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MAY 1 5 2006

L-2006-107
10 CFR 50.36b

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-00001

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
2005 Annual Radiological
Environmental Operating Report

Enclosed is the 2005 Annual Radiological Environmental Operating Report for Turkey Point Units 3 and 4, as required by Technical Specification 6.9.1.3.

Should there be any questions or comments regarding this information, please contact Walter Parker at (305) 246-6632.

Sincerely,

Terry Jones

Terry O. Jones
Vice President
Turkey Point Nuclear Plant

SM

Enclosure

NRC Regulatory Issue Summary 2001-05 waived the requirements that multiple copies of documents be submitted to the NRC.

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2005

ANNUAL

RADIOLOGICAL ENVIRONMENTAL

OPERATING REPORT

TURKEY POINT PLANT

UNITS 3 & 4

LICENSE NOS. DPR-31, DPR-41

DOCKET NOS. 50-250, 50-251

Data Submitted by: Florida DOH

Prepared by: _____

Reviewed by: _____

2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
TURKEY POINT PLANT – UNITS 3 & 4

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2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
TURKEY POINT PLANT – UNITS 3 & 4

EXECUTIVE SUMMARY

The data obtained through the Turkey Point Radiological Environmental Monitoring Program verifies that the levels of radiation and concentrations of radioactive materials in environmental samples are not increasing. These measurements verify that the dose or dose commitment to members of the public, due to operation of Turkey Point Units 3 & 4, during the surveillance year, is well within the limits established by 10 CFR 50, Appendix I. The sampling period was from January 1, 2005 to December 31, 2005.

Additionally, supplemental samples collected by the State of Florida, DOH, do not indicate adverse trends in the radiological environment.

2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
TURKEY POINT PLANT – UNITS 3 & 4

I. INTRODUCTION

This report is submitted pursuant to Specification 6.9 of Turkey Point Units 3 & 4 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 described in the Offsite Dose Calculation Manual (ODCM) meeting the requirements of Unit 3 and Unit 4 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 of 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 Turkey Point Plant is conducted pursuant to Control 5.1 of Turkey Point Unit 3 & 4 ODCM.

1. Sample Locations, Types and Frequencies:

   a. Direct radiation gamma exposure rate is monitored continuously at 22 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 three locations. Samples are collected and analyzed monthly. Analyses include gamma isotopic and tritium measurements.

d. Shoreline sediment samples are collected from three 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 coinciding with two of the locations for surface water samples. 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.

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

2. Analytical Responsibility:

Radiological environmental monitoring for the Turkey Point Plant is conducted by the State of Florida, Department of Health (DOH). Samples are collected and analyzed by DOH personnel.

Samples are analyzed at the DOH 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, missing data and/or samples not meeting the specified "A PRIORI" LLD, if any, are noted and explained in Tables 1A and 1B respectively. 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 5 miles radius from the Turkey Point Plant is conducted annually to determine the location of the nearest milk animal, residence, and garden producing broad leaf vegetation, in each of the sixteen 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 (10-24-05) affected the Direct Exposure-TLDs and Air Sampling portion of Turkey Point'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.
- One Air Sampling Station was destroyed. A compensatory Air Sampling station was utilized during the restoration.
- Two TLDs were lost; they were replaced

The REMP was restored in advance of Units 3 and 4 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 Control 1.4 of ODCM. Table 1 provides a summary of the measurements made for the nuclides required by ODCM Table 5.1-2, for all samples specified by Table 5.1-1. 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. Waterborne, Surface Water:

The results of radioactivity measurements in surface water samples are consistent with past measurements. Tritium was reported as present in 3 of the 36 surface water samples collected. These results are consistent with the known subsurface interchange that occurs between the closed cooling canal and its surrounding waters, and the pressure gradients caused by the flow of aquifer subsurface waters in South Florida. The highest reported tritium is less than 8% of the required detection level specified by ODCM Table 5.1-3.

4. Waterborne, Sediment:

The results are consistent with past measurements. Only cosmic-ray produced Be-7 and naturally occurring isotopes were identified.

5. Waterborne, Food Products:

The results are consistent with past measurements; only naturally occurring radionuclides were detected.

6. Broad Leaf Vegetation

The results of radioactivity measurements are consistent with past measurements. Cs-137 was detected, as in the past, in samples collected from the indicator and control locations. The maximum concentration reported was less than 6% of the reporting level specified by ODCM Table 5.1-2. No other fission products were detected.

7. Land Use Census

There were no changes to the land use relative to last year's report.

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% 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 for 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 one 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 Turkey Point 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.

Additionally, supplemental to the ODCM program, sampling of the direct exposure, inhalation, and ingestion pathways, performed by DOH, does not show adverse trends in levels of radiation and radioactive materials in unrestricted areas. The measurements verify that the dose or dose commitment to members of the public, due to operation of Turkey Point Units 3 & 4, 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 Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, 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) 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
Exposure Rate, 87[d]	---	5.7 (83/83) 4.0 – 8.5	NW-10 10 mi., NW	8.2 (4/4) 7.5 - 8.5	6.4 (4/4) 5.3 – 6.5

Number of Non-routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: AIRBORNE
SAMPLES COLLECTED: RADIOIODINE AND PARTICULATES
UNITS: pCi/m^3

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f) 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, 259	0.024	< MDA	---	---	< MDA
Gross Beta, 258	0.0025	0.014 (205/206) 0.004 - 0.030	T-72 < 1 mi., WSW	0.015 (52/52) 0.006 - 0.028	0.015 (52/52) 0.005 - 0.025
Composite Gamma Isotopic, 20					
^{7}Be	0.0052	0.1585 (16/16) 0.0965 - 0.2290	T-72 < 1 mi., WSW	0.1765 (4/4) 0.1041 - 0.2290	0.1756 (4/4) 0.1239 - 0.2120
^{134}Cs	0.00069	< MDA	---	---	< MDA
^{137}Cs	0.00066	< MDA	---	---	< MDA
^{210}Pb	---	0.0264 (7/16) 0.0187 - 0.0342	T-58 1 mi., NW	0.0341 (1/4)	0.0275 (2/4) 0.0208 – 0.0341

Number of Non-routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SURFACE WATER
UNITS: pCi/L

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f) 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
Tritium, 36	230	178 (3/24) 85 - 236	T-81 6 mi., S	178 (3/12) 85 - 236	<MDA
Gamma Isotopic, 36					
^{40}K	60	299 (24/24) 145 - 447	T-81 6 mi., S	319 (12/12) 253 - 447	217 (12/12) 144 - 314
^{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

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SHORELINE SEDIMENT
UNITS: pCi/kg, DRY

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f) 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, 6					
^{7}Be	100	169 (1/4)	T-81 6 mi., S	169 (1/2)	< MDA
^{40}K	140	268 (3/4) 152 - 395	T-81 6 mi., S	326 (2/2) 257 - 395	165 (2/2) 137 - 193
^{210}Pb	---	< MDA	---	---	< MDA
^{226}Ra	49	823 (4/4) 737 - 935	T-81 6 mi., S	876 (2/2) 816 - 935	113 (1/2)
^{235}U	---	51 (2/4) 27 - 74	T-81 6 mi., S	74 (1/2)	< MDA
^{238}U	---	714 (4/4) 442 - 926	T-81 6 mi., S	796 (2/2) 665 - 926	< 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 Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: CRUSTACEA
UNITS: pCi/kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f) 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	1778 (2/2) 1438 - 2119	T-81 6 mi., S	1778 (2/2) 1438 - 2119	1034 (2/2) 846 - 1221
^{226}Ra	20	1208 (2/2) 886 - 1530	T-81 6 mi., S	1208 (2/2) 886 - 1530	967 (1/2)
^{228}Ra	---	< MDA	---	---	< MDA
^{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

