AP42 Section:	9.13.2
Background Chapter	4
Reference:	12
Title:	Nestle Beverage Co. Source Test Report, Coffee Roaster And Cooler, Best Environmental, Inc., San Leandro, CA, October 1, 1992.

(#12)

Section 4 Reference ✓
AP-42 Reference —

Emission Test Report Review Checklist--Short Form

Reviewer: TLAPP
Review Date: 8/24/94

A. Background Information

1. Facility name: Nestle Beverage Co. PLANT # 2607
   Location: Union City, CA
2. Source category: Coffee Roasting
3. Test date: September 18, 1992
4. Test sponsor: Nestle
5. Testing contractor: Dest Environmental, Inc
6. Purpose of test: Compliance emission test
7. Pollutants measured (include test method and indicate if valid):
   - TOTAL PARTICULATE — CARB Method 5
   - THC - NON METHANE — BAAQMD Method ST-7 (Inlet)
   - CO — BAAQMD Method ST-6
   - Filterable and Condensible, but inorganic, organic, or both is not specified.
   - CO_2 - CEM
   - THC/CH_4 - FID
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	
	Thermal catalytic oxidizer & cooler			✓	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 Sheets

Filename: COFFEE12.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	120.3	122.8	122.4	
COFFEE COOLER OUTLET	Moisture	%	6	6.5	5.8	
	Oxygen	%	20.9	20.9	20.9	
	Volumetric flow, actual	acfm	9824	9702	9746	
	Volumetric flow, standard*	dscfm	8438	8252	8358	
	Isokinetic variation	%	97	98.4	94.9	
Circle: Production or feed rate Capacity:		TPH	4.25	4.25	4.25	
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.0018	0.0012	0.0020	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	0.1330	0.0820	0.1410	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	0.0313	0.0193	0.0332	0.0279
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	0.0156	0.00965	0.0166	0.0140

FILTERABLE PM = TOTAL PM FOR THIS SOURCE

Filename: COFFE12A.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	ND	ND	ND	
ROASTER--AFTERBURNE INLET	Moisture	%	10	10	10	
	Oxygen	%	17.8	17.8	17.5	
	Volumetric flow, actual	acfm	ND	ND	ND	
	Volumetric flow, standard*	dscfm	5077	5077	5077	
	Isokinetic variation	%	NA	NA	NA	
Circle: Production or feed rate Capacity:		TPH	4.25	4.25	4.25	
	Pollutant concentrations:					
	TNMHC as methane	ppmdv	737	743	485	
	Methane	ppmdv	158	157	151	
	CO	ppmdv	305	360	348	
	CO2	ppmdv	16800	16560	16680	
	Pollutant mass flux rates:					
	TNMHC as methane	lb/hr	9.35	9.42	6.15	
	Methane	lb/hr	2.00	1.99	1.91	
	CO	lb/hr	6.75	7.97	7.71	
	CO2	lb/hr	585	576	580	
	Emission factors (ENGLISH UNITS):					AVERAGE
	TNMHC as methane	lb/ton	2.20	2.22	1.45	1.95
	Methane	lb/ton	0.470	0.467	0.449	0.462
	TOC as methane	lb/ton	2.67	2.68	1.90	2.42
	CO	lb/ton	1.59	1.88	1.81	1.76
	CO2	lb/ton	138	136	137	137
	Emission factors (METRIC UNITS):					AVERAGE
	TNMHC as methane	kg/Mg	1.10	1.11	0.724	0.977
	Methane	kg/Mg	0.235	0.234	0.225	0.231
	TOC as methane	kg/Mg	1.33	1.34	0.95	1.21
	CO	kg/Mg	0.795	0.938	0.907	0.880
	CO2	kg/Mg	68.8	67.8	68.3	68.3

Filename: COFFE12B.WQ1

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
3	Stack temperature	Deg F	674	698.8	685	
ROASTER--AFTERBURNE OUTLET	Moisture	%	14	14.1	16.1	
	Oxygen	%	16	16	16	
	Volumetric flow, actual	acfm	13732	13690	13117	
	Volumetric flow, standard*	dscfm	5520	5381	5096	
	Isokinetic variation	%	109.8	103.8	107.1	
Circle: Production or feed rate Capacity:		TPH	4.25	4.25	4.25	
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.1246	0.0079	0.0106	
	Condensible PM	G/dscf	0.0071	0.0089	0.00945	
	TNMHC as methane	ppmdv	7.2	2	2.9	
	Methane	ppmdv	96	102	97.2	
	CO	ppmdv	9.9	11.5	11.5	
	CO2	%	2.9	2.9	2.9	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	5.90	0.374	0.502	
	Condensible PM	lb/hr	0.336	0.421	0.447	
	TNMHC as methane	lb/hr	0.0993	0.0269	0.0369	
	Methane	lb/hr	1.32	1.37	1.24	
	CO	lb/hr	0.238	0.270	0.256	
	CO2	lb/hr	1097	1069	1013	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	VOID	0.0879	0.118	0.103
	Condensible PM	lb/ton	VOID	0.0991	0.105	0.102
	TNMHC as methane	lb/ton	0.0234	0.00633	0.00869	0.0128
	Methane	lb/ton	0.311	0.323	0.291	0.308
	TOC as methane	lb/ton	0.335	0.329	0.300	0.321
	CO	lb/ton	0.0561	0.0635	0.0601	0.0599
	CO2	lb/ton	258	252	238	249
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	VOID	0.0440	0.0590	0.0515
	Condensible PM	kg/Mg	VOID	0.0495	0.0526	0.0511
	TNMHC as methane	kg/Mg	0.0117	0.00316	0.00434	0.00640
	Methane	kg/Mg	0.156	0.161	0.146	0.154
	TOC as methane	kg/Mg	0.167	0.164	0.150	0.161
	CO	kg/Mg	0.0280	0.0318	0.0301	0.0300
	CO2	kg/Mg	129	126	119	125

Run 1 for PM is VOID

see attached sheets

D. Emission Data/Mass Flux Rates/Emission Factors

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
	Stack temperature					
	Moisture					
	Oxygen					
	Volumetric flow, actual					
	Volumetric flow, standard					
	Percent isokinetic					
Circle: Production or (feed rate) Capacity: Green Beans		lbs/hr	8,500	8,500	8,500	
	Pollutant concentrations:					
	TOTAL PARTICULATE: ROASTER OUTLET	grams	VOID	0.0282	0.0329	
	COOLER OUTLET	grams	0.0056	0.0035	0.0058	
	Pollutant mass flux rates:					
	TOTAL PARTICULATE: ROASTER OUTLET	gr/dscf	VOID	0.0168	0.020	
	COOLER OUTLET	gr/dscf	0.0018	0.0012	0.0020	
	THC OXIDIZER INLET	ppm	737	743	485	
	" OUTLET	ppm	7.2	2.0	2.9	
	Emission factors: RATES					
	TOTAL PARTICULATE: ROASTER OUTLET	lbs/hr	VOID	0.774	0.876	
	COOLER OUTLET	lbs/hr	0.133	0.082	0.141	
	THC: OXIDIZER INLET	lbs/hr	9.3	9.4	6.11	
	OXIDIZER OUTLET	lbs/hr	0.096	0.027	0.039	