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## UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

## OCT 3 1 1985

Mr. J. E. Day Executive Vice President Associated Technologies Incorporated Suite 300 212 South Tyron Street Charlotte, NC 28281

Dear Mr. D.v:

This is in response to your letter of September 13, 1985, containing your comments on the ASTM draft entitled, "Needs In Low-Level Radioactive Waste Standards." We appreciate this opportunity to respond to your comments and although your comments represent reasonable positions we do possess a somewhat different point of view on a number of these issues. Our hope is that the attached responses will provide a clearer understanding of our position.

In regards to the <u>Intermediate Backfill</u> procedure, Section 6.3.3 of the US Ecology, Inc., Richland, Wash., <u>Facility Operations Manual</u>, Rev. 4, we believe that more specificity would be needed to ensure that all bitumen wastes would be backfilled.

Again, we appreciate the opportunity to respond to your comments and hope that this correspondence provides some amount of resolution to your concerns.

If you have any questions, please contact Tom Jungling at (301) 427-4540 or Tim Jonnson at (301) 427-4088.

Sincerely, NO.

Leo B. Higg Heotham, Chief Low-Level Waste and Uranium Recovery Projects Branch Division of Waste Management

Enclosures: As stated

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Enclosure 1

## NRC Response to ATI Comments on the ASTM Draft "Needs In Low-Level Radioactive Waste Standards

ATI Comment: Compressive Strength Tesss for Waste Form Materials

Our position on this subject has been previously presented in response to similar comments. Enclosed is an example of such a letter and our response.

ATI Comment: Leach Testing

NRC Staff has investigated the effect of improved waste form leachability in the report, "Influence of Leach Rate and Other Parameters on Groundwater Migration," NUREG/CR-3130. This report concludes that reducing the leaching potential of wastes is important in reducing groundwater pathway exposures. It also states that improving leach resistance in solidified waste forms over current state-of-the-art cement products contributes very little to the effectiveness of a disposal facility. The report states that groundwater pathway exposures are more sensitive to factors such as waste stability, segregation of stable and unstable wastes and operational factors which contribute reductions in water percolation and contact time.

We agree that under the conservative ANS 16.1 test conditions, small samples may release a large fraction of the trace activity during the test period and produce acceptable leach indices greater than 6.

However, when consideration is given to full-scale waste forms and actual disposal site conditions, leach indices of 6 still result in minimal groundwater impacts.

Based on our pathway evaluations, we believe that the leach testing recommendations in the Technical Position on Waste Form are valid and will result in minimal groundwater impacts consistent with the performance objectives in 10 CFR Part 61.