept of the preferred plan was accepted because of minimal risk to the workers that are currently going ahead to do the cleanup process, I think we are slapping the workers in the face by going ahead and allowing the work that they are currently doing to go ahead and cleanup Hanford, okay, to just be cut short. So therefore, they think what are they doing then? And they are already risking their lives now. We already have over 30 workers that have been subjected to beryllium poisoning, okay, because that toxic metal that is in the environment, you know.

The tanks, they need to be clean closure, okay? The environment needs to be cleaned up. The flux capacitor, no contaminants need to be shipped over to Oregon or Utah or any other state, okay, everything needs to be contained, okay, we need to clean this environment. There are too many -- right now, our biggest environmental issue is that the United States is facing a water shortage. We need to make sure that our underground water supplies that are available, okay, are clean and able to be used, okay?
We do not need to go ahead and continue to pollute a valued underground water supply. Every state is pretty much activating, okay, laws to prevent the exportation of water. We need to conserve the water that we have and we need to prevent the spread of radiation to our population, okay, because we don't need to promote a society built on cancer, okay.

It's -- Rachel Carson clearly said it, we have the right not to be poisoned. We have the right not to be exposed to toxins. At the same time that Hanford was being developed, our government clearly went ahead and was reckless with the use of pesticides. Let's not be reckless about forming another plan, okay, that does a half-ass job of cleaning up the issue. Thank you.

MR. PARHAM: Thank you. Robert Stagman, and after Robert will be Oliver Bazinet from Hanford Challenge.

MR. STAGMAN: My name is Bob Stagman and I am a retired surgeon, specializing in diseases of the head and neck. Included in my responsibilities was the management of tumors of the thyroid gland, which have been unequivocally associated with radiation exposure and most importantly during childhood.

My personal health history includes a course
of low level radiation therapy to the head at age five
as part of a national misadventure to treat enlarged
tonsils and adenoids. The unintended result of this
treatment has included a plethora of thyroid tumors,
among other conditions, occurring usually after a lag
period of many many years, and that lag is important
to understand.

At the age of 42, I was diagnosed with a
tumor of the inner ear, and at the age of 44, with a
tumor of the thyroid gland, both clearly linked to
childhood radiation exposure by multiple clinical
studies. Radiation exposure is a potentially lethal
risk for our citizens, particularly for our children.
We need not be unduly alarmed by a vague potential
threat from Al-Qaeda when we are being subjected to
continuous chemical nuclear terror being inflicted
upon us by our own United States Department of Energy,
via tragically and misguided and irresponsible plans
to transport through our communities and dump vast
quantities of dangerous radioactive material into
Hanford, where responsible cleanup of all nuclear
waste has never been accomplished and active nuclear
contamination of our soil and groundwater continues
unabated and certainly encroaches the lifeline of the
Columbia River.
Radiation exposure of our Northwest citizens currently is certainly much higher than generally conceded and will escalate dramatically as current leakage continues and escalate incredibly if new waste is added. The only acceptable action for Hanford is clean closure of all existing waste sites and no addition of any further nuclear waste at Hanford. Thank you.

MR. PARHAM: Thank you. Oliver is next, and after Oliver, Richard Frith, I believe.

MR. BAZINET: Hello, my name is Oliver Bazinet and I am a volunteer with Hanford Challenge. I've read the summary of the draft EIS. I didn't get through all 6,000 pages of the actual document, and I guess I have two things that I would like to focus on. First of all, one percent of 54 million gallons is still 540,000 gallons, and that is a totally unacceptable amount of waste to leave in the tanks. I am very disappointed with that aspect of the cleanup proposal, as well as just the clean closure alternative presented in the EIS in general. I believe that it only includes remediating the soils three meters below the surface of the tank. Some of these tanks have been leaking for over 30 years or more. It seems like three meters is awfully shallow
to dig. We should probably dig a little bit deeper.

I would also like to address the new waste that DOE is proposing bringing on-site. As Toby Nixon pointed out, Hanford is a very geologically active site, not to mention in the flood plain of a river that is dammed quite a bit upstream. It doesn't seem like a very good idea to put more waste there.

MR. PARHAM: Thank you.

Richard, I messed up your last name, and then after Richard is Dorli Rainey.

MR. FRITH: Hi, my name is Richard Frith, I am from Seattle. Unlike a lot of the other speakers here, I am going to have to identify myself as a strong supporter of nuclear energy. I believe that nuclear energy is valuable and has great possibilities for the future, as soon as we show that we can clean it up. Now, as soon as you can show you can clean it up, this is the time and place to show you can clean it up. This site was contaminated 50 years ago and this is the time and the place to show you can clean it up. In the meantime, we should not put any more waste here until you can show you can clean it up.

Formerly I was a certified residential heating oil tank remediation specialist. I did that for myself and also for the city. When you remediate
a tank, frequently at the bottom of the tank you will find a tiny little hole, usually smaller than a quarter. Under that, you find a humongous plume of contaminate, and those you start digging and you dig for a long time. Three meters, I have done that for a 300-gallon residential tank. For the City of Seattle, we did sub-subbasements, we dug up entire city blocks down near Westlake. The contamination underground can be massive, and we all know this, we're not -- lots of us here have had our tanks yanked out of our own yards here. There is nothing here that needs us to be so disingenuous as to say we will remove the tank or the contents of the tanks and somehow magically we won't look underneath because there won't be any problems down there.

The DOE -- or Department of Ecology would not let us get away with that here, the City of Seattle would not let me get away with that here, why on earth would the feds be allowed of being that disingenuous. There should not be any new waste when we clean up the old.

The problem about why not clean it up completely? Well, there are two reasons I hear about. It costs a lot of money -- a complete cleanup would cost a lot of money. It is better to just hide the
problem and take part of it out and cover the rest up with dirt and concrete so you can't see the problem. There is a lot of money available. It is DOE's bailiwick now, but this is the military that did this and we have a huge military budget. The amount of money in the military budget, we should clean this site up and we should because this was a military project. So there is not a money problem here. There is a lack of will and a lack of willingness to show just how bad the situation is. We have the money, we have the ability, it is the military's budget, that is where the money comes from.

