

Letter/Attachment for GTCC EIS Scoping Comment #90

James L. Joyce
Document Manager
Office of Regulatory Compliance (EM-10)
U.S. Department of Energy
1000 Independence Avenue, SW.
Washington, DC 20585-0119

Dear James L. Joyce,

I write to submit the following public comment in respect to the Department of Energy's (DOE) current scope for disposal of Greater than Class C Low-level waste (GTCC) on behalf of Physicians for Social Responsibility (PSR).

PSR would like communities surrounding potential GTCC sites to be provided with information on the potential risks to human life and health that could come with living near GTCC storage sites. PSR strongly urges DOE to include hardened on-site storage as an alternative on the Environmental Impact Statement (EIS).

PSR believes that communities surrounding potential GTCC storage sites should be fully informed on all types of wastes that could be stored near them. This includes defining the source, form, volume and radioactivity of such waste. Communities surrounding proposed sites should also be informed of which method of disposal is being suggested for their site. In this way, the public will have a more educated view and be in a better position to examine and comment on proposals.

DOE should inform surrounding communities on all potential and actual health risks associated with low-level doses of radiation from GTCC storage facilities. Foreseeable contamination from a GTCC storage facility, into the air and ground water, could expose surrounding communities to low levels of radiation. Low doses of radiation (exposures under 10 rem) are less predictable than high doses of radiation, the effects are not immediately visible, and involve the cancerous transformation of cells.¹ Seven reports prepared by the National Research Council's Committee on Biological Effects of Ionizing Radiation (BEIR), published since 1956, examine possible health risks associated with exposure to low-level radiation. The most recent committee report (BEIR VII) calculated the expected cancer risk from a singular exposure of 0.1 Sievert (equivalent to 10 rem and 40 times the average yearly background exposure).² The committee found that in a lifetime approximately 42 out of 100 people will be diagnosed with cancer and one cancer out of this group of 42 could result from a single exposure to 0.1 Sv of low-LET radiation above background.³ There is still a lack of scientific certainty over what level of radiation exposure leads to cancer, mostly due to the difficulty in proving a causal link between a specific radiation exposure and adverse health effects.⁴ However, agreement that there is a risk *likely* to human health when humans are exposed to

¹ Michael McCally, *Life Support: The Environment and Human Health*, The MIT Press, 2002. pg. 215.

² Committee to Assess Health Risks from Exposure to Low Levels of Ionizing Radiation, National Research Council, *Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII-Phase 2*, National Academies of Sciences, 2006. Available at [http://books.nap.edu/catalog.php?record_id=11340] This report was sponsored by the U.S. Departments of Defense, Energy and Homeland Security, The U.S. Regulatory Commission, and the Environmental Protection Agency.

³ *Ibid.*

⁴ *Ibid.* Michael McCally, *Life Support*, pg. 217. Barry S. Levy and Victor W. Sidel, *War and Public Health*, American Public Health Association, 2000. pg. 128.

more low-level radiation is a sufficient reason to keep communities surrounding potential GTCC storage sites well informed of possible increases in radiation exposure.

Communities surrounding possible GTCC sites should also be informed of the risks to human life that storing radioactive wastes could bring. For example, enhanced near-surface disposal involves the placement of wastes in engineered trenches, vaults, or other similar facilities. A terrorist attack on such a disposal facility would cause massive amounts of radiation into surrounding communities. There is also the potential for terrorist to target the vast amounts of radioactive waste shipments traveling across the country. The EIS should include projected transportation routes and types of radioactive materials to be transported. Citizens have the right to know what risks to their lives and health are associated with ongoing and proposed DOE activities.

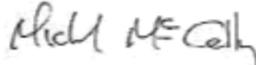
In informing citizens of radiation exposure risks, PSR urges DOE to estimate risks beyond those estimated for people with "reference man" characteristics. Many people living near the proposed sites do not have the anatomical and physiological characteristics of an average individual as defined for a "reference man." In particular, infants, children, pregnant women, immune compromised and other chronically ill persons.

DOE is urged to include an accurate estimate of future GTCC waste in the EIS. The EIS could provide projections for future GTCC waste, projecting how future GTCC storage could grow or change. It could include all waste projected after 2062. When detailing potential future waste storage needs, the potential waste coming from reprocessing under DOE's proposed Global Nuclear Energy Partnership (GNEP) could be included. The EIS could also incorporate how plans to re-configure our nuclear stockpile could affect the amount and type of GTCC waste coming to each proposed site. The EIS scope includes cost estimates until 2062; however, it may be beneficial to include full life cycle cost estimates.

PSR supports including hardened on-site storage as an alternative on the EIS. Current, low-level waste facilities in the United States are not ideal by Nuclear Regulatory Commission standards, since they store, rather than dispose of, low level waste.⁵ Until a way to actually dispose of this waste is found, hardened on-site storage would allow long-term storage of GTCC wastes without the danger of transportation. Transporting waste around the country to be re-stored in virtually the same way that the Nuclear Regulatory Commission deems inadequate, only heightens the human health and security risks associated with GTCC.

Thank you for your time in seriously considering these concerns and comments.

Sincerely,



Michael McCally, M.D., Ph.D.
Executive Director, Physicians for Social Responsibility

⁵ U.S. General Accounting Office, *Low-Level Radioactive Waste: Disposal Availability Adequate in the Short Term, but Oversight Needed to Identify Any Future Shortfalls*, GAO-04-604, June 2004, pg. 21.