Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

FPL

April 18, 2006

L-2006-098
10 CFR 50.4
10 CFR 50.36

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Annual Radiological Environmental
Operating Report for Calendar Year 2005

The attached report is being submitted pursuant to Technical Specification 6.9.1.8. The *Annual Radiological Environmental Operating Report* provides information summaries and analytical results of the Radiological Environmental Monitoring Program (REMP) for calendar year 2005.

Please contact us should there be any questions regarding this report.

Very truly yours,

Christopher R Costanzo for SVP

Gordon L. Johnston
Acting Vice President
St. Lucie Plant

Attachment

GLJ/tlt

IE25

2005

ANNUAL

RADIOLOGICAL ENVIRONMENTAL

OPERATING REPORT

ST. LUCIE PLANT

UNITS 1 & 2

LICENSE NOS. DPR-67, NPF-16

DOCKET NOS. 50-335, 50-389

Data Submitted by: Florida DOH

Prepared by:

Reviewed by:

2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
ST. LUCIE PLANT – UNITS 1 & 2

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ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
ST. LUCIE PLANT – UNITS 1 & 2

I. INTRODUCTION

This report is submitted pursuant to Specification 6.9.1.8 of St. Lucie Unit 1 and St. Lucie Unit 2 Technical Specifications. The Annual Radiological Environmental Operating Report provides information, summaries and analytical results pertaining to the radiological environmental monitoring program for the calendar year indicated. This report covers surveillance activities meeting the requirements of Unit 1 and Unit 2 Technical Specifications.

II. RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

A. Purpose

The purpose of the radiological environmental monitoring program is to provide representative measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides which lead to the highest potential radiation exposures to members of the public resulting from station operation. The radiological environmental monitoring program also supplements the radiological effluent monitoring program by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and the modeling of the environmental exposure pathways.

B. Program Description

The radiological environmental monitoring program (REMP) for the St. Lucie Plant is conducted pursuant to the St. Lucie Units 1 and 2 Offsite Dose Calculation Manual (ODCM) Section 3/4.12.1., Monitoring Program.

1. Sample Locations, Types and Frequencies:

   a. Direct radiation gamma exposure rate is monitored continuously at 27 locations by thermoluminescent dosimeters (TLDs). TLDs are collected and analyzed quarterly.

   b. Airborne radioiodine and particulate samplers are operated continuously at five locations. Samples are collected and analyzed weekly. Analyses include Iodine-131, gross beta, and gamma isotopic measurements.

   c. Surface water samples are collected from two locations. Samples are collected and analyzed weekly and monthly, respectively. Analyses include gamma isotopic and tritium measurements.

d. Shoreline sediment samples are collected from two locations coinciding with the locations for surface water samples. Samples are collected and analyzed semi-annually. Sediment samples are analyzed by gamma isotopic measurements.

e. Fish and invertebrate samples are collected from two locations. Samples are collected and analyzed semi-annually. Fish and invertebrate samples are analyzed by gamma isotopic measurements.

f. Broad leaf vegetation samples are collected from three locations. Samples are collected and analyzed monthly. Broad leaf vegetation samples are analyzed by gamma isotopic measurements.

g. A goat milk sample is collected from one location. The sample is collected and analyzed on a quarterly basis. No other milk-producing goats feeding on similar wild vegetation have been found in the St. Lucie region; therefore, there is no control location for this sample type.

Attachment A provides specific information pertaining to sample locations, types and frequencies.

2. Analytical Responsibility:

Radiological environmental monitoring for the St. Lucie Plant is conducted by the State of Florida, Department of Health (DOH), Bureau of Radiation Control (BRC). Samples are collected and analyzed by DOH personnel.

Samples are analyzed at the DOH BRC Environmental Radiation Control Laboratory in Orlando, Florida.

C. Analytical Results

Table 1, Environmental Radiological Monitoring Program Annual Summary provides a summary for all specified samples collected during the referenced surveillance period. Deviations from the sample schedule or missing data, if any, are noted and explained in Table 1A. Samples not meeting the specified "A PRIORI" LLD, if any, are noted and explained in Table 1B. Analysis data for all specified samples analyzed during the surveillance period is provided in Attachment B.

D. Land Use Census

A land use census out to a distance of a five-mile radius from the St. Lucie Plant is conducted annually to determine the location of the nearest milk animal, residence, and garden producing broad leaf vegetation, in each of the 16 meteorological sectors. A summary of the land use census for the surveillance year is provided in Table 2, Land Use Census Summary.

E. Interlaboratory Comparison Program

The intercomparison program consists of participating in the DOE Mixed Analyte Performance Evaluation Program (MAPEP).
This program provides similar testing (matrices, nuclides, and levels) as the former EPA Interlaboratory Comparison Program and is referred to as the Mixed Analyte Performance Evaluation Program (MAPEP).
The samples are analyzed using the methods applicable to the REMP (gamma spectroscopy, Gross Beta, and Tritium for water).
From the MAPEP handbook:
Acceptance criteria were developed from a review of precision and accuracy data compiled by other performance evaluation programs (PEPs), the analytical methods literature, from several MAPEP pilot studies, and from what is considered reasonable, acceptable, and achievable for routine analyses among the more experienced laboratories.
The results for nuclides associated with the REMP are listed in ATTACHMENT C, RESULTS FROM THE INTERLABORATORY COMPARISON PROGRAM.

F. Effect of 2005 Hurricane Season

Hurricanes Wilma affected the Air Sampling portion of St. Lucie's REMP.

- All five Air Sampling Stations had reduced run times due to power loss.
- Two of five Air Sampling Stations lost their particulate filters due to wind damage to the filter mounting system.
- Other aspects of program (e.g., TLDs soil, water, vegetation sampling) were not affected.

The REMP was fully restored well in advance of Units 1 and 2 re-start.

III. DISCUSSION AND INTERPRETATION OF RESULTS

A. Reporting of Results

The Annual Radiological Environmental Operating Report contains the summaries, interpretations and information required by St. Lucie Plant ODCM. Table 1 provides a summary of the measurements made for the nuclides required by ODCM, Table 4.12-1, for all samples specified by Table 3.12-1. In addition, summaries are provided for other nuclides identified in the specified samples, including those not related to station operation. These include nuclides such as K-40, Th-232, Ra-226, and Be-7, which are common in the Florida environment.

B. Interpretation of Results

1. Direct Radiation:

The results of direct radiation monitoring are consistent with past measurements for the specified locations. The exposure rate data shows no indication of any trends attributed to effluents from the plant. The measured exposure rates are consistent with exposure rates that were observed during the pre-operational surveillance program. Direct radiation monitoring results are summarized in Table 1.

2. Air Particulates/Radioiodine:

The results for radioactive air particulate and radioiodine monitoring are consistent with past measurements and indicate no trends attributed to plant effluents. All samples for radioiodine yielded no detectable I-131. Gamma isotopic measurements yielded no indication of any nuclides attributed to station operation. The results for air particulate/radioiodine samples are consistent with measurements that were made during the pre-operational surveillance program. Air particulate and radioiodine monitoring results are summarized in Table 1.

3. Surface Water:

Tritium was detected in 2 of 52 indicator location samples and in 1 of 12 control location samples. The highest level seen was at the control locations and is less than five percent of the Required LLD specified in ODCM Table 4.12-1.
No other nuclides attributed to station operation were detected. Results for surface water samples are summarized in Table 1.

4. Waterborne Sediment and Food Products:

The results for radioactivity measurements in waterborne sediment, fish and crustacean samples are consistent with past measurements and with measurements made during the pre-operational surveillance program. There were no indications of any nuclides attributed to plant effluents. Results for the waterborne sediment, fish and crustacean samples are summarized in Table 1.

5. Broad Leaf Vegetation:

The results of radioactivity measurements in broad leaf vegetation are consistent with past measurements and with measurements made during the pre-operational surveillance program.
Cs-137 was detected in one of 12 indicator location samples and in one of 12 control location samples. The highest level seen was at the control locations and is less than one-half of the Required LLD specified in ODCM Table 4.12-1.
There were no indications of any other nuclides attributed to plant effluents.
Results for the broad leaf vegetation samples are summarized in Table 1.

6. Milk, Goat:

Cesium-137 was detected the sample. The presence of this nuclide is considered "weapons fallout"; the animal uptake is due to the foraging habits of the goat. Samples of the wild vegetation consumed by the "pet goat" (Brazilian Pepper) indicated the presence of Cs-137. The State Department of Health found comparable levels of Cs-137 in samples from numerous wilderness locations.
The goat is no longer 'fresh', no more samples are available. The owner of the pet goat has indicated the goat may never return to milch. The Goat-Milk sampling is being dropped from the program.

7. Land Use Census:

No locations yielding a calculated dose or dose commitment greater than the values currently being calculated were identified by the land use census. No locations yielding a calculated dose or dose commitment (via the same exposure pathway) 20 percent greater than locations currently being sampled in the radiological environmental monitoring program were identified by the land use census.

8. Interlaboratory Comparison Program:

The State laboratory participated MAPEP 13 and 14.

In MAPEP 13, the results Air Filter and Water matrices for those nuclides associated with nuclear power plant operation and using analytical methods used in the REMP are Acceptable. The Soil matrix had a few warnings in response to over-estimated results. The vegetation sample had on warning result for a nuclide (Co-57) not typically associated with plant effluents.

In MAPEP 14, the results for Air filter, Soil, and Water matrices for those nuclides associated with nuclear power plant operation and using analytical methods used in the REMP are Acceptable.
The Vegetation matrix failed, all but one result was Not Acceptable. An investigation found the Lab Technician invoked an improper counting geometry file. Reanalyzing the assay using the correct geometry file returned Acceptable results for all nuclides except Co-57. Co-57 is not typically associated with plant effluents; assay using REMP methods will typically yield poor results for low levels.

The results are listed in Attachment C.

C. Conclusions

The data obtained through the St. Lucie Plant radiological environmental monitoring program verifies that the levels of radiation and concentrations of radioactive materials in environmental samples, representing the highest potential exposure pathways to members of the public, are not being increased.

The measurements verify that the dose or dose commitment to members of the public, due to operation of St. Lucie Units 1 and 2, during the surveillance year, are well within "as low as reasonably achievable (ALARA)" criteria established by 10 CFR 50, Appendix I.

