



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

AB89-1

CF

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WM DOCKET CONTROL CENTER

August 17, 1987

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D. Fehring

MEMORANDUM FOR:

Dr. Dade W. Moeller, ACRS Member

FROM:

Dr. Sidney J.S. Parry, ACRS Senior Fellow *S. J. Parry*

SUBJECT:

Proposed Redefinition of HLW

As you are aware the NRC staff has recently published an ANPR proposing a redefinition of the term HLW. At the end of the comment period some 80 plus comments had been received from citizens, state and local governments, and utilities. Of these responses only those by J. Cohen, the New Mexico EEG and DOE had any real substance. I have previously forwarded to you Jerry's comment and am attaching those of EEG and DOE for your information.

In reviewing the comments in general, I was struck by the virtual total lack of constructive alternative suggestions. Further while the desirability of relating the definition to some level of risk was mentioned in several letters, only Jerry's suggestion really gave any guidance. But even he, like the staff, failed to really discuss risk, preferring to stress the hazard of a waste classification and not include consideration of the probability of public exposure, thus defining the risk.

If we are really serious about trying to relate waste definitions to the risk to the public I cannot see how it is possible to do that without including a detailed consideration of the disposal procedure to be utilized for the waste under consideration. This implies that it is not possible to develop a generic definition of HLW, but that it will be necessary to examine each proposed redefinition on a case-by-case basis. This is my present conclusion.

Dr. Fehring during his presentation to the subcommittee on February 19, 1987 touched on the desirability of considering public risk and referred to alternative disposal procedures. However, the ANPR itself gave essentially no support to these points. It presented a straight-forward extension of the Class C low-level waste boundaries without reference to public risk. Further, while it has been claimed that a major purpose for the redefinition is to allow DOE to plan for the disposal of materials not now planned for in the repository, the actual effect is to remove the largest bulk of the material now considered HLW from the HLW inventory. On this item it should be noted that DOE in their comments on the ANPR did not agree with the comments inserted by Commissioner Asselstine relative to the NRC retaining regulatory purview over the stripped salt cake at Hanford and Savannah River. If their opinion is supported upon redefinition of HLW then some 90 million gallons of salt cake will be transferred to DOE's unregulated LLW disposal program.

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My suggestion is that the subcommittee consider proposing to the staff that they attempt to develop a rule that states that possessors of HLW who wish to redefine all or portions of what is now considered HLW, may apply to the Commission to do so on a case-by-case basis. But that such applications must include a detailed risk analysis of the alternative disposal procedure to be used. This analysis should include, but not be limited to, a comparison between the risk of the alternative disposal procedure and the risk limit set by the EPA Standard, 40 CFR 191.

The staff has made a good effort to develop a rule that is easily understood and administered. However, care should be taken that fractionation, dilution and/or dispersion operations are not authorized arbitrarily. To that end then, it is necessary that redefinition not be permitted by an unilateral action of the possessor, but that such redefinitions result from proposals that are carefully reviewed by the NRC staff.

- cc: ACRS Members
- ACRS Technical Staff
- ACRS Fellows
- ✓ D. Fehring, NMSS

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