

65 FR 39206
June 23, 2000

515 West Point Ave.
University City, MO 63130
September 21, 2000

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Mr. David Meyer, Chief
Rules and Directives Branch -- Mail Stop T-6D-59
Division of Freedom of Information and Publications Services
Office of Administration
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Draft Environmental Impact Statement on the proposal of Private Fuel Storage to build and operate an irradiated reactor fuel storage facility on land owned by the Skull Valley Band of the Goshute Indian Tribe in Utah ---- NUREG-1714.

Dear Mr. Meyer:

The world knows – even little school children of the world know – that Europeans came to North America in the middle of the last millennium and stole land from the native people here, decimated their cultures, and killed countless numbers of them.

Are today's Americans going to be remembered for having destroyed the remaining land, water and future of the Goshute/Skull Valley Band Indians by allowing four federal agencies to approve a proposal to build and operate an "interim" storage facility for irradiated fuel rods from commercial nuclear power plants on their reservation? While the nuclear electric utilities are promising to compensate the Goshutes for accepting permanent toxins in their tribal lands, they are really making a lethal bribe. If we let this happen, we will knowingly be a part of the continuing inhumanity to the nation's first people.

I am submitting comments today to urge the US Nuclear Regulatory Commission, the Bureau of Indian Affairs, the Bureau of Land Management, and the Surface Transportation Board to reject the proposal to install such a facility in Tooele County, Utah – admittedly already one of the most environmentally challenged counties in the nation.

And in a more personal, not-in-my-backyard plea, I am also writing to object to this proposal because of its potential impact on my state of Missouri – located in the middle of the nation, with railroad tracks and highways crisscrossing throughout. Seventy-six of the US operating commercial nuclear power reactors are located to the east of the Mississippi River – that is, east of Missouri; 27 are located to the west. Missouri is indeed in the middle!

I am submitting for the record the comments of some of the citizens who testified earlier this year, on January 20, at a Department of Energy hearing on the proposal to ship the irradiated fuel rods out to Yucca Mountain, Nevada. The numbers of shipments though Missouri to Yucca Mountain would perhaps be fewer than those initially proposed for shipment from the eight consortium utilities to Utah – no one is telling us the facts – but the hazards would be the same.

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Above all, I believe the US government this go-round should be honest in its negotiations with the Indians. Have the hazards of the irradiated fuel rods been described thoroughly and honestly? For example, regarding:

1. the permanence and variety of the toxins: Have the Goshutes been told that the half-life of each radioactive isotope has to be multiplied by at least ten, to estimate how long the fission, activation, and transuranic products will remain hazardous?

Technetium-99, one of the fission products with a relatively high yield in reactor fuel, has a half-life of 211,000 years. Not only will the Tc-99 in the fuel rods give off radioactive beta particles for that duration, but it will continue for at least ten half-lives, for another two million years. Although the fission yield of Tc-99 in reactor fuel is higher than strontium-90, the Draft EIS includes Sr-90 but not Tc-99 in "Table D.5. Radionuclide inventory for the proposed Spent Nuclear Fuel shipments" – that is, in the 4,650,000 curies estimated to be present in each shipping canister. Do the residents of Tooele County realize what a huge amount of radioactivity 4.65 million curies is? The Washington University Medical Center here in St. Louis has more than 1,000 laboratories in which radioisotopes are used for research. Those labs share a total of two curies – their scientists and technicians work with tiny fractions of a curie!

Many other major, highly radioactive fuel rod components are also missing from the DEIS Table D.5, such as xenon, iodine, cerium, ruthenium, rubidium, antimony and, of course, uranium and thorium. All of these and more would be available for release from the canisters in the event of an accident. I do wonder if estimates of the curie content of all the fission, activation and transuranic materials were included in Table D.5. what the estimated average total radioactivity would be per canister. And we're talking about 500 concrete storage pads with eight canisters per pad – or 4,000 canisters – as a start. A terrorist's dream!