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2, Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: DIRECT RADIATION
SAMPLES COLLECTED: TLD
UNITS: micro-R/hr

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean		Control Locations Mean (f)[b] Range
			Name[c] Distance & Direction	Mean (f)[b] Range	
Exposure Rate, 108[d]	---	5.0 (104/104) 4.2 - 6.5	NW-10 10 mi., NW	6.4 (4/4) 6.3 - 6.5	5.3 (4/4) 4.9 – 5.7

Number of Non-Routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2, Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: AIRBORNE
SAMPLES COLLECTED: RADIOIODINE AND PARTICULATES
UNITS: PICO - Ci/M^3

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean Name[c] Distance & Direction	Location with Highest Annual Mean Mean (f)[b] Range	Control Locations Mean (f)[b] Range
^{131}I, 260	0.024	<MDA	—	—	<MDA
Gross Beta, 258	0.0025	0.014 (205/206) 0.004 - 0.030	H-34 0.5 mi., N	0.014 (52/52) 0.005 - 0.029	0.015 (52/52) 0.005 - 0.029
Composite Gamma Isotopic, 20					
^{7}Be	0.0052	0.1610 (16/16) 0.1074 - 0.2163	H-34 0.5 mi., N	0.1796 (4/4) 0.1425 - 0.2163	0.1616 (4/4) 0.1483 - 0.1822
^{134}Cs	0.00069	<MDA	—	—	<MDA
^{137}Cs	0.00066	<MDA	—	—	<MDA
^{210}Pb	—	0.0262 (11/16) 0.0173 - 0.0313	H-34 0.5 mi., N	0.0301 (3/4) 0.0293 - 0.0313	0.0216 (3/4) 0.0173 – 0.0285

Number of Non-Routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2 , Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida , Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SURFACE WATER
UNITS: PICO - Ci/LITER

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean		Control Locations Mean (f)[b] Range
			Name[c] Distance & Direction	Mean (f)[b] Range	
Tritium, 64	230	114 (2/52) 110 - 118	H-15 <1 mi., ENE/E/ESE	114 (2/52) 110 - 118	142 (1/12)
Gamma Isotopic, 64					
^{40}K	60	349 (52/52) 257 - 425	H-15 <1 mi., ENE/E/ESE	349 (52/52) 257 - 425	338 (12/12) 262 - 424
^{54}Mn	4	<MDA	—	—	<MDA
^{59}Fe	8	<MDA	—	—	<MDA
^{58}Co	4	<MDA	—	—	<MDA
^{60}Co	4	<MDA	—	—	<MDA
^{65}Zn	8	<MDA	—	—	<MDA
^{95}Zr-Nb	7	<MDA	—	—	<MDA
^{131}I	5	<MDA	—	—	<MDA
^{134}Cs	5	<MDA	—	—	<MDA
^{137}Cs	5	<MDA	—	—	<MDA
^{140}Ba-La	11	<MDA	—	—	<MDA

Number of Non-Routine Reported Measurements = 0

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2, Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SHORELINE SEDIMENT
UNITS: PICO - Ci/Kg, DRY

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean Name[c] Distance & Direction	Location with Highest Annual Mean Mean (f)[b] Range	Control Locations Mean (f)[b] Range
Gamma Isotopic, 4					
^{40}K	140	374 (2/2) 257 - 490	H-15 <1 mi, ENE/E/ESE	374 (2/2) 257 - 490	219 (2/2) 208 - 230
^{210}Pb	—	< MDA	—	—	<MDA
^{226}Ra	49	258 (2/2) 216 - 299	H-15 <1 mi., ENE/E/ESE	258 (2/2) 216 - 299	<MDA
^{232}Th	—	96 (1/2)	H-15 <1 mi., ENE/E/ESE	96 (1/2)	69 (2/2) 65 - 73
^{238}U	—	411 (1/2)	H-15 <1 mi., ENE/E/ESE	411 (1/2)	<MDA
^{58}Co	9	<MDA	—	—	<MDA
^{60}Co	12	<MDA	—	—	<MDA
^{134}Cs	14	<MDA	—	—	<MDA
^{137}Cs	12	<MDA	—	—	<MDA

Number of Non-Routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2 , Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida , Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: CRUSTACEA
UNITS: PICO - Ci/Kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean		Control Locations Mean (f)[b] Range
			Name[c] Distance & Direction	Mean (f)[b] Range	
Gamma Isotopic, 4					
^{40}K	130	1204 (2/2) 839 – 1568	H-15 <1 mi., ENE/E/ESE	1204 (2/2) 839 – 1568	1783 (2/2) 1736 - 1830
^{226}Ra	—	< MDA	—	—	<MDA
^{228}Ra	—	<MDA	—	—	121 (1/2)
^{54}Mn	9	<MDA	—	—	<MDA
^{59}Fe	16	<MDA	—	—	<MDA
^{58}Co	9	<MDA	—	—	<MDA
^{60}Co	19	<MDA	—	—	<MDA
^{65}Zn	17	<MDA	—	—	<MDA
^{134}Cs	9	<MDA	—	—	<MDA
^{137}Cs	9	<MDA	—	—	<MDA

Number of Non-Routine Reported Measurements = 0

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2, Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: FISH
UNITS: PICO - Ci/Kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean Name[c] Distance & Direction	Location with Highest Annual Mean Mean (f)[b] Range	Control Locations Mean (f)[b] Range
Gamma Isotopic, 4					
^{40}K	130	2788 (2/2) 2368 - 3208	H-15 <1 mi., ENE/E/ESE	2788 (2/2) 2368 - 3208	2212 (2/2) 1838 - 2587
^{54}Mn	9	<MDA	—	—	<MDA
^{59}Fe	16	<MDA	—	—	<MDA
^{58}Co	9	<MDA	—	—	<MDA
^{60}Co	10	<MDA	—	—	<MDA
^{65}Zn	17	<MDA	—	—	<MDA
^{134}Cs	9	<MDA	—	—	<MDA
^{137}Cs	9	<MDA	—	—	<MDA

Number of Non-Routine Reported Measurements = 0

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2 , Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida , Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: BROAD LEAF VEGETATION
UNITS: PICO - Ci/Kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean Name[c] Distance & Direction	Location with Highest Annual Mean Mean (f)[b] Range	Control Locations Mean (f)[b] Range
Gamma Isotopic, 36					
^{7}Be	71	924 (24/24) 452 - 2036	H-52 1 mi. , S/SSE	958 (12/12) 539 - 2036	1215 (12/12) 505 - 2056
^{40}K	100	4286 (24/24) 3233 - 5746	H-51 1 mi., N/NNW	4449 (12/12) 3699 - 5746	3521 (12/12) 2478 - 6025
^{58}Co	6	<MDA	—	—	<MDA
^{60}Co	8	<MDA	—	—	< MDA
^{131}I	9	<MDA	—	—	<MDA
^{134}Cs	8	<MDA	—	—	<MDA
^{137}Cs	8	14 (1/24)	H-52 1 mi. , S/SSE	14 (1/12)	26 (1/12)
^{210}Pb	—	<MDA	—	—	<MDA
^{212}Pb	—	<MDA	—	—	< MDA
^{226}Ra	—	319 (5/24) 210 - 403	H-52 1 mi. , S/SSE	344 (3/12) 284 - 403	358 (1/12)

Number of Non-Routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2 , Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida , Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: MILK
UNITS: PICO - Ci/LITER

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)[b] Range	Location with Highest Annual Mean		Control Locations Mean (f)[b] Range
			Name[c] Distance & Direction	Mean (f)[b] Range	
Gamma Isotopic, 1					
^{40}K	60	1532 (1/1)	H-101 3.5 mi., WSW	1532 (1/1)	n/a [e]
^{210}Pb	—	<MDA	—	—	n/a
^{212}Pb	—	<MDA	—	—	n/a
^{131}I (Chemical separation)	0.1	<MDA	—	—	n/a
^{134}Cs	5	<MDA	—	—	n/a
^{137}Cs	5	27 (1/1)	H-101 3.5 mi., WSW	27 (1/1)	n/a

Number of Non-Routine Reported Measurements = 0

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility St. Lucie Units 1 & 2 , Docket No(s). 50-335 & 50-389
Location of Facility St. Lucie, Florida , Reporting Period January 1 - December 31, 2005
(County, State)

NOTES

a. The LLD is an "a priori" lower limit of detection which establishes the smallest concentration of radioactive material in a sample that will yield a net count above system background that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a real signal.

LLDs in this column are at time of measurement. The MDAs reported in Attachment B for the individual samples have been corrected to the time of sample collection.

b. Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (f).

c. Specific identifying information for each sample location is provided in Attachment A.

d. Results were based upon the average net response of three elements in a TLD (thermoluminescent dosimeter).

e. There are no other milk producing goats grazing on similar vegetation, back yard grass and wild bushes in the St. Lucie region. Therefore, there is no control location.

MDA refers to minimum detectable activity.

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TABLE 1A
(page 1 of 2)

DEVIATIONS / MISSING DATA

A)	Pathway:	Airborne, Particulates & Radioiodines
	Location:	H-34, 0.5 miles North
	Dates:	10-12-05 to 10-19-05
	Deviation:	Failure to perform continuous monitoring
	Description of Problem:	Power was off at time of collection; sample duration was 164.5 hours out of the 168.3 hour period.
	Corrective Action:	Requested restoration of power. Power to be restored same day; air sampling equipment will auto-start.

B)	Pathway:	Airborne, Particulates & Radioiodines
	Deviation:	Failure to perform continuous monitoring
	Description of Problem:	Power loss due to hurricane Wilma caused smaller then expected sample volume
	Corrective Action:	Restored Power
	Dates:	10-19-05 to 10-25-05, landfall late in planned sampling period of 10-19-05 to 10-26-05
	Affected Locations:	Runtime (run hours out of sample period hours)
	H-08, 6 miles West-northwest	128.8 out of 150
	H-12, 12 miles South	As found: Power On; 140 out of 146
	H-14, 1 mile Southeast	117 out of 144
	H-30, 2 miles West	121 out of 147
	H-34, 0.5 miles North	Power off at beginning of period: 109 out of 142

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TABLE 1A
(page 2 of 2)

DEVIATIONS / MISSING DATA

C)	Pathway:	Airborne, Particulates & Radioiodines
	Deviation:	Failure to perform continuous monitoring
	Description of Problem:	Particulate Filter loss due to hurricane Wilma
	Corrective Action:	Replaced Filter
	Dates:	10-19-05 to 10-25-05
	Affected Locations:	H-14, 1 mile southeast
		H-30, 2 miles West

D)	Pathway:	Airborne, Particulates & Radioiodines
	Deviation:	Failure to perform continuous monitoring
	Description of Problem:	Power loss due to hurricane Wilma extends into next sampling period
	Corrective Action:	Restored Power
	Dates:	10-25-05 to 11-03-05

Affected Locations:	Runtime (run hours out of sample period hours)
H-14, 1 mile southeast	107 out of 220
H-30, 2 miles West	118 out of 216
H-34, 0.5 miles North	204 out of 223

E)	Pathway:	Ingestion: Milk, goat
	Location:	H101, 3.5 miles west-southwest
	Date:	Second quarter 2005
	Deviation:	Failure to monitor
	Description of Problem:	Pet goat is no longer fresh; owner indicated animal will not become milch.
	Corrective Action:	None: Deleting this from ODCM due to loss of sampling capabilities. (This pet goat was the only milch animal within 5 miles of the power plant.)

