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# ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

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**DUKE ENERGY CORPORATION  
OCONEE NUCLEAR STATION  
Units 1, 2, and 3**

**2015**



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# TABLE OF CONTENTS

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<b>1.0 Executive Summary</b>	1-1
<b>2.0 Introduction</b>	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Calculational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Level of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
<b>3.0 Interpretation of Results</b>	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Drinking Water	3-5
3.3 Surface Water	3-7
3.4 Milk	3-10
3.5 Broadleaf Vegetation	3-12
3.6 Fish	3-14
3.7 Shoreline Sediment	3-17
3.8 Direct Gamma Radiation	3-19
3.8.1 Environmental TLD	3-19
3.8.2 ISFSI	3-20
3.9 Land Use Census	3-24
<b>4.0 Evaluation of Dose</b>	4-1
4.1 Dose from Environmental Measurements	4-1
4.2 Estimated Dose from Releases	4-1
4.3 Comparison of Doses	4-2
<b>5.0 Quality Assurance</b>	5-1
5.1 Sample Collection	5-1
5.2 Sample Analysis	5-1
5.3 Dosimetry Analysis	5-1
5.4 Laboratory Equipment Quality Assurance	5-1
5.4.1 Daily Quality Control	5-1
5.4.2 Calibration Verification	5-1
5.4.3 Batch Processing	5-1
5.5 Duke Energy Interlaboratory Comparison Program	5-2
5.5.1 Duke Energy Interlaboratory Program	5-2
5.5.2 Eckert & Ziegler Analytics Cross Check Program	5-2
5.5.3 ERA Proficiency Testing	5-4
5.6 Intercomparison Program	5-4
5.7 TLD Intercomparison Program	5-4
5.7.1 Nuclear Technology Services Intercomparison Program	5-4
5.7.2 Internal Cross Check (Duke Energy)	5-4
5.8 General Engineering Laboratory (GEL)	5-5
 <b>Appendices</b>	
Appendix A: Environmental Sampling & Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3

IV. Sampling and Analysis Procedures . . . . .	A-3
A.1 Airborne Particulate and Radioiodine . . . . .	A-3
A.2 Drinking Water . . . . .	A-3
A.3 Surface Water . . . . .	A-4
A.4 Milk . . . . .	A-4
A.5 Broadleaf Vegetation . . . . .	A-4
A.6 Fish . . . . .	A-4
A.7 Shoreline Sediment . . . . .	A-4
A.8 Direct Gamma Radiation (TLD) . . . . .	A-5
A.9 Annual Land Use Census . . . . .	A-5
V. Global Positioning System (GPS) Analysis. . . . .	A-5
Appendix B: Radiological Environmental Monitoring Program - Summary of Results . . . . .	B-1
Air Particulate . . . . .	B-2
Air Radioiodine. . . . .	B-2
Drinking Water . . . . .	B-2
Surface Water . . . . .	B-2
Milk . . . . .	B-2
Broadleaf Vegetation . . . . .	B-3
Fish . . . . .	B-3
Shoreline Sediment . . . . .	B-3
Direct Gamma Radiation (TLD) . . . . .	B-3
Appendix C: Sampling Deviations & Unavailable Analyses . . . . .	C-1
C.1 Sampling Deviations . . . . .	C-2
C.2 Unavailable Analyses. . . . .	C-2
Appendix D: Analytical Deviations . . . . .	D-1
Appendix E: Radiological Environmental Monitoring Program Results . . . . .	E-1
Appendix F: Errata to Previous Reports . . . . .	F-1

## LIST OF FIGURES

2.1-1	Oconee Nuclear Station Sampling Locations Map (One Mile Radius). . . . .	2-4
2.1-2	Oconee Nuclear Station Sampling Locations Map (Ten Mile Radius) . . . . .	2-5
3.1	Concentration of Gross Beta in Air Particulate . . . . .	3-4
3.2	Concentration of Tritium in Drinking Water . . . . .	3-5
3.3	Concentration of Tritium in Surface Water . . . . .	3-8
3.5	Concentration of Cs-137 in Broadleaf Vegetation . . . . .	3-12
3.6-1	Concentration of Cs-137 in Fish . . . . .	3-15
3.6-2	Concentration of Cs-134 in Fish . . . . .	3-15
3.7	Concentration of Cs-137 in Shoreline Sediment . . . . .	3-17
3.8	Direct Gamma Radiation (TLD) Results . . . . .	3-20
3.9	Oconee Nuclear Station 2015 Land Use Census Map . . . . .	3-25

## LIST OF TABLES

2.1-A	Oconee Radiological Monitoring Program Sampling Locations . . . . .	2-6
2.1-B	Oconee Radiological Monitoring Program Sampling Locations (TLD Sites). . . . .	2-7
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples . . . . .	2-8
2.2-B	REMP Analysis Frequency . . . . .	2-8
2.2-C	Maximum Values for the Lower Limits of Detection . . . . .	2-9
3.1-A	Mean Concentration of Air Radioiodine (I-131) . . . . .	3-3
3.1-B	Mean Concentration of Gross Beta in Air Particulate . . . . .	3-4
3.2	Mean Concentrations of Radionuclides in Drinking Water . . . . .	3-6
3.3	Mean Concentrations of Radionuclides in Surface Water . . . . .	3-9
3.4	Mean Concentration of Radionuclides in Milk . . . . .	3-11
3.5	Mean Concentration of Radionuclides in Vegetation . . . . .	3-13

3.6	Mean Concentrations of Radionuclides in Fish . . . . .	3-16
3.7	Mean Concentrations of Radionuclides in Shoreline Sediment . . . . .	3-18
3.8-A	Direct Gamma Radiation (TLD) Results . . . . .	3-21
3.8-B	Direct Gamma Radiation (TLD) Oconee 2015 Investigation Level . . . . .	3-22
3.9	Oconee 2015 Land Use Census Results . . . . .	3-24
4.1-A	Oconee Nuclear Station 2015 Environmental and Effluent Dose Comparison . . . . .	4-3
4.1-B	Maximum Individual Dose for 2015 based on Environmental Measurements (mrem) for Oconee Nuclear Station . . . . .	4-5
5.0-A	Duke Energy Interlaboratory Comparison Program . . . . .	5-6
5.0-B	Eckert & Ziegler Analytics Cross Check Program . . . . .	5-10
5.0-C	Environmental Resource Associates (ERA) Proficiency Testing . . . . .	5-13
5.0-D	2015 Environmental Dosimeter Cross-Check Results . . . . .	5-14
5.0-E	2015 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program for GEL Laboratories, LLC. . . . .	5-16

**LIST OF ACRONYMS USED IN THIS TEXT** *(in alphabetical order)*

BW	BiWeekly
C	Control
EPA	Environmental Protection Agency
ERA	Environmental Resource Associates
GEL	General Engineering Laboratory
GI-LLI	Gastrointestinal – Lower Large Intestine
GPS	Global Positioning System
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
M	Monthly
MDA	Minimum Detectable Activity
MOA	Memorandum of Agreement
mrem	Millirem
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
ONS	Oconee Nuclear Station
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m <sup>3</sup>	picocurie per cubic meter
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SLCs	Selected Licensee Commitments
SM	Semimonthly
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

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# 1.0 EXECUTIVE SUMMARY

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This Annual Radiological Environmental Operating Report describes the Oconee Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2015.

