

JUL 11 1994

D.E.R. Suurn uisiisiich

P.O. Box 398 Fort Myers, Florida 33902-0398 (813) 335-2111

(813) 338-3100

Writer's Direct Dial Number

John E. Manning

District One

July 7, 1994

Douglas R. St. Cerny District Two

SL-94-310

BOARD OF COUNTY COMMISSIONERS

Ray Judah District Three

Franklin B. Mann

District Four

John E. Albion District Five

Donald D. Stilwell County Administrator

James G. Yaeger County Attorney

Diana M. Parker County Hearing Examiner

Mr. Phil Barbacia Florida Department of

Environmental Protection 2295 Victoria Avenue

Suite 364

Fort Myers, FL 33901

RE: Lee County Solid Waste Energy Recovery Facility Power Plant Site Certification #PA 90-30.

Dear Mr. Barbacia:

In accordance with the subject certification, condition XIV. D.3. d and e, please find attached a copy of the quarterly groundwater sampling results. The test results for surface water sample #AA44132 is also included.

If you have any questions, please contact me at 338-3100.

Sincerely,

DEPARTMENT OF SOLID WASTE MANAGEMENT

Lindsey J. Sampson Deputy Director

LJS/clr

Attachments

cc: D. Dee

S. Coughanour w/attachment

D. Markley w/attachment

P. Young w/attachment

K. Johnson w/attachment

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Lee County Environmental Laboratory 60 Danley Drive # 2 Fort Myers, Florida 33907 (813) 278-7288 HRS ID 45031/E45049

JUL 1 1 1994

D.E.P. SUUIN VISIKIGI

April 12, 1994

Mr. Lindsey Sampson

L.C. Dept. of Solid Waste cc: Malcolm Pirnie, Inc.

Dear: Mr. Sampson:

Below are the results of analysis of 1 sample received for examination on April 1, 1994:

Sample I.D. AA44132

Location code: WTESW Location Description: Waste to Energy Surface Water

Sample collector: VICKI
Sample collection date: 04/01/94 Time: 10:00 Time: 13:03 Lab submittal date: 04/01/94

TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Alkalinity, Total Chemical Oxygen Demand Oxygen, Dissolved, Winkler pH (electrometric) Specific Conductance @ 250C Total Organic Carbon Total Suspended Solids Turbidity (Nephelometric)	mg/L as CaCO3 mg/L mg/L pH units umhos/cm mg/L mg/L NTU	92 23 8.0 8.2 462 16 3	1 0.1 1 1 1 0.01

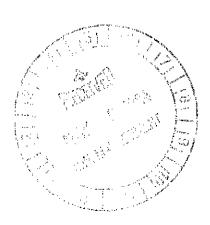
Please advise should you have questions concerning these data.

Respectfully submitted,

Keith A. Kibbey

Laboratory Director

Division of Natural Resources Management



Lee County Environmental Laboratory 60 Danley Drive # 2 Fort Myers, Florida 33907 (813) 278-7288 HRS ID 45031/E45049

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D.E.P. SOUTH PISTRICE

May 20, 1994

Mr. Lindsey Sampson

L.C. Dept. of Solid Waste cc: Malcolm Pirnie, Inc.

Dear: Mr. Sampson:

Below are the results of analysis of 12 samples received for examination on April 14, 1994:

Sample I.D. AA44530 Location code: WTE-1S

Location Description: Waste to Energy M.W. # 1-S

Sample collector: VICKI

Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique  Cadmium by flame AA  Chromium by flame AA  Iron by flame AA  Lead, AA furnace technique  Mercury, AA cold vapor technique  Nitrate  Nitrite  Nitrate + Nitrite  pH (electrometric)  Total Dissolved Solids  Selenium, AA furnace techinque  Nitrogen, Kjeldahl, Total  Specific Conductance @ 250C  Elevation, Water Table	mg/L mg/L mg/L mg/L ug/L ug/L ug/L mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.012 Not detected Not detected 16.20 6 Not detected Not detected Not detected Not detected Not detected 16.7 452 Not detected 1.73 724 17.80	0.01 0.03 1 0.2 0.01 0.001