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TABLE 1B

ANALYSIS WITH LLDs ABOVE THE REQUIRED DETECTION CAPABILITIES
(LLDs) Listed in ODCM TABLE 4.12-1
1/1/2005 – 12/31/2005

The values specified in ODCM Table 4.12-1, Detection Capabilities, were achieved for all samples.

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TABLE 2

LAND USE CENSUS
(Page 1 of 2)

Distance to Nearest (a, b)

Sector	6/05 – 7/05 Milk (c) Animal	6/05 – 7/05 Residence	6/05 – 7/05 Garden (d)
N	O (e)	O	O
NNE	O	O	O
NE	O	O	O
ENE	O	O	O
E	O	O	O
ESE	O	O	O
SE	O	1.5/142 (g)	O
SSE	L (f)	3.3/152 (g)	L
S	L	3.3/191	L
SSW	L	2.2/212	L
SW	L	1.9/235	L
WSW	L	1.9/240	3.4/248 (h)
W	L	1.9/260	L
WNW	L	2.2/281	L
NW	L	3.5/304	L
NNW	L	3.4/342 (g)	L

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TABLE 2

LAND USE CENSUS
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NOTES

a. All categories surveyed out to a five-mile radius from the St. Lucie Plant.

b. The following format is used to denote the location:

distance (miles)/bearing (degrees)

For example, a residence located in the southeast sector at a distance of 1.5 miles bearing 142 degrees is recorded as 1.5/142.

c. Potential milk animal locations.

d. Gardens with an estimated growing area of 500 square feet or more.

e. O denotes that the sector area is predominantly an ocean area.

f. L denotes that the sector area is predominantly a land area unoccupied by the category type.

g. Non-residential occupied buildings in these sectors include the following:

Sector	Distance	Description
SSE	1.8/147	Fire Station
NNW	2.8/348	A new community is being developed. At the current time, there are no houses available for occupancy.

h. The garden is just 500 square feet; it is a herb garden in a residence's backyard. The owner is unwilling to provide a sample; field sampling technician feels garden is incapable of supplying sufficient sample to satisfy LLD requirements. It is not included in the REMP program.

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ATTACHMENT A

KEY TO SAMPLE LOCATIONS

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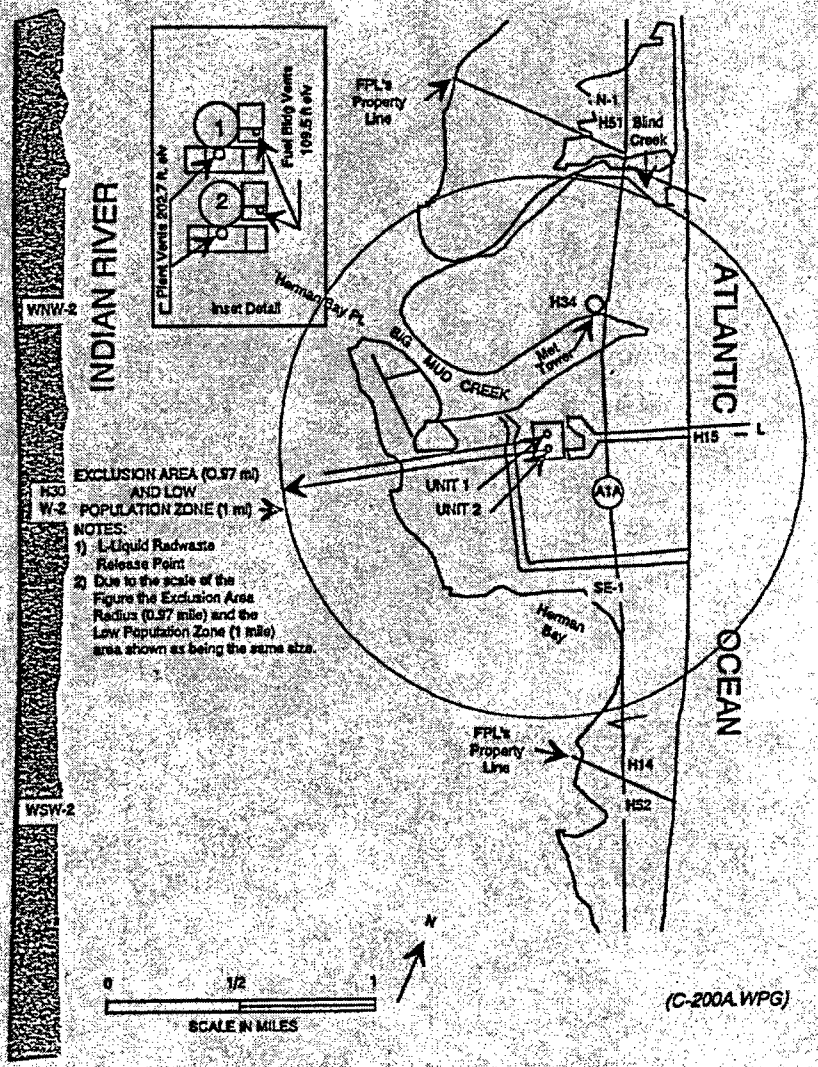
SITE AREA MAP & ENVIRONMENTAL SAMPLE LOCATIONS



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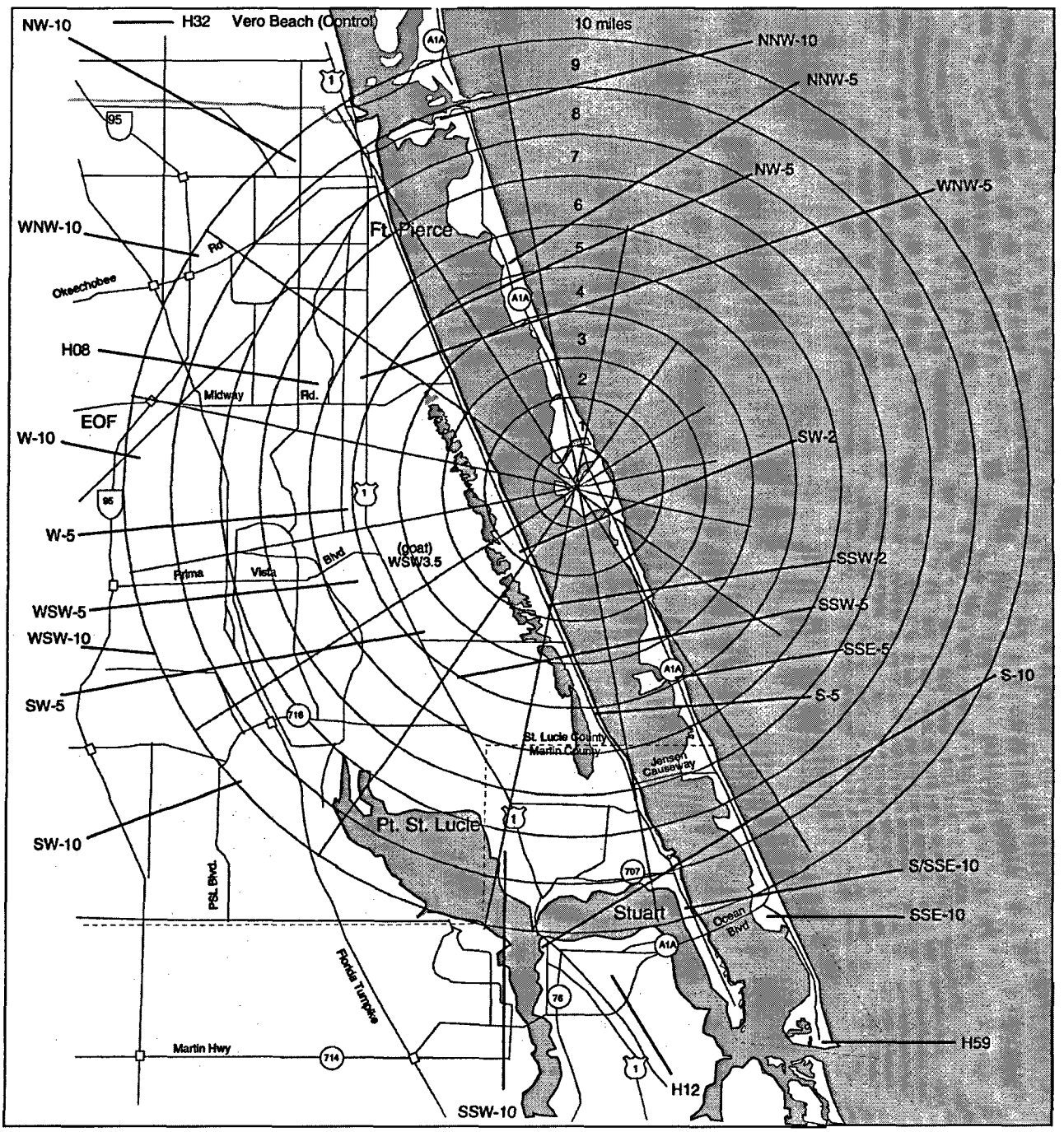
ENVIRONMENTAL SAMPLE LOCATIONS (10 MILES)



(P/CHEM/C-200B-F2-R0)