Included are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, comparisons of doses calculated from environmental measurements and effluent data, analysis of trends in environmental radiological data as potentially affected by station operations, and a summary of environmental radiological sampling results. Quality assurance practices and program changes are also discussed.

Sampling activities were conducted as prescribed by Selected Licensee Commitments (SLC's). Required analyses were performed and detection capabilities were met for all collected samples as required by SLC's. Nine-hundred ninety-three samples were analyzed comprising 1,058 test results in order to compile data for the 2015 report. Based on the annual land use census, the current number of sampling sites for Oconee Nuclear Station is sufficient.

Concentrations observed in the environment in 2015 for station related radionuclides were within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in drinking water, surface water, fish, and shoreline sediment are higher than the activities reported for samples collected at control locations. All positively identified measurements attributable to station operation were within limits as specified in SLC's.

Additionally, environmental radiological monitoring data is consistent with effluents introduced into the environment by plant operations. The total body dose estimated to the maximum exposed member of the public as calculated by environmental sampling data, excluding TLD results, was 5.13E-02 mrem for 2015. Background radiation dose in the United States is approximately 620 mrem per year (approximately half from naturally occurring sources such as radon and half from man-made sources such as medical processes).<sup>1</sup> It is therefore concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.

<sup>1</sup>NCRP (2009). National Council on Radiation Protection and Measurements. *Ionizing Radiation Exposure of the Population of the United States*, NCRP Report No. 160 (National Council on Radiation Protection and Measurements, Bethesda, Maryland).

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## 2.0 INTRODUCTION

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### 2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Oconee Nuclear Station (ONS) is located in Oconee County, South Carolina, approximately 8 miles northeast of Seneca, South Carolina, on the shore of Lake Keowee. This lake was formed by damming the Keowee and Little Rivers in that location. Immediately to the south is the U.S. Government Hartwell Project. The Keowee Hydroelectric Plant near the station joins Lake Keowee and the upper reaches of Lake Hartwell. To the north, the Jocassee Hydroelectric Plant joins Lake Jocassee and Lake Keowee. Jocassee is a pumped storage plant.

ONS consists of three pressurized water reactors. Each unit has an output of 846 megawatts net. Unit 1 license for operation was issued 2/6/1973. Unit 2 license for operation was issued 10/6/1973. Unit 3 license for operation was issued 7/19/1974. An independent spent fuel storage installation is also located at the site.

Figures 2.1-1 and 2.1-2 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-1 comprises all sample locations within a one mile radius of ONS. Figure 2.1-2 comprises all sample locations within a ten mile radius of ONS.

### 2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at Oconee Nuclear Station since 1969, four years prior to operation of Unit 1 in 1973. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the Selected Licensee Commitments Manual, with regard to sample media, sampling locations, sampling frequency, and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of station origin from natural or other “man-made” environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from Oconee Nuclear Station. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and 10CFR72.44(d)(2) and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public, and state and federal agencies concerned with the environment. Reporting levels for radioactivity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by Selected Licensee Commitments, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the Radiological Environmental Monitoring Program are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.9.

Participation in an interlaboratory comparison program as required by Selected Licensee Commitments provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 5 of this annual report.

## **2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY**

### **2.3.1 ESTIMATION OF THE MEAN VALUE**

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. "Net activity (or concentration)" is the activity (or concentration) determined to be present in the sample. No "Minimum Detectable Activity", "Lower Limit of Detection", "Less Than Level", or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

$\bar{x}$  = estimate of the mean,

$i$  = individual sample,

$N$  = total number of samples with a net activity (or concentration),

$x_i$  = net activity (or concentration) for sample  $i$ .

### **2.3.2 LOWER LEVEL OF DETECTION AND MINIMUM DETECTABLE ACTIVITY**

The Lower Level of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the Environmental Monitoring Program.

**LLD** - The LLD, as defined in the Selected Licensee Commitments Manual is the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield, and the radioactive decay of the sample between sample collection and counting. The "required" LLD's for each sample medium and selected radionuclides are given in the Selected Licensee Commitments and are listed in Table 2.2-C.

**MDA** - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

### **2.3.3 TREND IDENTIFICATION**

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Some factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the Chernobyl accident or the Fukushima accident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.



