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Secretary, USNRC
Washington, D. C. 20555

Ref: Definition of high level radioactive waste

I wish to submit the following comments regarding the NRC's intentions to redefine high-level radioactive waste:

In categorizing all radioactive waste, the first and primary concern is public health and safety. The initial concern should be the ~~protection~~ protection of current and future generations ~~xx~~ from exposure to radiation. Radioactive waste should be securely isolated from our living environment for as long as it remains hazardous. I would think you would be in agreement with this basic premiss. After all, why are we isolating radioactive waste if it isn't to keep us and our children from becoming ill, developing cancers, etc.

The first logical deduction would be that if you are going to build low level radioactive waste dumps to last for 100 years before leakage (unfortunately history reveals we have failed miserably in meeting that standard), then you don't deposit radioactive material in that site which will still be hazardous after 100 years. This means that many of the radioactive isotopes that have been categorized as low level (such as Strontium 90 and Cesium 137) remain radioactively dangerous well beyond the 100 year limit. They don't belong in a low level dump just as the plutonium in the west Valley burial ground doesn't belong there. Low level radioactive waste dumps under NRC's regulations (10 CFR Part 61) should be free of any dangerous levels of radioactivity after the 100 year limit because after that time the land can legally be returned to unrestricted use. Many reactor components such as the vessel, reactor shroud piping, storage tanks, etc. contain radioactive nickel-59 that remains radioactive for roughly 1 million years. Sludges, resins, crud, filters and other materials representing nuclear waste from reactor operation contain numerous radioactive isotopes hazardous for periods longer than 100 years. Again, these do not belong in a llrw dump.

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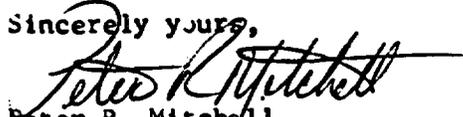
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A second logical deduction from the original premise of guaranteeing public health and safety is that all materials placed in a low level dump be fully contained for their hazardous lifetime. Any highly radioactive materials that will decay to safe levels before 100 years must be packaged in such a way as they do not leak. It may be best to place such intensely toxic materials in a high-level radioactive waste permanent repository.

Finally, definitions of high-level and low-level radioactive waste should be made on the basis of public safety and health, not economic convenience. Even economic considerations would favor a highly conservative approach. Additional monies spent today so that future generations avoid radiation induced cancers and illness are monies well spent.

Sincerely yours,


Peter R. Mitchell