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ATTACHMENT A

PATHWAY: DIRECT RADIATION
SAMPLES COLLECTED: TLD
SAMPLE COLLECTION FREQUENCY: QUARTERLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
N-1	N	1	A1A, North of Blind Creek
NNW-5	NNW	5	South of Pete Stone Creek
NNW-10	NNW	9	Coast Guard Station
NW-5	NW	6	Indian River Dr., at Rio Vista Dr.
NW-10	NW	10	S.R. 68 at S.R. 607
WNW-2	WNW	3	Cemetery South of 7107 Indian River Dr.
WNW-5	WNW	5	U.S. 1 at S.R. 712
WNW-10	WNW	10	S.R. 70, West of Turnpike
W-2	W	2	7609 Indian River Drive
W-5	W	5	Oleander and Sager Street
W-10	W	9	Interstate 95 at S.R. 709
WSW-2	WSW	2	8503 Indian River Dr.
WSW-5	WSW	5	Prima Vista at Yacht Club
WSW-10	WSW	10	Del Rio at Davis Street
SW-2	SW	2	9207 Indian River Drive
SW-5	SW	5	U.S. 1 at Village Green Dr.
SW-10	SW	10	Port St. Lucie Blvd. at Cairo Rd.
SSW-2	SSW	3	10307 Indian River Drive
SSW-5	SSW	6	U.S. 1 at Port St. Lucie Blvd.
SSW-10	SSW	8	Pine Valley at Westmoreland Rd.
S-5	S	5	13179 Indian River Drive
S-10	S	10	U.S. 1 at S.R. 714
S/SSE-10	SSE	10	Indian River Dr. at Quail Run Lane
SSE-5	SSE	5	Entrance to Nettles Island
SSE-10	SSE	10	Elliot Museum
SE-1	SE	1	South of Cooling Canal
Control:			
H-32	NNW	19	University of Florida IFAS Vero Beach

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ATTACHMENT A

PATHWAY: AIRBORNE
SAMPLES COLLECTED: RADIOIODINE AND PARTICULATES
SAMPLE COLLECTION FREQUENCY: WEEKLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-08	WNW	6	FPL Substation, Weatherbee Rd.
H-14	SE	1	On-Site, Near South Property Line
H-30	W	2	Power Line, 7609 Indian River Drive
H-34	N	0.5	On-Site at Meteorology Tower
Control:			
H-12	S	12	FPL Substation, SR-76 Stuart

ATTACHMENT A

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SURFACE WATER (OCEAN)
SAMPLE COLLECTION FREQUENCY: H-15 WEEKLY, H-59 MONTHLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-15	ENE/E/SSE	<1	Atlantic Ocean, Public Beaches East Side A1A
Control:			
H-59	S/SSE	10-20	South End, Hutchinson Island

SAMPLES COLLECTED: SHORELINE SEDIMENT
SAMPLE COLLECTION FREQUENCY: SEMI-ANNUALLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-15	ENE/E/ESE	<1	Atlantic Ocean, Public Beaches East Side A1A
Control:			
H-59	S/SSE	10-20	South End, Hutchinson Island

ATTACHMENT A

PATHWAY: INGESTION
SAMPLES COLLECTED: CRUSTACEA AND FISH
SAMPLE COLLECTION FREQUENCY: SEMI-ANNUALLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-15	ENE/E/ESE	<1	Ocean Side, Vicinity of St. Lucie Plant
Control:			
H-59	S/SSE	10-20	South End, Hutchinson Island

SAMPLES COLLECTED: BROAD LEAF VEGETATION
SAMPLE COLLECTION FREQUENCY: MONTHLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-51	N/NNW	1	Off-Site Near North Property Line
H-52	S/SSE	1	Off-Site Near South Property Line
Control:			
H-59	S/SSE	10-20	South End, Hutchinson Island

SAMPLES COLLECTED: MILK
SAMPLE COLLECTION FREQUENCY: QUARTERLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
H-101	WSW	3.5	One Goat, Private Residence, Spanish Lakes, East of US1
Control:			
None: Not found any fresh goats with similar grazing activities (backyard grass & wild vegetation)			

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ATTACHMENT B

RADIOLOGICAL SURVEILLANCE OF

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE SITE

2005

First Quarter 2005

Second Quarter 2005

Third Quarter 2005

Fourth Quarter 2005

ST. LUCIE SITE

Offsite Dose Calculation Manual Sampling

First Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	27	27
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Weekly	1	13
	Monthly	1	3
3.b. Shoreline Sediment	Semiannually	2	2
4. Ingestion			
4.a. Fish and Invertebrates			
4.a.1. Crustacea	Semiannually	2	2
4.a.2. Fish	Semiannually	2	2
4.b. Broadleaf Vegetation	Monthly	3	9
4.c. Milk	Quarterly	1	1
			Total: 189

NOTE: Measurement results having magnitudes that are significantly above the background of the measurement system are reported as net values plus or minus a one-standard-deviation error term. Measurement results that are not significantly above background are reported as less than a Lower Limit of Detection (<LLD), which is an estimated upper limit (with at least 95% confidence) for the true activity in the sample.

The marine fauna listed in this report were collected in part, under Florida FWC SAL030.

1. DIRECT RADIATION - TLDs - (µR/hour)

Sample Site	Deployment 07-Dec-04 Collection 03-Mar-05	Sample Site	Deployment 07-Dec-04 Collection 03-Mar-05
N-1	4.8 ± 0.2	SW-2	4.2 ± 0.2
NNW-5	4.9 ± 0.2	SW-5	6.0 ± 0.3
NNW-10	4.6 ± 0.2	SW-10	5.0 ± 0.2
NW-5	4.8 ± 0.2	SSW-2	4.6 ± 0.2
NW-10	6.3 ± 0.3	SSW-5	5.3 ± 0.2
		SSW-10	5.2 ± 0.2
WNW-2	5.0 ± 0.2		
WNW-5	4.9 ± 0.2	S-5	4.7 ± 0.2
WNW-10	5.5 ± 0.2	S-10	4.5 ± 0.2
		S/SSE-10	4.5 ± 0.2
W-2	4.5 ± 0.2		
W-5	4.9 ± 0.2	SSE-5	4.6 ± 0.2
W-10	4.9 ± 0.2	SSE-10	5.1 ± 0.2
WSW-2	4.6 ± 0.2	SE-1	4.6 ± 0.2
WSW-5	4.6 ± 0.2		
WSW-10	4.3 ± 0.2	H-32	4.9 ± 0.2

2.a. IODINE-131 IN WEEKLY AIR CARTRIDGES - (pCi/ m³)

Collection Date	H08	H12	H14	H30	H34
06-Jan-05	<0.01	<0.01	<0.01	<0.01	<0.01
13-Jan-05	<0.01	<0.01	<0.01	<0.01	<0.01
20-Jan-05	<0.01	<0.01	<0.01	<0.01	<0.01
27-Jan-05	<0.02	<0.02	<0.02	<0.02	<0.02
03-Feb-05	<0.01	<0.01	<0.01	<0.01	<0.01
10-Feb-05	<0.01	<0.01	<0.01	<0.01	<0.01
16-Feb-05	<0.02	<0.02	<0.02	<0.02	<0.02
23-Feb-05	<0.02	<0.02	<0.02	<0.02	<0.02
03-Mar-05	<0.01	<0.01	<0.01	<0.01	<0.01
09-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
15-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
22-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
31-Mar-05	<0.01	<0.01	<0.01	<0.01	<0.01

2.b.1. AIR PARTICULATES - GROSS BETA - (pCi/m³)

Collection Date	Sample Sites H08	H12	H14	H30	H34
06-Jan-05	0.013 ± 0.002	0.013 ± 0.002	0.009 ± 0.002	0.016 ± 0.002	0.012 ± 0.002
13-Jan-05	0.006 ± 0.002	0.007 ± 0.002	0.004 ± 0.002	0.007 ± 0.002	0.008 ± 0.002
20-Jan-05	0.012 ± 0.002	0.016 ± 0.002	0.012 ± 0.002	0.010 ± 0.002	0.015 ± 0.002
27-Jan-05	0.018 ± 0.002	0.018 ± 0.002	0.015 ± 0.002	0.019 ± 0.002	0.015 ± 0.002
03-Feb-05	0.007 ± 0.002	0.008 ± 0.002	0.009 ± 0.002	0.010 ± 0.002	0.012 ± 0.002
10-Feb-05	0.011 ± 0.002	0.013 ± 0.002	0.012 ± 0.002	0.008 ± 0.002	0.013 ± 0.002
16-Feb-05	0.016 ± 0.002	0.016 ± 0.002	0.016 ± 0.002	0.020 ± 0.003	0.018 ± 0.002
23-Feb-05	0.015 ± 0.002	0.023 ± 0.002	0.012 ± 0.002	0.017 ± 0.002	0.019 ± 0.002
03-Mar-05	0.011 ± 0.002	0.010 ± 0.002	0.011 ± 0.002	0.006 ± 0.001	0.013 ± 0.002
09-Mar-05	0.019 ± 0.003	0.023 ± 0.003	0.010 ± 0.002	0.009 ± 0.002	0.015 ± 0.002
15-Mar-05	0.013 ± 0.002	0.014 ± 0.002	0.012 ± 0.002	0.013 ± 0.002	0.014 ± 0.002
22-Mar-05	0.014 ± 0.002	0.016 ± 0.002	0.014 ± 0.002	0.009 ± 0.002	0.013 ± 0.002
31-Mar-05	0.015 ± 0.002	0.015 ± 0.002	0.021 ± 0.002	0.017 ± 0.002	0.015 ± 0.002
Mean:	0.013 ± 0.001	0.015 ± 0.001	0.012 ± 0.001	0.012 ± 0.001	0.014 ± 0.001

2.b.2. AIR PARTICULATES GAMMA ANALYSIS OF QUARTERLY COMPOSITES (pCi/m³)

First Quarter, 2005

Sample Site	Be-7	K-40	Cs-134	Cs-137	Pb-210
H08	0.1559 ± 0.0139	<0.0255	<0.0019	<0.0015	<0.0560
H12	0.1626 ± 0.0156	<0.0216	<0.0009	<0.0011	0.0285 ± 0.0040
H14	0.1768 ± 0.0145	<0.0231	<0.0018	<0.0017	<0.0518
H30	0.1687 ± 0.0141	<0.0218	<0.0020	<0.0015	<0.0508
H34	0.2163 ± 0.0133	<0.0218	<0.0009	<0.0010	0.0313 ± 0.0038

3.a. SURFACE WATER - (pCi/L)

Sample Site	Collection Date	H-3	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Zr-95 Nb-95 (A)	I-131	Cs-134	Cs-137	Ba-140 La-140 (B)
H15	06-Jan-05	<124	359 ± 34	<3	<3	<5	<4	<8	<6	<5	<3	<4	<6
	13-Jan-05	<124	342 ± 38	<4	<4	<10	<6	<8	<8	<6	<5	<5	<8
	20-Jan-05	<124	309 ± 26	<2	<2	<5	<3	<5	<4	<3	<3	<2	<4
	27-Jan-05	<127	345 ± 18	<2	<1	<3	<2	<4	<2	<2	<2	<2	<3
	03-Feb-05	<126	333 ± 35	<3	<3	<8	<4	<7	<7	<5	<3	<3	<7
	10-Feb-05	<126	362 ± 40	<3	<3	<7	<4	<7	<7	<6	<4	<4	<6
	16-Feb-05	<126	403 ± 29	<3	<3	<5	<3	<7	<5	<3	<4	<3	<9
	23-Feb-05	<126	385 ± 37	<4	<4	<9	<4	<10	<6	<5	<5	<5	<9
	03-Mar-05	<135	353 ± 31	<3	<4	<7	<4	<8	<7	<5	<4	<4	<5
	09-Mar-05	<135	310 ± 33	<5	<4	<10	<6	<11	<7	<5	<5	<6	<11
	15-Mar-05	<138	354 ± 34	<3	<4	<8	<4	<10	<6	<4	<4	<4	<7
	22-Mar-05	<138	348 ± 26	<3	<3	<6	<4	<5	<4	<3	<3	<2	<5
	31-Mar-05	<138	330 ± 35	<4	<4	<7	<5	<10	<6	<4	<5	<5	<13
H59	13-Jan-05	<124	295 ± 40	<4	<4	<8	<5	<11	<7	<6	<5	<5	<6
	03-Feb-05	<126	262 ± 41	<6	<5	<12	<7	<12	<11	<7	<6	<7	<10
	04-Mar-05	<135	332 ± 49	<6	<4	<10	<6	<12	<8	<6	<7	<7	<7

(A) These tabulated LLD values for Zr/Nb-95 are the higher of the individual parent or daughter LLDs.

