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:	6
Title:	Compliance Stack Sampling Report For General Foods Corporation, Maxwell House Division, Hoboken, New Jersey, On Thermal oxidizer Inlet And Outlet, Recon Systems, Inc., Three Bridges, NJ, March 13, 1989.

(#6)

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: General Foods Corp, Maxwell House Division
   Location: Hoboken NJ
2. Source category: Coffee Roasting
3. Test date: January 31 & February 1 1989
4. Test sponsor: General Foods
5. Testing contractor: Air Recon
6. Purpose of test: Particulate Compliance Test
7. Pollutants measured (include test method and indicate if valid): Total Particulate NJ Test method 1
   THC (as methane) NJ " " 3
   CO
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 #068			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

Exhaust from a small pilot plant roaster are discharged into a thermal incinerator for destruction

Filename: COFFEE6.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	163	194	201	
ROASTER--AFTERBURNE INLET	Moisture	%	9.8	9	9	
	Oxygen	%	21	21	21	
	Volumetric flow, actual	acfm	2140	2300	2270	
	Volumetric flow, standard*	dscfm	1620	1670	1630	
	Isokinetic variation	%	89	94	91	
Circle: Production or feed rate Capacity:		TPH	0.175	0.175	0.175	
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.035	0.046	0.032	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	0.486	0.658	0.447	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	2.78	3.76	2.55	3.03
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	1.39	1.88	1.28	1.52

Filename: COFFEE6A.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	1506	1513	1526	
ROASTER--AFTERBURNE OUTLET	Moisture	%	7.9	7.6	9.3	
	Oxygen	%	13.2	13.1	14	
	Volumetric flow, actual	acfm	8110	8240	8020	
	Volumetric flow, standard*	dscfm	2010	2030	1930	
	Isokinetic variation	%	95	99	100	
Circle: Production or feed rate Capacity:		TPH	0.175	0.175	0.175	
	Pollutant concentrations:					
	Filterable PM	G/dscf	0.011	0.016	0.007	
	THC as methane	ppmdv	20	33	28	
	CO	ppmdv	131	416	166	
	CO2	%	5.4	5.8	6	
	Pollutant mass flux rates:					
	Filterable PM	lb/hr	0.190	0.280	0.120	
	THC as methane	lb/hr	0.10	0.18	0.150	
	CO	lb/hr	1.14	3.70	1.40	
	CO2	lb/hr	744	807	794	
	Emission factors (ENGLISH UNITS):					AVERAGE
	Filterable PM	lb/ton	1.09	1.60	0.69	1.12
	THC as methane	lb/ton	0.571	1.03	0.857	0.819
	CO	lb/ton	6.51	21.1	8.00	11.9
	CO2	lb/ton	4251	4611	4535	4465
	Emission factors (METRIC UNITS):					AVERAGE
	Filterable PM	kg/Mg	0.543	0.800	0.343	0.562
	THC as methane	kg/Mg	0.286	0.514	0.429	0.410
	CO	kg/Mg	3.26	10.6	4.00	5.94
	CO2	kg/Mg	2125	2305	2267	2233

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	163/1506	194/1513	201/1526	
	Moisture	% v/v	9.8/7.9	9.0/7.6	9.0/9.3	
	Oxygen	%	21.0/13.2	21.0/13.1	21.0/14.0	
	Volumetric flow, actual	acfm	2140/8110	2300/8240	2270/8020	
	Volumetric flow, standard	dscfm	1620/2010	1670/2030	1630/1930	
	Percent isokinetic		89/95	94/99	91/100	
Circle: Production or feed rate Capacity:		lbs/hr	350	350	350	
	Pollutant concentrations:					
	TOTAL PARTICULATE INLET	GRAMS	0.0945	0.1339	0.0865	
	OUTLET	GRAMS	0.0281	0.0351	0.0153	
	Pollutant mass flux rates:					
	PARTICULATE INLET	gr/dscfm	0.035	0.046	0.032	
	OUTLET	"	0.011	0.016	0.007	
	THC INLET	ppmv dry	NA	NA	NA	
	OUTLET	ppmv dry	20	33	28	
	Emission factors: RATES					
	TOTAL PARTICULATE INLET	lbs/hr	0.49	0.66	0.44	
	OUTLET	"	0.19	0.28	0.12	
	THC INLET	"	NA	NA	NA	
	OUTLET	"	0.10	0.18	0.15	

AirRecon
Division of
RECON SYSTEMS, Inc.

