Kay Drey <tritium3@sbcglobal.net> on 01/11/2008 06:30:38 AM

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To: EIS_Office@ymp.gov
cc:
Subject: comments on the Draft Yucca Mtn. SEIS --

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Dear Sir or Madam: Because my fax machine has recently been intermittently malfunctioning, I thought I should also send a duplicate copy of my comments to you by email, regarding the Draft Supplemental Environmental Impact Statement for a Geologic Repository . . . at Yucca Mountain," DOE/EIS-0250F-S1D. I apologize for any inconvenience.

Sincerely, Kay Drey --- January 11, 2008. Yucca - Supplemental EIS -- comments -- Jan.2008.doc

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January 10, 2008

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1 C **Comments on the Draft Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada (DOE/EIS-0250F-S1D)**

The proposed Yucca Mountain geologic radioactive waste repository and its transport plan, as described in the Draft Repository SEIS of October 2007, pose a threat to the nation, not a solution.

To make certain that my biases are clear, I would like to begin with one of my favorite quotes about nuclear power:

> The fission reactor produces both energy and radioactive waste; we want to use the energy now and leave the radioactive waste for our children and grandchildren to take care of. This is against the ecological imperative: Thou shalt not leave a polluted and poisoned world to future generations. (Hannes Alfven – 1970 Nobel Laureate in Physics)

The world's first self-sustaining nuclear chain reaction occurred 65 years ago, on December 2, 1942. All the uranium for that historic experiment was purified here in St. Louis, starting in April 1942. Much of the radioactive waste generated during those earliest months, plus wastes from a total of 25 years of uranium processing, are still located in various locations of Metropolitan St. Louis. The brilliant scientists who carried us into the Atomic Age were never asked if they could get us out.

This pending Department of Energy proposal is to ship the stockpiled high-level radioactive waste from 77 operating nuclear power reactors located east of the Mississippi River, 27 from west of the river, and other nuclear power and weapons waste, across the country to Yucca Mountain in Nevada. With St. Louis in the middle.

If irradiated fuel rods were to be shipped by barge from the Cooper nuclear plant in Nebraska (as per page G-56 of the Draft SEIS), and if a barge accident were to occur, St. Louis's Missouri River drinking water would be placed at risk.

The range of fission, activation and corrosion isotopes in just one of the Cooper plant's Spent Nuclear Fuel assemblies is far more extensive than the list published in the Draft SEIS (at page G-28). In the "Fuel Cycles for Electric Power Generation," Teknekron Report EEED 101 (by T. H. Pigford, et al., from 1973 and the 1975 revision), additional radioactive materials in reactor fuel include thorium, protactinium, xenon, zirconium, niobium, technetium (Tc-99 has a half-life of 211,000 years), rhodium, lead, silver, indium, tin, and lots of strontium-89 (a granddaughter of krypton-89).

Uranium-238 has a half-life of 4.5 billion years. The half-life of plutonium-239 is 24,000 years. Cesium-135 has a half-life of 2.3 million years. Zirconium-96 has a half-life greater than 3.9×10^{20} years. Since we have to multiply the half-life by at least ten, to estimate the hazardous life of a radioisotope, these materials will be around a long time. A very long time.

Yucca Mountain is made of tuff, or fragmentary volcanic material. Yucca Mountain lies within a field of volcanoes, within one of the most earthquake-prone areas of the nation.

Unless and until a safe place for radioactive waste can be located on the planet, we should quit generating more.

Sincerely, Kay Drey