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: FISH
UNITS: pCi/kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f) 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					
^{7}Be	---	<MDA	---	---	<MDA
^{40}K	130	2617 (1/2)	T-81 6 mi., S	2617 (1/2)	2643 (2/2) 2544 - 2742
^{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
^{226}Ra	20	<MDA	---	---	<MDA

Number of Non-routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, Florida, Reporting Period January 1 - December 31, 2005
(County, State)

PATHWAY: INGESTION
SAMPLES COLLECTED: BROAD LEAF VEGETATION
UNITS: pCi/kg, WET

Type and Total Number of Analyses Performed	Lower Limit of Detection[a] (LLD)	All Indicator Locations Mean (f)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	1367 (24/24) 635 - 2377	T-40 3 mi., W	1485 (12/12) 829 - 2377	1205 (12/12) 697 - 1995
^{40}K	100	4778 (24/24) 2542 - 6417	T-41 2 mi., W/NW	5305 (12/12) 3834 - 6417	3854 (12/12) 2536 - 5219
^{58}Co	9	<MDA	---	---	<MDA
^{60}Co	10	<MDA	---	---	<MDA
^{131}I	9	<MDA	---	---	<MDA
^{134}Cs	8	<MDA	---	---	<MDA
^{137}Cs	8	69 (13/24) 41 - 107	T-40 3 mi., W	74 (9/12) 55 - 107	41 (2/12) 27 - 51
^{210}Pb	---	<MDA	---	---	1425 (1/12)
^{226}Ra	---	338 (9/24) 172 - 500	T-41 2 mi., W/NW	336 (7/12) 240 - 500	381 (5/12) 239 - 467

Number of Non routine Reported Measurements = 0

TABLE 1

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM ANNUAL SUMMARY
Name of Facility Turkey Point Units 3 & 4, Docket No(s). 50-250 & 50-251
Location of Facility Miami-Dade, 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).

MDA refers to minimum detectable activity.

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TABLE 1A
(page 1 of 3)

DEVIATIONS / MISSING DATA

A)	Pathway:	Airborne, Radioiodines & Particulates
	Location:	T-51 , 1 mile, North-northwest
	Dates:	05-24-05 to 06-01-05
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	Power outage at end of sampling period; sample run time of 102 hours out of the 191 hour sampling period.
	Corrective Action:	Restored power to sampling station, verified equipment as operating correctly.
B)	Pathway:	Direct Radiation - TLDs
	Location:	SW-8 , 8 miles southwest
	Dates:	Third Quarter 2005
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	TLD was missing when collection was attempted
	Corrective Action:	Deploy replacement TLDs
C)	Pathway:	Direct Radiation - TLDs
	Dates:	09-13-05 to replacement date
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	TLDs missing after Hurricane Wilma (10-24-05)
	Corrective Action:	Deployed replacement TLDs

Locations and replacement date:	N-10	10 miles North	11-04-05
	NNW-10	10 miles North-northwest	11-04-05
	NW-10	10 miles Northwest	11-03-05
	W-1	1 mile West	11-04-05
	W-9	9 miles West	11-04-05

TABLE 1A
(page 2 of 3)

DEVIATIONS / MISSING DATA

D)	Pathway:	Airborne, Radioiodines & Particulates
	Location:	T-58, 1 mile, Northwest
	Dates:	10-18-05 to 10-25-05
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	Power not correctly restored after last sample collection; situation discovered during post-hurricane Wilma program review.
	Corrective Action:	Restored power to sampling station, verified equipment as operating correctly.
E)	Pathway:	Airborne, Radioiodines & Particulates
	Location:	T-57, 4 miles, Northwest
	Dates:	10-18-05 to 10-25-05
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	Hurricane Wilma destroyed sampling station; neither particulate filter nor iodine cartridge was retrievable.
	Corrective Action:	Ensured ODCM Alternate Station (T-52) was operating; scheduled rebuild of this sampling station.
F)	Pathway:	Airborne, Radioiodines & Particulates
	Dates:	10-18-05 to 10-25-05
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	Air Sampler run time less than sampling period due to power loss resulting from hurricane Wilma.
	Corrective Action:	Restored power to sampling stations, verified equipment as operating correctly.
	Locations and runtime:	T-51 2 miles North-northwest 139 hours out of 167 T-64 22 miles North-northeast 151 hours out of 166 T-72 <1 mile West-southwest 157 hours out of 167

TABLE 1A
(page 3 of 3)

DEVIATIONS / MISSING DATA

G)	Pathway:	Airborne, Radioiodines & Particulates
	Location:	T-51, 2 miles North-northwest
	Dates:	10-25-05 to 11-01-05
	Deviation:	Failure to provide continuous monitoring.
	Description of Problem:	No power at beginning of sampling period – still in post hurricane restoration; ran 98 hours of 169 hour sampling period.
		Particulate filter missing when collection was attempted
	Corrective Action:	Verified equipment as operating correctly.

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TABLE 1B

ANALYSIS WITH LLDs ABOVE ODCM TABLE 5.1-3 DETECTION CAPABILITIES
1/1/2005 – 12/31/2005

The values specified in ODCM Table 5.1-3, Detection Capabilities, were achieved for all samples.

TABLE 2

LAND USE CENSUS

Distance to Nearest (a, b)

Sector	7/05 Milk (c) Animal	7/05 Residence (g)	7/05 Garden (d)
N	L (e)	2.0 / 354	L
NNE	O (f)	O	O
NE	O	O	O
ENE	O	O	O
E	O	O	O
ESE	O	O	O
SE	O	O	O
SSE	O	O	O
S	L	L	L
SSW	L	L	L
SW	L	L	L
WSW	L	L	L
W	L	L	L
WNW	L	3.7 / 302	4.5 / 303
NW	L	3.7 / 311	4.2 / 323
NNW	L	4.4 / 333	4.6 / 327

TABLE 2

LAND USE CENSUS

NOTES

a. All categories surveyed out to 5 miles radius from the Turkey Point Plant.

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

distance (miles)/bearing (degrees)

For example, a residence located in the north sector at a distance of 2.0 miles bearing 354 degrees is recorded as 2.0 / 354.

c. Potential milk animal locations.

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

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

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

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

Sector	Distance	Description
N	1.9 / 349	24-hour Security Staff Building
NNW	1.9 / 349	Security booth at park entrance

