STACK TEST "CONFIDENTIAL"
(TEST OBTAINED FROM STATE OF TENNESSEE)

Calculation of inlet loading (lb/hr)

$$\text{Inlet loading} = \frac{\text{outlet loading}}{\text{1-control efficiency}}$$

Inlet loading (lb/hr) C-1 = 0.085/(1-.976) = 3.5

C-2 = 0.044/(1-.992) = 5.5

0.039/(1-.993) = 5.6

Average = 4.9 lb/hr

Since all three transfers were 47,000 lb cement/hr the emission factor is:

$$E = \frac{\text{4.9 lb/hr inlet}}{\text{47,000 lb cement transferred}}$$

$$= \frac{\text{4.9 lb}}{\text{23.5 tons cement transferred}}$$

$$= \frac{\text{.21 lb}}{\text{tons cement transferred}}$$

The bulk of this stack test is classified as confidential and therefore could not be supplied. Mr. Greg Forte, Tennessee Division of Air Pollution Control supplied the results page (attached) and the following information. The test was done by Environmental Consultants, Oklahoma City, Oklahoma for compliance with Oklahoma regulations. Report is dated February 2, 1976 and is for pneumatic transfer of cement to a silo. The plant is a typical concrete batch plant.

Test is of emissions of particulate matter from cement storage bin during the bin filling - the stocking of incoming materials is the worst case.

were collected in the Greenburg-Smith impingers and recovered for weight purposes. All other portions of the test were as stated above.

Sampling ports were located more than 8 stack diameters downstream and 2 diameters upstream from any bend, obstruction or discharge point in the stack. Four sampling points were required in each traverse plane; two planes per stack at 90° angles for each 1 hour test. The first and last points were taken at 1 inch from the stack wall.

The isokinetic values for the test repetitions were within the bounds of 90 to 110 per cent as indicated in this report for each series of data.

PROCESS WEIGHTS-EMISSIONS

Material	Process Weight lbs/hr	Permissible Emission lbs/hr	Actual Emission lbs/hr
P-1	92,500	43.854	0.1328
P-2	92,500	43.854	0.0940
P-3	92,500	43.854	0.0541
C-1	47,000	33.994	0.085
C-2	47,000	33.994	0.044
C-3	47,000	33.994	0.039

BAGHOUSE EFFICIENCY

Material	% Efficiency by Process Wt.	% Efficiency by Inlet Loading (Std.)
P-1	99.999+	99.2
P-2	99.999+	98.5
P-3	99.999+	99.0
C-1	99.999+	97.6
C-2	99.999+	99.2
C-3	99.999+	99.3

ISOKINETIC VALUES

Material	B1	B2	B3	A1	A2	A3
Pozmix:	95.89	92.52	90.41	101.46	101.37	103.79
Cement:	98.71	90.05	101.89	105.70	99.20	102.24