In closing, when we clean this site up, we will have to recognize that geologically this is a terrible place for the waste. In the meantime, let's not bring any more new waste in until they clean it up, and the problem with our new waste will be moot because this is a lousy place geologically.

MR. PARHAM: Thank you. Dorli and then Richard Ellison after that.

MS. RAINEY: Hello, I am Dorli Rainey, I'm a citizen of Seattle. I have a brand-new hobby, it is going back a few years, I attend Hanford meetings. I have learned language that I never thought I would ever hear and my children say mom, you go around the
house mumbling things like fast flux and covered stuff
and names of contaminants, what is this with you, you
used to be fun.

Now, I look at what is going on now. We have
this problem with cleanup, and just recently the
Department of Energy has decided that they were going
to permit a new nuclear power plant. Will they try to
send their spent uranium here? Why are we now
allowing new nuclear power plants after Chernobyl,
after Three Mile Island, after the problems of
Hanford? I think we need to once and for all say we
need clean energy, but not through nuclear energy, and
I think we need to also cleanup Hanford once and for
all, and not 99.9 percent, but 100 percent and get it
done, and this man who said take it out of the
military budget, he is right on.

MR. PARHAM: Thank you.

Richard Ellison, and after Richard will be
Lane Rasberry.

MR. ELLISON: Hello, my name is Richard
Ellison, I would like to encourage, first of all, that
these hearings in the future be televised. I think we
are at that level of technology now and I think we'd
have more input from citizenry if people were able to
observe hearings.
I -- I am a professor who teaches biology and environmental science at a local community college, and I had the honor of visiting Hanford about 25 years ago. I was a graduate student with a congressional aide, and it was very interesting because the head of the Environmental Services there assured me that from the leaks that occurred at Hanford, none of it could ever reach the groundwater, that was the lingo at the time. So my experience from that meeting, many things that were said to both of us, the congressional aide and myself, is that Hanford has a long history of wishful thinking.

Hanford will never be safe. You can tell me you are going to clean it to 99 percent, 99.9 percent, or 100 percent, I don't believe it. I don't believe that we are capable of doing that, because for one, I have observed this process for a long time, it has taken a long time to cleanup. I see numbers dallying up, well, the year 3890, this and that and that and this, where civilization is barely a thousand or two thousand years old.

I see -- the question I wanted to address was, what are the effects of climate change on Hanford? Because we don't really know how things are going to swing, and I think a lot of the repository
nature of Hanford is to no rainfall, nine inches or ten inches of rainfall. What if the rainfall rate was to increase? What if the Columbia River was to raise in level, because part of the problem is that the water table is so close to the surface.

I think we can only go for full clean closure and I think that is a very modest and noble goal should we ever actually get there. I think the best available technology, what we are looking at, I think we can only try and use the best available technology, and as the years go by, as we go towards 3890, we will see more technology will come forward to help us clean it up. I don't think you can put a cap on it and it'll go away.

I think when we call a waste nuclear reactor from a submarine as low level nuclear waste, as it's defined, I think that's a misnomer, and I think part of the problem is there is so much waste at Hanford that really it is an impossibility to try to cleanup and make it safe. So how do we make it as safe as we can I think is what we are trying do. I think we need to support as much full closure as we can get.

I agree that the money can come from a lot of places like the war in Iran and Iraq, from a lot of all of these places that we want to have fun in. I
don't think we should have any more nuclear waste imported into Hanford. I don't think we should be generating nuclear waste. I don't think that one percent left behind is a good idea in any storage tanks. I would agree that any plumes underneath leaks.

I mean, part of the leaks that occurred that made science magazines, I think in the '70s were 130,000-gallon high level liquid waste leak was that the technician was out there everyday, recording down the levels of the tank were going down everyday. He would write the number as it would go down everyday, but his boss is away on vacation for a month. When he came back from vacation, he saw oh, my gosh, we have lost all of this high level nuclear waste. Well, human error is a big factor. Chernobyl was a big factor, Three Mile Island was a big factor and human error was involved very much in the causality of a huge problem, so I don't believe that we can just science away this thing, and I think that as much money as we can spend, as much as we can do, I applaud your efforts of trying to do something to clean it up, but the reality is we are still waiting, and the citizens of the state have said in a citizens' initiative, we don't want any more nuclear waste. We
don't want anyone's nuclear waste. We didn't want it in the first place. We don't want anymore. Thank you very much.

MR. PARHAM: Okay. Thank you.

Lane Rasberry. After Lane, it'll be Casey Howard.

MR. RASBERRY: My name is Lane Rasberry, I live in Seattle. I don't like toxic waste and I don't want any more brought here, but I don't think that is really what you are asking about. Unfortunately, I don't know why you are here. I -- just to say something about myself, I don't want to talk about myself, but I studied chemistry at the University of Washington, I have got a degree, I work in science. I feel like I ought to be able to understand something about what you are saying, but when you were speaking at the beginning of this hearing, I couldn't understand you. I don't know what you are talking about.

I read the Hanford website before I came here -- I went to Hanford, I took the tour last year, and I have been reading about Hanford in my free time, I am interested, I am an interested person. I can't understand your website. I don't understand these posters you have. They are beyond my understanding.
And I really tried. You've got that book back there, it is 6,000 pages, I can't read that. Who is your target audience? It doesn't seem to be me. I don't know who you are writing these things for or who you are speaking to.

I don't have any comment about what this proposal or what you are talking about doing, because I just don't understand it, and I don't know how to get that understanding. I could propose some things. I really wish that you could advise someone to revise your website, make it comprehensible, more comprehensible to laymen. You can't make it too simple. I think if your target audience was maybe high school kids, that would be appropriate for me. I am glad that you have a Facebook account, I don't know if any of you know this, but Hanford has a Facebook account, and I understand you also have a Twitter account, I am following you, thank you.