ATTACHMENT A

KEY TO SAMPLE LOCATIONS

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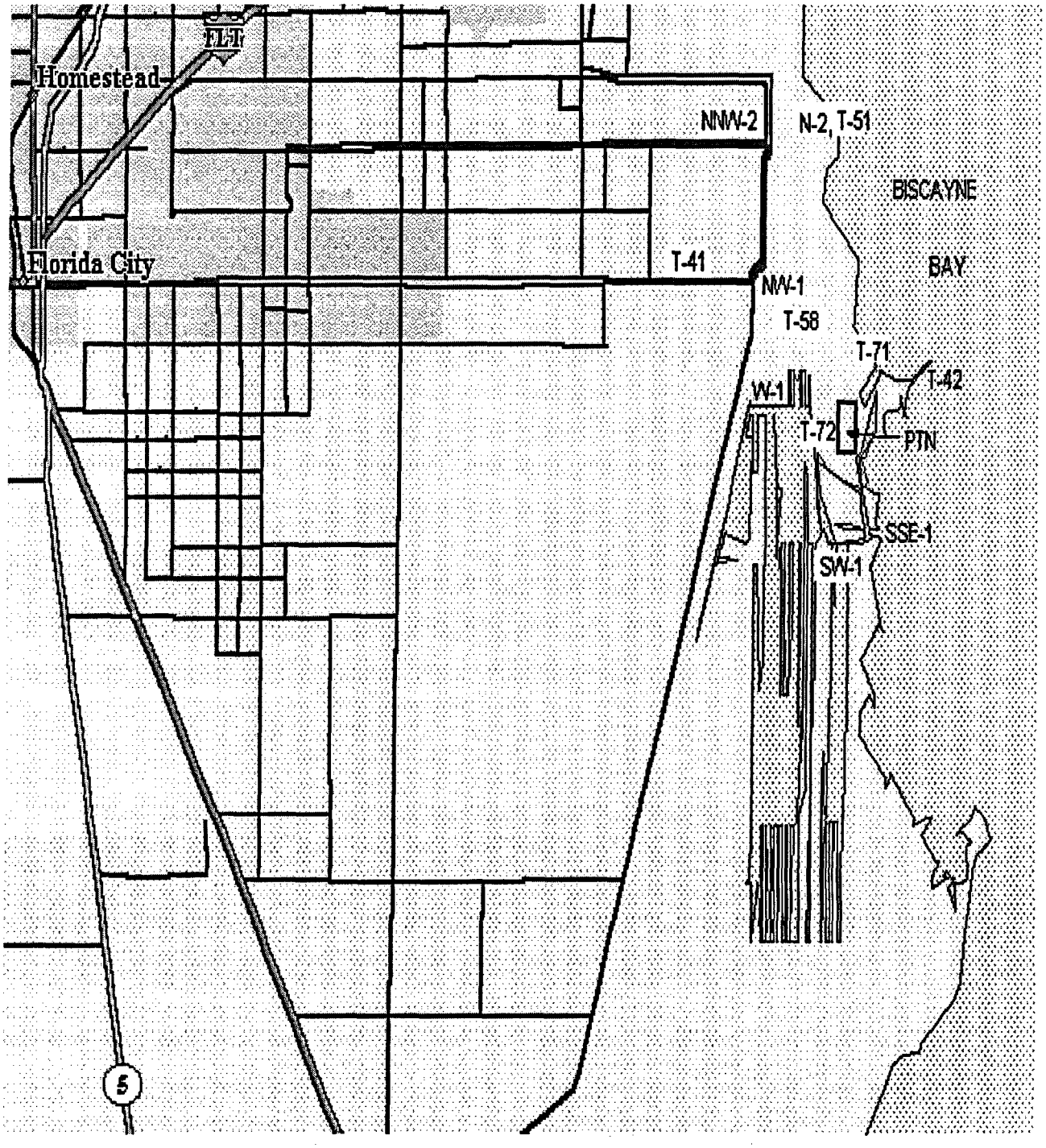
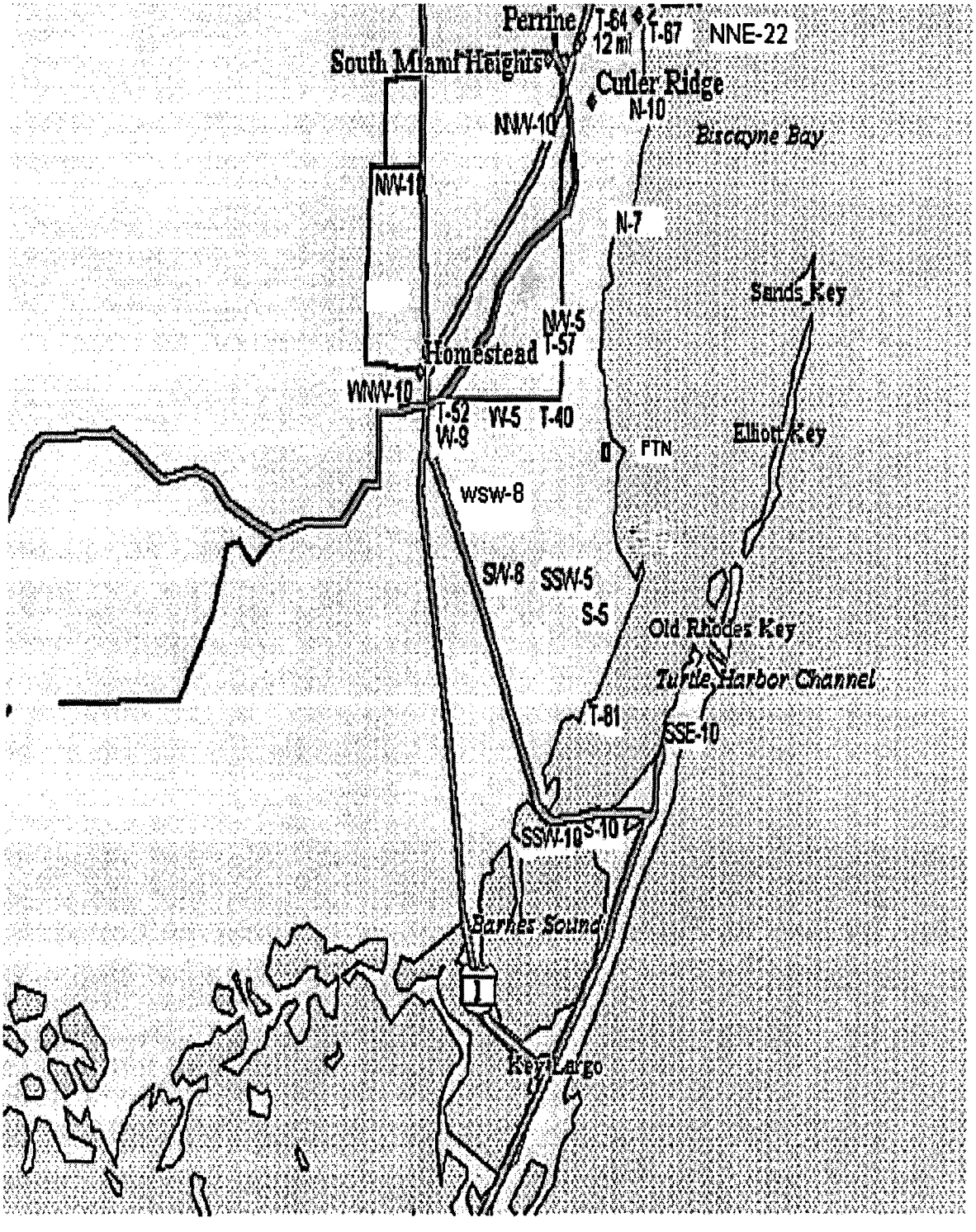
NEAR SITE SAMPLING LOCATIONS



DISTANT REMP SAMPLING LOCATIONS



ATTACHMENT A

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

Location [a] Name	Description
N-2	Convey Point, Parking Area
N-7	Black Point Marina Parking Lot
N-10	Old Cutler Rd. approx. 196th Street
NNW-2	East End North Canal Road
NNW-10	Bailes Road & U.S. #1
NW-1	Turkey Point Entrance Road
NW-5	Mowry Drive & 117th Avenue
NW-10	Newton Road, North of Coconut Palm Drive
WNW-10	Homestead Middle School
W-1	On-Site, North Side of Discharge Canal
W-5	Palm Drive & Tallahassee Road
W-9	Card Sound Road, 0.6 mile from U.S. #1
WSW-8	Card Sound Road, 3.4 miles from U.S. #1
SW-1	On-Site near Land Utilization Offices
SW-8	Card Sound Road, 5 miles from U.S. #1
SSW-5	On-Site, Southwest Corner of Cooling Canals
SSW-10	Card Sound Road, west side of Toll Plaza
S-5	On-Site, South East Corner of Cooling Canals
S-10	Card Sound Road at Steamboat Creek
SSE-1	Turtle Point
SSE-10	Ocean Reef
Control	
NNE-22	Natoma Substation , 2475 SW 16 Ct.

