



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LEWIS RESEARCH CENTER
CLEVELAND, OHIO 44135



REPLY TO
ATTN OF: 70112

May 22, 1975

Mr. E. J. Florestano
Adesso Corporation
P. O. Box 14311
Norfolk, VA 23518

Dear Mr. Florestano:

First of all, I want to thank you for allowing us to test the Descal-A-Matic in our dynamic corrosion test system. We have used the system to test many water treatment corrosion inhibitors with various degrees of success (both good and bad). Our normal test program for the inhibitors is a rather severe test in that the testing period (after system equilibration) is eight consecutive days or approximately 200 hours. The water system flow rate is 10 gpm, temperature is 125°F, and saturated with air. Steel corrosion coupons are placed into the system and removed upon test completion, cleaned and reweighed. The loss in weight in grams is mathematically converted to a corrosion rate expressed in mils per year.

Chemical inhibitors have given us corrosion rates of 1 to 50 mils per year, with four mils to be considered acceptable.

In testing the Descal-A-Matic, we made no effort to pre-clean the system (as is the case with the inhibitors), however we did run the test for 14 days and at the same parameters as the other tests. Fourteen days were chosen because it normally takes between 4 to 6 days for a system to be conditioned for an inhibitor test, plus eight days for the actual run time.

The results were excellent with corrosion rates of five and six mils per year with coupons tested on a parallel