Your use of electronics is first rate. I really like your videographer. You have a lot of videos, continuing ed. videos. Why don't you have a DVD of your videos here? Not everyone can access YouTube and I really wish that I could take a DVD of your videos and show them to other people. It's really not fair that you are not distributing these
I really want to understand, but you make it very difficult for me. I wish you could do more to meet me. Thank you very much.

MR. PARHAM: Thank you.

Casey Howard? After Casey, we will do Kate Hellenthal.

MS. HOWARD: Hi, I am Casey Howard. I am a UW student and I am representing the growing number of citizens with a vested interest in Hanford cleanup. We are next in a long line of generations to deal with the contamination in the future.

Hanford is scary, all of us here think that. We are concerned that the transport of new waste will affect the way we can clean now and in the future. The radiation will be there forever. We need to do all we can to remove all of the current waste. We didn't ask for this mess to cleanup, and I don't want to leave an even bigger mess for future generations. Thank you.

MR. PARHAM: Thank you.

Kate Hellenthal, and after Kate will be Warren Jories.

MS. HELLENTHAL: So as an aside, I'm Kate Hellenthal, I am from Spokane, Washington, and I am a
Seattle University undergraduate student and I am involved with Heart of America Northwest. Despite that, this EIS really confounds me. I feel that it is extremely inadequate in addressing the dangers that Hanford presents. Entombing it does not solve the problem. It's a Band-Aid approach that only postpones the true impact. Clean closure is the only feasible option, and the contamination of the lands and water needs to be addressed.

Furthermore, outside waste from around the country cannot be transported to Hanford. If Hanford becomes a national nuclear waste dump site, especially before the current mess is cleaned up, our health, the health of future generations, and our environment are then sacrificed for the DOE's purposes.

Hanford must be cleaned and cleaned fully. The tanks must be emptied completely, the contamination in the land and groundwater must be alleviated, and the proposal to transport national nuclear waste to Hanford must be dropped. Thank you.

MR. PARHAM: Thank you.
Warren Jones? No? Frank Zucher; is that right? Frank?

MR. ZUCHER: That is fine.
MR. PARHAM: Okay.
MR. ZUCHER: My name is Frank Zucher and I live in Seattle with my wife and child. I find it disturbing that we have to keep coming back here to these hearings to remind the Department of Energy, which is now run by Nobel physicist, we have to remind them about lessons that we should have all learned in kindergarten, and I find that they're now teaching in preschool, and these include, if you make a mess, clean it up. Before we bring out the new toys, put away your old ones, and don't run with scissors. They are fairly simple.

Specifically, I urge the Department of Energy to reconsider their preferred options to cleanup to 99.9 percent of the toxic waste, the tank waste, excuse me. Don't leave the worst one percent of the tanks to leak and kill future generations. Clean up the contaminated soil. Clean closure, not sweeping it under the rug with a capping. Start vitrification as soon as possible and start planning for building more vitrification plants immediately, not five years from now.

In terms of no running with scissors, don't chop up the FTFF and send it to Idaho and bring it back. Don't bring in more waste until you cleanup what you have got. Thank you very much.
MR. PARHAM: Thank you. Let's see here, Jacinta Heath; is that right? And after that, Reed O'-B-e-i-r-n-e.

MS. HEATH: Hello, my name is Jacinta Heath, I am a student here at the University of Washington, and I am pursuing a career in international environmental law. I'd just like to retouch on an issue that I think is really important and we haven't spent enough time on, and that is the concept of environmental justice. I am going to use your own words from your summary, "Environmental justice, the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people, including racial, ethnic, and socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations, or the agencies to make achieving environmental -- I am sorry, I lost my place -- should bear a disproportionate share of the negative environment consequences resulting from industrial, municipal, or commercial operations, or the execution
of federal, state or local or tribal programs or policies.

"Executive Order 12898 directs federal agencies to make achieving environmental justice part of their mission by identifying and addressing agencies disproportionately higher than groups in the agency programs, policies and activities on minority and low income populations."

So if we take that into account, I would like you to -- I challenge you to attempt to view this from different perspectives and create more incentives for clean closure, not the development of new nuclear energy plants. I think we should all consider changing our views of nuclear energy and realize that it is not clean or safe, and that it is disproportionately affecting people that aren't reflected in your policies.

MR. PARHAM: Thank you.

Reed? And after Reed will be Lex Voorhoeve.

Did I blow that one too?

MR. O'BIERNE: Hello, my name is Reed O'Bierne, I live in Seattle, Washington, thank you all for being here.

In the last two months, I live in a house nearby here, actually we found that the heating fuel
tank in my front yard, which was actually, ironically, put in the ground around the time that World War II ended, that tank has been leaking, similar to what the gentleman spoke about earlier tonight. It is a relatively small hole. We have dug the whole ground up, dug up the tank, done an incredible amount of environmental remediation, both in the front of the house and the back of the house, which has a slope towards the back. We had to pay for this out of our own pocket. The remediation is still going on. People came to my house today and actually poured these microbes in the ground that supposedly eat the contamination.

The question is, how can we possibly be forced to pay for this kind of stuff, which I am happy to do, because we need to clean it in my yard, but something the size of this, what is going on in Hanford, has there even been any thought as to whether we would clean it or put ground in it, and talk about not digging all the way down to the bottom of the ground to where the contamination is and removing it. Ultimately it has got to be removed. The only way to do it is to do it right the first time. That's my main comment.

My second point is I would like to point out,
or like to ask, we have got, on one hand, this long
convoluted question about what to do about this stuff
and there is other conversations somewhere that DOE
and Ecology are involved in about licensing additional
open nuclear -- putting in nuclear power plants. I
don't see how you can have such a complicated issue as
what is going on with Hanford remediation, and none of
us being able to agree on how you are going to solve
that problem, and still consider the possibility that
you are going to produce more of this stuff.... by the
way, no commercial enterprise will fund. So my second
comment is I wish that DOE and Ecology would make
comments from whatever department you are in to
whatever department issued those licenses and share
some of this information with them, because the
consequences of this and the cost of this need to be
taken into account. Thank you.

MR. PARHAM: Lex? Carol Isaac? Is Carol Isaac here?