[a]The location name is the direction sector - approximate distance (miles)

ATTACHMENT A

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

Location Name	Direction Sector	Approximate Distance (miles)	Description
T-51	NNW	2	Entrance Area to Biscayne National Park
T-57	NW	4	SW 107th Avenue at Mowry Canal
T-58	NW	1	Turkey Point Entrance Road
T-52	W	9	Supplemental location used to compensate, per ODCM, for temporary loss of T-57.
T-72	WSW	<1	Just before entrance to Land Utilization's access gate.
Control:			
T-64	NNE	22	Natoma Substation , 2475 SW 16 Ct.
Note			
T-71	NNE	0.5	On site "Red Barn" picnic area. This sampling station may be used as an alternate to T-51.

ATTACHMENT A

PATHWAY: WATERBORNE
SAMPLES COLLECTED: SURFACE WATER (OCEAN)
SAMPLE COLLECTION FREQUENCY: MONTHLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
T-42	ENE	<1	Biscayne Bay at Turkey Point
T-81	S	6	Card Sound, near Mouth of Old Discharge Canal
Control:			
T-67	N, NNE	13-18	Near Biscayne Bay, Vicinity of Cutler Plant, North to Matheson Hammock Park

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

Location Name	Direction Sector	Approximate Distance (miles)	Description
T-42	ENE	<1	Biscayne Bay at Turkey Point
T-81	S	6	Card Sound, near Mouth of Old Discharge Canal
Control:			
T-67	N, NNE	13-18	Near Biscayne Bay, Vicinity of Cutler Plant, North to Matheson Hammock Park

ATTACHMENT A

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

Location Name	Direction Sector	Approximate Distance (miles)	Description
T-81	S	6	Card Sound Vicinity of Turkey Point Facility
Control:			
T-67	N, NNE	13-18	Near Biscayne Bay, Vicinity of Cutler Plant, North to Matheson Hammock Park

SAMPLES COLLECTED: BROAD LEAF VEGETATION
SAMPLE COLLECTION FREQUENCY: MONTHLY

Location Name	Direction Sector	Approximate Distance (miles)	Description
T-40	W	3	South of Palm Dr. on S.W. 117th Street Extension
T-41	WNW	2	Palm Dr., West of Old Missile Site near Plant Site Boundary
Control:			
T-67	N, NNE	13-18	Near Biscayne Bay, Vicinity of Cutler Plant, North to Matheson Hammock Park

2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
TURKEY POINT PLANT – UNITS 3 & 4

ATTACHMENT B

RADIOLOGICAL SURVEILLANCE OF

FLORIDA POWER AND LIGHT COMPANY'S

TURKEY POINT SITE

2005

First Quarter, 2005

Second Quarter, 2005

Third Quarter, 2005

Fourth Quarter, 2005

TURKEY POINT SITE

Offsite Dose Calculation Manual Sampling

First Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	22	22
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Monthly	3	9
3.b. Shoreline Sediment	Semiannually	3	3
4. Ingestion			
4.a. Fish and Invertebrates			
4.a.1. Crustacea	Semiannually	2	0
4.a.2. Fish	Semiannually	2	0
4.b. Broadleaf Vegetation	Monthly	3	9
		Total:	173

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 13-Dec-04 Collection 10-Mar-05
N-2	5.6 ± 0.2
N-7	4.6 ± 0.2
N-10	5.2 ± 0.2
NNW-2	4.1 ± 0.2
NNW-10	5.2 ± 0.2
NW-1	6.3 ± 0.3
NW-5	4.3 ± 0.2
NW-10	7.5 ± 0.3
WNW-10	6.2 ± 0.3
W-1	6.5 ± 0.3
W-5	5.5 ± 0.2
W-9	4.5 ± 0.2

Sample Site	Deployment 13-Dec-04 Collection 10-Mar-05
WSW-8	4.9 ± 0.2
SW-1	4.7 ± 0.2
SW-8	5.5 ± 0.2
SSW-5	4.7 ± 0.2
SSW-10	5.7 ± 0.2
S-5	4.9 ± 0.2
S-10	5.9 ± 0.3
SSE-1	5.0 ± 0.2
SSE-10	6.3 ± 0.3
NNE-22	6.4 ± 0.3

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

Collection Date	T51	T57	T58	T64	T72
04-Jan-05	<0.01	<0.01	<0.01	<0.01	<0.01
12-Jan-05	<0.01	<0.01	<0.01	<0.01	<0.01
18-Jan-05	<0.02	<0.02	<0.02	<0.02	<0.02
25-Jan-05	<0.02	<0.02	<0.02	<0.02	<0.02
01-Feb-05	<0.02	<0.02	<0.02	<0.02	<0.02
08-Feb-05	<0.02	<0.02	<0.02	<0.02	<0.02
15-Feb-05	<0.02	<0.02	<0.02	<0.02	<0.02
23-Feb-05	<0.01	<0.02	<0.02	<0.02	<0.02
01-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
08-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
16-Mar-05	<0.01	<0.01	<0.01	<0.01	<0.01
23-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02
29-Mar-05	<0.02	<0.02	<0.02	<0.02	<0.02

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

Collection Date	Sample Sites T51	T57	T58	T64	T72
04-Jan-05	0.012 ± 0.002	0.010 ± 0.002	0.007 ± 0.002	0.008 ± 0.002	0.012 ± 0.002
12-Jan-05	0.009 ± 0.002	0.008 ± 0.002	0.008 ± 0.002	0.011 ± 0.002	0.008 ± 0.002
18-Jan-05	0.012 ± 0.002	0.012 ± 0.002	0.007 ± 0.002	0.007 ± 0.002	0.010 ± 0.002
25-Jan-05	0.018 ± 0.002	0.019 ± 0.002	0.016 ± 0.002	0.017 ± 0.002	0.019 ± 0.002
01-Feb-05	0.017 ± 0.002	0.018 ± 0.002	0.016 ± 0.002	0.018 ± 0.002	0.013 ± 0.002
08-Feb-05	0.011 ± 0.002	0.011 ± 0.002	0.013 ± 0.002	0.010 ± 0.002	0.012 ± 0.002
15-Feb-05	0.015 ± 0.002	0.015 ± 0.002	0.017 ± 0.002	0.022 ± 0.002	0.017 ± 0.002
23-Feb-05	0.015 ± 0.002	0.017 ± 0.002	0.020 ± 0.002	0.020 ± 0.002	0.017 ± 0.002
01-Mar-05	0.013 ± 0.002	0.012 ± 0.002	0.014 ± 0.002	0.013 ± 0.002	0.011 ± 0.002
08-Mar-05	0.018 ± 0.002	0.018 ± 0.002	0.019 ± 0.002	0.020 ± 0.002	0.020 ± 0.002
16-Mar-05	0.012 ± 0.002	0.018 ± 0.002	0.014 ± 0.002	0.016 ± 0.002	0.016 ± 0.002
23-Mar-05	0.012 ± 0.002	0.018 ± 0.002	0.015 ± 0.002	0.016 ± 0.002	0.015 ± 0.002
29-Mar-05	0.015 ± 0.002	0.014 ± 0.002	0.019 ± 0.002	0.017 ± 0.003	0.019 ± 0.003
Mean	0.014 ± 0.001	0.014 ± 0.001	0.014 ± 0.001	0.015 ± 0.001	0.015 ± 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
T51	0.1671 ± 0.0139	<0.0185	<0.0017	<0.0012	<0.0568
T57	0.1860 ± 0.0145	<0.0265	<0.0015	<0.0017	<0.0590
T58	0.1744 ± 0.0154	<0.0297	<0.0015	<0.0015	<0.0471
T64	0.2120 ± 0.0125	<0.0166	<0.0011	<0.0010	0.0208 ± 0.0036
T72	0.2290 ± 0.0131	<0.0191	<0.0013	<0.0008	0.0256 ± 0.0035

