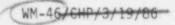
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Mr. R. J. LeDuc Westinghouse-Hittman Nuclear, Inc. 3151 Ramsey Road Columbia, MD 21045

Dear Mr. LeDuc:

Recently, NRC has received information which seems to indicate that short duration (less than 28-day) cement curing prior to performing water immersion testing may not be conservative for giving an indication of the resistance of a resin-cement waste form to water immersion. As this may be a phenomenon associated with the incomplete hydration and cure of the cement and in order to determine what is a conservative cure time, we are requesting specific information on pretreatment and curing procedures from all cement vendors involved in the topical report review process.

Specifically, we are requesting that you provide your procedure for the preparation and curing of solidified lab scale (or full-scale if applicable) resin samples prior to performing water immersion tests for 10 CFR Part 61 qualification testing. Please include information on the following: (1) the time the sample is allowed to cure prior to water immersion; (2) the temperature experienced by the solidified form during curing; (3) the relative humidity and/or moisture conditions experienced by the form during the curing process; (4) the methods used to accelerate cure (for example, convectional oven heating or the addition of salts); (5) the resin pretreatment and mixing methods and apparatus; and (6) any data which supports the conservatism of your choice of cure period and cure conditions.

Finally, we have contracted with Brookhaven National Laboratory (BNL) to perform limited confirmatory testing to provide an indication of the effect of cure time on the ability of a resin-cement waste form to meet the test criteria for resistance to water immersion. BNL may be contacting you in

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order to obtain additional information. We thank you for your cooperation in supplying the needed information. If you have questions in this regard, please contact Tim Johnson at (301) 427-4088 or Chuck Peterson at (301) 427-4546.

> Sincerely, ORIGINAL STORED BY

Malcolm R. Knapp, Acting Chief Low-Level Waste and Uranium Recovery Projects Branch Division of Waste Management, NMSS

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