Inter-Office Memorandum

Date: August 1, 1979

Subject TMI Unit 2 Resin Solidification Value Impact Assessment Technical Report WMA-TR-1 GRU Service

R. C. Arnold

To

Three Mile Island Location

The WMA technical function group has prepared an assessment of the value and impact of solidifying spent resins in comparison with dewatered-vacuum dried resins for off-site shipment and disposal.

I have reviewed the attached report and agree with the conclusion that the health and safety impact of solidification, due to extensive handling, far outweighs any small unquantified value from reduction in dispersability.

Our plan has been, and continues to be, one of shipping the dewatered resins in type B casks thus providing high assurance of safety in transportation. Therefore, the only effect of solidification is to increase the number of shipments by about a factor two. With type B casks, little or no safety improvement is realized from solidification. Thus, the increase of about a factor of two in both shipping cost and the already very minimal health and safety risk greatly exceeds the increased safety increment derived from reduced dispersability.

At the disposal site, solidification reduces the activity per container by about a factor of two but concomitantly increases the amount of handling by the same factor. Since solidification does not necessarily provide enhancement of leach resistance, no value or improvement in health and safety at the disposal site can be presumed. The objective of the solidification process is to produce a monolithic, free standing solid with no free water. Therefore, the additional handling at the disposal site is an impact of significance with little or no compensating value.

The assessment shows that solidification of spent resins does not produce a significant health and safety benefit and is not warranted. In fact, overall exposure to employees at the generating site and probably at the receiving site would be markedly increased if solidification were carried out.

Kurche

Ben C. Rusche

BCR/al ATT

cc: J. J. Barton J. C. DeVine, Jr. J. G. Herbein J. F. Logan R. J. McGoey B212010259 790801 PDR ADOCK 05000320

Inter-Office Memorandum

August 1, 1979 Date: WMATE-0034

Subject TMI-2 Resin Solidification Value Impact Assessment Technical Report WMA-TR-1 70

B. C. Rusche



Location Three Mile Island

The subject value/impact assessment has been completed. Ten copies of our report, identified as WMA-TR-1, Revision 0, are forwarded herewith for your use.

This issue reflects resolution of all comments received on the draft copies distributed to you and others on July 26, 1979. In our judgement, it is ready in all respects for external distribution.

J. C. DeVine, Jr.

JCD/al ATT

J. Barton CC: S. Kraft R. McGoey C. Negin K. Pastor J. Renshaw A. Robeson

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