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Public Comment on "Possible Site Recommendation for Yucca Mountain" PSSE (Preliminary Site Suitability Evaluation)

To: Carol Hanlon, US DOE
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I am from Wisconsin where there was an explosion in a VSC-24 cask when loading spent fuel into it at our local Pt. Beach nuclear plant. Nobody expected this explosion that lifted up the lid weighing tons. The chemical reaction that took place was an unknown. Yet that cask design was touted as "safe" to the public at numerous public hearings. Neither the NRC, nor the vendor, nor the utility, even knew what happened at first! And now DOE is telling us that this new cask design for the repository is going to be "safe." The cask is major to the repository. In fact it now appears as the main barrier in your design. This crucial element is part of the site characterization as it all relies on it working as expected in that specific location. It must be evaluated as part of the site of location of the waste. And this is the part that worries me the most. It was left to the last decision-making, and you haven't given the cask design enough study. You aren't ready. Chemical reaction are the major concern here. You must test the real thing; an actual

cask — and test it over time — a long period of time — before you promise us it's safe to bury. You would be terribly embarrassed, as was the NRC at a melting after the PA. Blast explosion, to be apologizing to the public for unexpected reactions nobody expected!

You need to decide on the shape of the layers, on exactly composition of the metals used, on the temperature and spacing of the casks and on anything at all — (every little material in there) that can react with each other over time. And not just those 1st layer of reactions — but also the reactions between whatever is formed from the 1st reaction, etc. New materials are formed over time. Not enough testing or study has been done on this. This is an important point.

Then too, the movement of materials creates through the mountain and water path is crucial and water will be a major concern as there will be more water needed in the future — that is clear all over the world. you cannot afford to contaminate any of our water supply in the future. Colloids need more study. Analogs need more study. Too many of your predictions are based on models and incomplete ones at that.

The concern of retrieval and unloading casks - if you have problems — especially unpredictable problems, has just been slurred over as "the reverse of loading" or "easily" done. That was what they told us about the VSC-24

casks too until there were cold cracks and they thought they may have to unload them. Only then, did they realize their unloading procedure was "inadequate". Very "inadequate"!! When they realized they may have to do the real procedure, all kinds of new problems came up — the details need to be examined now — not when you have an emergency requiring retrieval of the casks in the repository. Your retrieval system appears to have all kinds of potential problems.

You have a capacity limit of 70,000 metric tons in this 1st repository, yet you have told me "this is a legal limit, not a physical limit", and "I scientists studying Yucca Mt. believe it would be possible to contain additional wastes, should the site be approved and the law changed." Sounds to me very likely that Yucca Mt. will be the 1st and only repository and expand to take all the waste from relicensed nuclear plants and new ones in the future. That is really fooling the public into thinking we can take care of nuclear waste forever by dumping it all in Nevada. Seems to me that the "legal limit" is really a farce. I can't see any 2nd or 3rd repository being sited any place after all the trouble, all these years, you have had in siting one in Nevada. Yet, utilities are going full speed ahead in relicensing plans and we hear a lot about new reactor plans. Nobody talks about just where all this future radioactive spent fuel will go. What are the real plans

here? How much do you really plan to expand the repository? We want to know. This needs to be clear.

Thousands of public comments on the Draft EIS have not been addressed. There is not a final EIS, a detailed transportation plan, or a licensing rule. Site guidelines are not finalized. It appears the Radioactive Waste Concerns of the Nuclear Waste Technical Review Board have not all been addressed. You aren't ready to propose this site with any public confidence.

The recent terrorist attack on the World Trade Building and Pentagon reveals how easy it is to sabotage planes. Yucca Mt. would be a big priority target & would think. It makes no sense to put all this waste in one place. It's just too dangerous! And security at dry cask sites should be the same as for the nuclear plants (and it isn't). Truck bomb protection is needed, as well as more surveillance closer to the plant. Putting casks of waste out in a field away from plant protection is dangerous. And your "above ground facility" would be way too easy a target for sabotage. And think of the sabotage possibilities with trains and trucks carrying all this radioactive waste across our country (through tunnels, over bridges, down busy highways). It's just asking for trouble and your protection plans here are not thought out at all carefully. People just don't want to travel along with radioactive

casks in front, alongside, or behind, their vehicles.

Alloy 22, drip shields, cask pedestals, gantry procedures, etc, all need more detailed evaluation and actual testing. Vendors of casks are new. Cask designs are new. Cask behavior over time, in different environments has not been evaluated. Production and quality control are big big concerns. When a company builds a new cask design, all problems are new — that's where the VSC-24 was a mess. You can't expect perfection here. Every thing that can go wrong, will go wrong. Expect it and be ready for it. It surely went all wrong with the VSC-24 in use in Wisconsin and that cask and procedures was "certified" by the NRC! Problem after problem arose — undocumented welds, flaws, hydrogen creation, burns of tubes venting the hydrogen, weld gents igniting the hydrogen — etc. etc. etc.

Welds are big problem and need very careful questions and inspection in detail. They can be the basis for the whole repository failing.

In my mind there are way too many things that can go wrong right from taking the spent fuel from the plants to Nevada, storage above ground and fuel handling, and burying it — out of sight, out of mind, in the far distant future.. It will come back

to haunt you as a huge failure I fear. There are too many uncertainties, too many risks. The waste should be left in the states that allowed it to be created and they should have to maintain and protect it forever. Recasking will be necessary, but at least keep it above ground so we can see what is happening to it over thousands of years and know in what shape the casks really are in over time. Burying things like gas and oil tanks, garbage, etc. etc. never has worked. People think it "disappears" when you bury it. It doesn't. It leaks; it travels; it creates new chemicals; it changes over time. You can't predict all this. I, for me, don't want spent fuel buried. Keep it near the utilities that created it, and if they make more in the future, they should take care of it and pay for all the problems it creates.

The money poured down the nuclear waste "drain" at Yucca Mt. is awful and I fear the result will be like the atomic bomb — after you put all that money into it, you feel you have to use it! Don't. All your studies have proven to me is that there is way too much uncertainty and your limited models will not predict the real thing. Please do not site a Yucca Mt. repository.

Thank you,

Fawn Shilling Law

P.S. As I sit here in my hammock overlooking Lake Michigan, in Wisconsin, I think about the horrors on TV today with the Trade Center and Pentagon attacks. I think about my children, and grandchildren, and wonder what kind of future they will have. Whoever is actually reading my letter here, I ask you to think carefully about radioactive waste and why we allow it to be created at all any more. Can't you just see a plane bombing into a full array of casks in Nevada or hitting a trainload of casks? Can't you just see terrorists holding a trunk of nuclear waste hostage? This is dangerous. One VSC-24 cask holds 24 times the radioactivity of the Hiroshima bomb. Are you really considering this? Utilities are holding their breath, waiting for the Yucca Mt. "green light" to open the doors for more waste creation. This makes no sense. Vice President Cheney thinks nuclear energy is the answer to everything. He is gravely mistaken. Nuclear waste is a blight on the future of the world. There never will be a good answer to dealing with it. And the sad thing is that it is not necessary — at all. Wind and Solar and other sorts of energy are ready, and conservation would save a lot, yet America acts as if the future of resources doesn't look bleak. If we contaminate our land and water, we have big trouble ahead for our grandchildren. I love mine too much to allow that to happen. Let's keep these children in our minds, please.