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)
T42	12-Jan-05	<124	297 ± 40	<6	<6	<13	<5	<9	<12	<12	<6	<5	<7
	08-Feb-05	<126	196 ± 40	<6	<5	<14	<5	<14	<11	<19	<6	<6	<12
	08-Mar-05	<135	356 ± 32	<3	<4	<8	<4	<8	<7	<4	<2	<4	<7
T67	12-Jan-05	<124	219 ± 31	<2	<3	<7	<3	<7	<5	<7	<4	<3	<5
	08-Feb-05	<126	314 ± 28	<3	<4	<10	<4	<7	<6	<15	<4	<4	<7
	08-Mar-05	<135	187 ± 45	<7	<6	<11	<6	<13	<9	<7	<6	<5	<10
T81	12-Jan-05	<124	282 ± 24	<2	<3	<6	<3	<5	<4	<5	<3	<2	<4
	08-Feb-05	<126	253 ± 25	<3	<3	<6	<3	<7	<5	<9	<3	<3	<6
	08-Mar-05	85 ± 19	316 ± 34	<3	<4	<7	<4	<7	<6	<4	<4	<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	Others
T42	19-Jan-05	<127	152 ± 60	<11	<13	<15	<12	<1116	802 ± 20	<51	U-238: 823 ± 297 U-235: 27 ± 9
T67	20-Jan-05	<65	193 ± 41	<6	<9	<9	<10	<437	<14	<40	
T81	20-Jan-05	<153	257 ± 98	<15	<15	<18	<14	<1294	935 ± 23	<64	U-238: 926 ± 352

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
T67	This sample has not yet been collected.										
T81	This sample has not yet been collected.										

4.a.2. FISH – Mixed Species - (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
T67	This sample has not yet been collected.										
T81	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	Ra-226
T40	12-Jan-05	1944 ± 95	5188 ± 183	<26	<14	56 ± 6	<874	<330
	08-Feb-05	1738 ± 97	6159 ± 205	<39	<14	42 ± 9	<778	<327
	08-Mar-05	1201 ± 94	3822 ± 216	<16	<21	107 ± 14	<2737	<411
T41	12-Jan-05	1291 ± 87	4635 ± 172	<30	<13	62 ± 8	<744	<284
	08-Feb-05	1270 ± 81	5983 ± 228	<34	<16	35 ± 7	<2071	305 ± 138
	08-Mar-05	1289 ± 43	5287 ± 104	<7	<8	69 ± 4	<958	<158
T67	12-Jan-05	1599 ± 98	5219 ± 183	<29	<10	<11	<830	<271
	08-Feb-05	1412 ± 69	3305 ± 144	<27	<10	<12	<784	<295
	08-Mar-05	1055 ± 102	4892 ± 236	<16	<18	<17	<2545	328 ± 124

TURKEY POINT SITE

Offsite Dose Calculation Manual Sampling

Second Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	22	22
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Monthly	3	9
3.b. Shoreline Sediment	Semiannually	0	0
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
			Total: 174

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 10-Mar-05 Collection 14-Jun-05	Sample Site	Deployment 10-Mar-05 Collection 14-Jun-05
N-2	5.8 ± 0.4	W-9	5.1 ± 0.3
N-7	5.4 ± 0.4	WSW-8	5.3 ± 0.4
N-10	5.6 ± 0.4	SW-1	5.8 ± 0.4
NNW-2	5.1 ± 0.3	SW-8	5.9 ± 0.4
NNW-10	6.3 ± 0.4	SSW-5	4.7 ± 0.3
NW-1	7.2 ± 0.5	SSW-10	4.9 ± 0.3
NW-5	5.0 ± 0.3	S-5	5.1 ± 0.3
NW-10	8.5 ± 0.5	S-10	6.0 ± 0.4
WNW-10	7.1 ± 0.5	SSE-1	5.1 ± 0.3
W-1	7.7 ± 0.5	SSE-10	6.3 ± 0.4
W-5	6.2 ± 0.4	NNE-22	6.6 ± 0.4

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

Collection Date	T51	T57	T58	T64	T72
05-Apr-05	<0.03	<0.03	<0.03	<0.03	<0.03
12-Apr-05	<0.01	<0.01	<0.01	<0.01	<0.01
20-Apr-05	<0.01	<0.01	<0.01	<0.01	<0.01
26-Apr-05	<0.02	<0.02	<0.02	<0.02	<0.02
03-May-05	<0.01	<0.01	<0.01	<0.01	<0.01
10-May-05	<0.02	<0.02	<0.02	<0.02	<0.02
17-May-05	<0.02	<0.02	<0.02	<0.02	<0.02
24-May-05	<0.01	<0.01	<0.01	<0.01	<0.01
01-Jun-05	<0.02 (A)	<0.01	<0.01	<0.01	<0.01
07-Jun-05	<0.03	<0.03	<0.03	<0.03	<0.03
14-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.02
20-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.02
27-Jun-05	<0.02	<0.02	<0.02	<0.02	<0.02

(A) Power outage at end of sampling period due to bad pole mounted transformer. Estimated run time 102 hours out of 191.

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

Collection Date	Sample Site T51	T57	T58	T64	T72
05-Apr-05	0.016 ± 0.002	0.013 ± 0.002	0.012 ± 0.002	0.017 ± 0.002	0.016 ± 0.002
12-Apr-05	0.017 ± 0.002	0.015 ± 0.002	0.011 ± 0.002	0.013 ± 0.002	0.018 ± 0.002
20-Apr-05	0.016 ± 0.002	0.015 ± 0.002	0.016 ± 0.002	0.017 ± 0.002	0.020 ± 0.002
26-Apr-05	0.023 ± 0.003	0.019 ± 0.002	0.025 ± 0.003	0.023 ± 0.003	0.021 ± 0.003
03-May-05	0.021 ± 0.002	0.026 ± 0.003	0.023 ± 0.002	0.019 ± 0.002	0.023 ± 0.002
10-May-05	0.019 ± 0.002	0.016 ± 0.002	0.016 ± 0.002	0.018 ± 0.002	0.017 ± 0.002
17-May-05	0.023 ± 0.003	0.022 ± 0.003	0.018 ± 0.002	0.021 ± 0.002	0.021 ± 0.002
24-May-05	0.014 ± 0.002	0.010 ± 0.002	0.013 ± 0.002	0.011 ± 0.002	0.014 ± 0.002
01-Jun-05	0.020 ± 0.003 (A)	0.018 ± 0.002	0.020 ± 0.002	0.020 ± 0.002	0.020 ± 0.002
07-Jun-05	0.013 ± 0.002	0.014 ± 0.002	0.018 ± 0.002	0.014 ± 0.002	0.014 ± 0.002
14-Jun-05	0.010 ± 0.002	0.011 ± 0.002	0.013 ± 0.002	0.011 ± 0.002	0.012 ± 0.002
20-Jun-05	0.007 ± 0.002	0.005 ± 0.002	0.007 ± 0.002	0.006 ± 0.002	0.006 ± 0.002
27-Jun-05	0.005 ± 0.002	0.008 ± 0.002	0.010 ± 0.002	0.010 ± 0.002	0.008 ± 0.002
Mean:	0.016 ± 0.001	0.015 ± 0.001	0.016 ± 0.001	0.015 ± 0.001	0.016 ± 0.001

(A) Power outage at end of sampling period due to bad pole mounted transformer. Estimated run time 102 hours out of 191.

