

Test Plan Review Comments

If it is a room temperature test, what will the tests tell us about Residual Contact Pressure (RCP) uncertainties?

Response: Our plan is to develop the uncertainties analytically according to the same method used to develop the “spider plot”, and combine those using the influence factor MC approach. The tests will only tell us mean RCP.

The tests are planned for specimens of 13”, 15” and 17” . Referring to his prior question regarding if extrapolation of RCP from shorter length to longer length is conservative, what will we do if the final H* length is on the order of 19”?

Response: We are prepared to test longer specimens if necessary; the test plan is flexible. Based on EP input and the fundamental reference (Goodier), we expect for our conditions that the pullout force will be asymptotic for specimens shorter than the planned 17”. Based on analysis discussed with the EP, we expect that it will be more necessary to test shorter specimens than longer ones, but, in any case, we will let the tests guide us on what additional specimen lengths will be required, if any.

Is the collar size the same as prior tests?

Response: Yes within mils. Several analysis were performed to determine the collar size and the results are all very close to the size collar tested previously.

Are we planning tensile tests on SA508? (Note: The test plan clearly states that the collars are 1018 material) Emmett went further to note that E and Sy of the tubesheet material were not strong influences on the uncertainties and that perhaps this was not necessary.

Response: We are planning per discussion with the EP to do hardness tests on the test collars (1018) instead of tensile tests. We will investigate the possibility of performing tensile tests on SA508 if sufficient material remains from the CTE test