

Inter-Office Memo

TENNECO CHEMICALS, INC.

To	H. B. Carr	At	Burlington	Date	November 26, 1969
From	J. E. Ravelli	At	Burlington	Copy to	C. C. Cattell
Subject	Testing of Demineralized Hot and Cold Water and Demineralizer Beds				R. S. Cole
					H. H. Duhamel
					J. C. Fisher
					E. J. Hourihan
					F. W. Kanzler
					N. J. Quist
					P. R. Scarito
					M. W. Williams (2)
					File

To study the possible effect of demineralized water impurities on PVC quality the Analytical Control Group started a program of monitoring the demineralized water at the hot and cold water storage tank and at the effluent of the demineralizer bed.

To best accomplish the analysis, it was decided to use the Hach D.R. colorimeter. The D.R. colorimeter is a fast and accurate photoelectric colorimeter. Correlation of test results obtained with the Hach unit with results obtained by the A & E Group were excellent.

The DM water is analyzed for copper, iron, dissolved oxygen and pH. In addition, a conductivity meter will be purchased to further assure good water quality. The frequency of analysis was initially three times per week. After a period of three months it was observed that the results showed very little variance. It was then decided to lower the frequency of analysis to once per week.

It is of interest to note that the analyses from 9/19/69 to 10/27/69 showed a dissolved oxygen increase from 3.9 PPM to a high of 6.0 PPM in the samples from the hot demineralized water storage tank. It is suspected that a malfunction of the heat exchanger is the reason for the increase of the dissolved oxygen. This is supported by the fact that dissolved oxygen level went back to 4 PPM on 11/17/69 after the installation of the new heat exchanger on 11/4/69.

COLORITE 016221

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It is planned in the future to check water as charged into reactors. It is suggested to continue the storage tank analyses on the present once per week basis to assist the Utility Engineering Department in maintaining a high quality of demineralized water.

A graphical presentation of the water quality can be seen on the graph published, is in the In-Process Quality Control Report, dated 11/21/69.

J. E. Ravelli
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JER/rjl