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
T51	0.1667 ± 0.0120	<0.0199	<0.0011	<0.0008	0.0321 ± 0.0038
T57	0.1959 ± 0.0142	<0.0318	<0.0017	<0.0009	<0.0567
T58	0.1627 ± 0.0125	<0.0216	<0.0011	<0.0010	<0.0514
T64	0.1818 ± 0.0119	<0.0165	<0.0009	<0.0011	0.0341 ± 0.0043
T72	0.1860 ± 0.0134	<0.0219	<0.0011	<0.0010	0.0245 ± 0.0042

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)
T42	12-Apr-05	<142	403 ± 32	<4	<4	<5	<5	<8	<6	<4	<4	<4	<7
	10-May-05	<135	345 ± 53	<5	<6	<12	<6	<12	<9	<7	<6	<6	<8
	14-Jun-05	<145	249 ± 33	<3	<3	<7	<4	<8	<7	<4	<5	<4	<9
T67	12-Apr-05	<142	293 ± 33	<3	<3	<8	<4	<9	<6	<5	<4	<4	<6
	10-May-05	<135	193 ± 30	<3	<3	<7	<4	<8	<6	<6	<3	<4	<5
	14-Jun-05	<145	177 ± 29	<3	<3	<6	<4	<7	<6	<4	<4	<4	<6
T81	12-Apr-05	<142	447 ± 38	<3	<3	<8	<4	<7	<6	<4	<4	<4	<8
	10-May-05	<135	416 ± 36	<4	<4	<8	<4	<9	<7	<6	<3	<4	<5
	14-Jun-05	<145	294 ± 36	<4	<3	<7	<3	<9	<6	<5	<4	<4	<5

(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	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
T67	20-May-05	1221 ± 192	<20	<19	<41	<22	<39	<22	<18	967 ± 184	<86
T81	18-May-05	1438 ± 109	<11	<14	<27	<15	<27	<12	<13	886 ± 146	<56

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
T67	05-May-05	2742 ± 199	<13	<15	<39	<17	<40	<20	<18	<357	<63
T81	27-Apr-05	3177 ± 279	<29	<33	<77	<34	<79	<31	<29	879 ± 261	<132

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
T40	12-Apr-05	999 ± 91	3053 ± 204	<17	<16	68 ± 10	<2230	<417
	10-May-05	918 ± 88	2542 ± 167	<20	<17	69 ± 7	<2176	<346
	14-Jun-05	1470 ± 85	3401 ± 187	<17	<15	71 ± 8	<2201	<333
T41	12-Apr-05	1258 ± 104	5084 ± 254	<20	<19	91 ± 10	<2694	<423
	10-May-05	834 ± 78	3834 ± 198	<21	<15	51 ± 7	<2073	337 ± 141
	14-Jun-05	1245 ± 92	6417 ± 248	<18	<18	41 ± 9	<2427	430 ± 158
T67	12-Apr-05	1995 ± 50	2536 ± 83	<7	<6	27 ± 4	1425 ± 430	239 ± 69
	10-May-05	855 ± 39	3482 ± 102	<10	<8	<8	<1073	<169
	14-Jun-05	1326 ± 83	3714 ± 207	<18	<18	<17	<2671	458 ± 185

TURKEY POINT SITE

Offsite Dose Calculation Manual Sampling

Third Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	22	21
2. Airborne			
2.a. Air Iodines	Weekly	5	65
2.b. Air Particulates	Weekly	5	65
3. Waterborne			
3.a. Surface Water	Monthly	3	9
3.b. Shoreline Sediment	Semiannually	3	3
4. Ingestion			
4.a.Fish and Invertebrates			
4.a.1. Crustacea	Semiannually	2	0
4.a.2. Fish	Semiannually	2	0
4.b. Broadleaf Vegetation	Monthly	3	9
			Total: 172

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 14-Jun-05 Collection 13-Sep-05	Sample Site	Deployment 14-Jun-05 Collection 13-Sep-05
N-2	6.4 ± 0.4	W-9	5.3 ± 0.4
N-7	5.5 ± 0.4	WSW-8	5.5 ± 0.4
N-10	6.0 ± 0.4	SW-1	5.2 ± 0.4
NNW-2	5.2 ± 0.4	SW-8	(A)
NNW-10	6.7 ± 0.4	SSW-5	5.1 ± 0.3
NW-1	7.4 ± 0.5	SSW-10	5.3 ± 0.4
NW-5	5.2 ± 0.3	S-5	5.1 ± 0.3
NW-10	8.5 ± 0.6	S-10	6.0 ± 0.4
WNW-10	7.1 ± 0.5	SSE-1	5.1 ± 0.3
W-1	7.2 ± 0.5	SSE-10	6.5 ± 0.4
W-5	5.9 ± 0.4	NNE-22	6.6 ± 0.4

(A) The TLD at site SW-08 was missing when collection was attempted. A new TLD was deployed.

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

Collection Date	T51	T57	T58	T64	T72
05-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
11-Jul-05	<0.02	<0.02	<0.01	<0.01	<0.01
19-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
27-Jul-05	<0.01	<0.01	<0.01	<0.01	<0.01
02-Aug-05	<0.03	<0.03	<0.03	<0.03	<0.03
09-Aug-05	<0.02	<0.02	<0.02	<0.02	<0.02
18-Aug-05	<0.01	<0.01	<0.01	<0.01	<0.01
25-Aug-05	<0.01	<0.01	<0.01	<0.02	<0.01
30-Aug-05	<0.02	<0.03	<0.02	<0.02	<0.02
07-Sep-05	<0.01	<0.01	<0.01	<0.01	<0.01
13-Sep-05	<0.02	<0.02	<0.02	<0.02	<0.02
22-Sep-05	<0.01	<0.01	<0.01	<0.01	<0.01
29-Sep-05	<0.02	<0.02	<0.02	<0.02	<0.02

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

Collection Date	Sample Site T51	T57	T58	T64	T72
05-Jul-05	0.012 ± 0.002	0.009 ± 0.002	0.009 ± 0.002	0.014 ± 0.002	0.016 ± 0.002
11-Jul-05	0.013 ± 0.003	0.018 ± 0.003	0.011 ± 0.002	0.020 ± 0.003	0.021 ± 0.003
19-Jul-05	0.010 ± 0.002	0.013 ± 0.002	0.010 ± 0.002	0.009 ± 0.002	0.011 ± 0.002
27-Jul-05	0.015 ± 0.002	0.013 ± 0.002	0.013 ± 0.002	0.016 ± 0.002	0.014 ± 0.002
02-Aug-05	0.018 ± 0.002	0.024 ± 0.003	0.023 ± 0.003	0.022 ± 0.003	0.028 ± 0.003
09-Aug-05	0.010 ± 0.002	0.014 ± 0.002	0.012 ± 0.002	0.012 ± 0.002	0.015 ± 0.002
18-Aug-05	0.008 ± 0.001	0.010 ± 0.002	0.013 ± 0.002	0.011 ± 0.002	0.013 ± 0.002
25-Aug-05	0.006 ± 0.002	0.009 ± 0.002	0.007 ± 0.002	0.010 ± 0.002	0.009 ± 0.002
30-Aug-05	0.005 ± 0.002	0.004 ± 0.001	<0.009	0.005 ± 0.002	0.006 ± 0.002
07-Sep-05	0.011 ± 0.002	0.010 ± 0.002	0.010 ± 0.002	0.012 ± 0.002	0.009 ± 0.002
13-Sep-05	0.009 ± 0.002	0.009 ± 0.002	0.005 ± 0.002	0.011 ± 0.002	0.007 ± 0.002
22-Sep-05	0.014 ± 0.002	0.014 ± 0.002	0.014 ± 0.002	0.015 ± 0.002	0.016 ± 0.002
29-Sep-05	0.013 ± 0.002	0.015 ± 0.002	0.012 ± 0.002	0.014 ± 0.002	0.017 ± 0.002
Mean:	0.011 ± 0.001	0.012 ± 0.001	<0.011	0.013 ± 0.001	0.014 ± 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
T51	0.1180 ± 0.0139	<0.0241	<0.0014	<0.0011	<0.0577
T57	0.1344 ± 0.0113	<0.0185	<0.0010	<0.0010	0.0187 ± 0.0055
T58	0.0965 ± 0.0137	<0.0285	<0.0017	<0.0016	<0.0562
T64	0.1239 ± 0.0120	<0.0206	<0.0016	<0.0015	<0.0550
T72	0.1041 ± 0.0167	<0.0345	<0.0020	<0.0014	<0.0575