Figure 2.1-1

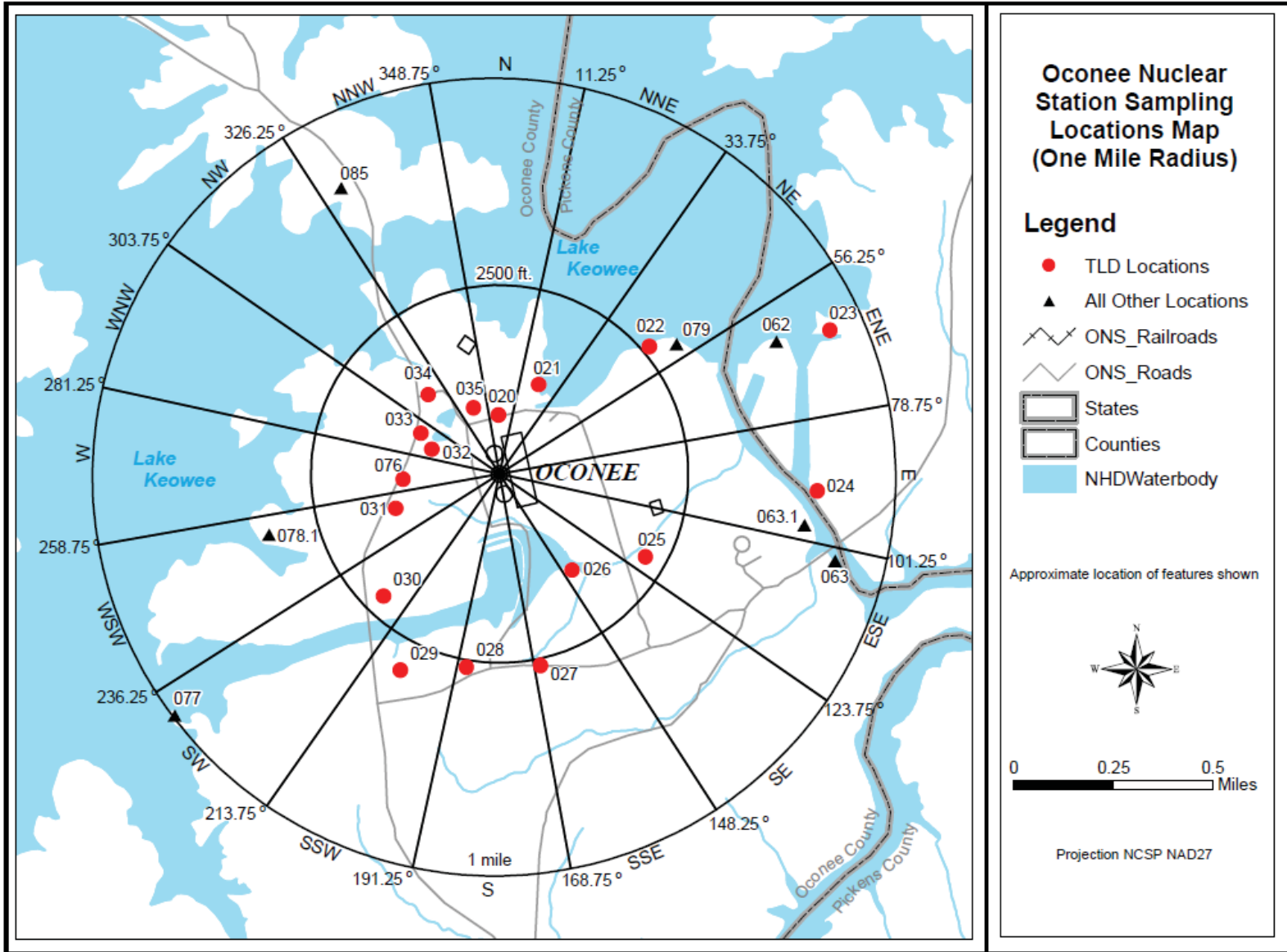
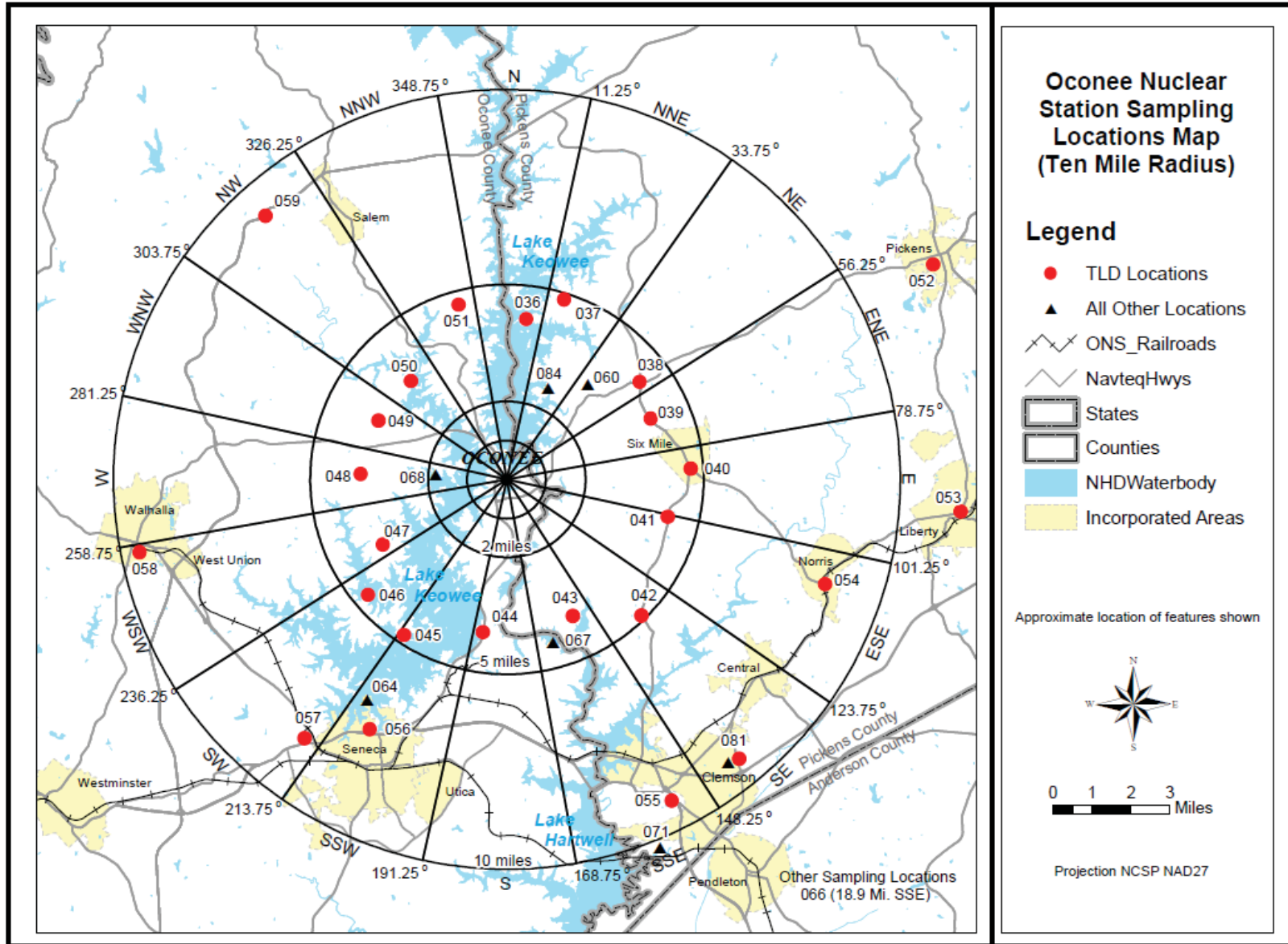


Figure 2.1-2



**TABLE 2.1-A**

**OCONEE RADIOLOGICAL MONITORING PROGRAM  
SAMPLING LOCATIONS**

Table 2.1-A Codes			
W	Weekly	SM	Semimonthly
BW	BiWeekly	Q	Quarterly
M	Monthly	SA	Semiannually
C	Control	I	Indicator

Site #	Measure Type	Location Description*	Air Rad. & Particulate	Surface Water	Drinking Water	Shoreline Sediment	Fish	Milk	Broadleaf Vegetation
060	I	Greenville Water Intake Road (3.23 NE)			M				
060	C**	Greenville Water Intake Road (2.28 NE)					SA		
062	C	Lake Keowee Hydro Intake (0.85 mi ENE)		M					
063	I	Lake Hartwell Hwy 183 Bridge (0.80 mi ESE) [000.7]				SA	SA		
063.1	I	Lake Hartwell Hwy 183 (0.79 mi E)		M					
064	C	Seneca Municipal Water Supply(6.67 mi SSW) [004.1]			M				
066	I	Anderson Municipal Water Supply (18.9 mi SSE) [012]			M				
067	I	Lawrence Ramsey Bridge Hwy 27 (4.34 mi SSE) [005.2]				SA	SA		
068	C	High Falls County Park (1.82 mi W)				SA			
071	C	Clemson Dairy (10.2 mi SSE) [006.3]						SM	
077	I	Skimmer Wall (1.00 mi SW)	W						M
078.1	I	Recreation Site (0.53 mi WSW)	W						
079	I	Keowee Dam (0.56 mi NE)	W						M
081	C	Clemson Operations Center (9.33 mi SE)	W						M
084	I	Sue Craig Road (2.58 mi NNE)	W						M
085	I	Lake Services / Building B9125 (0.88 mi NNW)	W						

\* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

\*\* Control for Fish Only

[ ] Location Numbers prior to 1984

**TABLE 2.1-B**

**OCONEE RADIOLOGICAL MONITORING PROGRAM  
SAMPLING LOCATIONS (TLD SITES)**

Table 2.1-B Codes			
IR	Inner Ring	OR	Outer Ring
C	Control	SI	Special Interest

Site #	Measure Type	Location*	Distance (miles)	Sector	Site #	Measure Type	Location*	Distance (miles)	Sector
020	IR	SITE BOUNDARY	0.16	N	040	OR	MICROWAVE TOWER, SIX MILE	4.74	E
021	IR	SITE BOUNDARY	0.25	NNE	041	OR	JCT HWY 101 & 133	4.25	ESE
022	IR	SITE BOUNDARY	0.53	NE	042	OR	LAWRENCE CHAPEL CHURCH, HWY 133	4.93	SE
023	IR	SITE BOUNDARY	0.93	ENE	043	OR	HWY 291 AT ISSAQUEENA PARK	4.09	SSE
024	IR	SITE BOUNDARY	0.81	E	044	OR	HWY 130 AT LITTLE RIVER DAM	3.96	S
025	IR	SITE BOUNDARY	0.42	ESE	045	OR	TERMINUS OF HWY 588 AT CROOKED CREEK	4.78	SSW
026	IR	SITE BOUNDARY	0.34	SE	046	OR	HWY 188 AT CROOKED CREEK	4.61	SW
027	IR	SITE BOUNDARY	0.49	SSE	047	OR	NEW HOPE CHURCH, HWY 188	3.58	WSW
028	IR	SITE BOUNDARY	0.46	S	048	OR	JCT HWY 175 & 188	3.64	W
029	IR	SITE BOUNDARY	0.56	SSW	049	OR	JCT HWY 201 & 92	3.60	WNW
030	IR	SITE BOUNDARY	0.42	SW	050	OR	STAMP CREEK LANDING, END OF HWY 92	3.53	NW
031	IR	SITE BOUNDARY	0.27	WSW	051	OR	HWY 128, 1 MILE N OF HWY 130	4.64	NNW
076	IR	SITE BOUNDARY	0.19	W	052	SI	DPC BRANCH OFFICE SITE - PICKENS	12.4	ENE
032	IR	SITE BOUNDARY	0.19	WNW	053	SI	DPC BRANCH OFFICE SITE - LIBERTY	11.7	E
033	IR	SITE BOUNDARY	0.21	WNW	054	SI	POST OFFICE - HWY 93 NORRIS	8.60	ESE
034	IR	SITE BOUNDARY	0.22	NW	055	SI	CLEMSON METEOROLOGY PLOT	9.27	SSE
035	IR	SITE BOUNDARY	0.17	NNW	056	SI	WATER TOWER - SENECA	7.30	SSW
036	OR	MILE CREEK LANDING	4.18	N	057	SI	OCONEE MEMORIAL HOSPITAL	8.42	SW
037	OR	KEOWEE CHURCH, HWY 327	4.85	NNE	058	C	BRANCH RD SUBSTATION, WALHALLA	9.39	WSW
038	OR	CONVENIENCE MART, JCT HWY 183 & 133	4.24	NE	059	SI	TAMASSEE DAR SCHOOL	9.20	NW
039	OR	HWY 133, 1 MILE EAST OF JCT HWY 183 & 133	4.02	ENE	081	C	CLEMSON OPERATIONS CENTER	9.33	SE

\* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

**TABLE 2.2-A**

**REPORTING LEVELS FOR RADIOACTIVITY  
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg-wet)
H-3	20,000 <sup>(a)</sup>	---	---	---	---
Mn-54	1,000	---	30,000	---	---
Fe-59	400	---	10,000	---	---
Co-58	1,000	---	30,000	---	---
Co-60	300	---	10,000	---	---
Zn-65	300	---	20,000	---	---
Zr-Nb-95	400	---	---	---	---
I-131	2 <sup>(b)</sup>	0.9	---	3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200	---	---	300	---

(a) For drinking water samples only. This is 40CFR Part 141 value.

(b) If low-level I-131 analyses are performed.

**TABLE 2.2-B**

**REMP ANALYSIS FREQUENCY**

Sample Medium	Analysis Schedule	Gamma Isotopic	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X	---	---	---	---
AirParticulate	Weekly	---	---	---	X	---
	Quarterly Composite	X	---	---	---	---
Direct Radiation	Quarterly	---	---	---	---	X
Surface Water	Monthly	X	---	---	---	---
	Quarterly Composite	---	X	---	---	---
Drinking Water	Monthly	X	---	(a)	X	---
	Quarterly Composite	---	X	---	---	---
Shoreline Sediment	Semiannually	X	---	---	---	---
Milk	Semimonthly	X	---	X	---	---
Fish	Semiannually	X	---	---	---	---
Broadleaf Vegetation	Monthly	X	---	---	---	---

(a) Low level I-131 analysis will be performed if abnormal releases occur which could reasonably result in > 1 pCi/liter of I-131 in drinking water. An LLD of 1 pCi/liter will be required for this analysis.

**TABLE 2.2-C****MAXIMUM VALUES FOR THE LOWER LIMITS OF DETECTION**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2000	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-95	15	---	---	---	---	---
Nb-95	15	---	---	---	---	---
I-131	15 <sup>(a)</sup>	0.07	---	1	60	---
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15	---	---	15	---	---

(a) LLD for low-level I-131 analyses is 1 pCi/liter if performed

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## 3.0 INTERPRETATION OF RESULTS

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Review of 2015 REMP analysis results was performed to identify changes in environmental levels as a result of station operations. The review is summarized in this section. Data from 2015 was compared to preoperational and historical data. Sample data for some media is not directly comparable to preoperational and earlier operational sample results because of either significant changes in the analysis methods or changes in the reporting of the results. Summary tables containing 2015 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. REMP results for 2015 are located in Appendix E.

Evaluation for significant trends was performed for the radionuclides that have required LLDs listed in Selected Licensee Commitment 16.11.6. These radionuclides are collectively referred to as "Selected Licensee Commitments radionuclides" and include H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140. Drinking water gross beta results are routinely trended. Trending of air particulate gross beta results was initiated in 1996 when the analysis was resumed. Trending is also performed for other radionuclides that are detected and could have been the result of station effluents. Only Selected Licensee Commitment radionuclides were detected in 2015.

Trending was performed by comparing annual mean concentrations of any effluent related detected radionuclide to historical results. Factors evaluated include the frequency of detection and the concentration in terms of the percent of the radionuclide's SLC reporting level (Table 2.2-A). All maximum percent of reporting level values were well below the 100% action level. The highest value reached during 2015 due to ONS operation was 2.34% for H-3 in a drinking water sample collected at location 066.

Changes in sample location, analytical technique, and presentation of results must be considered when reviewing for trends. Calculation of the annual mean concentrations has been performed differently over the history of the REMP. During 1979-1986, all net results (sample minus background), positive and negative, were included in the calculation of the mean. Only positive net activity results were used to calculate the mean for the other years. A change in gamma spectroscopy analysis systems in 1987 ended a period when many measurements yielded detectable low-level activity for both indicator and control location samples. It is thought that the method the previous system used to estimate net activity may have been vulnerable to false-positive results.

Data presented in Sections 3.1 - 3.8 support the conclusion that there were no significant increases in radionuclides in the environment around ONS due to station operations in 2015.

### **3.1 AIRBORNE RADIOIODINE AND PARTICULATES**

In 2015, 312 radioiodine and particulate samples were analyzed, 260 from five indicator locations and 52 from the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). Radioiodine samples received a weekly gamma analysis.