MS. ISAAC: I am Carol Isaac, I have spent 25
years in the Department of Surgery doing research and
a couple of years working with earthquake remediation.

First of all, our Department of Ecology, I
would like to address that. I would have been
appreciative had you done more to bring up your own
alternatives rather than only accept what the feds
have given us.

(Audience applause.)

MS. ISAAC: One alternative that really
stands out and that is the cap. That cap is cosmetic.
There is no other way around this. If you were in my
Department of Surgery at the University of Washington
and you walked up to a patient and say yes, you have a
horrible mess there, that is a boil, huge infection
under there, one of the worst in the country, as we
have, we are going to put a Band-Aid on it, don't
worry about it, you won't see it. It might go through
your bloodstream, don't worry about it, it has a
beautiful Band-Aid. We can't do that to Hanford. We
can't do that to the worst place in the country. We
have to be the model for cleaning this up.

Now, when you have this situation -- also I
am also one of the people who had the oil tank with
the nickel hole in the bottom of it. In the Summer of
2008, under that whole routine, I could look down, I
swear I saw China on the other side. We had to do
that, 250 feet. If there was oil under there or coal
under there, we have the technology to get it out in
no time and certain people would get the money for
that.
By the way, I think the military owes us this and a lot more, and this cleanup delay is cleanup denied by the military.

(Audience applause.)

MS. ISAAC: We have this problem sitting there. It isn't just materials going down into possibly the groundwater, spreading out like crazy. This is a 40-mile trench of absolutely toxic radioactive material. We don't know how much, where it is going, we aren't following this stuff to where it is really going. What we do in the Department of Surgery, we have monthly morbidity and mortality reports so we track what our record is, what we are doing, who is being harmed. Even if you can't clean it up, we should have somebody out here telling us, or giving us a protocol for surveying what is going on with the human population in the area and the fish, of course, and all of the other ecological problems with the species. This is wrong.

Even if you are not going to put the money right now into cleaning up, you should be there monitoring, and we should be asking -- we should be telling, we should be telling the military come here, look at our collateral damage while you're making it over there. We need this taken care of here first.
We are the taxpayer.

I think I will let it go there. Thank you.

MR. PARHAM: Phoebe Warren. After Phoebe would be Ken or Merry Ann Peterson, whichever would like to go.

MS. WARREN: Thank you for coming to gather our comments today, and thank you, my fellow citizens, who have the energy and intelligence to study this topic for decades and decades. I am a mechanical engineer, I work in Seattle, my name is Phoebe Warren, and I went into mechanical engineering 30 years ago to look at alternatives for nuclear power because it was clear 30 years ago, as it is today, that we aren't up to the task.

In simple terms that are being proposed to us today, I would recommend prohibition of off-site waste entering Hanford and I recommend vitrification of all high level waste, clean closure. But I don't really think these are the proper terms, so stepping back for a moment, as far as I understand it, and this is not after a huge study, there are people in the room who know a lot more than I do, what we have at Hanford is numerous outcomes of previous cleanup efforts. After a lot of work and many decades, we have got contamination that is pretty befuddled from previous
So if we proceed now, ignoring secondary waste and GTCC waste, in coming up with proposals and recommendations, we are likely to come up with another muddle that will produce another solution that will create another generation of contamination. These things don't just go away. They get mixed, they get displaced, they get contained to various degrees.

As an engineer, all I can say is that we don't want the best possible technology. What we want is to figure out what the hell we are going to do and not piecemeal. And if as a society we have any sense of ethics, we should be coming up with minimum standards that need to be met, by whatever is being proposed.

So, for example, if we are not meeting drinking standards, why aren't we spending more money? The military in the United States is probably the richest organization in the world. If any organization could make these costs, the military could. It's a deliberate decision to permit such conditions.

I think part of the problem with these dialogues is that a lot of the real basics aren't brought to the table. You know, if we have a
vitrification plant that is being built without a
design and we are looking at levels of future
pollution without considering GTCC waste and secondary
waste, we are not really thinking clearly, and I am
sure no one in the room is individually responsible,
but as a society, it is reprehensible. Thank you.
MR. PARHAM: Thank you. Merry Ann Peterson.
MS. PETERSON: I am Merry Ann Peterson,
M-e-r-r-y, A-n-n. Please, let's clean it up 100
percent, no excuses. Thank you.
MR. PARHAM: Thank you. Roxy Giddings
followed by Ryan Jarvis.
MS. GIDDINGS: Hi, I am Roxy Giddings. It's
fun to see all of my buddies and friends who have been
coming to these things forever and a day. I am a
downwinder, went through fourth grade through high
school, that is your growing up and maturing years. I
pray everyday that I won't do what my sister did, get
breast cancer, and dad died of non-Hodgkin's lymphoma,
which is cancer of the lymph system, and he and mom
grew up on Whidbey Island and that was a good thing,
because it seemed to be kind of clean out there, so
they got a good start.
I've got these things that have been coming
out in the paper lately, very interesting. Hanford
might become a national park, January the 25th this year. Boy, the National Parks really knows how to take care of stuff. How far behind are they in their cleanup?

A new era for nuclear industry, this is from the Tacoma paper. I live in Tacoma now. February 17, "The federal guarantees authorized by Congress in 2005 were seen as an essential for construction of any new reactor because of the huge expense involved." I am sure it doesn't take any energy to make one of those plants, I mean, really, we are saving energy by having the new plants.

Nuclear waste politics trumps science, sense, that is certainly something I would agree with. That is an opinion from the editors at the News Tribune. Mixing politics with radioactive waste is never a good idea. Boy, you have got that. Everything that has to do with radioactive waste is mixed with politics.

Hanford to restart shipments of nuclear waste to the southwest. Okay. So they are going to cleanup contractors, CH2M Hill Plateau Remediation Company has hired 60 more employees to help dig up waste and determine if it is suitable for shipment. Well, we will see.

Oh, my favorite one, where is my favorite
one? That is the one where we are going to build a
new plant -- no, my favorite one is where the Vermont
Yankee plant is leaking tritium out now and they said
it wasn't, they said they didn't have the kind of
pipes that would do that, and then in the same article
it says something about there's a whole bunch of other
plants that are leaking tritium too.

