

SEP 28 1988

Mr. W. W. Culler, Director
 Division of Facility Engineering
 Bureau of Solid and Hazardous Waste
 Management
 South Carolina Department of Health
 and Environmental Control
 2800 Bull Street
 Columbia, SC 29201

Dear Mr. Culler:

TREATMENT OF HAIRLINE CRACKS IN SAVANNAH RIVER PLANT (SRP) Z-AREA SALTSTONE
 VAULT WALLS

As discussed with R. A. Coffey of your staff on September 12, 1988, hairline shrinkage cracks, typically forming after mass concrete pours, have formed in Z-Area saltstone vault walls. Results of sonic tests show that of 13 of the most prominent cracks present in the walls, 4 penetrated the full depth of the 1 1/2-foot thick walls. The cracks do not impact the structural integrity of the walls. The original vault design specified that linseed oil be placed on the inside of the outside vault walls to prevent potential movement of saltstone grout into the walls. SRP has determined that a polyurethane polymer is a better sealer and plans to use it instead of the linseed oil. The polymer is manufactured to last up to two years or one year under adverse weather conditions. The grout should harden in a few hours. Based on this information, application of the polymer should prevent any potential grout movement through the cracks.

Questions from your staff may be directed to W. C. Whitaker (803/725-5960).

Sincerely,

Original Signed By
S. R. Wright

S. R. Wright, Director
 Environmental Division

EEC:WCM:crw

cc: R. K. Caughen, SCDHEC-Aiken

cc: J. A. Porter, Du Pont, SRP
 J. S. Roberts, Du Pont, SRP
 J. A. Cudworth, MUS
 OCC (Concur)
~~SRP~~
 W. C. Whitaker, ED
 SR Reading File