(B) These tabulated LLD values are for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity for a given sample.

3.b. SHORELINE SEDIMENT - (pCi/kg, dry weight)

Sample Site	Collection Date	Be-7	K-40	Co-58	Co-60	Cs-134	Cs-137	Pb-210	Ra-226	Th-232	U-238
H15	10-Feb-05	<81	257 ± 44	<9	<8	<11	<9	<487	216 ± 93	<49	<374
H59	10-Feb-05	<100	230 ± 59	<11	<12	<14	<11	<854	<344	73 ± 17	<578

4.a.1. CRUSTACEA - (Blue Crab) - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	18-Mar-05	1568 ± 204	<25	<28	<53	<23	<53	<23	<28	<450	<130
H59	15-Mar-05	1736 ± 199	<16	<15	<41	<21	<44	<20	<21	<399	<96

4.a.2. FISH - (Mixed Fish) - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	10-Feb-05	3208 ± 267	<36	<32	<63	<39	<72	<42	<34	<457	<121
H59	15-Mar-05	2587 ± 174	<21	<18	<36	<22	<43	<22	<16	<389	<81

4.b. BROADLEAF VEGETATION - Brazilian Pepper - (pCi/kg, wet weight)

Sample Site	Collection Date	Be-7	K-40	I-131	Cs-134	Cs-137	Pb-210	Ra-226
H51	13-Jan-05	1118 ± 38	4805 ± 110	<7	<7	<7	<1046	<163
	03-Feb-05	1391 ± 112	4440 ± 244	<18	<22	<19	<2629	<328
	03-Mar-05	716 ± 64	4274 ± 175	<15	<12	<14	<760	353 ± 137
H52	13-Jan-05	1767 ± 74	4913 ± 172	<10	<11	<11	<674	<283
	03-Feb-05	2036 ± 53	3602 ± 102	<9	<8	<8	<1149	<176
	03-Mar-05	914 ± 87	3654 ± 191	<16	<15	<19	<2296	284 ± 126
H59	13-Jan-05	2056 ± 107	3048 ± 203	<13	<16	<16	<2501	<353
	03-Feb-05	1582 ± 105	2598 ± 204	<21	<16	26 ± 8	<2614	<406
	04-Mar-05	1354 ± 78	2478 ± 173	<17	<16	<18	<2278	<364

4.c. MILK - (pCi/L)

Sample Site	Collection Date	K-40	I-131	Cs-134	Cs-137	Ba-140 La-140 (A)
H101	31-Mar-05	1532 ± 58	<0.3	<4	27 ± 3	<8

(A) This tabulated LLD value is for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity.

ST. LUCIE SITE

Offsite Dose Calculation Manual Specifications Sampling

Second Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	27	27
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Weekly	1	13
	Monthly	1	3
3.b. Shoreline Sediment	Semiannually	0	0
4. Ingestion			
4.a. Fish and Invertebrates			
4.a.1. *Crustacea*	Semiannually	0	0
4.a.2. Fish	Semiannually	0	0
4.b. Broadleaf Vegetation	Monthly	3	9
4.c. Milk	Quarterly	0	0
			Total: 182

NOTE: Measurement results having magnitudes that are significantly above the background of the measurement system are reported as net values plus or minus a one-standard-deviation error term. Measurement results that are not significantly above background are reported as less than a Lower Limit of Detection (<LLD), which is an estimated upper limit (with at least 95% confidence) for the true activity in the sample.

The marine fauna listed in this report were collected in part, under Florida FWC SAL030.

1. DIRECT RADIATION - TLDs - (µR/hour)

Sample Site	Deployment Collection 03-Mar-05 08-Jun-05	Sample Site	Deployment Collection 03-Mar-05 08-Jun-05
N-1	4.7 ± 0.3	SW-2	4.7 ± 0.3
NNW-5	4.7 ± 0.3	SW-5	6.0 ± 0.4
NNW-10	5.0 ± 0.3	SW-10	4.7 ± 0.3
NW-5	4.8 ± 0.3	SSW-2	4.8 ± 0.3
NW-10	6.3 ± 0.4	SSW-5	5.3 ± 0.3
WNW-2	4.7 ± 0.3	SSW-10	5.4 ± 0.3
WNW-5	4.8 ± 0.3	S-5	4.7 ± 0.3
WNW-10	5.6 ± 0.3	S-10	4.8 ± 0.3
W-2	4.8 ± 0.3	S/SSE-10	4.6 ± 0.3
W-5	4.9 ± 0.3	SSE-5	4.3 ± 0.3
W-10	5.0 ± 0.3	SSE-10	5.2 ± 0.3
WSW-2	4.8 ± 0.3	SE-1	4.5 ± 0.3
WSW-5	4.6 ± 0.3	H-32	5.2 ± 0.3
WSW-10	4.4 ± 0.3		

2.a. IODINE-131 IN WEEKLY AIR CARTRIDGES - (pCi/ m^3)

Collection Date	H08	H12	H14	H30	H34
05-Apr-05	<0.04	<0.04	<0.04	<0.04	<0.04
11-Apr-05	<0.02	<0.02	<0.02	<0.02	<0.02
20-Apr-05	<0.01	<0.01	<0.01	<0.01	<0.01
26-Apr-05	<0.01	<0.01	<0.01	<0.01	<0.01
04-May-05	<0.01	<0.01	<0.01	<0.01	<0.01
12-May-05	<0.01	<0.01	<0.01	<0.01	<0.01
19-May-05	<0.02	<0.02	<0.01	<0.02	<0.02
23-May-05	<0.01	<0.02	<0.02	<0.02	<0.02
31-May-05	<0.01	<0.01	<0.01	<0.01	<0.01
07-Jun-05	<0.03	<0.03	<0.03	<0.02	<0.03
13-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.02
20-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.03 (A)
27-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.02

(A) Power outage due to flipped breaker. Run time estimated at 81 hours out of 167.

2.b.1. AIR PARTICULATES - GROSS BETA - (pCi/m³)

Collection Date	Sample Site H08	H12	H14	H30	H34
05-Apr-05	0.011 ± 0.002	0.014 ± 0.003	0.017 ± 0.003	0.015 ± 0.003	0.013 ± 0.003
11-Apr-05	0.017 ± 0.003	0.020 ± 0.003	0.015 ± 0.002	0.013 ± 0.002	0.019 ± 0.003
20-Apr-05	0.013 ± 0.002	0.016 ± 0.002	0.014 ± 0.002	0.014 ± 0.002	0.019 ± 0.002
26-Apr-05	0.024 ± 0.003	0.029 ± 0.003	0.026 ± 0.003	0.018 ± 0.002	0.029 ± 0.003
04-May-05	0.019 ± 0.002	0.018 ± 0.002	0.015 ± 0.002	0.019 ± 0.002	0.014 ± 0.002
12-May-05	0.020 ± 0.002	0.020 ± 0.002	0.016 ± 0.002	0.015 ± 0.002	0.018 ± 0.002
19-May-05	0.013 ± 0.002	0.018 ± 0.002	0.015 ± 0.002	0.008 ± 0.002	0.014 ± 0.002
23-May-05	0.016 ± 0.003	0.012 ± 0.003	0.007 ± 0.003	0.012 ± 0.003	0.009 ± 0.003
31-May-05	0.015 ± 0.002	0.020 ± 0.002	0.016 ± 0.002	0.018 ± 0.002	0.015 ± 0.002
07-Jun-05	0.015 ± 0.002	0.011 ± 0.002	0.010 ± 0.002	0.010 ± 0.002	0.013 ± 0.002
13-Jun-05	0.011 ± 0.002	0.012 ± 0.002	0.014 ± 0.002	0.013 ± 0.002	0.011 ± 0.002
20-Jun-05	0.009 ± 0.002	0.005 ± 0.002	0.007 ± 0.002	0.007 ± 0.002	0.007 ± 0.003
27-Jun-05	0.006 ± 0.002	0.005 ± 0.001	0.007 ± 0.002	0.004 ± 0.001	0.005 ± 0.002

(A) Power outage due to flipped breaker. Run time estimated at 81 hours out of 167.