Route 202 North, P.O. Box 460
Three Bridges, NJ 08887-0460
(201) 782-5900

Connecticut (203) 293-1212
Massachusetts (508) 752-4217
Pennsylvania (215) 433-5511
FAX (201) 782-0072

(#6)

COMPLIANCE
STACK SAMPLING REPORT

For

General Foods Corporation
Maxwell House Division
1125 Hudson Street
Hoboken, New Jersey 07030

Source Tested:

Afterburner Inlet and Outlet

In Fulfillment of
Purchase Order No. 3362-88-MHD

RECON Project No. 0641

Test Date: January 31 and February 1, 1989

Report Date: March 13, 1989

0641 (ST-K)

SUMMARY

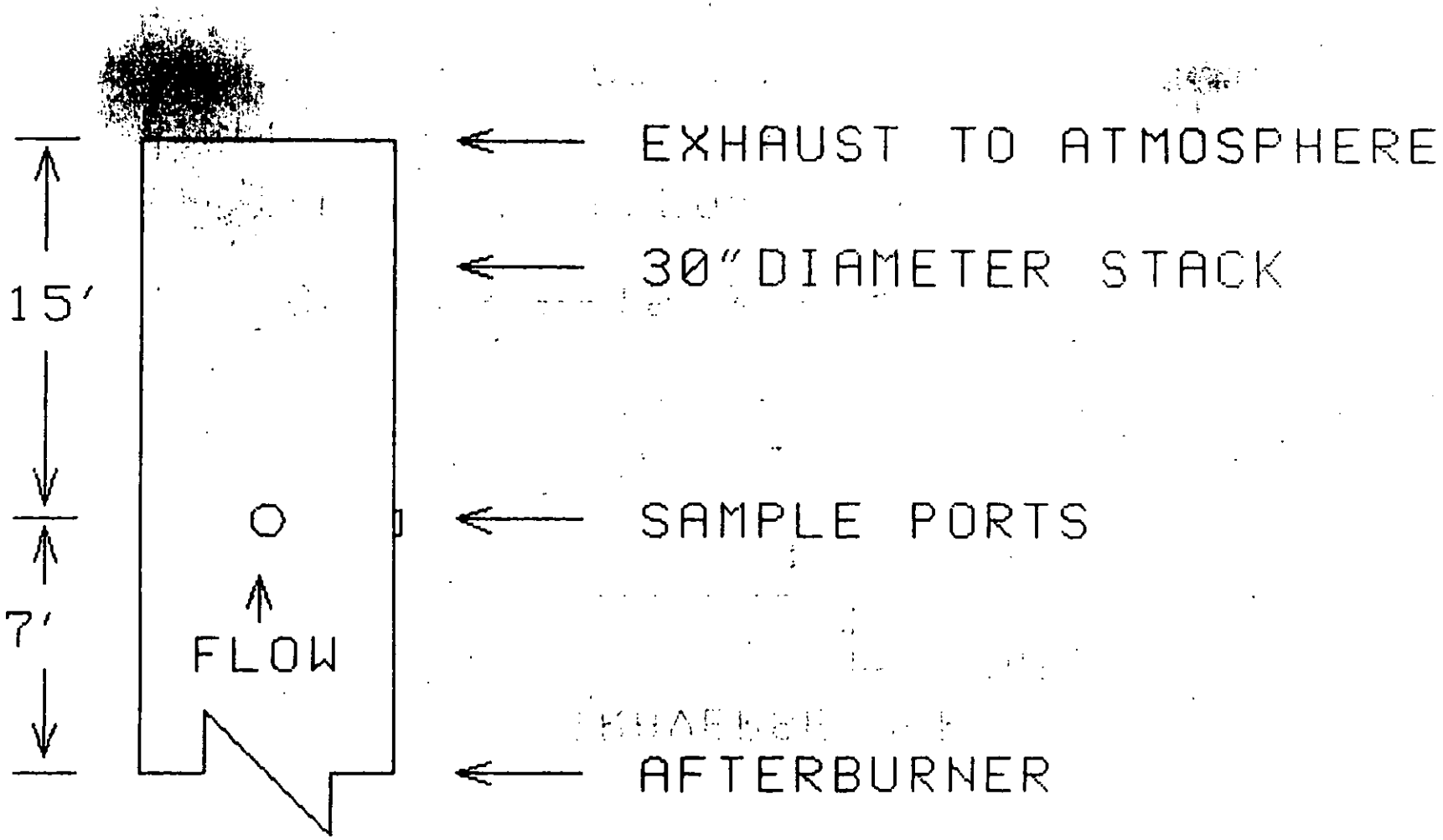
The following results were obtained:

