Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources.* AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

Background Report Reference

AP-42 Section Number: 9.10.2

Background Chapter: 4

Reference Number: 7

Title: Cyclone Dust Collector Emission Test Program, Cunha Farms

Pape & Steiner Environmental Services

Pape & Steiner Environmental Services

September 1986

AP-42 Section 9.10.2
Reference
Report Sect. 4
Reference 7

CYCLONE DUST COLLECTOR EMISSION TEST PROGRAM

September 16, 1986

Prepared for

Cunha Farms
5069 West Clayton Avenue
Fresno, California 93706

October 1986

Prepared by

Pape & Steiner Environmental Services
5801 Norris Road
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Report PS-86-884/Project 5786-86

SECTION 3

TEST RESULTS

Table 3-1 summarizes the results of the particulate tests conducted on the precleaner cyclone exhaust. All data are reported at 68°F and 29.92 inches Mercury.

The average concentration of filterable particulate matter caught in the probe was 0.7209 gr/dscf which resulted in an average emission rate of 7.82 lb/hr. The condensible matter caught in the impingers (probably very fine dust particles which penetrated the filter) was very small and amounted to 0.0008 gr/dscf or 0.01 lb/hr. The Fresno County APCD limit for this cyclone is 0.1000 gr/dscf which means this cyclone is seven times over the limit. Due to the design of the exhaust ductwork (which makes a 180° bend and exhausts toward the ground), none of this particulate matter leaves the plant property.

[illegible] $(CFM)\left(\frac{60}{7000}\right) = 7.82$

CFM = 12.66

Stack Ø 21.875

If 2D-2D std 44" Ø

My notes
[illegible]
7/92

TABLE 3-1. SUMMARY OF SOURCE EMISSION TEST DATA

Unit Tested: Precleaner Location: Cyclone Exhaust

Test Number	1	2	3	Average
Date		09/16/86		
Test Condition		Normal		
Barometric Pressure (in. Hg)	30.03	30.03	30.03	
Stack Pressure (in. Hg)	30.03	30.03	30.03	
Stack Area (ft^2)	2.61	2.61	2.61	
Elapsed Sampling Time (min.)	60	55	60	
Volume Gas Sampled (dscf)	33.9268	33.4604	36.2618	
GAS DATA				
Average Gas Velocity (fps)	7.9	8.6	8.6	8.4
Average Gas Temperature (°F)	74.8	81.6	85.8	80.7
Gas Flowrate (dscfm)	1208	1307	1290	1269
Gas Analysis (Dry % Basis)				
Carbon Dioxide	0.0	0.0	0.0	0.0
Oxygen	20.9	20.9	20.9	20.9
Carbon Monoxide (ppm)	--	--	--	--
Water	1.18	1.24	1.12	1.18
EMISSION CONCENTRATION				
Filterable Particulate (gr/dscf)	0.8045	0.7038	0.6543	0.7209
Total Particulate (gr/dscf)	0.8058	0.7047	0.6547	0.7217
EMISSION RATE				
Filterable Particulate (lb/hr)	8.33	7.89	7.24	7.82
Total Particulate (lb/hr)	8.34	7.90	7.24	7.83