2.b.2. AIR PARTICULATES GAMMA ANALYSIS OF QUARTERLY COMPOSITES (pCi/m³)

Second Quarter, 2005

Sample Site	Be-7	K-40	Cs-134	Cs-137	Pb-210
H08	0.1518 ± 0.0103	<0.0226	<0.0011	<0.0008	0.0207 ± 0.0034
H12	0.1822 ± 0.0118	<0.0215	<0.0009	<0.0009	0.0191 ± 0.0049
H14	0.1690 ± 0.0117	<0.0224	<0.0010	<0.0007	0.0308 ± 0.0044
H30	0.1897 ± 0.0111	<0.0202	<0.0014	<0.0009	0.0245 ± 0.0050
H34	0.1705 ± 0.0109	<0.0172	<0.0012	<0.0011	0.0297 ± 0.0039

3.a. SURFACE WATER - (pCi/L)

Sample Site	Collection Date	H-3	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Zr-95 Nb-95 (A)	I-131	Cs-134	Cs-137	Ba-140 La-140 (B)
H15	05-Apr-05	<136	315 ± 40	<5	<4	<9	<5	<11	<8	<5	<6	<5	<12
	11-Apr-05	<136	272 ± 38	<3	<3	<7	<4	<6	<5	<4	<4	<4	<7
	20-Apr-05	<142	382 ± 17	<2	<1	<3	<2	<4	<3	<2	<2	<2	<4
	26-Apr-05	<142	349 ± 29	<2	<3	<6	<3	<7	<5	<3	<3	<3	<9
	04-May-05	<136	383 ± 29	<3	<3	<5	<3	<7	<5	<3	<3	<3	<9
	12-May-05	<135	378 ± 35	<3	<3	<7	<5	<8	<7	<5	<3	<4	<6
	19-May-05	<145	412 ± 37	<3	<3	<6	<4	<7	<6	<3	<4	<3	<11
	23-May-05	<145	378 ± 27	<3	<3	<6	<3	<7	<3	<3	<3	<3	<5
	31-May-05	<145	316 ± 28	<3	<3	<6	<4	<6	<4	<3	<3	<3	<6
	07-Jun-05	<145	417 ± 37	<4	<3	<6	<4	<7	<6	<4	<3	<4	<7
	13-Jun-05	<145	320 ± 32	<3	<3	<7	<5	<6	<5	<4	<4	<3	<12
	20-Jun-05	<133	346 ± 30	<3	<2	<6	<3	<6	<4	<3	<3	<3	<9
	27-Jun-05	<132	308 ± 38	<3	<2	<6	<4	<9	<6	<4	<4	<4	<8
H59	05-Apr-05	<136	364 ± 38	<4	<3	<8	<4	<7	<6	<4	<4	<3	<8
	12-May-05	<135	381 ± 17	<1	<2	<3	<2	<3	<3	<2	<2	<2	<2
	07-Jun-05	<145	352 ± 34	<3	<3	<7	<4	<6	<5	<4	<5	<3	<7

(A) These tabulated LLD values for Zr/Nb-95 are the higher of the individual parent or daughter LLDs.

(B) These tabulated LLD values are for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity for a given sample.

3.b. SHORELINE SEDIMENT - (pCi/kg, dry weight)

Sample Site	Collection Date	Be-7	K-40	Co-58	Co-60	Cs-134	Cs-137	Pb-210	Ra-226	Th-232	U-238
These samples were previously collected.											

4.a.1. CRUSTACEA - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	23-Apr-04	1481 ± 104	<10	<10	<22	<11	<20	<11	<10	<190	<37
H59	This sample was previously collected.										

4.a.2. FISH - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
These samples were previously collected.											

4.b. BROADLEAF VEGETATION - Brazilian Pepper - (pCi/kg, wet weight)

Sample Site	Collection Date	Be-7	K-40	I-131	Cs-134	Cs-137	Pb-210	Pb-212	Ra-226
H51	05-Apr-05	452 ± 65	5746 ± 187	<17	<11	<10	<615	<92	<262
	12-May-05	767 ± 83	4498 ± 224	<20	<20	<22	<2278	<79	<311
	07-Jun-05	968 ± 89	4402 ± 209	<14	<15	<12	<2216	<78	<321
H52	05-Apr-05	597 ± 77	4933 ± 229	<20	<17	<18	<2266	<71	<332
	12-May-05	778 ± 74	5123 ± 247	<23	<16	<15	<2553	<80	<358
	07-Jun-05	822 ± 68	3542 ± 211	<14	<18	<13	<2127	<69	<331
H59	05-Apr-05	505 ± 65	6025 ± 238	<18	<18	<18	<2383	<82	<338
	12-May-05	659 ± 84	2482 ± 162	<18	<14	<14	<2003	<65	<292
	07-Jun-05	1456 ± 89	4062 ± 223	<16	<18	<16	<2128	<82	<345

4.c. MILK - (pCi/L)

Sample Site	Collection Date	K-40	I-131	Cs-134	Cs-137	Ba-140 La-140 (A)
H101	There was no sample available during the quarter.					

(A) This tabulated LLD value is for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity.

ST. LUCIE SITE

Offsite Dose Calculation Manual Specification Sampling

Third Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	27	27
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Weekly	1	13
	Monthly	1	3
3.b. Shoreline Sediment	Semiannually	2	2
4. Ingestion			
4.a. Fish and Invertebrates			
4.a.1. Crustacea	Semiannually	2	1
4.a.2. Fish	Semiannually	2	1
4.b. Broadleaf Vegetation	Monthly	3	9
		Total:	186

NOTE: Measurement results having magnitudes that are significantly above the background of the measurement system are reported as net values plus or minus a one-standard-deviation error term. Measurement results that are not significantly above background and with greater than a 50% error term are reported as less than a Lower Limit of Detection (<LLD), which is an estimated upper limit (with at least 95% confidence) for the true activity in the sample.

The marine fauna listed in this report were collected in part, under Florida FWC SAL030.

1. DIRECT RADIATION - TLDs - (µR/hour)

Sample Site	Deployment Collection 08-Jun-05 13-Sep-05	Sample Site	Deployment Collection 08-Jun-05 13-Sep-05
N-1	4.8 ± 0.3	SW-2	5.0 ± 0.3
NNW-5	4.8 ± 0.3	SW-5	6.2 ± 0.4
NNW-10	5.2 ± 0.4	SW-10	5.2 ± 0.3
NW-5	5.0 ± 0.3	SSW-2	4.9 ± 0.3
NW-10	6.4 ± 0.4	SSW-5	5.9 ± 0.4
WNW-2	4.8 ± 0.3	SSW-10	5.8 ± 0.4
WNW-5	5.0 ± 0.3	S-5	5.1 ± 0.3
WNW-10	5.8 ± 0.4	S-10	5.3 ± 0.4
W-2	4.8 ± 0.3	S/SSE-10	4.9 ± 0.3
W-5	5.2 ± 0.4	SSE-5	4.8 ± 0.3
W-10	5.2 ± 0.4	SSE-10	5.9 ± 0.4
WSW-2	5.0 ± 0.3	SE-1	5.0 ± 0.3
WSW-5	4.9 ± 0.3	H-32	5.7 ± 0.4
WSW-10	4.8 ± 0.3		

2.a. IODINE-131 IN WEEKLY AIR CARTRIDGES - (pCi/ m³)

Collection Date	H08	H12	H14	H30	H34
06-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
13-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
20-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
25-Jul-05	<0.02	<0.02	<0.01	<0.02	<0.01
01-Aug-05	<0.03	<0.02	<0.02	<0.03	<0.02
09-Aug-05	<0.02	<0.01	<0.01	<0.02	<0.01
18-Aug-05	<0.01	<0.01	<0.01	<0.01	<0.01
24-Aug-05	<0.01	<0.01	<0.01	<0.01	<0.01
30-Aug-05	<0.01	<0.01	<0.01	<0.01	<0.01
06-Sep-05	<0.02	<0.02	<0.02	<0.02	<0.02
13-Sep-05	<0.02	<0.02	<0.02	<0.02	<0.02
20-Sep-05	<0.01	<0.01	<0.01	<0.01	<0.01
27-Sep-05	<0.01	<0.01	<0.01	<0.01	<0.01

2.b.1. AIR PARTICULATES - GROSS BETA - (pCi/m³)

Collection Date	Sample Site H08	H12	H14	H30	H34
06-Jul-05	0.011 ± 0.002	0.012 ± 0.002	0.010 ± 0.002	0.009 ± 0.002	0.011 ± 0.002
13-Jul-05	0.016 ± 0.002	0.016 ± 0.002	0.012 ± 0.002	0.015 ± 0.002	0.014 ± 0.002
20-Jul-05	0.006 ± 0.002	0.009 ± 0.002	0.009 ± 0.002	0.005 ± 0.001	0.008 ± 0.002
25-Jul-05	0.014 ± 0.003	0.014 ± 0.003	0.008 ± 0.002	0.010 ± 0.002	0.010 ± 0.002
01-Aug-05	0.018 ± 0.002	0.017 ± 0.002	0.018 ± 0.002	0.014 ± 0.002	0.018 ± 0.002
09-Aug-05	0.012 ± 0.002	0.013 ± 0.002	0.010 ± 0.002	0.012 ± 0.002	0.015 ± 0.002
18-Aug-05	0.005 ± 0.001	0.011 ± 0.002	0.009 ± 0.002	0.007 ± 0.001	0.010 ± 0.002
24-Aug-05	0.017 ± 0.002	0.015 ± 0.002	0.014 ± 0.002	0.010 ± 0.002	0.012 ± 0.002
30-Aug-05	0.007 ± 0.002	0.005 ± 0.002	0.004 ± 0.002	0.007 ± 0.002	0.006 ± 0.002
06-Sep-05	0.013 ± 0.002	0.011 ± 0.002	0.025 ± 0.003	0.014 ± 0.002	0.014 ± 0.002
13-Sep-05	0.013 ± 0.002	0.013 ± 0.002	0.012 ± 0.002	0.009 ± 0.002	0.008 ± 0.002
20-Sep-05	0.029 ± 0.003	0.026 ± 0.003	0.030 ± 0.003	0.024 ± 0.002	0.023 ± 0.002
27-Sep-05	0.014 ± 0.002	0.010 ± 0.002	0.010 ± 0.002	0.016 ± 0.002	0.018 ± 0.002
Mean:	0.013 ± 0.001	0.013 ± 0.001	0.013 ± 0.001	0.012 ± 0.001	0.013 ± 0.001

2.b.2. AIR PARTICULATES GAMMA ANALYSIS OF QUARTERLY COMPOSITES (pCi/m³)

Third Quarter, 2005

Sample Site	Be-7	K-40	Cs-134	Cs-137	Pb-210
H08	0.1478 ± 0.0114	<0.0226	<0.0013	<0.0007	0.0232 ± 0.0038
H12	0.1483 ± 0.0110	<0.0221	<0.0008	<0.0009	0.0173 ± 0.0039
H14	0.1137 ± 0.0112	<0.0193	<0.0008	<0.0008	0.0298 ± 0.0047
H30	0.1074 ± 0.0106	<0.0183	<0.0007	<0.0008	0.0251 ± 0.0042
H34	0.1425 ± 0.0141	<0.0243	<0.0010	<0.0014	<0.0561

3.a. SURFACE WATER - (pCi/L)