There was no detectable I-131 in air samples in 2015. Table 3.1-A gives the highest indicator location annual mean and control location annual mean for I-131 since the preoperational period. The table shows similar historical concentrations for both the indicator and control locations and the activities decreasing from early in the operational history of the plant. No I-131 activity due to ONS plant operations has been detected since 1994.

There were no detectable gamma emitting radionuclides detected in air particulate samples in 2015 due to ONS plant operations. No gamma emitting particulates due to ONS plant operations have been detected in indicator location samples since the change in gamma spectroscopy analysis systems in 1987.

Beta analysis of particulate filters was initiated in March of 1996 and became required by Selected Licensee Commitments in 1998. Gross beta analysis was performed on particulate filters during the preoperational and early operational history of the plant but had not been required since 1984. Figure 3.1 summarizes gross beta results for the indicator location with the highest annual mean and the control location samples. Both the indicator and control location results are similar in concentration and are near the lower range of preoperational gross beta results which ranged from 0.04 to 1.46 pCi/m<sup>3</sup>.

K-40 and Be-7 observed in air samples are naturally occurring radionuclides.



**Table 3.1-A Mean Concentration of Air Radioiodine (I-131)**

Year	Indicator Location (pCi/m <sup>3</sup> )	Control Location (pCi/m <sup>3</sup> )
Preoperational 1969-1972	0.00E0	0.00E0
Feb. 1973 - June 1973	0.00E0	0.00E0
July 1973 - Dec. 1973	0.00E0	0.00E0
Jan. 1974 - June 1974	0.00E0	0.00E0
July 1974 - Dec. 1974	2.60E-2	8.00E-3
Jan. 1975 - June 1975	8.65E-2	3.12E-2
July 1975 - Dec. 1975	1.13E-2	9.52E-3
1976	2.76E-2	2.18E-2
1977	3.60E-2	3.60E-2
1978	2.19E-1	1.15E-1
1979	7.54E-3	4.75E-4
1980	3.07E-3	9.67E-4
1981	6.31E-3	5.39E-4
1982	2.87E-3	8.10E-4
1983	1.48E-3	3.05E-4
1984	8.11E-4	-2.30E-5
1985	7.71E-4	4.54E-4
1986	5.02E-3	7.86E-3
1987 <sup>(1)</sup>	4.29E-3	5.19E-3
1988	0.00E0	0.00E0
1989	4.99E-4	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	1.03E-2	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011	5.05E-2	4.13E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 <sup>(2)</sup>	0.00E0	0.00E0
2015	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

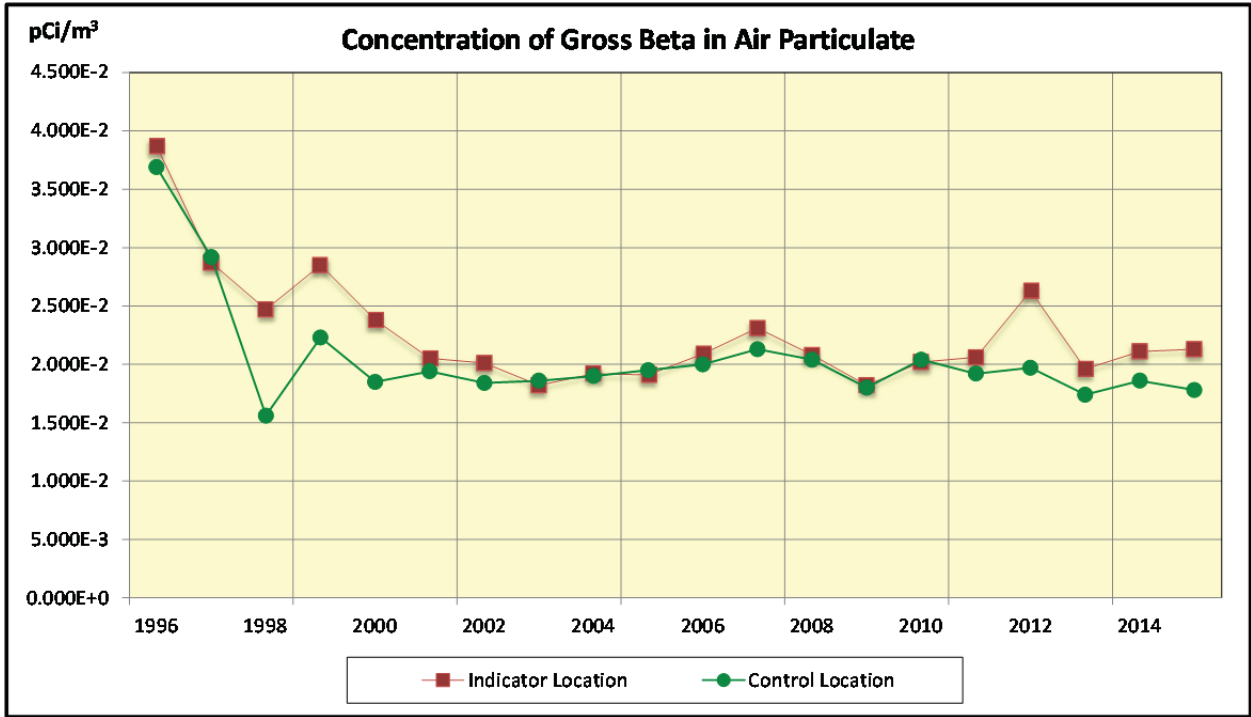
1979 - 1986 mean based on all net activity

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

Figure 3.1



*There is no reporting level for gross beta in air particulate*

**Table 3.1-B Mean Concentration of Gross Beta in Air Particulate**

Monitoring Period	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1996	3.87E-2	3.69E-2
1997	2.87E-2	2.92E-2
1998	2.47E-2	1.56E-2
1999	2.85E-2	2.23E-2
2000	2.38E-2	1.85E-2
2001	2.05E-2	1.94E-2
2002	2.01E-2	1.84E-2
2003	1.86E-2	1.82E-2
2004	1.92E-2	1.90E-2
2005	1.95E-2	1.91E-2
2006	2.09E-2	2.00E-2
2007	2.31E-2	2.13E-2
2008	2.08E-2	2.04E-2
2009	1.82E-2	1.80E-2
2010	2.02E-2	2.04E-2
2011	2.06E-2	1.92E-2
2012	2.63E-2	1.97E-2
2013	1.96E-2	1.74E-2
2014	2.11E-2	1.86E-2
Average (2005 - 2014)	2.10E-2	1.94E-2
2015	2.13E-2	1.78E-2