Summary of specification violations or warnings:

Analyte: Cadmium by flame AA

Upper specification value: 0.01 Result: Not detected

Sample I.D. AA44531 Location code: WTE-1D

Location Description: Waste to Energy M.W. # 1-D

Sample collector: VICKI

Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

Page: 2 May 20, 1994 Mr. Lindsey Sampson Sample I.D. AA44531 (continued)

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J.E.P. SOUTH PROTRIET

TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Arsenic, AA furnace technique Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C Elevation, Water Table	mg/L mg/L mg/L mg/L ug/L ug/L ug/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Not detected Not detected 0.01 0.03 2 Not detected Not detected Not detected Not detected 7.1 490 Not detected 1.39 893 16.07	0.01 0.03 1 0.2 0.01 0.001

Location code: WTE-2S Sample I.D. AA44532

Location Description: Waste to Energy M.W. # 2-S

Sample collector: VICKI
Sample collection date: 04/14/94
Lab submittal date: 04/14/94 Time: 10:00 Time: 14:44

TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Arsenic, AA furnace technique  Cadmium by flame AA  Chromium by flame AA  Iron by flame AA  Lead, AA furnace technique  Mercury, AA cold vapor technique  Nitrate  Nitrate  Nitrate + Nitrite  pH (electrometric)  Total Dissolved Solids  Selenium, AA furnace techinque  Nitrogen, Kjeldahl, Total  Specific Conductance @ 250C  Elevation, Water Table	mg/L mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.003 Not detected Not detected 2.48 Not detected Not detected Not detected Not detected Not detected Not detected 1.39 858 17.50	0.01 0.03 1 0.2 0.01 0.001

Summary of specification violations or warnings:

Analyte: Cadmium by flame AA Upper specification value: 0.01

Result: Not detected

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Sample I.D. AA44533 Location code: WTE-2D

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Location Description: Waste to Energy M.W. # 2-D Sample collector: VICKI Sample collection date: 04/14/94 Time: 10:00 Time: 10:00 Time: 14:44 Lab submittal date: 04/14/94

Arsenic, AA furnace technique mg/L Not detected 0.001 Cadmium by flame AA mg/L Not detected 0.005 Chromium by flame AA mg/L Not detected 0.01 Iron by flame AA mg/L Not detected 0.01 Iron by flame AA mg/L 0.15 0.03 Lead, AA furnace technique ug/L 4 1 Mercury, AA cold vapor technique ug/L Not detected 0.2 Nitrate mg/L as N 0.03 0.01 Nitrite mg/L as N Not detected 0.001 Nitrate + Nitrite mg/L as N Not detected 0.001 PH (electrometric) pH units 7.3 Total Dissolved Solids mg/L 7.3 Total Dissolved Solids mg/L Not detected 0.002 Nitrogen, Kjeldahl, Total mg/L as N 1.46 0.01 Specific Conductance 250C umhos/cm 995 1 Elevation, Water Table Feet NGVD 17.17 0.01	TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
DICTROLOGIA TOOL TOOL TOOL TOOL TOOL TOOL TOOL TOO	Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C	mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N pH units mg/L mg/L as N umhos/cm	Not detected Not detected 0.15 4 Not detected 0.03 Not detected 0.03 7.3 622 Not detected 1.46 995	0.005 0.01 0.03 1 0.2 0.01 0.001 0.001 2 0.002 0.01

Sample I.D. AA44534 Location code: WTE-3S

Location Description: Waste to Energy M.W. # 3-S Sample collector: VICKI
Sample collection date: 04/14/94 Time: 10:00
Lab submittal date: 04/14/94 Time: 14:44

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique Cadmium by flame AA	mg/L mg/L	0.002 Not detected	0.001 0.005
Chromium by flame AA	mq/L	Not detected	+ •
Iron by flame AA	mg/L	2.55	0.03
Lead, AA furnace technique	$\mathtt{ug}/\mathtt{L}$	Not detected	
Mercury, AA cold vapor technique	$_{ m ug/L}$	Not detected	
Nitrate	mg/L as N	Not detected	
Nitrite	mg/L as N	Not detected	
Nitrate + Nitrite	mg/L as N	Not detected	0.01
pH (electrometric)	pH units	7.0	
Total Dissolved Solids	mg/L	556	2
Selenium, AA furnace techinque	mg/L	Not detected	0.002
Nitrogen, Kjeldahl, Total	mg/L as N	0.50	0.01
Specific Conductance @ 25oC	umhos/cm	885	1
Elevation, Water Table	Feet NGVD	17.45	0.01