	INLET		
Run No.	1	2	3
Date	1/31/89	2/1/89	2/1/89
Time	1000-1145	0802-0921	1047-1247
Emissions Data			
Particulates			
pounds/hour	0.49	0.66	0.44
grains/dscf	0.035	0.046	0.032
grains/scf	0.032	0.042	0.030

	OUTLET		
Run No.	1	2	3
Date	1/31/89	2/1/89	2/1/89
Time	1000-1151	0750-0920	1045-1245
Emissions Data			
Particulates			
pounds/hour	0.19	0.28	0.12
grains/dscf	0.011	0.016	0.007
grains/scf	0.010	0.015	0.007
Total Hydrocarbons (as methane)			
pounds/hour	0.10	0.18	0.15
ppmv (wet)	18	33	28
ppmv (dry)	20	36	31
Carbon Monoxide			
pounds/hour	1.14	3.70	1.40
ppmv (wet)	121	384	150
ppmv (dry)	131	416	166
Carbon Monoxide Emissions Corrected to 7% Oxygen			
ppmv (dry)	236	741 737	334
Afterburner Efficiency			
Particulates, %	61.2	57.6	72.7

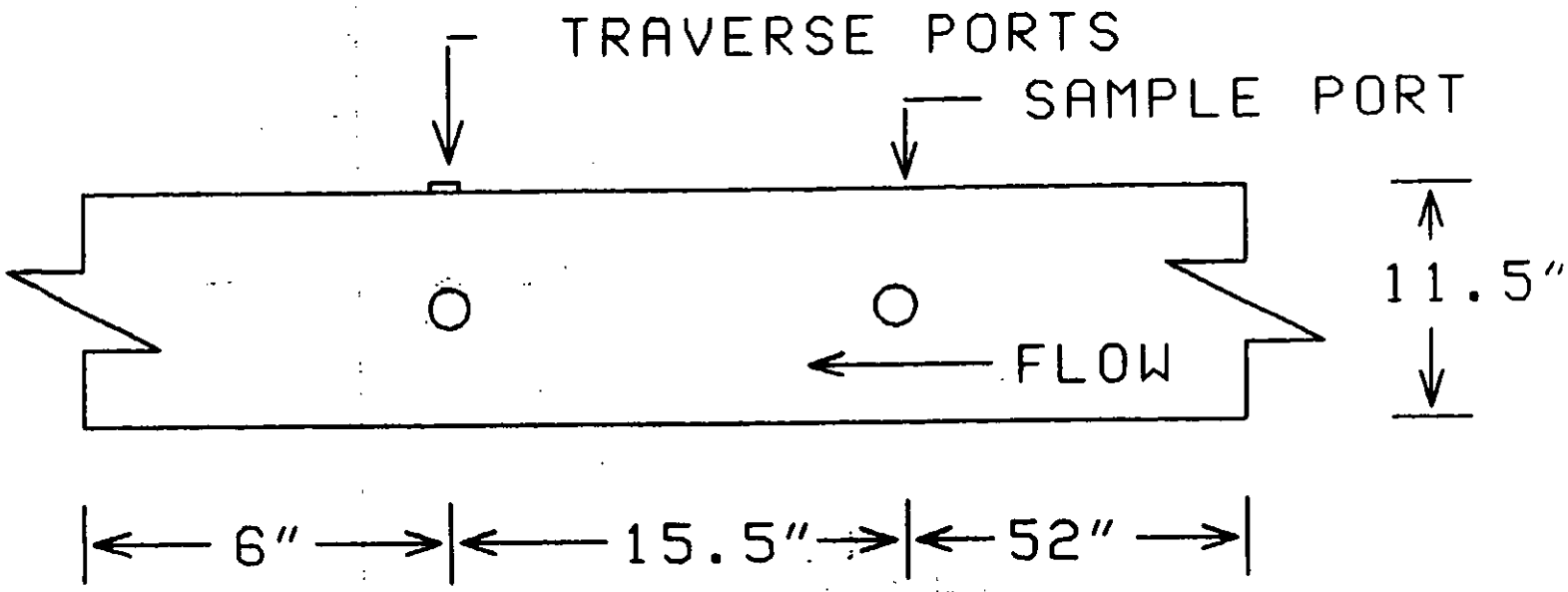
Samples from this project will be retained for sixty days from the date of this report unless otherwise directed.