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)
T42	12-Jul-05	<138	274 ± 42	<4	<4	<10	<6	<14	<9	<9	<6	<5	<7
	09-Aug-05	<142	211 ± 32	<4	<4	<6	<6	<8	<9	<5	<5	<4	<14
	13-Sep-05	<156	283 ± 31	<3	<3	<7	<3	<9	<5	<4	<3	<3	<8
T67	12-Jul-05	<138	236 ± 29	<3	<3	<7	<3	<8	<5	<7	<4	<3	<7
	09-Aug-05	<142	240 ± 30	<3	<3	<8	<4	<9	<4	<4	<4	<3	<6
	13-Sep-05	<156	157 ± 23	<3	<3	<8	<3	<7	<6	<4	<3	<3	<7
T81	12-Jul-05	236 ± 27	277 ± 22	<2	<2	<4	<3	<5	<4	<4	<3	<2	<4
	09-Aug-05	213 ± 22	381 ± 35	<3	<3	<6	<5	<8	<7	<4	<3	<4	<7
	13-Sep-05	<156	332 ± 35	<3	<2	<8	<4	<7	<6	<4	<4	<4	<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-235	U-238
T42	12-Jul-05	<109	<172	<10	<11	<13	<10	<920	737 ± 15	<48	<92	442 ± 80
T67	12-Jul-05	<47	137 ± 32	<5	<6	<6	<6	<308	113 ± 6	<27	<48	<269
T81	12-Jul-05	169 ± 44	395 ± 70	<9	<9	<11	<10	<808	816 ± 14	<43	74 ± 7	665 ± 69

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
T67	This sample has not yet been collected.										
T81	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
T67	This sample has not yet been collected.										
T81	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	Ra-226
T40	12-Jul-05	2377 ± 124	4218 ± 254	<27	<18	81 ± 10	<2339	<393
	09-Aug-05	1395 ± 97	5145 ± 224	<15	<16	55 ± 8	<2355	<354
	13-Sep-05	1571 ± 87	4664 ± 212	<16	<13	99 ± 10	<2198	326 ± 147
T41	12-Jul-05	1846 ± 89	5829 ± 198	<21	<11	<13	<808	<291
	09-Aug-05	1412 ± 49	6253 ± 133	<8	<8	<8	<1148	240 ± 92
	13-Sep-05	1150 ± 79	5252 ± 233	<15	<18	<16	<2202	500 ± 182
T67	12-Jul-05	697 ± 71	3022 ± 141	<17	<9	<10	<649	<266
	09-Aug-05	841 ± 70	3942 ± 207	<17	<16	<16	<2429	411 ± 154
	13-Sep-05	747 ± 77	4252 ± 209	<15	<17	<17	<1899	<353

TURKEY POINT SITE

Offsite Dose Calculation Manual Specifications Sampling

Fourth Quarter, 2005

Sample Type	Collection Frequency	Locations Sampled	Number of Samples
1. Direct Radiation	Quarterly	22	22
2. Airborne			
2.a. Air Iodines	Weekly	5	58
2.b. Air Particulates	Weekly	5	56
3. Waterborne			
3.a. Surface Water	Monthly	3	9
3.b. Shoreline Sediment	Semiannually	0	0
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
			Total: 158

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 13-Sep-05 Collection -Dec-05	Sample Site	Deployment 13-Sep-05 Collection -Dec-05
N-2	5.6 ± 0.3	WSW-8	(B) 5.0 ± 0.2
N-7	4.7 ± 0.2	SW-1	5.0 ± 0.2
N-10	(A) 5.4 ± 0.4	SW-8	5.6 ± 0.3
NNW-2	4.0 ± 0.2	SSW-5	4.5 ± 0.2
NNW-10	(A) 5.9 ± 0.4	SSW-10	(B) 4.8 ± 0.2
NW-1	6.1 ± 0.3	S-5	4.5 ± 0.2
NW-5	4.9 ± 0.2	S-10	5.7 ± 0.3
NW-10	(A) 8.2 ± 0.4	SSE-1	4.4 ± 0.2
WNW-10	6.0 ± 0.3	SSE-10	5.3 ± 0.2
W-1	(A) 6.8 ± 0.4	NNE-22	5.9 ± 0.3
W-5	5.2 ± 0.2		
W-9	(A) 5.0 ± 0.3		

(A) Initial TLD missing after Hurricane Wilma, replaced
(B) TLD found on ground at time of collection.

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

Collection Date	Sample Site				
	T51	T57	T58	T64	T72
05-Oct-05	<0.02	<0.02	<0.02	<0.02	<0.02
11-Oct-05	<0.03	<0.03	<0.03	<0.03	<0.03
18-Oct-05	<0.01	<0.01	<0.01	<0.01	<0.01
25-Oct-05	(A) <0.02	(B) <0.02	(C)	(D) <0.02	(E) <0.02
01-Nov-05	(F) <0.03	(G)	<0.02	<0.02	<0.02
08-Nov-05	<0.01	(G)	<0.01	<0.01	<0.01
15-Nov-05	<0.02	(G)	<0.02	<0.02	<0.02
22-Nov-05	<0.01	(G)	<0.01	<0.01	<0.01
29-Nov-05	<0.02	(G)	<0.02	<0.02	<0.02
06-Dec-05	<0.01	(G)	<0.01	<0.01	<0.01
15-Dec-05	<0.01	<0.02	<0.01	<0.01	<0.01
21-Dec-05	<0.02	<0.02	<0.02	<0.02	<0.02
27-Dec-05	<0.02	<0.02	<0.02	<0.02	<0.02

(A) Hurricane Wilma, power outage, run time 139 hours out of 167.
(B) Hurricane Wilma, power outage, run time 139 hours out of 167.
(C) Sample not collected, system power mistakenly turned off.
(D) Hurricane Wilma, power outage, run time 151 hours out of 166.
(E) Hurricane Wilma, power outage, run time 157 hours out of 167.
(F) Power off at beginning of sampling period, run time 98 hours out of 169.
(G) Hurricane Wilma destroyed sample station.

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

Collection Date	Sample Site				
	T51	T57	T58	T64	T72
05-Oct-05	0.007 ± 0.002	0.007 ± 0.002	0.006 ± 0.002	0.009 ± 0.002	0.006 ± 0.002
11-Oct-05	0.006 ± 0.002	0.006 ± 0.002	0.006 ± 0.002	0.006 ± 0.002	0.007 ± 0.002
18-Oct-05	0.013 ± 0.002	0.009 ± 0.002	0.010 ± 0.002	0.014 ± 0.002	0.016 ± 0.002
25-Oct-05	(A) 0.005 ± 0.002	(B)	(C)	(D) 0.009 ± 0.002	(E) 0.013 ± 0.002
01-Nov-05	(F)	(G)	0.014 ± 0.002	0.015 ± 0.002	0.019 ± 0.002
08-Nov-05	0.009 ± 0.002	(G)	0.009 ± 0.002	0.008 ± 0.002	0.008 ± 0.002
15-Nov-05	0.012 ± 0.002	(G)	0.016 ± 0.002	0.017 ± 0.002	0.021 ± 0.002
22-Nov-05	0.006 ± 0.002	(G)	0.006 ± 0.002	0.011 ± 0.002	0.009 ± 0.002
29-Nov-05	0.016 ± 0.002	(G)	0.020 ± 0.002	0.025 ± 0.003	0.023 ± 0.002
06-Dec-05	0.019 ± 0.002	(G)	0.019 ± 0.002	0.025 ± 0.003	0.020 ± 0.002
15-Dec-05	0.011 ± 0.002	0.014 ± 0.002	0.016 ± 0.002	0.016 ± 0.002	0.013 ± 0.002
21-Dec-05	0.010 ± 0.002	0.015 ± 0.002	0.012 ± 0.002	0.013 ± 0.002	0.013 ± 0.002
27-Dec-05	0.023 ± 0.003	0.022 ± 0.003	0.030 ± 0.003	0.024 ± 0.003	0.028 ± 0.003
Mean:	0.012 ± 0.001	0.012 ± 0.001	0.014 ± 0.001	0.015 ± 0.001	0.015 ± 0.001

(A) Hurricane Wilma, power outage, run time 139 hours out of 167.
(B) Hurricane Wilma, power outage, run time 139 hours out of 167.
(C) Sample not collected, system power mistakenly turned off.
(D) Hurricane Wilma, power outage, run time 151 hours out of 166.
(E) Hurricane Wilma, power outage, run time 157 hours out of 167.
(F) Power off at beginning of sampling period, run time 98 hours out of 169.
(G) Hurricane Wilma destroyed sample station.