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Sample I.D. AA44535 Location code: WTE-3D

Location Description: Waste to Energy M.W. # 3-D Sample collector: VICKI Sample collection date: 04/14/94 Time: 10:00 Time: 10:00 Time: 14:44 Lab submittal date: 04/14/94

Arsenic, AA furnace technique mg/L Cadmium by flame AA mg/L Chromium by flame AA mg/L Iron by flame AA mg/L Lead, AA furnace technique ug/L Mercury, AA cold vapor technique ug/L Nitrate mg/L as Nitrite mg/L as Nitrite mg/L as PH (electrometric) pH units Total Dissolved Solids mg/L Selenium, AA furnace techinque mg/L Nitrogen, Kjeldahl, Total mg/L as Specific Conductance @ 250C Elevation, Water Table Feet NGV	N Not detected N Not detected 7.6 554 Not detected N 0.72 1080	0.005 0.01 0.03 1 0.2 0.01 0.001

Location code: WTE-4S Sample I.D. AA44536

Location Description: Waste to Energy M.W. # 4-S Sample collector: VICKI Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

Arsenic, AA furnace technique mg/L Not detected 0.001 Cadmium by flame AA mg/L Not detected 0.005 Chromium by flame AA mg/L Not detected 0.01 Iron by flame AA mg/L Not detected 0.01 Iron by flame AA mg/L Not detected 1 Mercury, AA cold vapor technique ug/L Not detected 1 Mercury, AA cold vapor technique ug/L Not detected 0.2 Nitrate mg/L as N Not detected 0.01 Nitrite mg/L as N Not detected 0.001 Nitrate + Nitrite mg/L as N Not detected 0.001 PH (electrometric) pH units 6.9 Total Dissolved Solids mg/L 974 2	TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Not detected 0.002  Nitrogen, Kjeldahl, Total mg/L as N 0.67 0.01  Specific Conductance @ 25oC umhos/cm 1540 1  Elevation, Water Table Feet NGVD 17.42 0.01	Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C	mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L	Not detected Not detected 1.84 Not detected Not detected Not detected Not detected 6.9 974 Not detected 0.67 1540	0.005 0.01 0.03 1 0.2 0.01 0.001 0.001

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Sample I.D. AA44537 Location code: WTE-4D

Location Description: Waste to Energy M.W. # 4-D

Sample collector: VICKI
Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Arsenic, AA furnace technique Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrate Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 25oC Elevation, Water Table	mg/L mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Not detected Not detected Not detected Not detected 1 Not detected 0.27 Not detected 0.27 7.6 544 Not detected 0.54 954 16.99	0.005

Sample I.D. AA44538 Location code: WTE-5S

Location Description: Waste to Energy M.W. # 5-S

Sample collector: VICKI
Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

Arsenic, AA furnace technique mg/L Not detected 0.001 Cadmium by flame AA mg/L Not detected 0.005 Chromium by flame AA mg/L 0.01 0.01 Iron by flame AA mg/L 1.01 0.03 Lead, AA furnace technique ug/L Not detected 0.2 Nitrate mg/L as N Not detected 0.01 Nitrate + Nitrite mg/L as N Not detected 0.001 Nitrate + Nitrite mg/L as N Not detected 0.001 Nitrate + Nitrite mg/L as N Not detected 0.001 PH (electrometric) pH units 7.0 Total Dissolved Solids mg/L 534 2 Selenium, AA furnace techinque mg/L Not detected 0.002 Nitrogen, Kjeldahl, Total mg/L s N 0.66 0.01 Specific Conductance @ 250C umhos/cm 795 1 Elevation, Water Table Feet NGVD 17.18 0.01	TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
	Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, ÄA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C	mg/L mg/L mg/L ug/L ug/L ug/L as N mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L	Not detected 0.01 1.01 2 Not detected Not detected Not detected 7.0 534 Not detected 0.66 795	0.005 0.01 0.03 1 0.2 0.01 0.001 0.01 2 0.002 0.01