GENERAL FOODS CORPORATION
MAXWELL HOUSE DIVISION
AFTERBURNER OUTLET



EPA DISTANCE"A":6.00
EPA DISTANCE"B":2.80
SAMPLE POINTS:24

GENERAL FOODS CORP.
MAXWELL HOUSE DIVISION
INCINERATOR OUTLET



UPSTREAM DISTURBANCE: AFTERBURNER
DOWNSTREAM DISTURBANCE: CYCLONE
EPA DISTANCE"A": 0.52
EPA DISTANCE"B": 4.52
STACK DIAMETER: 11.5"
TRAVERSE POINTS: 24
SAMPLE POINTS: 1

EMISSION TEST PRODUCTION REPORT FORM

I. Company Name MAXWELL HOUSE APC Plant ID# _____

Plant Location HOBOKEN

Certificate Number _____

Designation of Equipment PILOT PLANT AFTERBURNER

II. Emission Test Date(s) 31 JAN 89

Tests Conducted By:

Name of Firm RECON SYSTEMS

Business Address RT 202 N, PO BOX 460, Three Bridges, NJ 08887

Phone Number (201) 782-5900

Test Team Representatives Peter Marshall
Dave Ruff
Tom Brodon
Tom Matter

Fuel Usage was about 2000 ft³/hr

Length of Test 6 hrs

	Run #1	Run #2	Run #3
Test Time (Start/Finish)	/	/	/

III. Certificate Operating Conditions

A. List Conditions	Achieved (Yes or No)
~~365~~ 390 lbs/hr coffee	yes
1500 °F	

B. Log of Certificate Conditions During Stack Test
(Record at least every 15 minutes)

Condition	Run #	Readout	Time of Recording

IV. Equipment Operation/Process Parameters

Number of Sources Connected 2

Number of Sources Operating 2

Production Rate: Normal 200 + 150 = 350 lbs/hr

Maximum 350 lbs/hr

A. Raw Materials: Green whole beans

	Test Run #1	Test Run #2	Test Run #3
Usage Rate (lbs/hr)	350 lbs/hr	350 lbs/hr	350 lbs/hr
	~~200 lbs/hr~~	~~200 lbs/hr~~	~~150 lbs/hr~~
Breakdown (% by weight)			

B. Surface Coating:

Material Being Coated N/A

Type of Coating _____

Coating Rate (Gals/Hr) _____

Is Coating Altered (Yes or No) _____

With _____

Distance From Coating Head to Exhaust Duct N/A

C. Fuel Burning - Incineration:

Type of Fuel Natural Gas

Fuel Burning Rate _____ (lbs/hr), (gals/hr), (ft^3/hr)

Fuel Additives None, % _____

Meter Reading (if available)	Time

Type of Waste Constituents _____

Auxiliary Fuel None

Burning Rate N/A

D. Other:

Description of Operation and Process Rate

Exhausts from two small pilot plant roasters are discharged into a thermal incinerator for destruction.

V. Control Equipment Parameters

CEMs Required (Yes/No) 1500°F. Conditions were met

Contaminant?

STACK TEST CEM READING

Parameter Cont/Read	Parameter Cont/Read	Parameter Cont/Read	Time	Test Run #

A. Control Equipment performance Parameter

Parameter	Reading	Time	Run #