AP42 Section:	9.13.2
Background Chapter	4
Reference:	7
Title:	Nestle Foods Corporation Compliance Emission Testing Report, AirNova, Inc, Pennsauken, NJ, October 1990.

(#7)

Section 4 Reference ✓
AP-42 Reference ___

Emission Test Report Review Checklist--Short Form

Reviewer: TLapp
Review Date: 8/21/94

A. Background Information

1. Facility name: Nestle Food Corp. PLANT ID No 20004
   Location: Freehold NJ
2. Source category: Coffee Roasting
3. Test date: August 10, 1990
4. Test sponsor: Nestle
5. Testing contractor: Air Nova
6. Purpose of test: Compliance Test
7. Pollutants measured (include test method and indicate if valid):

Total Particulate	NJ Test Method 1
THC (as methane)	NJ Test Method 3.7
CO	EPA Method 10
CO_2	EPA Method 3 (Orsat)

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: Uncontrolled	Emissions tested: Controlled	APCD (controlled emissions only)
	Thermal Afterburner Inlet/Outlet	NJ #028		✓	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.)

Operation of their 3 largest continuous roasters - Emissions from each roaster directed to the afterburner.

Filename: COFFEE7.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	337	330	331	
ROASTER--AFTERBURNE INLET	Moisture	%	11.5	12.3	12	
	Oxygen	%	19.7	19.7	19.7	
	Volumetric flow, actual	acfm	16221	16383	16544	
	Volumetric flow, standard*	dscfm	9525	9662	9730	
	Isokinetic variation	%				
Circle: Production or feed rate Capacity:		TPH	6.225	6.225	6.225	
	Pollutant concentrations:					
	THC as methane	ppmdv	141.4	135.8	146.7	
	CO2	%	1	1	1	
	Pollutant mass flux rates:					
	THC as methane	lb/hr	3.36	3.28	3.57	
	CO2	lb/hr	653	662	667	
	Emission factors (ENGLISH UNITS):					AVERAGE
	THC as methane	lb/ton	0.541	0.527	0.573	0.547
	CO2	lb/ton	105	106	107	106
	Emission factors (METRIC UNITS):					AVERAGE
	THC as methane	kg/Mg	0.270	0.263	0.286	0.273
	CO2	kg/Mg	52.4	53.2	53.6	53.1

Filename: COFFEE7A.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	379	391	395	
ROASTER--AFTERBURNE OUTLET	Moisture	%	12.8	19	13.1	
	Oxygen	%	20.6	20.75	20.75	
	Volumetric flow, actual	acfm	19072	19349	18249	
	Volumetric flow, standard*	dscfm	10581	9835	9917	
	Isokinetic variation	%	103.3	109.2	110.2	
Circle: Production or feed rate Capacity:		TPH	6.225	6.225	6.225	
	Pollutant concentrations:					
	Filterable PM	G/acf	0.00410	0.00286	0.00317	
	THC as methane	ppmwv	0.5	0.5	0.5	
	CO	ppmdv	6	9	3	
	CO2	%	0.13	0.15	0.1	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	0.671	0.474	0.496	
	THC as methane	lb/hr	0.0238	0.0242	0.0228	
	CO	lb/hr	0.277	0.386	0.130	
	CO2	lb/hr	94.3	101	68.0	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	0.108	0.0762	0.0797	0.0879
	THC as methane	lb/ton	0.00383	0.00388	0.00366	0.00379
	CO	lb/ton	0.0445	0.0620	0.0208	0.0425
	CO2	lb/ton	15.1	16.2	10.9	14.1
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	0.0539	0.0381	0.03983	0.0439
	THC as methane	kg/Mg	0.00191	0.001941	0.001831	0.00190
	CO	kg/Mg	0.0222	0.0310	0.0104	0.0212
	CO2	kg/Mg	7.57	8.12	5.46	7.05

THC EMISSION FACTORS ARE BASED ON CONCENTRATIONS EQUAL TO 1/2 OF THE DETECTION LIMIT.

D. Emission Data/Mass Flux Rates/Emission Factors

INLET/OUTLET

Test ID	Parameter	Units	Values reported			
			Run 1	Run 2	Run 3	Run 4
	Stack temperature	°F	337/379	330/391	331/395	
	Moisture	% v/v	11.5/12.8	12.3/19.0	12.0/13.1	
	Oxygen	% v dry	19.7/20.6	19.7/20.75	19.7/20.75	
	Volumetric flow, actual	acfm	16221/19072	16383/19349	16544/18249	
	Volumetric flow, standard	dscfm	9525/10581	9662/9835	9730/9917	
	Percent isokinetic		/103.3	/109.2	/(110.2)	
Circle: Production or (feed rate) Capacity: TOTAL OF 3 ROASTERS 4,150 lb ea.		lbs/hr	12,450	12,450	12,450	GREEN COFFEE BEANS
	Pollutant concentrations:					
	PARTICULATE INLET	GRAMS	ND	ND	ND	
	OUTLET	"	0.0165	0.0123	0.0130	
	Pollutant mass flux rates: see below					
*	PARTICULATE INLET	gr/dscfm	ND	ND	ND	
	OUTLET	"	0.004	0.003	0.003	
	THC INLET	ppm v	141.4	135.8	146.7	
	OUTLET	ppm v	<1	<1	<1	
	Filt PM OUTLET	gr/dscf				
	Emission factors: RATE					
	PARTICULATE INLET	lbs/hr	ND	ND	ND	
	OUTLET	"	0.671	0.475	0.496	
	THC INLET	"	3.35	3.25	3.55	
	OUTLET	"	< 0.02	< 0.02	< 0.02	

(*) The reported gr/dscf are actually gr/acf