Sample Site	Collection Date	H-3	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Zr-95 Nb-95 (A)	I-131	Cs-134	Cs-137	Ba-140 La-140 (B)
H15	06-Jul-05	<132	345 ± 23	<2	<2	<5	<2	<5	<4	<2	<3	<3	<6
	13-Jul-05	<138	288 ± 32	<3	<3	<9	<4	<8	<6	<5	<4	<4	<4
	20-Jul-05	<138	379 ± 32	<3	<3	<7	<3	<8	<6	<4	<4	<3	<7
	25-Jul-05	<137	363 ± 23	<2	<2	<5	<3	<5	<4	<3	<3	<2	<5
	01-Aug-05	<148	350 ± 49	<5	<6	<9	<5	<12	<11	<5	<6	<5	<12
	10-Aug-05	<147	425 ± 36	<3	<3	<9	<4	<8	<6	<5	<4	<4	<7
	18-Aug-05	<142	257 ± 32	<3	<3	<6	<4	<7	<6	<3	<4	<3	<10
	24-Aug-05	<142	343 ± 30	<3	<3	<5	<4	<7	<4	<4	<3	<3	<9
	30-Aug-05	<145	355 ± 33	<4	<4	<6	<4	<8	<5	<4	<4	<4	<6
	06-Sep-05	<140	346 ± 34	<3	<3	<6	<4	<8	<6	<4	<4	<3	<8
	13-Sep-05	<144	306 ± 31	<3	<4	<6	<4	<8	<6	<3	<4	<4	<6
	20-Sep-05	<156	322 ± 32	<3	<3	<7	<3	<6	<5	<4	<4	<3	<11
	27-Sep-05	<156	376 ± 38	<3	<4	<7	<4	<7	<6	<5	<4	<4	<6
H59	13-Jul-05	<138	394 ± 44	<6	<5	<12	<7	<13	<10	<7	<6	<5	<9
	10-Aug-05	<142	424 ± 33	<3	<3	<7	<4	<9	<6	<6	<4	<4	<6
	06-Sep-05	<144	262 ± 48	<5	<5	<9	<6	<10	<7	<5	<5	<5	<9

(A) These tabulated LLD values for Zr/Nb-95 are the higher of the individual parent or daughter LLDs.
(B) These tabulated LLD values are for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity for a given sample.

3.b. SHORELINE SEDIMENT - (pCi/kg, dry weight)

Sample Site	Collection Date	Be-7	K-40	Co-58	Co-60	Cs-134	Cs-137	Pb-210	Ra-226	Th-232	U-238
H15	10-Aug-05	<101	490 ± 84	<11	<10	<12	<13	<1016	299 ± 14	96 ± 15	411 ± 101
H59	10-Aug-05	93 ± 40	208 ± 45	<7	<7	<9	<8	<456	<253	65 ± 11	<416

4.a.1. CRUSTACEA - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	13-Sep-05	839 ± 358	<42	<53	<108	<60	<116	<48	<51	<857	<180
H59	This sample has not yet been collected.										

4.a.2. FISH - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	13-Sep-05	2368 ± 182	<19	<17	<27	<20	<37	<21	<16	<390	<64
H59	This sample has not yet been collected.										

4.b. BROADLEAF VEGETATION - Brazilian Pepper - (pCi/kg, wet weight)

Sample Site	Collection Date	Be-7	K-40	I-131	Cs-134	Cs-137	Pb-210	Pb-212	Ra-226
H51	13-Jul-05	585 ± 42	4775 ± 113	<10	<8	<7	<1077	<37	210 ± 75
	10-Aug-05	1242 ± 94	4698 ± 232	<17	<17	<15	<2385	<82	<358
	06-Sep-05	708 ± 77	3699 ± 208	<14	<14	<17	<2079	<77	<365
H52	13-Jul-05	563 ± 68	3882 ± 198	<20	<15	<12	<1842	<60	<253
	10-Aug-05	801 ± 80	3974 ± 209	<14	<15	<15	<2450	<70	403 ± 158
	06-Sep-05	539 ± 78	4557 ± 175	<11	<11	14 ± 5	<679	<83	<248
H59	13-Jul-05	655 ± 83	3721 ± 208	<26	<16	<17	<2201	<78	<345
	10-Aug-05	1224 ± 87	4062 ± 198	<15	<14	<15	<2195	<68	<326
	06-Sep-05	1421 ± 76	3840 ± 163	<11	<10	<12	<674	<84	<261

ST. LUCIE SITE

Offsite Dose Calculation Manual Specifications Sampling

Fourth Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	27	27
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	63
3. Waterborne			
3.a. Surface Water	Weekly	1	13
	Monthly	1	3
3.b. Shoreline Sediment	Semiannually	0	0
4. Ingestion			
4.a. Fish and Invertebrates			
4.a.1. Crustacea	Semiannually	1	1
4.a.2. Fish	Semiannually	1	1
4.b. Broadleaf Vegetation	Monthly	3	9
4.c. Milk	Quarterly	1	0
			Total: 182

NOTE: Measurement results having magnitudes that are significantly above the background of the measurement system are reported as net values plus or minus a one-standard-deviation error term. Measurement results that are not significantly above background are reported as less than a Lower Limit of Detection (<LLD), which is an estimated upper limit (with at least 95% confidence) for the true activity in the sample.

The marine fauna listed in this report were collected in part, under Florida FWC SAL030.

1. DIRECT RADIATION - TLDs - (µR/hour)

Sample Site	Deployment Collection 13-Sep-05 08-Dec-05	Sample Site	Deployment Collection 13-Sep-05 08-Dec-05
N-1	4.9 ± 0.2	SW-2	5.0 ± 0.2
NNW-5	4.8 ± 0.2	SW-5	5.9 ± 0.3
NNW-10	5.0 ± 0.2	SW-10	5.3 ± 0.2
NW-5	4.6 ± 0.2	SSW-2	5.0 ± 0.2
NW-10	6.5 ± 0.3	SSW-5	6.0 ± 0.3
WNW-2	5.0 ± 0.2	SSW-10	5.8 ± 0.3
WNW-5	5.4 ± 0.3	S-5	5.2 ± 0.2
WNW-10	5.5 ± 0.3	S-10	5.0 ± 0.2
W-2	4.7 ± 0.2	S/SSE-10	4.8 ± 0.2
W-5	5.4 ± 0.3	SSE-5	4.4 ± 0.2
W-10	4.9 ± 0.2	SSE-10	5.6 ± 0.3
WSW-2	5.2 ± 0.2	SE-1	4.8 ± 0.2
WSW-5	5.2 ± 0.2	H-32	5.4 ± 0.3
WSW-10	4.7 ± 0.2		

2.a. IODINE-131 IN WEEKLY AIR CARTRIDGES - (pCi/ m³)

Collection Date	H08	H12	H14	H30	H34
05-Oct-05	<0.01	<0.01	<0.01	<0.01	<0.01
12-Oct-05	<0.02	<0.02	<0.02	<0.02	<0.02
19-Oct-05	<0.01	<0.01	<0.01	<0.01	(A) <0.01
25-Oct-05	(B) <0.02	(C) <0.02	(D) <0.02	(E) <0.02	(F) <0.02
03-Nov-05	<0.01	<0.01	(G) <0.01	(H) <0.01	(I) <0.01
09-Nov-05	<0.01	<0.01	<0.01	<0.01	<0.01
15-Nov-05	<0.01	<0.01	<0.01	<0.01	<0.01
22-Nov-05	<0.01	<0.01	<0.01	<0.01	<0.01
28-Nov-05	<0.02	<0.02	<0.02	<0.02	<0.02
05-Dec-05	<0.02	<0.02	<0.01	<0.02	<0.02
14-Dec-05	<0.01	<0.01	<0.01	<0.01	<0.01
21-Dec-05	<0.01	<0.01	<0.01	<0.01	<0.01
28-Dec-05	<0.02	<0.02	<0.02	<0.02	<0.02

(A) Power off at time of collection, run time 164.5 hours out of 168.3.
(B) Hurricane Wilma, power outage, run time 129 hours out of 150.
(C) Hurricane Wilma, power outage, run time 140 hours out of 146.
(D) Hurricane Wilma, power outage run time 117 hours out of 144.
(E) Hurricane Wilma, power outage run time 121 hours of of 147.
(F) Hurricane Wilma, power outage, run time 109 hours out of 142.
(G) Power outage at beginning of sampling period, run time 107 hours out of 220.
(H) Power outage at beginning of sampling period, run time 118 hours out of 216.
(I) Power outage at beginning of sampling period, run time 204 hours out of 223.

2.b.1. AIR PARTICULATES - GROSS BETA - (pCi/m³)

Collection Date	Sample Site H08	H12	H14	H30	H34
05-Oct-05	0.010 ± 0.002	0.008 ± 0.001	0.009 ± 0.002	0.010 ± 0.002	0.011 ± 0.002
12-Oct-05	0.006 ± 0.002	0.008 ± 0.002	0.005 ± 0.002	0.007 ± 0.002	0.007 ± 0.002
19-Oct-05	0.010 ± 0.002	0.021 ± 0.002	0.016 ± 0.002	0.020 ± 0.002	(A) 0.014 ± 0.002
25-Oct-05	(B) <0.009	(C) 0.008 ± 0.002	(D)	(E)	(F) 0.007 ± 0.002
03-Nov-05	0.013 ± 0.002	0.013 ± 0.002	(G) 0.010 ± 0.003	(H) 0.016 ± 0.003	(I) 0.015 ± 0.002
09-Nov-05	0.012 ± 0.002	0.013 ± 0.002	0.012 ± 0.002	0.013 ± 0.002	0.013 ± 0.002
15-Nov-05	0.013 ± 0.002	0.021 ± 0.003	0.023 ± 0.003	0.019 ± 0.003	0.021 ± 0.003
22-Nov-05	0.007 ± 0.002	0.005 ± 0.002	0.008 ± 0.002	0.011 ± 0.002	0.008 ± 0.002
28-Nov-05	0.023 ± 0.003	0.028 ± 0.003	0.024 ± 0.003	0.026 ± 0.003	0.024 ± 0.003
05-Dec-05	0.023 ± 0.003	0.019 ± 0.002	0.020 ± 0.002	0.021 ± 0.002	0.024 ± 0.003
14-Dec-05	0.014 ± 0.002	0.010 ± 0.002	0.014 ± 0.002	0.012 ± 0.002	0.017 ± 0.002
21-Dec-05	0.013 ± 0.002	0.016 ± 0.002	0.018 ± 0.002	0.012 ± 0.002	0.020 ± 0.002
28-Dec-05	0.023 ± 0.002	0.023 ± 0.002	0.028 ± 0.003	0.024 ± 0.002	0.023 ± 0.002
Mean:	<0.014	0.015 ± 0.001	<0.014	<0.015	0.016 ± 0.001

(A) Power off at time of collection, run time 164.5 hours out of 168.3.
(B) Hurricane Wilma, power outage, run time 129 hours out of 150.
(C) Hurricane Wilma, power outage, run time 140 hours out of 146.
(D) Hurricane Wilma, particulate filter lost.
(E) Hurricane Wilma, particulate filter lost.
(F) Hurricane Wilma, power outage, run time 109 hours out of 142.
(G) Power outage at beginning of sampling period, run time 107 hours out of 220.
(H) Power outage at beginning of sampling period, run time 118 hours out of 216.
(I) Power outage at beginning of sampling period, run time 204 hours out of 223.

