

## INTER-DEPARTMENT MEMO — PUBLIC SERVICE COMPAN. OF COLORADO

DATE October 27, 1959TO Mr. A. P. VailFROM Wm. H. Bahret, Jr.Superintendent of Production  
DEPARTMENT OR DIVISIONChief Betterment Engineer  
DEPARTMENT OR DIVISION

ATTENTION \_\_\_\_\_

SUBJECT HVT TESTS ON NO. 1 BOILER, CHEROKEE

PLAINTIFF'S EXHIBIT

BAB-404

On 10-21-59 a high velocity thermocouple (HVT) survey was made on No. 1 Boiler at Cherokee while burning coal, using the B & W thermocouple probe.

No. 1 boiler at Cherokee has the "bullnose" slag screen similar to what was installed in the field on Arapahoe #4 boiler after a high velocity thermocouple test on #4 at Arapahoe showed the original installation produced excessive temperatures entering the superheater.

The location of the surveys is illustrated on Page 4 of the data sheets. The method of obtaining nine survey points at each door is illustrated at the bottom of Page 3. The actual temperatures obtained entering the secondary superheater as compared to the expected from the Boiler Summary Sheets is plotted on Page 5.

From the curve on Page 5, it will be noted that Opening #13 (North Side) is about 200°F higher than expected. This is the average (2215°F) temperature of the gas entering the secondary superheater on the north side. The data sheets show that two points were 2300°F or higher.

Opening #14 (South Side) shows an average of 2092°F or about 100°F higher than expectation with a maximum point of 2250°F.

Boiler #2 at Cherokee is to have a similar survey made.

*Wm. H. Bahret, Jr.*  
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WMB:jk

cc: Vail - 2  
Waselkow - 1  
Burt - 1  
Brines - 1  
Bahret - 1  
HARRIS, AND - 1

WAD00044

NAME

Boller - #1

WAD00043