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
T51	0.1455 ± 0.0131	<0.0286	<0.0012	<0.0009	0.0255 ± 0.0043
T57	0.1163 ± 0.0050	<0.0095	<0.0005	<0.0005	0.0239 ± 0.0018
T58	0.1668 ± 0.0106	<0.0204	<0.0010	<0.0010	0.0342 ± 0.0033
T64	0.1848 ± 0.0137	<0.0274	<0.0013	<0.0014	<0.0489
T72	0.1868 ± 0.0135	<0.0204	<0.0014	<0.0014	<0.0570

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)
T42	11-Oct-05	<144	270 ± 31	<3	<4	<8	<4	<7	<6	<4	<4	<4	<7
	04-Nov-05	<157	145 ± 28	<5	<5	<13	<6	<11	<9	<10	<6	<4	<6
	07-Dec-05	<149	330 ± 32	<3	<4	<6	<4	<8	<5	<4	<4	<4	<8
T67	11-Oct-05	<144	144 ± 35	<5	<5	<10	<6	<12	<8	<6	<6	<5	<10
	03-Nov-05	<157	224 ± 28	<3	<4	<7	<4	<6	<6	<8	<4	<3	<5
	06-Dec-05	<149	224 ± 27	<4	<3	<7	<4	<9	<6	<4	<4	<3	<5
T81	11-Oct-05	<144	285 ± 32	<3	<3	<6	<4	<7	<7	<4	<4	<3	<6
	04-Nov-05	<157	287 ± 31	<3	<4	<8	<4	<6	<6	<8	<4	<4	<7
	07-Dec-05	<149	254 ± 33	<4	<4	<7	<4	<8	<7	<6	<5	<4	<4

(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	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
T67	01-Dec-05	846 ± 134	<16	<22	<40	<19	<38	<18	<18	<484	<70
T81	30-Nov-05	2119 ± 228	<26	<29	<65	<34	<77	<34	<26	1530 ± 371	<137

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
T67	19-Oct-05	2544 ± 237	<29	<36	<85	<25	<67	<26	<30	<577	<107
T81	20-Oct-05	2617 ± 223	<17	<16	<62	<20	<42	<18	<19	<363	<71

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
T40	11-Oct-05	1856 ± 44	2906 ± 81	<7	<6	64 ± 4	<949	172 ± 67
	04-Nov-05	1519 ± 107	4821 ± 241	<33	<17	<22	<2771	<404
	07-Dec-05	829 ± 91	5083 ± 247	<25	<19	55 ± 10	<2442	<371
T41	11-Oct-05	1505 ± 103	4889 ± 220	<16	<13	41 ± 11	<2355	471 ± 151
	04-Nov-05	1256 ± 104	5608 ± 250	<30	<18	<19	<2523	<289
	07-Dec-05	635 ± 76	4569 ± 224	<19	<15	<15	<2208	257 ± 127
T67	11-Oct-05	1678 ± 95	3053 ± 193	<16	<13	51 ± 11	<2028	<338
	03-Nov-05	1033 ± 87	4450 ± 208	<32	<14	44 ± 6	<2318	<349
	06-Dec-05	1219 ± 99	4378 ± 235	<25	<19	<21	<2528	469 ± 209

2005
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
TURKEY POINT PLANT – UNITS 3 & 4
Supplemental Sampling Data
Boldfaced T-52 Data Used to compensate For Loss Of Air Sample station T-57

Collection Date	2.a. IODINE-131 IN WEEKLY AIR CARTRIDGES - (pCi/m³) Sample Sites				2.b. AIR PARTICULATES IN WEEKLY AIR FILTERS - (pCi/m³) Sample Sites			
	T41	**T52**	T56	T71	T41	**T52**	T56	T71
05-Oct-05	<0.02	<0.02	<0.02	<0.02	0.004 ± 0.002	**0.006 ± 0.002**	0.006 ± 0.002	0.009 ± 0.002
11-Oct-05	<0.03	<0.03	<0.03	<0.03	0.008 ± 0.002	**0.013 ± 0.002**	0.006 ± 0.002	0.004 ± 0.002
18-Oct-05	<0.01	<0.01	<0.01	<0.01	0.012 ± 0.002	**0.011 ± 0.002**	0.013 ± 0.002	0.009 ± 0.002
25-Oct-05	(A) <0.02	**<0.02**	(B) <0.02	(C) <0.02	(A) <0.008	**0.009 ± 0.002**	(B) <0.007	(C) 0.006 ± 0.002
01-Nov-05	(D) <0.02	**<0.02**	(E) <0.06	(F) <0.02	(D) 0.012 ± 0.002	**0.013 ± 0.002**	(E) 0.030 ± 0.011	(F) 0.016 ± 0.002
08-Nov-05	<0.01	**<0.01**	<0.01	<0.01	0.008 ± 0.002	**0.010 ± 0.002**	0.007 ± 0.002	0.008 ± 0.002
15-Nov-05	<0.02	**<0.02**	<0.02	<0.02	0.019 ± 0.002	**0.017 ± 0.002**	0.016 ± 0.002	0.018 ± 0.002
22-Nov-05	<0.01	**<0.01**	<0.01	<0.01	0.005 ± 0.002	**0.009 ± 0.002**	0.006 ± 0.002	0.008 ± 0.002
29-Nov-05	<0.02	**<0.02**	<0.02	<0.02	0.022 ± 0.002	**0.022 ± 0.002**	0.021 ± 0.002	0.017 ± 0.002
06-Dec-05	<0.01	**<0.01**	<0.01	<0.01	0.019 ± 0.002	**0.017 ± 0.002**	0.016 ± 0.002	0.023 ± 0.002
15-Dec-05	<0.01	<0.01	-<0.04	<0.01	0.016 ± 0.002	0.011 ± 0.002	0.004 ± 0.001	0.017 ± 0.002
21-Dec-05	<0.02	<0.02	<0.02	<0.02	0.011 ± 0.002	0.013 ± 0.002	0.009 ± 0.002	0.018 ± 0.002
27-Dec-05	<0.02	<0.02	<0.02	<0.02	0.024 ± 0.003	0.030 ± 0.003	0.029 ± 0.003	0.030 ± 0.003

(A) Hurricane Wilma, power outage, run time 136 hours out of 170.
(B) Hurricane Wilma, power outage, run time 141 hours out of 166.
(C) Hurricane Wilma, power outage, run time 134 hours out of 166
(D) Power outage/surge caused failure of outlet, run time 147 hours out of 163.
(E) Power outage at beginning of sampling period, run time 22 hours out of 170.
(F) Power outage at beginning of sampling period, run time 141 hours out of 170.

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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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TURKEY POINT PLANT – UNITS 3 & 4
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 :						
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

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

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.