

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

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FROM L.A. Schappell AT Burlington COPY TO
SUBJECT LOP 1035, OC Coating for Dispersion
Resin Towers Status Report

The initial evaluation of the OC coating system was conducted in January. One half of a reflux condenser plate was coated with OC solution. The other half of the plate was uncoated. Very little scale had formed on either half of the plate after several batches were completed.

A second evaluation was begun on 8/4/75. Two stainless steel plates with only one side coated with OC solution were immersed in two batches. One plate had a #4 finish which is the same as the tower wall's finish. The second plate had a smoother polish equal to the finish of the walls of the reactors in the Pasadena plant.

After being immersed in the first batch, a 1755 type, the #4 finish plate had heavy scale buildup of 1/8" on the uncoated side. The OC coated side had about 1/16" of scale. The scale was easily removed from both sides with hot rinse water. However the scale on the uncoated side could be peeled off in large pieces. The second plate had only moderate scale buildup on the uncoated side and very light scale on the coated side. Both sides were easily cleaned with hot rinse water. The coated sides were cleaned and recoated with the initial OC solution since they contained little coating after the hot water rinse.

After being immersed in a 1749 batch the #4 finish plate had slightly more scale on the uncoated side than on the coated side. However the scale was much thinner than the buildup on the plates from the first batch. For the second plate the scale was light with slightly more buildup on the uncoated side. Both plates were rinsed with cold water and very little scale was removed. The plates were then jet-spray cleaned for a short period. Scale removal from the coated sides was not significantly easier.

From these trials it appears that the OC coating does reduce scale buildup. However, scale removal with cold or hot tap water is not improved with the use of OC coating. Hot water does remove the buildup better than cold water.

Further trials of the OC coating system will be conducted on a tower wall near the bottom. Higher rinse pressures similar to the rinse system at Pasadena will be employed to evaluate the coating system.

L.A. Schappell
L.A. Schappell

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