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Sample I.D. AA44539 Location code: WTE-5D

Location Description: Waste to Energy M.W. # 5-D

Sample collector: VICKI
Sample collection date: 04/14/94 Time: 10:00 Time: 14:44 Lab submittal date: 04/14/94

Arsenic, AA furnace technique mg/L Not detected 0.001 Cadmium by flame AA mg/L Not detected 0.005 Chromium by flame AA mg/L Not detected 0.01 Iron by flame AA mg/L 0.09 0.03 Lead, AA furnace technique ug/L 1 1 Mercury, AA cold vapor technique ug/L Not detected 0.2 Nitrate mg/L as N 0.10 0.01 Nitrite mg/L as N Not detected 0.001 Nitrate + Nitrite mg/L as N 0.10 0.01 PH (electrometric) pH units 7.3 Total Dissolved Solids mg/L 706 2 Selenium, AA furnace techinque mg/L Not detected 0.002 Nitrogen, Kjeldahl, Total mg/L as N 0.55 0.01 Specific Conductance @ 250C umhos/cm 1160	TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Elevation, Water Table Feet NGVD 16.91 0.01	Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C	mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L	Not detected Not detected 0.09 1 Not detected 0.10 Not detected 0.10 7.3 706 Not detected 0.55 1160	0.005 0.01 0.03 1 0.2 0.01 0.001 0.001

Summary of specification violations or warnings:

Analyte: Cadmium by flame AA Upper specification value: 0.01

Result: Not detected

Sample I.D. AA44540 Location code: WTE-6S

Location Description: Waste to Energy M.W. # 6-S

Sample collector: VICKI Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Arsenic, AA furnace technique  Cadmium by flame AA  Chromium by flame AA  Iron by flame AA  Lead, AA furnace technique  Mercury, AA cold vapor technique  Nitrate  Nitrite  Nitrate + Nitrite  pH (electrometric)  Total Dissolved Solids  Selenium, AA furnace techinque  Nitrogen, Kjeldahl, Total	mg/L mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N mg/L as N pH units mg/L mg/L	0.001 Not detected 0.02 1.55 3 Not detected Not detected Not detected Not detected 7.3 588 Not detected 0.61	0.001 0.005 0.01 0.03 1 0.2 0.01 0.001 0.001 2 0.002 0.01

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Maý 20, 1994 Mr. Lindsey Sampson Sample I.D. AA44540 (continued)

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TEST	UNITS	TEST	DETECTION
PARAMETER		RESULT	LIMIT
Specific Conductance @ 25oC	umhos/cm	888	1
Elevation, Water Table	Feet NGVD	17.33	

Summary of specification violations or warnings:

Analyte: Cadmium by flame AA Upper specification value: 0.01

Result: Not detected

Sample I.D. AA44541 Location code: WTE-6D

Location Description: Waste to Energy M.W. # 6-D

Sample collector: VICKI
Sample collection date: 04/14/94 Time: 10:00 Lab submittal date: 04/14/94 Time: 14:44

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Arsenic, AA furnace technique Cadmium by flame AA Chromium by flame AA Iron by flame AA Lead, AA furnace technique Mercury, AA cold vapor technique Nitrate Nitrite Nitrate + Nitrite pH (electrometric) Total Dissolved Solids Selenium, AA furnace techinque Nitrogen, Kjeldahl, Total Specific Conductance @ 250C Elevation, Water Table	mg/L mg/L mg/L mg/L ug/L ug/L mg/L as N mg/L as N mg/L as N pH units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.002 Not detected Not detected 0.16 2 Not detected 0.14 Not detected 0.14 7.2 828 Not detected 0.48 1480 16.81	0.01 0.03 1 0.2 0.01

Please advise should you have questions concerning these data.

Respectfully submitted,

Keith A. Kibbey

Laboratory Director

Division of Natural Resources Management