And today, I just got this from the AAA
magazine, Hanford tours reveals atomic age secrets.
Don't you believe, don't you believe what they tell
you, because they lie, the people that work at Hanford
lie to us all the time, and so do all the people that
build the nuclear plants. We have been lied to for
50 -- how long has it been? 50 years? Let's see, I
am a great-grandma now.

Two botanists find rare life on an old
nuclear reservation. This article is so full of
errors, I can't believe it, but it is a result of
simply the distance between my grandparents, my
parents, and my generation. There is, you know, some
more generations beyond me now.

Are we out? Oh, that is too bad, because I
wanted to tell you that we need to follow the state
law, we need to have cleaner than the clean closure,
no more waste dump, no more stuff brought in, and that
tritium can't be removed from the groundwater.

MR. PARHAM: Thank you. Ryan Jarvis. After Ryan, will be Karin Engstrom.

MR. JARVIS: Hi, my name is Ryan Jarvis, I am a law student here in Seattle. I would just like to address a couple of things. First of all, I learned about Hanford just last year for the first time, and I was really amazed that it is the most contaminated site in the western hemisphere, and I was actually more amazed to learn about the befuddled cleanup attempts that have been going on longer than I've been alive. I'm only 23 and as I understand, not much has happened, and some attempts that went down in flames to cleanup. So I urge the Department of Energy and Ecology to really make the effort to do what is right here. Empty the tanks to 99.9 percent of what is in there, use state waste management laws to really -- to avoid landfill closure and clean closure, and also no off-site waste.

It seems a little absurd to me to consider accepting more waste to Hanford, considering it is already the most contaminated site in the western hemisphere. And then finally, I would like to address Mr. Lyon. I was a little disappointed that as you stood up here and discussed what the Department of
Energy has put in their EIS and you have considered it, but you haven't really taken a stance as of yet, and I would just like to read to you a provision from your organic statute, the statute that created the Department of Ecology. It says, "The legislature recognizes and declares it to be the policy of this state that it is a fundamental and inalienable right of the people of the State of Washington to live in a healthful and pleasant environment, and to benefit from the proper development and use benefit of its natural resources."

I don't understand how the Department of Ecology could -- this could be their guiding statute, and yet at the same time not take a stand on what is right at Hanford and really insuring that our strong state laws are enforced there to do what is right. Thank you.


UNIDENTIFIED SPEAKER: She left.

MR. PARHAM: She left, okay. Anne Jess? Anne? Helga Kahr. After Helga will be Brian Bessembinders.

MS. KAHR: Helga Kahr, Seattle, three minutes is inadequate to address this draft EIS, so I am going
to reserve my right to submit extensive written
comments.

When I was in the fourth grade, our class was
taken on a field trip to the Zion nuclear plant in the
state of Illinois, one of the first nuclear plants --
commercial nuclear plants in the United States. I
remember standing on a catwalk looking down at the
spent fuel pool glowing blue. That was in April. In
September, the girl who was standing next to me, my
best friend, Leslie Collins, came down with a rare
aggressive form of leukemia and died within two
months. It was several decades later that I found out
what killed her. I was representing atomic workers
and medical workers who had radiation injuries.

The EIS is entirely inadequate in addressing
the biological effects of ionizing radiation.
Briefly, there is no safe level of ionizing radiation
to which human tissue can be exposed; and second,
there is no way to hide from gamma rays. You simply
can't.

Plutonium 239 is an isotope that remains
dangerously radioactive and toxic for 250,000 years.
The draft EIS doesn't begin to look at that time
frame. One pound of plutonium in the atmosphere,
breathed in by the people, will kill every human being
on this planet, and yet we are discussing, you know, dealing with this stuff. That is insane.

The draft EIS talks about how many adult men will get cancer in the future from the drinking water from the leaching of radioactive isotopes into the ground. They do not address what ionizing radiation will do to children, and ionizing radiation harms children more because their cells are dividing more quickly. In the state of Belarus, which is where most of the Chernobyl contamination went, the medical doctors there are writing reports about the health of the children there. There is not one healthy child in the entire country of Belarus. They all have thyroid disorders and cancers and childhood leukemias. That is what radiation does.

There is really no ideal solution to this problem of nuclear waste, but we need to do the very best we can do, and that is to vitrify as much as possible and to develop a deep geologic site to put the waste. That is not Hanford, that is not Yucca Mountain. Any other solution is insanity.

MR. PARHAM: Thank you. Brian, and after Brian will be Ruth Yarrow.

MR. BESSEMBINDERS: Okay. So first, this is a horrible place to put nuclear waste. It is going to
get into the drinking water, it is going to get into farms, agriculture, shipped around the country, bottled water, I don't know, do we take any from this area, we should look at that. And yeah, it is affecting Oregon, Washington, anyone down river, and it is guaranteed to cause cancer. At what amount, you guys can argue.

This keeps happening in many places. Where I am from in Omaha, we had a drinking water plant that was going to be put in. There was a former weapons manufacturing plant in the area, and basically they were like, you know, it is not going to leak in until, you know, 30, 40 years, but we are going to put this drinking water plant, which will suck more water out. It is providing water to a city with the richest man in the world, so it is still happening there.

Tennessee, I mean, all over the country, gigantic pools of sludge from coal power plants, I mean, no matter what energy you are talking about here, except for renewable resources, which we can actually utilize, are going to cause a negative effect. Natural gas, tracking, putting benzonite into the water.

You know, we just can't keep fighting this. We can't keep fighting it forever. We can't have
these alternatives. We can't have these half efforts at cleaning it up. It has been happening forever, and basically policy is to just keeping having these meetings and saying, well, we will take that opportunity to bury the waste in the areas you care about most.

The federal government is overtaking the state standards, make no mistake. There are state standards that do not allow this to happen and why isn't the federal government taking this into account?

