

~~WLR~~
~~their reports,~~

~~Peter~~

SNO-STR-90 -161

ACRYLIC R&D REPORT FOR NOVEMBER, 1990

Peter Doe, LANL

- 1) The acrylic test specimens are in the hands of Bill Baker of UNM Engineering. This will provide data on the bond strength as a function of thickness.
- 2) The future procedure for getting samples made will be: machining at LANL, polishing in a commercial shop (Reynolds Polymer) and testing at UNM (assuming we are satisfied with the service we get from UNM, otherwise we use a commercial test facility).
- 3) Creep tests/failure envelope of acrylic in water is proceeding with initial results around end of year.
- 4) Attempts to increase rate of absorption of water by acrylic by subjecting to high pressure (>100 Atm.) are not encouraging, the water take-up remains about the same as atmospheric pressure.

It appears that attempts to accelerate the aging of acrylic will have to continue to use elevated temperatures. Report is being written.

See Davis Earle for status of radioactivity/optical properties and Phil Cumyn for Engineering status.