### 3.2 DRINKING WATER

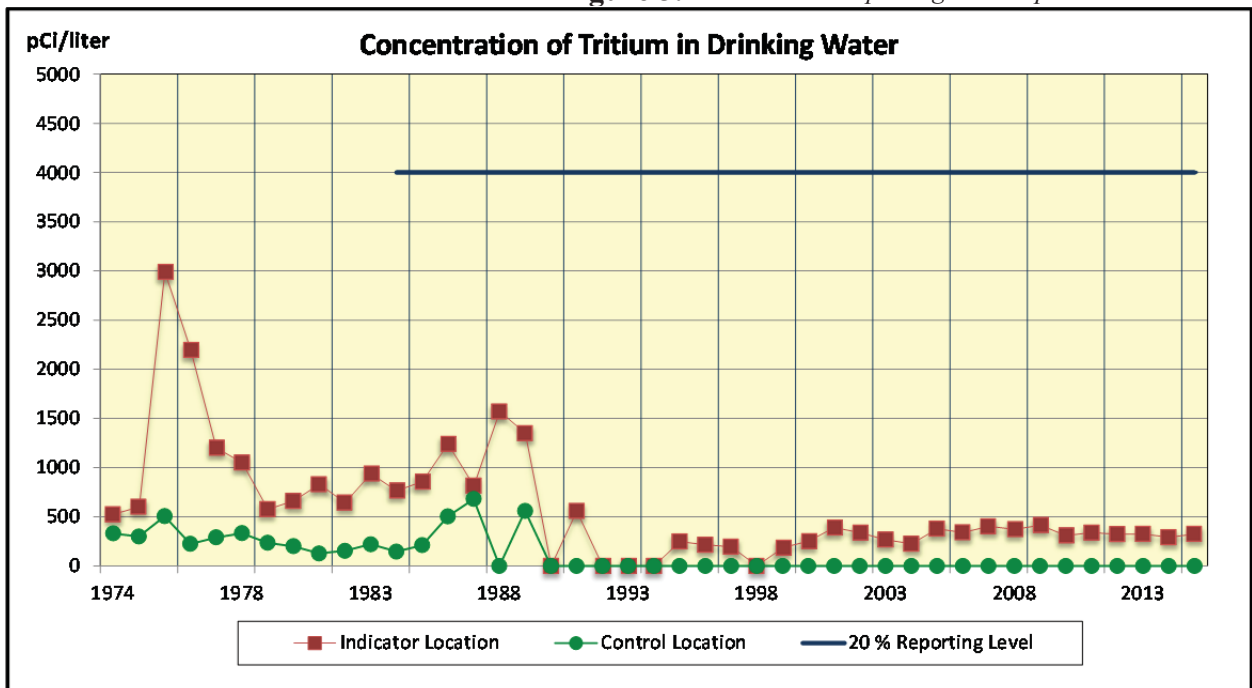
Gross beta analysis and gamma spectroscopy were performed on 39 monthly drinking water samples. These samples were composited to form 12 quarterly period samples for Tritium analysis. Two indicator locations and a control location were sampled; however, only one of the indicator locations is downstream of the effluent release point.

Table 3.2 lists the highest indicator location annual mean and control location annual mean for gross beta results since the preoperational period. The indicator location had an average concentration of 2.34 pCi/liter in 2015, and the control location had a concentration of 1.46 pCi/liter. For comparison purposes, the 2014 indicator mean was 1.43 pCi/liter. The table shows that 2015 gross beta levels in drinking water are lower than preoperational concentrations. The dose for consumption of water was less than one mrem per year and there were no abnormal releases exceeding 1 pCi/liter I-131 in 2015; therefore low-level iodine analysis is not required.

Tritium was detected in three of the twelve composite samples during 2015. The 2015 mean indicator location 066 concentration was 325 pCi/liter, which is 1.63% of the 20,000 pCi/l Tritium reporting level. Table 3.2 and Figure 3.2 show the highest indicator and control location annual means for Tritium since analysis was initiated early in the operational period. Tritium concentrations have decreased at both the indicator and control locations. The closure of the Clemson water plant in 1989 is one reason for the decrease shown in the table and graph. The Clemson site was typically the high mean location when the plant was in operation.

There were no gamma emitting radionuclides attributable to plant operations identified in drinking water samples in 2015. Gamma spectroscopy analysis has not detected any gamma activity in the water supplies since 1988. K-40 observed in drinking water samples is a naturally occurring radionuclide.

Figure 3.2 *Current reporting level implemented 1984*



**Table 3.2 Mean Concentrations of Radionuclides in Drinking Water**

Year	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
Preoperational ending Jan. 1971	3.03	5.90	Analysis not required	
Preoperational ending Jan. 1973	3.58	4.94	Analysis not required	
Feb. 1973 - June 1973	Qualitative results reported		Analysis not required	
June 1973 - Dec. 1973	7.15	21.78	Analysis not required	
Jan. 1974 - June 1974	3.13	6.98	Analysis not required	
July 1974 - Dec. 1974	2.24	2.02	525	330
Jan. 1975 - June 1975	1.98	1.59	600	300
July 1975 - Dec. 1975	2.01	1.22	2990	505
1976	2.38	2.00	2196	224
1977	2.70	2.30	1200	290
1978	2.56	2.17	1050	333
1979	1.83	1.36	576	235
1980	1.86	1.63	660	200
1981	1.98	1.88	830	127
1982	2.04	1.45	643	153
1983	1.85	1.54	937	220
1984	1.87	1.08	765	145
1985	2.14	1.16	856	210
1986	1.91	1.04	1240	503
1987	2.00	1.20	815	680
1988	2.00	1.40	1570	0.00
1989	2.30	1.80	1350	559
1990	3.00	2.70	0.00	0.00
1991	1.80	1.40	558	0.00
1992	3.20	1.60	0.00	0.00
1993	2.10	1.90	0.00	0.00
1994	1.90	2.10	0.00	0.00
1995	5.10	2.90	248	0.00
1996	2.07	1.77	214	0.00
1997	2.52	2.23	194	0.00
1998	2.48	1.70	0.00	0.00
1999	1.73	1.49	185	0.00
2000	2.07	1.68	251	0.00
2001	1.75	1.29	390	0.00
2002	1.61	1.21	338	0.00
2003	1.51	1.05	266	0.00
2004	1.58	1.25	225	0.00
2005	1.28	1.37	377	0.00
2006	1.54	1.75	340	0.00
2007	1.58	1.08	402	0.00
2008	1.82	1.25	372	0.00
2009	1.37	1.19	415	0.00
2010	1.10	0.97	308	0.00
2011	1.18	1.00	339	0.00
2012	1.40	0.92	322	0.00
2013	1.57	1.11	325	0.00
2014	1.43	1.12	292	0.00
2015	2.34	1.46	325	0.00

0.00 indicates no detectable measurements

1989 - Clemson water plant closes; nearest downstream plant is Anderson.

1979 - 1986 mean based on all net activity results

### **3.3 SURFACE WATER**

Gamma spectroscopy was performed on 26 monthly surface water samples. These samples were composited to form eight quarterly samples for Tritium analysis. One indicator and one control location were sampled. The indicator location is near the liquid effluent release point.

