



OHIO SIERRA

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Comments by Connie Kline, Chair, Ohio Sierra Club Chapter LLRW Committee
Proposed Rule - "Procedures and Criteria for On-Site Storage of LLRW"

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One portion of a July 1992 Ohio Sierra Club LLRW Policy opposes extended on-site storage of LLRW based, in part, on several NRC documents such as Generic Letter 81-38, 11/10/81; Generic Letter 85-14, 8/1/85; NRC Information Notice 90-09, 2/5/90; SECY 90-318, 9/12/90 and 10 CFR 61.

Though Ohio Sierra Club does not agree with the entire recent Midwest Compact publication, Frequently Asked Questions and Answers About LLRW Disposal and the Midwest Compact, we do tend to agree with most of the enclosed page entitled, "Why not temporarily store waste at nuclear power plant sites?"

Neither the Perry nor Davis Besse nuclear power plants in Ohio are suitable locations for extended at-reactor storage of LLRW that could, in fact, become permanent.

1. Both reactors are built on the shores of Lake Erie, part of the world's largest fresh water system, source of potable water for 23 million people in two countries, and one of our most precious natural resources.
2. Davis Besse was built in a wetlands marsh prone to severe flooding.
3. According to the Perry Final Safety Analysis Report (FSAR), 7/19/83, p. 2.5-151 and 2.4-58, "Observations made in the test borings at the (Perry) site indicated groundwater levels usually ranging from three to five feet below the ground surface in the main plant area... In the vicinity of the Perry site, many residential users obtain their water supplies from shallow wells... used for drinking and other domestic purposes. An inventory of (groundwater) users within a two mile radius of the plant site, compiled by abstracting data from drillers' logs and from interviewing residents, produced 295 water wells."

Many of the residential wells in the vicinity of Perry have experienced contamination ranging from road salt to brine from oil well drilling.

During September 1986 and June 1987 hearings regarding LLRW sludge disposal on-site at Davis Besse, State expert witnesses (geologists and hydrologists) testified that based on early glacial movements in soil patterns, an upper till aquifer, leading to a lower bedrock aquifer exists on-site at Davis Besse and in the vicinity of the plant. When saturated, the upper till aquifer drains into Lake Erie, the Navarre Marsh, and the Toussaint River.

4. The Perry area is subject to earthquakes like the 1/31/86 one which registered 5.0 on the Richter Scale, the epicenter of which was just a few miles from the reactor. The Perry FSAR, p. 2.5-3 states that there is a known "offshore fault intersecting the cooling water tunnels..." According to May 1979 newspaper accounts, a large crack "30 feet wide, 20 feet deep - in the bedrock running through about two-thirds of the Perry site's huge excavation" was discovered during construction, deemed glacial in nature, and "filled with concrete." Even if the intake and discharge tunnel fault and the crack in the earth on not capable faults, they are still weaknesses in the earth.

5. Both Perry and Davis Besse are prone to severe erosion. A very serious (fortunately pre-operational) 1972 flood at Davis Besse was caused by a Lake Erie storm which broke hundreds of feet of dike at the plant.

The Cleveland Electric Illuminating Co. has embarked on several multi-million dollar erosion control

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projects at the Perry plant. The Perry FSAR states on p. 2.4-31, "Final design and permit applications for the shoreline permanent protection construction will be initiated when lake shoreline (toe of bluff) has receded to a point 250 feet away from the closest safety structure (emergency service water pumphouse)."

6. In an August 1992 phone conversation with the Solid Waste Division of the Ohio Environmental Protection Agency indicated that the Perry nuclear power plant site would be deemed environmentally unsuitable for any type of solid waste facility per OEPA criteria.

7. Of additional concern is waste package degradation as discussed in the NRC document, "Extended Storage of LLRW: Potential Problems Areas", NUREG/CR-4062 such as temperature fluctuations (in heated facilities with cold winter climates), corrosive atmospheres, acid deposition, external and internal corrosion, radiolytic generation of gases (predominantly hydrogen), radiation induced embrittlement of polyethylene containers etc. Waste package deterioration requiring repackaging or the need to repack or process waste prior to disposal, along with cleanup of any spills could result in additional worker or possibly even public exposure.

Please note - Due to time constraints, these comments are being FAXED on 4/5/93, and will be mailed tomorrow. Thank you for your time and consideration.

Comments by Connie Kline on Proposed
Rule - "Procedures & Criteria for
On-Site Storage of LLRW"

FREQUENTLY ASKED QUESTIONS AND ANSWERS ABOUT
LOW-LEVEL RADIOACTIVE WASTE DISPOSAL AND THE MIDWEST COMPACT



The Midwest Interstate Low-Level Radioactive Waste
Compact Commission

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1.8 Why not temporarily store waste at nuclear power plant sites?

This is not a suitable alternative for a number of reasons:

- Nuclear power plant sites are located near large water sources for cooling purposes, whereas immediate proximity to water usually is avoided when locating low-level radioactive waste storage or disposal sites. (Even though spent nuclear fuel is temporarily stored at plant sites, it will eventually be moved when a federal repository for high-level radioactive waste is operational.)
- Some reactor sites may lack sufficient space for temporary storage for a lengthy period of time.
- The Nuclear Regulatory Commission (NRC) has stated that the management and storage of low-level radioactive waste at plant sites would divert the attention of the plant licensee from the primary mission of safely operating the nuclear power plant (NRC Generic Letter 85-14, August 1, 1985).
- Co-location could complicate site monitoring. If releases were detected, it could be more difficult to distinguish between the potential sources (power plant or waste operations) and interpret the data.
- Increasing the number of sites (one disposal site vs. multiple storage sites) also could increase any risks associated with worker exposure and accidents.
- Storage at reactor sites would only be a temporary solution. The NRC rules require decommissioning of nuclear power plants after the end of their operating lifetimes and eventual return of the sites to unrestricted use (10 CFR 50.82).
- Because of their very nature, temporary storage facilities and containers lack the multiple barriers, structural and material safeguards, and other design characteristics that provide a much higher level of assurance that the waste will be properly isolated over time.
- It is the policy of the NRC that, to the extent possible, low-level radioactive waste storage at power plant sites be limited to a five-year period with demonstrated intent to subsequently dispose of the waste (NRC Generic Letter 81-38, November 10, 1981).
- Even if storage at reactor sites was desirable, it would not eliminate the need to also store waste at approximately 140 other hospital, university, research, and industry locations in the Midwest Region where low-level radioactive waste is generated.