Yeah, Governor Gregoire, she has the authority to stop this, why isn't she? She needs to use her abilities to stop the permitting process. It should not happen in the future, it should not happen now. We shouldn't have to keep on fighting this, but it seems we're going to have to.

Environmental impact statements are only supposed to be 300 pages, they are supposed to be understandable to the common layman, the public. These are becoming legal documents, rapidly, and as we've seen earlier, chemistry professionals can't figure this stuff out. I mean, this needs to be on the Seattle channel, this needs to be broadcast to people. We need to get over -- we need to realize it is our own greed that causes this, too, and it has
caused a lot of the other problems.

   Yeah, clean closure, I mean, clean -- we need
98 percent, whatever we can do. We need to switch to
clean energy. We need to stop trying to push the
nuclear agenda, and we need to consider that -- I
mean, is Obama -- hopefully what he is trying to do is
offer this ridiculous proposal in the hope that the
people around the country will realize that we can't
build nuclear power plants, and hopefully, you know,
we actually comment and we say this is ridiculous and
hopefully that is his plan.

   MR. PARHAM: Three minutes.

   MR. BESSEMBINDERS: Yeah, water will be more
expensive in the future. Go to Portland.

   MR. PARHAM: Thank you. Ruth Yarrow, and
after Ruth will be Barbara Zepeda.

   MS. YARROW: My name is Ruth Yarrow, I am an
ecologist who came here to work with Physicians for
Social Responsibility on the Hanford issue 13 years
ago. At that time, the Department of Energy said
there are 200 feet of soil beneath the tanks, and if
any leaks, it would adhere to the soil particles and
would not enter the groundwater. Six months later,
there were blaring headlines in the newspapers in
Seattle saying radioactivity found in the groundwater
under Hanford.

When I read about the amount of radioactivity that is considered acceptable or on the verge of dangerous, if you graph that, it has gone down very steeply over the many decades that we have dealt with radioactivity, to a tiny fraction of what we originally thought was what human beings could take. In other words, given the mistakes that DOE thought that the groundwater was not going to get contaminated, or our original naivete about what radioactivity could do to the human body, I think we need to put a huge chunk of humility into any of these decisions and realize we don't have any idea of the long-term effects, the synergistic effects of what is happening at Hanford. So that is one point I would like to make.

The other is the money is there. I made a graph once at one of these hearings with a piece of string, and one represented the billions that have been spent on producing and delivering nuclear and -- weaponry and it went all the way around a building, a room this size. At that point, the DOE was saying we don't have enough money to do the cleanup. The amount that was being asked for for cleaning up Hanford was like that much. So we have spent incredible amounts
in producing this waste. We can find the money to clean it up if the political will is there and if our Department of Ecology will stand up and use the laws that it has at its back to demand what cleanup is needed. Thank you.

MR. PARHAM: Thank you. Barbara, and then after that, will be Blair Anuntson.

MS. ZEPEDA: Yeah, I live in Seattle and I have been coming to these things for years. I was a Bomber, a Richland Bomber, I was -- I went to high school in Richland and my mother died of pancreatic cancer, she worked in a decontamination lab. They were very low paid workers, all of the workers, and so there was one person there that I had to listen to her all through high school come home and complain about how none of the supervisors there would allow them to really follow the safety rules. They'd have safety meetings, but they were never allowed to follow them, except for Russ Knights, and I don't know if you can find any Russ Knights in Hanford anymore, because essentially, the problem with Hanford is the problem with the military industrial complex that Eisenhower talked about, and it is intellectual and economic incest.

It is the worst form of incest, because it
hides the facts, it hides the dollar facts, and if you can't even get the dollars straight, how in the hell can you get all of the protons, neutrons, and the million chemical formula right? It is deliberate and yet they are brilliant people. I was late to this meeting because I was listening to European Journal on CBTBS, a Tacoma PBS station. A German -- one of the best German engineers was talking about why the new subway train tunnel in Cologne was a catastrophe. It flooded, it undermined a building there and museum, and he said the reason is that they are allowing the contractors to monitor themselves.

You cannot have -- and I would -- if you would take this book and print it in your -- this is Eldon Caldicott's book, a New Nuclear Danger, and talks about George Bush and the military industrial complex, but this goes back to Eisenhower and it is a list of the Dirty Dozen, the ten top contractors that have been involved in the weapons and in so-called cleanup and the so-called peaceful uses of nuclear energy, which our leading politicians, Andrew Jackson and John Adams pushed, and they bought off the environmentalists because they gave them some little parks. They didn't tell them the parks -- that the water running through those parks was all going to be
nuclearized with those darling little plants.

And here is the other -- this is the political incest of the military industrial complex, with the documentation of the major corporations that have played this game because they need more money, the more messes they make. When you have got an economic system, like Wall Street, you not only destroy the environment, you destroy the economy, and while you're ruining the world.

And then here I have -- I am going to give you these 20 pages from 159 pages of the latest City Light bond prospectus. In this is a hidden subsidy of City Light through the Northwest Energy that we are subsidizing nuclear plants and this is what allows Obama to come forward with this big plan, because he can hide it in the budget, because in here, they tell you, okay, it's like 50 million but it has gone up to 500 million within ten years of financing within City Light, because we have got all of this wonderful unused bonding capacity, which the municipal ownership lead built the first public utility in the United States at City Light in 1905 and it has been bastardized. Thank you.


MR. KELLEY: I am Jim Kelley from Seattle.
Thank you for giving us the opportunity to comment. I wanted to say, first off, I am not a scientist. My training is in communications and the law, and because of that, I am not going to make a scientific argument, but I do want to make a personal appeal and I am going to direct it to you, because you are the two public employees who are here.

I am a former state and county employee, and so Jeff and Mary Beth, I just want to say that, you know, I am a citizen of the United States and a lifelong resident of Seattle, Washington, so you both work for me, and you both work for all of the people here, but more importantly, you work for all of these people's children and their children and future generations that will go on, hopefully, for many, many generations, and you might be also pleased to know that I haven't reproduced, but it is important to keep that in mind, because when government deals with big issues, and I mean, really important issues, like the abolition of slavery and the kinds of things that have made this, you know, have made this a great country, when it has always taken heroes to step up from the ranks of everyday workers, and, you know, the thing is that when you work for government, it is so easy to just do things the way it has always been done, and
this environmental impact statement, I am sorry to say, I have worked on some EISs myself, this environmental impact statement is the perfect example of that.