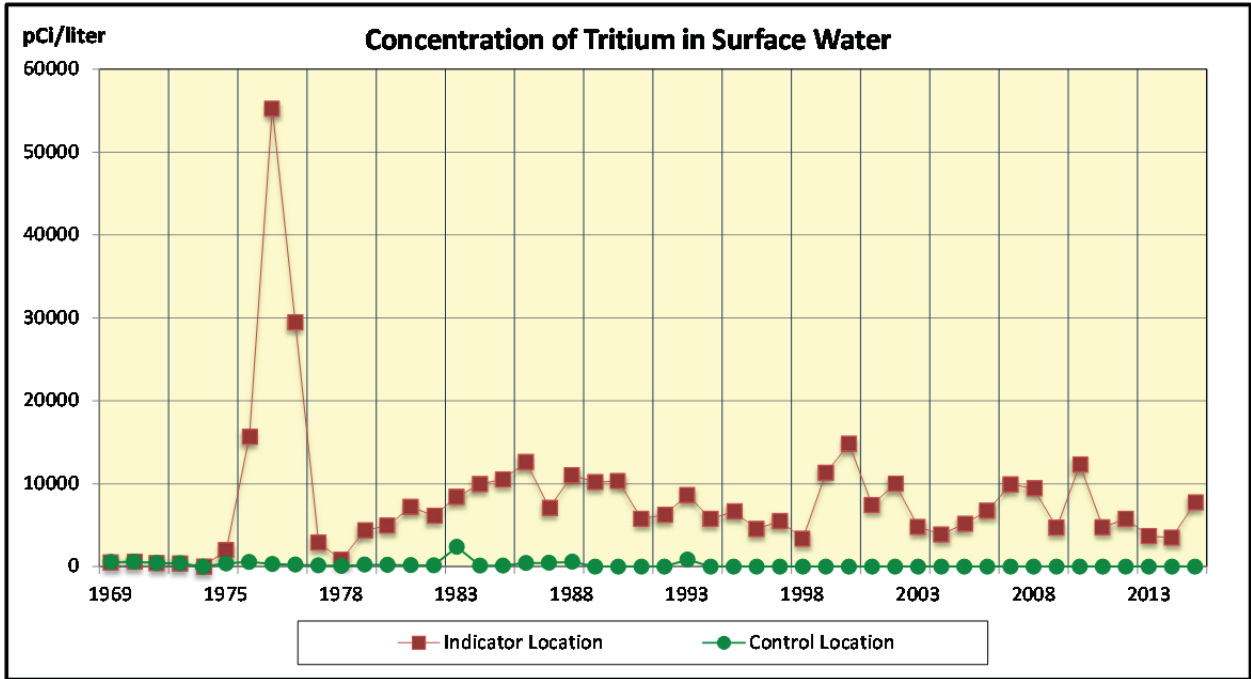
Tritium was detected in the four indicator location samples. The 2015 average concentration was 7,730 pCi/liter. The individual samples ranged from 4,460 to 9,900 pCi/liter. For comparison purposes, the 2014 mean concentration was 3,490 pCi/liter. Tritium was not detected in any control surface water samples.

Figure 3.3 shows the indicator and control annual means for Tritium since the preoperational period. Table 3.3 lists the indicator annual means.

Gamma spectroscopy analysis did not detect any station related gamma activity during 2015. No gamma emitting radionuclides attributable to station operation have been detected in surface water samples since 1999. Table 3.3 summarizes the indicator annual means of radionuclides detected since the change in the gamma spectroscopy analysis system in 1987. Visual inspection of the gamma spectroscopy tabular data covering the early operational period through 2015 did not reveal any increasing trends.

K-40 and Be-7 observed in surface water samples are naturally occurring radionuclides.

Figure 3.3



*There is no reporting level for Tritium in surface water*

**Table 3.3 Mean Concentrations of Radionuclides in Surface Water**

Year	Co-58 (pCi/l)	Co-60 (pCi/l)	Nb-95 (pCi/l)	Cs-137 (pCi/l)	H-3 pCi/l)
Preoperational 1969		Qualitative results reported			4.86E2
Preoperational 1970		Qualitative results reported			5.94E2
Preoperational 1971		Qualitative results reported			4.01E2
Preoperational 1972		Qualitative results reported			3.62E2
1973		Qualitative results reported			0.00E0
1974	0.00E0	1.32E1	0.00E0	1.60E1	1.99E3
Jan. 1975 – June 1975	0.00E0	0.00E0	0.00E0	0.00E0	1.56E4
July 1975 – Dec. 1975	0.00E0	1.34E1	0.00E0	0.00E0	5.52E4
1976	1.08E2	3.30E1	0.00E0	3.50E1	2.95E4
1977	2.60E1	1.80E1	0.00E0	3.10E1	2.90E3
1978	2.96E2	0.00E0	0.00E0	2.22E1	8.00E2
1979	1.33E0	2.60E0	1.78E0	2.82E0	4.37E3
1980	1.56E0	2.30E0	1.22E0	5.40E0	4.93E3
1981	1.10E0	6.10E-1	1.70E0	3.90E0	7.21E3
1982	6.14E-1	1.99E0	2.29E0	4.85E0	6.13E3
1983	6.99E-1	3.02E0	3.91E-1	6.83E-1	8.40E3
1984	9.40E-1	6.30E-1	7.90E-1	4.83E-1	9.90E3
1985	2.15E-1	6.27E-1	4.95E-1	9.90E-1	1.05E4
1986	3.28E0	1.23E0	1.14E0	3.07E-1	1.26E4
1987 <sup>(1)</sup>	5.10E1	3.40E0	4.00E0	0.00E0	7.08E3
1988	6.20E0	5.00E0	2.50E0	3.50E0	1.10E4
1989	5.30E0	3.00E0	0.00E0	3.40E0	1.02E4
1990	1.70E0	1.60E0	0.00E0	0.00E0	1.03E4
1991	5.40E0	0.00E0	0.00E0	0.00E0	5.76E3
1992	2.50E0	0.00E0	0.00E0	0.00E0	6.22E3
1993	0.00E0	0.00E0	0.00E0	0.00E0	8.62E3
1994	0.00E0	0.00E0	0.00E0	0.00E0	5.75E3
1995	0.00E0	0.00E0	0.00E0	0.00E0	6.65E3
1996	0.00E0	0.00E0	0.00E0	0.00E0	4.54E3
1997	0.00E0	0.00E0	0.00E0	0.00E0	5.50E3
1998	0.00E0	0.00E0	0.00E0	0.00E0	3.35E3
1999	2.73E1	0.00E0	0.00E0	0.00E0	1.13E4
2000	0.00E0	0.00E0	0.00E0	0.00E0	1.48E4
2001	0.00E0	0.00E0	0.00E0	0.00E0	7.43E3
2002	0.00E0	0.00E0	0.00E0	0.00E0	1.00E4
2003	0.00E0	0.00E0	0.00E0	0.00E0	4.77E3
2004	0.00E0	0.00E0	0.00E0	0.00E0	3.86E3
2005	0.00E0	0.00E0	0.00E0	0.00E0	5.15E3
2006	0.00E0	0.00E0	0.00E0	0.00E0	6.72E3
2007	0.00E0	0.00E0	0.00E0	0.00E0	9.91E3
2008	0.00E0	0.00E0	0.00E0	0.00E0	9.43E3
2009	0.00E0	0.00E0	0.00E0	0.00E0	4.68E3
2010	0.00E0	0.00E0	0.00E0	0.00E0	1.23E4
2011	0.00E0	0.00E0	0.00E0	0.00E0	4.75E3
2012	0.00E0	0.00E0	0.00E0	0.00E0	5.76E3
2013	0.00E0	0.00E0	0.00E0	0.00E0	3.68E3
2014 <sup>(2)</sup>	0.00E0	0.00E0	0.00E0	0.00E0	3.49E3
2015	0.00E0	0.00E0	0.00E0	0.00E0	7.73E3

0.00E0 indicates no detectable measurements  
 1979-1986 mean based on all net activity results  
 (1) 1987 – Gamma spectroscopy system change  
 (2) 2014 – Gamma spectroscopy system change

### 3.4 MILK

Gamma spectroscopy and low level iodine analysis was performed on 26 milk samples collected from the control location in 2015. No indicator dairies were sampled during 2015 and none were identified by the 2015 land use census.