2.b.2. AIR PARTICULATES GAMMA ANALYSIS OF QUARTERLY COMPOSITES (pCi/m³)

Fourth Quarter, 2005

Sample Site	Be-7	K-40	Cs-134	Cs-137	Pb-210
H08	0.1382 ±0.0129	<0.0222	<0.0013	<0.0011	<0.0563
H12	0.1534 ± 0.0147	<0.0254	<0.0015	<0.0011	<0.0586
H14	0.1741 ± 0.0123	<0.0230	<0.0011	<0.0005	0.0282 ± 0.0034
H30	0.1644 ± 0.0114	<0.0179	<0.0009	<0.0009	0.0282 ± 0.0048
H34	0.1891 ± 0.0123	<0.0154	<0.0008	<0.0007	0.0293 ± 0.0040

3.a. SURFACE WATER - (pCi/L)

Sample Site	Collection Date	H-3	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Zr-95 Nb-95 (A)	I-131	Cs-134	Cs-137	Ba-140 La-140 (B)
H15	05-Oct-05	118 ± 50	379 ± 35	<3	<3	<9	<4	<10	<6	<5	<4	<4	<6
	12-Oct-05	<144	387 ± 33	<3	<4	<6	<4	<8	<5	<5	<3	<3	<6
	19-Oct-05	110 ± 46	351 ± 27	<3	<2	<5	<3	<6	<5	<3	<3	<3	<11
	25-Oct-05	<144	365 ± 34	<4	<3	<6	<4	<9	<6	<5	<3	<5	<7
	03-Nov-05	<157	382 ± 32	<4	<3	<7	<4	<8	<7	<5	<4	<4	<6
	09-Nov-05	<157	294 ± 20	<2	<2	<4	<2	<4	<3	<3	<2	<2	<3
	15-Nov-05	<157	321 ± 25	<3	<3	<6	<3	<6	<5	<3	<3	<3	<6
	22-Nov-05	<157	384 ± 29	<3	<3	<6	<3	<7	<6	<4	<3	<3	<10
	28-Nov-05	<156	322 ± 27	<3	<2	<5	<3	<6	<4	<3	<3	<3	<5
	05-Dec-05	<149	362 ± 40	<4	<5	<8	<7	<11	<9	<5	<5	<5	<7
	14-Dec-05	<149	358 ± 32	<3	<3	<7	<4	<7	<7	<4	<4	<4	<7
	21-Dec-05	<149	266 ± 34	<4	<3	<6	<3	<6	<5	<3	<3	<4	<8
	28-Dec-05	<148	416 ± 30	<3	<3	<7	<3	<6	<5	<4	<4	<3	<9
H59	05-Oct-05	<144	361 ± 35	<4	<3	<7	<5	<7	<6	<6	<4	<3	<5
	03-Nov-05	142 ± 51	285 ± 25	<3	<2	<5	<3	<5	<4	<3	<2	<3	<3
	05-Dec-05	<149	347 ± 39	<4	<5	<9	<5	<8	<8	<5	<5	<4	<6

(A) These tabulated LLD values for Zr/Nb-95 are the higher of the individual parent or daughter LLDs.

(B) These tabulated LLD values are for Ba-140, either based on direct measurement of Ba-140 or based on ingrowth of La-140, whichever method yields the greater sensitivity for a given sample.

3.b. SHORELINE SEDIMENT - (pCi/kg, dry weight)

Sample Site	Collection Date	Be-7	K-40	Co-58	Co-60	Cs-134	Cs-137	Pb-210	Ra-226	Th-232	U-238
These samples were previously collected.											

4.a.1. CRUSTACEA - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	This sample was previously collected.										
H59	06-Oct-05	1830 ± 96	<11	<11	<24	<12	<25	<12	<12	<247	121 ± 35

4.a.2. FISH - (pCi/kg, wet weight)

Sample Site	Collection Date	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137	Ra-226	Ra-228
H15	This sample was previously collected.										
H59	09-Nov-05	1838 ± 226	<23	<26	<59	<31	<57	<28	<30	<488	<100

4.b. BROADLEAF VEGETATION - Brazilian Pepper - (pCi/kg, wet weight)

Sample Site	Collection Date	Be-7	K-40	I-131	Cs-134	Cs-137	Pb-210	Pb-212	Ra-226
H51	05-Oct-05	1140 ± 109	4297 ± 257	<23	<19	<21	<2675	<94	<440
	03-Nov-05	897 ± 68	3829 ± 179	<12	<15	<13	<1956	<72	<267
	08-Dec-05	706 ± 40	3922 ± 104	<7	<7	<8	<1102	<36	<170
H52	05-Oct-05	968 ± 88	3233 ± 195	<22	<17	<17	<2201	<74	<359
	03-Nov-05	934 ± 71	3886 ± 174	<13	<13	<11	<671	<79	<248
	05-Dec-05	775 ± 88	4168 ± 211	<17	<19	<16	<2213	<90	<300
H59	05-Oct-05	1946 ± 54	2703 ± 93	<10	<9	<8	<1177	<37	<144
	03-Nov-05	683 ± 41	3852 ± 103	<6	<8	<8	<1123	<38	<166
	05-Dec-05	1034 ± 77	3380 ± 194	<17	<19	<14	<2029	<74	<361

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ATTACHMENT C

RESULTS FROM THE INTERLABORATORY

COMPARISON PROGRAM 2005

DEPARTMENT OF ENERGY

MAPEP 13, June 2005

AND

MAPEP 14, December 2005

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DOE-MAPEP 13 RESULTS

Radionuclide	Result	Ref. Value	Flag (Evaluation)	Acceptance Range
Matrix: RdF Air Filter Bq/filter				
MN54	3.61	3.330	A	2.33 - 4.33
CO57	5.01	4.920	A	3.44 - 6.40
CO60	3.10	3.030	A	2.12 - 3.94
ZN65	3.63	3.140	A	2.20 - 4.08
CS134	2.94	3.510	A	2.46 - 4.56
CS137	2.44	2.260	A	1.58 - 2.94
Am-241	0.12	0.102	A	0.07 - 0.13
Matrix: GrF Air Filter Bq/filter				
Gross Beta	0.35	0.297	A	0.15 - 0.45
Matrix: MaS Soil Bq/kg				
K40	708	604	A	422.8 - 785.2
MN54	593	485	W	339.5 - 630.5
CO57	293	242	W	169.4 - 314.6
CO60	239	212	A	148.4 - 275.6
ZN65	992	810	W	567.0 - 1053
CS134	763	759	A	531.3 - 986.7
CS137	368	315	A	220.5 - 409.5
U238	295	249	A	174.3 - 323.70
AM241	137	109	W	76.30 - 141.70
Matrix: MaW Water Bq/L				
H3	302.8	280	A	196.0 - 364.0
MN54	334.2	331	A	231.7 - 430.3
CO57	223.3	227	A	158.9 - 295.1
CO60	251.9	251	A	175.7 - 326.3
ZN65	553.0	496	A	347.2 - 644.8
CS134	114.7	127	A	88.90 - 165.1
CS137	325.6	332	A	232.4 - 431.6
AM241	1.8	1.72	A	1.200 - 2.240
Matrix: RdV Vegetation, Bq/sample				
MN54	4.00	5.180	A	3.63 - 6.73
CO57	5.90	9.880	W	6.92 - 12.84
CO60	2.38	3.150	A	2.21 - 4.10
ZN65	5.20	6.290	A	4.40 - 9.18
CS134	3.39	5.000	A	3.50 - 6.50
CS137	3.00	4.110	A	2.88 - 5.34
AM241	0.15	0.145	A	0.10 - 0.19

Evaluation: A = Acceptable, W = Acceptable with Warning, N = Not Acceptable

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DOE-MAPEP 14 RESULTS

Radionuclide	Result	Ref. Value	Flag (Evaluation)	Acceptance Range	Reanalysis	
Matrix: RdF Air Filter Bq/filter						
MN54	5.0	4.37	A	3.06 – 5.68		
CO57	6.48	6.2	A	4.34 – 8.06		
CO60	2.96	2.85	A	2.00 – 3.71		
ZN65	5.07	4.33	A	3.03 – 5.63		
CS134	4.04	3.85	A	2.70 – 5.01		
CS137	3.55	3.23	A	2.26 – 4.20		
AM241	0.18	0.158	A	0.11 – 0.21		
Matrix: GrF Filter Bq/sample						
Gross Beta	0.95	0.827	A	0.55 – 1.22		
Matrix: MaS Soil Bq/kg						
K40	676	604	A	422.8 – 785.2		
MN54	506	439	A	307.3 – 570.7		
CO57	617	524	A	366.8 – 681.2		
CO60	307	287	A	200.9 – 373.1		
ZN65	948	823	A	576.1 – 1070.0		
CS134	570	568	A	397.6 – 738.4		
CS137	499	439	A	307.3 – 570.7		
Matrix: MaW Water Bq/L						
H3	556.4	527	A	368.9 – 685.1		
MN54	420.7	418	A	292.6 – 543.4		
CO57	266.2	272	A	190.4 – 353.6		
CO60	261.0	261	A	182.7 – 339.3		
NI63	101.3	100	A	70.0 – 130.0		
ZN65	351.5	330	A	231.0 – 429.0		
SR90	9.9	8.98	A	6.29 – 11.67		
CS134	166.9	167	A	116.9 – 217.1		
CS137	326.4	333	A	233.1 – 432.9		
Matrix: MaV Vegetation, Bq/sample					Reanalysis	
MN54	3.96	6.57	N	4.6 – 8.54	6.00	A
CO57	5.9	13.3	N	9.31 – 17.29	9.18	N
CO60	2.38	4.43	N	3.1 – 5.76	3.91	A
ZN65	5.2	10.2	N	7.14 – 13.26	9.7	A
CS134	3.81	4.09	A	2.86 – 5.32	3.75	A
CS137	3.00	5.43	N	3.80 – 7.06	4.74	A
AM241	0.15	0.23	N	0.16 – 0.30	0.26	A

From the MAPEP handbook:
Acceptance criteria were developed from a review of precision and accuracy data compiled by other PEPs, the analytical methods literature, from several MAPEP pilot studies, and from what is considered reasonable, acceptable, and achievable for routine analyses among the more experienced laboratories.