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.

AP42 Section:	9.13.2
Background Chapter	4
Reference:	4
Title:	Compliance Stack Sampling Report For Hills Brothers Coffee, Inc., Edgewater, New Jersey, Ambient Engineering, Inc., Parlin, NJ, September 23, 1988.

#4

Section 4 Reference __
AP-42 Reference __

Emission Test Report Review Checklist--Short Form

Reviewer: TLAPP
Review Date: 8/18/94

A. Background Information

1. Facility name: HILLS BROTHERS Coffee, INC
   Location: EDGEWATER NJ
2. Source category: Coffee ROASTING
3. Test date: AUGUST 31, 1988
4. Test sponsor: Hills Bros.
5. Testing contractor: AMBIENT ENGINEERING INC.
6. Purpose of test: _____
7. Pollutants measured (include test method and indicate if valid): PM - TOTAL
   THC (AS METHANE) NJ TEST METHOD 3
   CO
   CO_2
8. Process overview: Attach a process description and a block diagram. Identify processes tested with letters from the beginning of the alphabet (A, B, C, etc...) and APC systems with letters from the end of the alphabet (V, W, X, etc...). Also identify test locations with Arabic numerals (1,2,3, ...). Using the ID symbols from the diagram, complete the table below.

Test ID	Process	Process ID	Emissions tested		APCD (controlled emissions only)
			Uncontrolled	Controlled	
	AFTERBURNER (INLET/OUTLET)				ID: Type: Model #:
					ID: Type: Model #:
					ID: Type: Model #:
					ID: Type: Model #:

B. Process Information

1. Provide a brief narrative description of the process and attach process flow diagram. (Note: If the process description provided in the test report is adequate, attach a copy here.)

(see attached sheet)

Filename: COFFEE4.WQ1

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
1	Stack temperature	Deg F	525	551	590	
ROASTER--	Moisture	%	18	19.2	21.6	
AFTERBURNE	Oxygen	%	17	16.8	16.5	
INLET	Volumetric flow, actual	acfm	6620	6730	6720	
	Volumetric flow, standard*	dscfm	2960	3880	2690	
	Isokinetic variation	%	99	98	94	
Circle: Production or feed rate		TPH	4.95	4.95	4.95	
Capacity:						
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.101	0.106	0.108	
	THC as methane	ppmdv	520	1200	800	
	CO	ppmdv	460	630	610	
	CO2	%	2.7	2.7	2.9	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	2.563	3.525	2.490	
	THC as methane	lb/hr	3.85	11.63	5.38	
	CO	lb/hr	5.94	10.66	7.16	
	CO2	lb/hr	548	718	535	
		lb/hr				
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	0.518	0.712	0.503	0.578
	THC as methane	lb/ton	0.777	2.35	1.09	1.40
	CO	lb/ton	1.20	2.15	1.45	1.60
	CO2	lb/ton	111	145	108	121
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	0.259	0.356	0.252	0.289
	THC as methane	kg/Mg	0.388	1.17	0.543	0.702
	CO	kg/Mg	0.600	1.08	0.723	0.800
	CO2	kg/Mg	55.3	72.5	54.0	60.6

Filename: COFFEE4A.WQ1

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
2	Stack temperature	Deg F	1205	1210	1210	
ROASTER--AFTERBURNE OUTLET	Moisture	%	17.7	17.3	18	
	Oxygen	%	21.1	21.1	21.1	
	Volumetric flow, actual	acfm	15900	16700	16700	
	Volumetric flow, standard*	dscfm	4170	4400	4340	
	Isokinetic variation	%	103	104	99	
Circle: Production or feed rate Capacity:		TPH	4.95	4.95	4.95	
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.007	0.002	0.004	
	THC as methane	ppmdv	138	94.1	62.1	
	CO	ppmdv	2.2	1.3	1.3	
	CO2	%	0	0	0	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	0.260	0.070	0.140	
	THC as methane	lb/hr	1.44	1.03	0.673	
	CO	lb/hr	0.0400	0.0249	0.0246	
	CO2	lb/hr	0	0	0	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	0.0525	0.0141	0.0283	0.0316
	THC as methane	lb/ton	0.290	0.209	0.136	0.212
	CO	lb/ton	0.00808	0.00504	0.00497	0.00603
	CO2	lb/ton	0	0	0	
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	0.0263	0.00707	0.0141	0.0158
	THC as methane	kg/Mg	0.145	0.104	0.0680	0.106
	CO	kg/Mg	0.00404	0.00252	0.00249	0.00302
	CO2	kg/Mg	0.0	0.0	0.0	

INLET/OUTLET

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported Run 1	Run 2	Run 3	Run 4
	Stack temperature	°F	525/1205	551/1210	590/1210	
	Moisture	% V/V	18.0/17.7	19.2/17.3	21.6/18.0	
	Oxygen	% V/V	17.0/21.1	16.8/21.1	16.5/21.1	
	Volumetric flow, actual	acfm	6620/15,900	6730/16,700	6720/16,700	
	Volumetric flow, standard	dscfm	2960/4170	2880/4400	2690/4340	
	Percent isokinetic		99/103	98/104	94/99	
Circle: Production or feed rate Capacity:		lbs/min	165	165	165	
	Pollutant concentrations:					
	PM-TOTAL INLET	GRAMS	No DATA	No DATA	No DATA	
	OUTLET	GRAMS	0.0177	0.0052	0.0095	
	Pollutant mass flux rates:					
	PM-TOTAL INLET	gr/dscf	0.101	0.106	0.108	
	OUTLET	gr/dscf	0.007	0.002	0.004	
	TOTAL Hydrocarbon INLET	PPMV (dry)	520	1200	800	
	(AS METHANE) OUTLET	PPMV (dry)	134-142	90.0-98.2	58.0-66.2	see attached sheets
	Emission factors: Emission Rate					
	PM-TOTAL INLET	lbs/hr	2.55	2.61	2.48	
	OUTLET	lbs/hr	0.26	0.07	0.14	
	TOTAL Hydrocarbon INLET	lbs/hr	3.83	8.73	5.38	
	(AS METHANE) OUTLET	lbs/hr	1.40-1.48	0.99-1.08	0.63-0.72	see attached sheets