

Ben Ruekberg  
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July 16, 1980

Director Division of Licensing  
Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Sir,

I find the Draft Environmental Impact Statement by the Nuclear Regulatory Commission on the Decontamination for the Dresden Nuclear Power Station, Unit No. 1 (NUREG-0686) an unsatisfactory document. It appears to be a rehash of old responses adorned with meaningless figures. For example, the annual man-rem exposure from Dresden I is not given, but rather the average from the three Dresden reactors (1973-1977.) What is that supposed to mean? Don't you know or aren't you telling the exposures from Dresden I? If not, why not? It is fascinating that the operation will expose workers to one-fourth as much more radiation as one would receive in one's entire life living in Denver rather than Washington. What if you took in one hour one-fourth the additional caffeine you would get from drinking espresso all your life instead of Sanka? You would be poisoned. Where did you get your estimated savings in exposure of 7,500 to 12,500 man-rems? "The amount of radioactivity of the solidified radwaste amounts to less than

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0.1% of the...total radioactivity shipped to commercial burial sites as of 1977" and occupies less than 0.06% the volume. All that means to me is that the radioactivity is about 1½ times as concentrated as the average shipment in that period, not even that the average shipment was safe or if it falls into the concentration range of the previous shipments. Where does the dollar cost of replacement power (5.2) enter into the environmental safety of this operation? I am disturbed by this array of irrelevant numbers.

Equally meaningless the the claim of proprietary information. How can a response be meaningful if the nature of the solvent and the solidifying resin are unknown? By precluding the meaningful response you invalidate the environmental impact statement!

There yet remain a number of unanswered questions. If the deposits in the pipes are "trace quantities of metals (that) have become neutron activated," what fraction of the deposits are radioactive? If the fraction is small enough, then the solvent may become saturated long before the radiation has been reduced. A much larger volume of solvent (and solidified waste) will be necessary to accomplish the described goal. The task will take longer and involve more exposure time to workers and more corrosion of the pipes by the solvent. An higher than anticipated ion content may adversely affect the ability of the solvent and resin to hold the radionuclides.

Evaporator effluents include Co-60 (Transactions of the American Nuclear Society, Vol. 34, June 1980, p. 154) If monitoring reveals that the waste cannot be safely concentrated, what alternate methods have you planned for dealing with the 200,000 gallons of liquid ?

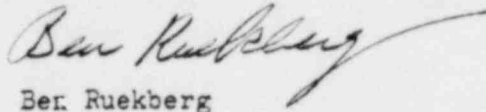
Radiation can degrade polymers.(A. Charlesby, Atomic Radiation and Polymers; Malcolm Dole (Ed.) Radiation Chemistry of Macromolecules) Some styrene copolymers "are affected by radiation to a greater extent than polystyrene itself." (Dole, p. 92) The waste will not be segregated from organic solvents such as toluene and xylene, which may swell the polymer. There is no adequate consideration of attack by microorganisms. "Microbial degradation of organic material produces a variety of chemical products which may contribute to the migration of various radionuclides ... as highly solubilized organo-complexes...." (Transactions of the American Nuclear Society Vol. 34, June 1980, p. 155) " At a March symposium in Vienna, sponsored by the International Atomic Energy Agency, four German scientists claimed that present standards for exposure to radionuclides ... are much too high because the rules for calculating dose levels ignore the fact that bacteria ... in the ground bond radioactive cobalt into vitamin B-12, which can enter the food chain. They asserted that up to 70 percent of the B-12 in human food is absorbed by the liver as compared with only 0.7 percent of the inorganic cobalt compounds and that the biological half-life of organic cobalt is 750 days while that of inorganic cobalt is 9.5 days. For these reasons they consider it possible that the nuclear regulatory agencies may be seriously underestimating potential cobalt exposure." (Environment, Vol. 21, No.5, p. 21) Not only must these three individual effects be considered but also all possible synergistic combinations.

Even if an accidental spill is "kept" in the containment, it might seriously increase worker exposure. Eight workers at the licensee's facility at Zion were splattered on May 12, 1980 in a mishap during a routine operation.

Furthermore, the licensee's record of careless handling of low-level waste, unreported dumping of tritiated water into Lake Michigan and covering up of violations of security procedures should be considered. They militate against entrusting this task to the licensee.

In summary, for the reasons given above, I do not feel that the safety of the proposed operation has been prove.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ben Ruekberg", with a long, sweeping horizontal stroke extending to the right.

Ben. Ruekberg