

M E M O R A N D U M

April 9, 1976

To: Gary Rothwell

From: Douglas Houck

Subject: Georgia Pacific Chlor-Alkali Plant
(Bellingham) Class II Inspection

On October 28, 1975 I was given a tour of the Georgia Pacific facilities including the chlor-alkali plant. I inspected their composite sampler for the chlor-alkali plant. The sampler being used was manufactured by SIRCO and appeared quite adequate. Tape was put around the sampler so that it could be determined if the composite sample had been tampered with.

On the 29th I returned to pick up the composite sample and took a 30 minute composite sample of the effluent to determine both the pH and chlorine residual. The pH on the composite was 7.4 and the chlorine residual was 0.2 ppm as determined by the DPD method. Besides analyzing the 24 hour composite for mercury, analysis for Hg on Georgia Pacific's water, on the DOE's sample jar rinse water and Georgia Pacific's sample jar rinse water was also done. This was done to show that a significant amount of mercury found in the composite sample can come from the container which it is collected in. The table below shows a concentration of 1.7 ppb Hg in the composite sample. It also shows a concentration of 0.7 ppb in DOE's sample container rinse water and 0.1 ppb in Georgia Pacific's water. This would indicate that 0.6 ppb of mercury found in the composite sample is due to the container in which it was analyzed from; or, that the true concentration of the composited sample was 1.1 ppb. Either concentration is below their NPDES permit effluent limitation. The table below gives DOE's laboratory results along with their NPDES permit limitations.

	<u>DOE</u>	<u>NPDES</u>	<u>Georgia Pacific Water</u>	<u>DOE Sample Jar Rinse</u>
Hg (ppb)	1.7	2.5	0.1	0.7
Chlorine Residual (mg/l)	0.2	5.0		
pH	7.4	6.0 - 9.0		

DH:ee