2. the transport risks: Have the full range of potential transport accidents been described? Have the Goshutes and other Tooele County residents been told of the minimal amount of experience the nuclear industry has had with the shipment of irradiated fuel rods from commercial power plants, rods that have already been corroding and leaking in spent fuel pools for decades? When St. Louisans and residents of other towns were trying unsuccessfully to stop the Department of Energy from shipping the melted fuel from the Three Mile Island accident by rail out to a storage pool in Idaho (from 1986-90), we learned that mutant micro-organisms – algae, yeast, bacteria, fungi – were thriving in the reactor vessel. Just one of the surprises no one had anticipated.
3. the potential for an attack by terrorists: Has the Nuclear Regulatory Commission explained to the Goshutes why a huge parking lot lined with irradiated fuel rods could perhaps be appealing to terrorists or saboteurs? That is, have you explained the genesis of the NRC regulations that dictate that any rail shipment of irradiated reactor fuel within a heavily populated area must be accompanied by two armed escorts (Code of Federal Regulations, Title 10, Part 73 – "to protect against acts of sabotage and to prevent the theft of special nuclear material" – Section 37)

Not many members of the public realize that the uranium fuel rods in an average commercial nuclear reactor vessel generate enough fissionable plutonium every year to make at least forty nuclear bombs. That is, for every reactor that has operated for 30 years, its stockpile of irradiated fuel rods would contain enough plutonium for at least 1200 nuclear bombs! And that's what the investor-owned utilities want to ship to the Goshute Reservation!

4. the potential for an accident: The assurances in the DEIS that the canisters would remain intact and that no leakage of radioactive gaseous or liquid wastes could or would occur during the transport, transfer, installation or storage seem unwarranted. Potential accidents that could lead to the release of the canister contents include typical accidents, such as a collision resulting in a long-duration, extremely hot fire.

But in addition, accidents caused by the presence of radioactivity are possible. During the shipments of the damaged Three Mile Island fuel, special recombiner catalysts had to be installed in the canisters to try to prevent the formation of combustible gas mixtures caused when the radiation particles and rays, emitted by the irradiated fuel, would zap the residual water molecules that inadvertently were present in the canister – a process called radiolysis. The concern was not only about a possible hydrogen explosion, but also about the buildup of internal pressure within the canister.

Boron carbide pellets or borated aluminum sheets have also been added to canisters of high-level radioactive waste (irradiated fuel rods) to try to prevent an uncontrolled nuclear chain reaction. The radiolytic decomposition of such materials can also cause the formation of combustible gases.

And there is always the concern about the pyrophoricity of the brittle, zirconium fuel-rod cladding (the hollow metal tubing that contains the uranium fuel pellets).

In the event of an accident, the reactions of the hundreds of isotopes within the fuel rods would be virtually impossible to predict. For example, while the technetium as a metal would be expected to remain inside the cladding, defects in the thin metal cladding and defective welds at the top and bottom of each rod could provide a pathway for the release of technetium particles. The deterioration of the fuel rod cladding is all the more likely now that commercial reprocessing (or recycling) of the irradiated fuel has been discontinued. The rods stored in the American reactor fuel pools were all originally designed and intended to have been stored in water for only about 150 days – prior to being shipped to a reprocessing plant. Instead, reprocessing was discontinued -- because of technical and financial problems, and because of concerns about the proliferation of nuclear weapons that could have resulted from the theft or diversion of the plutonium extracted from the fuel rods.

Tooele County, Utah, already hosts some of the most poisonous and dangerous man-made materials on the planet Earth – including nerve gas and other chemical weapons, biological weapons, so-called “low-level” radioactive waste, hazardous waste incinerators and landfills,

and a bombing range. Leon Bear, the chairman of the Goshute tribal council, was quoted in Outside magazine, May 2000, as follows: "Would you buy a tomato from us if you knew what's out here? Of course not. In order to attract any kind of development, we have to be consistent with what surrounds us." To Mr. Bear that means the tribe must accept still more lethal materials onto their land.

But is that correct? For the federal government to permit investor-owned utilities to funnel the nation's permanently HIGH-LEVEL radioactive wastes into a county that is already held hostage to "modern" mankind's carcinogenic, mutagenic, teratogenic wastes would be the same type of genocide the Europeans practiced against the Indians almost 500 years ago.

And finally, two questions:

Rather than putting these highly hazardous materials in motion across the country, would it not be safer to store them on site in the reactor building where they have been produced as the reactors reach the end of their operable lives?

Since the utilities are apparently offering many millions of dollars in bribes to lease 820 acres of the Skull Valley Goshute Reservation, why not instead invest these funds to secure a safe house, a safe job, and safe alternative community – away from the toxic air, land and water of Tooele County – for each of these long-abused Americans?

I hope you will extend the public comment period and that you will give those of us who live in corridor states the opportunity to present oral testimony in public hearings in our states.

103 reactors are still creating these wastes here in the United States. Enough is enough.

Sincerely,



Kay Drey

Enclosures: two collections of testimony on Yucca Mountain and the related transportation issues – January 20, 2000.

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