This is a 6,000-page document that no one can understand, because chemists can't understand it and attorneys can't understand it. What we can do is we can try to boil it down and understand bits and pieces, and yes, I'll make the same points that everybody else here has made, you know, that the -- about the cleaning up to 99.9 percent and all of that, but that is not the important issue here. The important issue here is for someone, and I'm saying this for the record, someone who works on these issues at the US Department of Energy, at the state Department of Ecology, and the governor's office, and the Oval Office, somebody should step up and say enough is enough. This has to change. Our approach to the way we deal with the cleanup of nuclear waste has to change.

This is a critical, critical issue to the health of our future generations and to the health of our environment, you know, our ecosystems and everything else that depend upon clean water, and boy, I am just begging you, please, step out of that --
that inertia that comes with being a part of a system that does things over and over the same way. Step out of it, be a hero. Thanks.

MR. PARHAM: Fred Miller. After Fred Miller will be Robert MacDonald.

MR. MILLER: My name is Fred Miller, I am the president of Peace Action of Washington and a board member of Peace Action, which is America's largest peace organization.

First, I want to talk a little bit about 90 percent and 99 percent and 99.9 percent. Speaking to someone whose formal education in mathematics ended when I was 15, recently there were headlines about a middle-aged white man who went to the Pentagon and started killing people. I am a middle-aged white man, and his father and mother had reported that he was crazy. My father has been saying I was crazy for years. And he hadn't spoken to his parents for quite a while. I haven't spoken to my parents for about three weeks now. So I want you to think, okay, what are the chances that middle-aged white men in this audience are psycho gun toters? Would you keep your job if you knew that you were going to a place where there was about 50 middle-aged white men and you knew that 90 percent of them were not psychotic gun toters?
Would you keep your job if that was 99 percent? Would you keep your job if it was 99.9 percent? Which means about, oh, one headline nationwide every 20 hearings. 99.9 percent is not that high.

We had an attorney and a chemist with much more education than me, who couldn't understand the EIS. It only took me a few minutes and I have no college background. One thing I noticed is it doesn't seem to talk about the ecology of the Hanford area in the time we are talking about. I have spoken with atmospheric scientists and I asked them, I was just having fun, okay, how bad could it get? Could we have West Texas weather in Hanford? You know, West Texas, they get thunderstorms that dump an inch of rain in four or five minutes, that dumps a foot of rain, and this not wildly unusual. It happens someplace in -- actually East Texas more or less every year, a foot of rain in 24 hours. He said we have no idea. It is entirely possible that we could make East Texas weather look placid.

Are you planning to have it clean enough for who knows what kind of weather is heading for Hanford in the next hundred years, to say nothing about a thousand years? How clean are you planning on making it? Thank you.
MR. PARHAM: Thank you. Robert MacDonald, it's a late sign-up. Robert? No?

Have I covered everyone who signed up? I believe I have. There are a lot of names here. I would like to turn now to people who have not signed up who want to offer comment.

Is there anyone who would like to provide -- yes, sir. Come on up.

MR. HEGGEN: Hello, my name is Richard Heggen, H-e-g-g-e-n, and I am a former ecology employee who used to work on the single shell tanks, and I will keep this kind of brief. Basically, in reviewing the EIS and my knowledge of other documents and issues on Hanford, there is about four key points I would like to make.

Institutional controls, this is the first point, institutional controls, like covers, liners, fences, et cetera, will fail over time and a shorter time than you probably think. Existing -- the second point is existing contamination has already been shown to show serious human health and environmental effects. Even if you clean it up to 99.9 percent or better, you have already got issues out there. You can't get to some of these amazing amounts of chemistry and radiological inventory from past ditches.
and cribs and so forth, which actually kind of thwarts
the tank form inventories.

Point No. 3 is that the EIS is incomplete. I
covered those points earlier in Gerry's presentation,
and the last point is a lack of meaningful
characterization out on-site. This has been going on
for years, just kind of a real slow paced
characterization. There is not enough
characterization to actually support the modeling done
in the EIS. It is pretty standard methodology is to
validate your model characterization, go out and take
some field samples, find out if that model is valid or
not. I didn't see that in the EIS.

Because of all that and other issues, I would
just like to say for the record US DOE needs to
conduct the most thorough possible cleanup on-site,
and I am talking at least 99.9 percent or better. Dig
those tanks out, you know, take a good look at the
linings and other containment areas on-site. And
also, the most important point is not to bring any
more waste to Hanford whatsoever. Thanks.

MR. PARHAM: Thank you.

MR. DIPESO: Good evening. Jim Dipeso,
D-i-p-e-s-o. Good Italian name. Please spell it
right.
I'm with the Republicans for Environmental Protection. We will have detailed written comments to be submitted later. Very briefly, the primary theme of our letter is there should be no further consideration of importing off-site waste into Hanford. Hanford should not be a nuclear waste repository, or as -- if you will forgive me the humor for the lateness of the hour, a former Nevada senator once said in regard to Yucca Mountain, he called it a nuclear waste suppository.

Anyway, importing off-site waste is at cross purposes with thorough cleanup of the radioactive and chemical wastes that endanger the Columbia River. We support 99.9 percent cleanup standards, a clean closure, not landfill closure, because all landfills leak. Anything else is irresponsible and thank you and we will be in touch.

MR. PARHAM: Thank you. Anyone who has not provided a comment yet is invited to at this time.

No? We'd like to turn to people who have already commented who would like to provide additional comment.

MR. POLLET: Gerry Pollet with Heart of America Northwest. I have several points I would like to make tonight. First, I would like to
start thanking those who have stayed to this late
hour. Your participation and your presence makes a
big difference, and hopefully someone back on the top
floor of the Forestal (ph.) building, Energy
Department headquarters, will hear about your comments
tomorrow morning, and perhaps someone at the
governor's office as well.

