

TO: Dick Cunningham/SW Regional Office

FROM: Phil Williams/Eastern Regional Office

SUBJECT: Kaiser Aluminum - Trentwood
Class II Inspection

DATE: December 15, 1977

State of
Washington
Department
of Ecology



A Class II inspection was conducted on November 15, 1977, on effluent from Kaiser Aluminum's Trentwood rolling mill. Present were Tom Dawson, Kaiser; Frank Schmidt, Kaiser; and myself.

The discharge was well within all permit effluent limitations during this study (Table 1). There were problems, however, in comparing data between the DOE laboratory and the Kaiser laboratory. Discrepancies occurred in Total Chromium, BOD, and Total Suspended Solids.

During last year's Class II inspection (June 8, 1976), a similar problem arose in the total chromium analysis. Upon resampling, however, much better agreement was achieved. The fact that the problem has come up again indicates the inherent reliability of the Hach colorimetric technique. I would strongly urge Kaiser to begin using Atomic Absorption in place of their present method.

Last year's Class II inspection also revealed problems in the TSS test with our results being much higher than theirs. This year it happened again. I can only reiterate my suggestion to adjust their filtering times as close to three minutes as possible. This suggestion was made to Kaiser in a letter dated September 17, 1976.

The differences in BOD test results may be due to several factors: 1) insufficient D.O. depletions; 2) use of powder pillows instead of carefully standardized solutions; 3) failure to reseed. These problems were pointed out last year and I will contact Kaiser's head chemist upon his return from vacation to see if the needed adjustments have been implemented.

Other items brought out during the inspection were:

1. New metering pumps have been installed in the chrome system. This should eliminate many of the Chromium violations that have occurred in the past.
2. Kaiser has been analyzing for Fluoride, Turbidity and lagoon chlorine residual without reporting these results to DOE. I have asked them to begin sending us these numbers on their monthly DMR and they assured me this would be done.
3. Kaiser is still not using all wide-mouthed glass for oil analysis. This will be corrected immediately.

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In summary, the inspection went very smoothly and despite the disagreement between laboratories on absolute values, both agreed that Kaiser was well within their permit limitations.

PW:adt

Enclosure

cc: Mr. Tom Dawson)
Mr. Lonnie Roe)Kaiser/Trentwood
Mr. Duane Brewster)
Mr. Michael Morhous ✓ - DOE/SW Regional Office
Central Files/Olympia
NPDES File/Spokane

TABLE I

Comparison of Class II Results with Permit Conditions

<u>Parameter</u>	<u>Permit Condition</u>	<u>Department of Ecology</u>	<u>Kaiser</u>
Flow MGD	33 MGD	26.4 MGD	26.4 MGD
TSS lbs/day	350 daily maximum	280	13.7
Oil mg/l daily maximum	15	2	2.5
O-PO ₄ filtered daily average lbs/day	9.6	-----	0.036
Cr ⁺⁶ lbs/day	0.16	< 0.22	0.022
Cr total lbs/day	0.8	0.42	0.067
BOD ₅ lbs/day	72.5	36.2	10.3
Fecal coliform #/100 mls	200	< 10	0
Cl resid. mg/l	0.5	0.6 ppm	0.6 ppm
pH	6.5 - 8.5	7.6	7.6