First off, in this very room, not so many
years ago, several people here remember that there was
a hearing on the proposed restart of the FFTF nuclear
reactor, and there were probably 3- to 500 people here
that evening. There are at least 100 people I counted
here tonight talking about the legacy of nuclear
weapons and reactor production at Hanford and a need
for full cleanup. Luckily, we won a decision after
five or six years of hard citizen organizing that that
reactor was to be shut down.

What is beyond me and inexplicably is why the
Energy Department is even asking the question as to
whether or not you fully remove the reactor. There is
a standard in state law that for all energy facility
sites, we restore the site by removing the reactor.
Oregon did this with the Trojan nuclear reactor on the
Columbia River. For the other nine nuclear weapons
production reactors along the Columbia River, the
Energy Department has long agreed that it has to remove them entirely. So what is different about this FFTF reactor? There is no difference. It should be removed entirely, not just to grade level, but remove it entirely so that that portion of the Hanford site can be restored for other uses, including treaty rights to use that portion of the site, which are not compatible with leaving it under account. And this decision is one that is so by bizarrely sensible that I have been listening to presentation after presentation and going, how come the State of Washington ignores its own site closure standard for reactors and energy facilities, when it says in its presentation, we agree there isn't much difference between capping it or taking it apart and removing it entirely.

Did the State of Washington Department of Ecology forget about its own site restoration standards? Yes, apparently so. And that's not excusable. The Energy Department should have been reminded of that standard. It wasn't really -- it was up to the contractor and the Energy Department to be knowledgeable about it, but it is certainly logical for them to rely on the State of Washington to say, hey, we are a cooperating agency, you need to know, as
you draft this, that we have such a standard. So what is going on here? I would like to hear from the State of Washington how it missed this. I would really like to hear that answer.

It is important that the reactor be entirely dismantled and the site restored to as beneficial use a condition as is possible. As has been stated over and over again tonight and in prior hearings, caps fail. Caps fail and result in exposures to people. Sometimes they fail because of deliberate intrusions, so it's not wise to have isolated spots all over the 560 square miles of Hanford where you have got caps as opposed to trying to consolidate as much of the waste as possible on this one small area in the central plateau. That is inevitable, but the landfills that are proposed are also projected to leak without even adding off-site wastes, and let's think about that in a final thought for tonight.

The landfills will release far in excessive standards, even without off-site waste being added, and therefore, the reasonable alternative is not only to not add more off-site waste, but this EIS needs to ask the question how much of Hanford's existing waste should be exhumed, dug up, treated, and sent to deep geologic repositories elsewhere in the country? Not
above groundwater, not next to rivers, but dug up and removed and sent to deep geologic repositories because it doesn't belong next to a major river, it doesn't belong above potable groundwater. Thank you.

MR. PARHAM: Thank you. Anyone else who would like to provide a comment who has already. Yes, sir.

MR. RASBERRY: No one has brought this up, but I think it is of interest to most people here that the US Department of Energy just had a press release on March 4th, tours of Hanford are available. You usually can't go to Hanford, it is usually closed, but one day a year, they make reservations for the rest of the year. If anyone wants to take a tour, then you have to register on that day. The tour is free, it is information intensive, it is rather exhausting, it is about five hours. You are going around Hanford site.

The date to register is tomorrow. If you want to go on a tour sometime in the next year, you have to go to the web site tomorrow early and register. I have been on the tour, it is a lot of fun, I recommend going if you are interested. You get to meet some of the people there, it is what it is. If anyone would like to talk to me about it, I will be around. Thank you.
UNIDENTIFIED SPEAKER: Does it say when the tour is going to be?

MR. RASBERRY: It is April until September, tours.

MR. PARHAM: Do we have an additional comment?

UNIDENTIFIED SPEAKER: Can you give us the web site?

MR. RASBERRY: I will be around. Hanford.gov. Hanford.gov.

MS. ISAAC: I would like to make an additional comment. When we are using these units of 99.9 percent, this is by volume. I would like us to use a different way of talking about it. Instead of by volume, I would like to be talking about this with respect to its toxicity or its radioactivity, heavy metal content, whatever the bad stuff is. I want that to be talked about. What percent of that is being left, not what percent of volume is being left. That is part of the obfuscation of this statement.

And the other thing is, you probably don't know this, but the federal government does have a law concerning consent forms. When people participate in research, which I feel we are all doing right now is research, when people participate in research, the
federal government requires that consent forms be
written in language that the average person
participating would be able to understand. Now, it is
very low for medical research, it is seventh grade.
But we have to take those consent forms to people,
committees, whatever is set up, boards, review boards,
to look at those for us and let us know if we have
passed that test. I think that you folks should be
submitting your materials and the -- to some board and
to let you know if you have passed that test before
you come to us. Thank you.

MR. PARHAM: We would like to thank you for
coming out tonight. That concludes our program. This
is No. 8 in the series and thank you very much. You
have been a very patient and curious crowd. Thank you
very much and see you later.

(The meeting concluded at
10:00 p.m.)
CERTIFICATE

STATE OF WASHINGTON

) ss.

COUNTY OF KING

I, Holly Buckmaster a Certified Court Reporter and an officer of the Court, under my commission as a Notary Public in and for the State of Washington, do hereby certify:

That the foregoing deposition transcript of the witness named herein was taken stenographically before me and transcribed under my direction; that the transcript is a full, true and complete transcript of the proceedings, including all questions, objections, motions and exceptions of counsel, make and taken at the time of the foregoing proceedings, to the best of my abilities;

That I am not a relative, employee, attorney or counsel of any party to this action or relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof;

That the witness, before examination, was by me duly sworn, and the transcript was made available to the witness for reading and signing upon completion of transcription, unless indicated herein the waiving of signature.

IN WITNESS WHEREOF, I have hereunto set my hand on this 15th day of March, 2010, at Shoreline, Washington.

[Signature]

Holly Buckmaster
Notary Public in and for the State of Washington residing in Seattle.
My commission expires:
November 9, 2010.