There were no gamma emitting radionuclides due to ONS plant operations identified in milk samples in 2015. Cs-137 is the only radionuclide, other than naturally occurring, reported in milk samples since 1988 (excluding Fukushima Daiichi). Cs-137 in milk is not unusual. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed periodically in samples from indicator and control locations since the preoperational period.

Table 3.4 lists the highest indicator location annual mean and control location annual mean for Cs-137 since the preoperational period. The table shows similar concentrations for both indicator and control locations.

K-40 observed in milk samples is a naturally occurring radionuclide.



**Table 3.4 Mean Concentration of Radionuclides in Milk**

Year	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
Preoperational	1.57E1	1.46E1
Feb. 1973 – June 1973	Qualitative results reported	Qualitative results reported
July 1973 – Dec. 1973	5.80E0	Qualitative results reported
Jan. 1974 – June 1974	5.30E0	0.00E0
July 1974 – Dec. 1974	1.11E1	0.00E0
Jan. 1975 – June 1975	1.51E1	9.45E0
July 1975 – Dec. 1975	0.00E0	0.00E0
1976	1.80E1	7.47E0
1977	0.00E0	0.00E0
1978	1.33E1	1.33E1
1979	7.25E0	2.52E0
1980	3.58E0	2.63E0
1981	5.52E0	5.51E0
1982	2.71E0	3.25E0
1983	5.04E0	-4.27E-1
1984	2.30E0	2.58E0
1985	2.38E0	1.31E0
1986	2.92E0	2.97E0
1987 <sup>(1)</sup>	4.90E0	4.90E0
1988	3.90E0	3.20E0
1989	4.70E0	2.90E0
1990	6.40E0	0.00E0
1991	5.00E0	0.00E0
1992	6.60E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	1.80E0
1995	2.30E0	2.00E0
1996	0.00E0	4.10E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	No Indicator Location	0.00E0
2007	No Indicator Location	0.00E0
2008	No Indicator Location	0.00E0
2009	No Indicator Location	0.00E0
2010	No Indicator Location	0.00E0
2011	No Indicator Location	0.00E0
2012	No Indicator Location	0.00E0
2013	No Indicator Location	0.00E0
2014 <sup>(2)</sup>	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0

0.00E0 indicates no detectable measurements

1979 - 1986 mean based on all net activity results

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

The Oconee milk program was updated to align with NUREG-1301 during 2005 and documented in NCR # 01753418. Location 071 was designated as the new control site effective with the 7/12/2005 sampling. No indicator dairies were identified by the 2015 land use census.

### 3.5 BROADLEAF VEGETATION

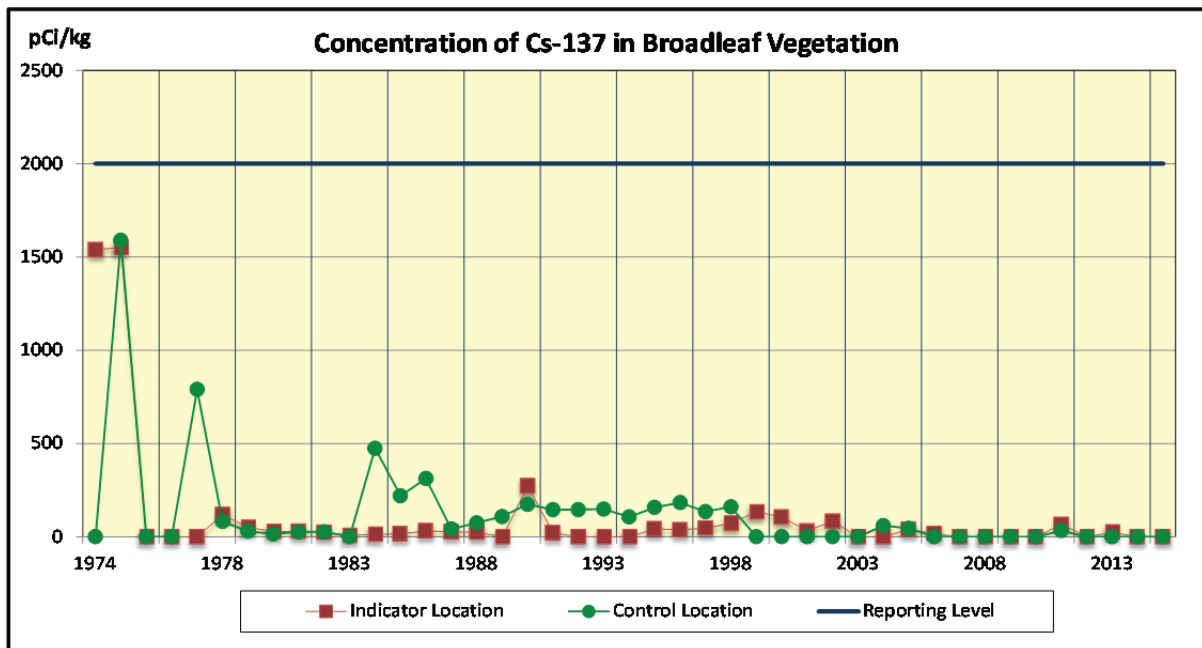
Gamma spectroscopy was performed on 48 broadleaf vegetation samples during 2015. Three indicator locations and one control location were sampled. There were no gamma emitting radionuclides attributable to ONS station operation identified in vegetation samples in 2015.

Cs-137 is the only radionuclide, other than naturally occurring, reported in vegetation samples since the change in gamma spectroscopy analysis systems in 1987. Figure 3.5 shows the indicator and control annual means for Cs-137 since the early operational period of the plant. Table 3.5 shows historical concentrations of Cs-137.

It is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations since the preoperational period. Table 3.5 lists the highest indicator location annual mean and control location annual mean for Cs-137 since early in the station's operational history. Visual inspection of the tabular data did not reveal any increasing trends.

K-40 and Be-7 observed in broadleaf vegetation samples are naturally occurring radionuclides.

Figure 3.5



2011 concentration affected by Fukushima Daiichi

**Table 3.5 Mean Concentration of Radionuclides in Vegetation**

Year	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
July 1974 - Dec. 1974	1.54E3	0.00E0
Jan. 1975 - June 1975	1.55E3	1.59E3
July 1975 - Dec. 1975	0.00E0	0.00E0
1976	0.00E0	0.00E0
1977	0.00E0	7.90E2
1978	1.19E2	8.19E1
1979	5.04E1	2.96E1
1980	2.80E1	1.55E1
1981	2.99E1	2.60E1
1982	2.42E1	2.62E1
1983	7.44E0	5.35E-1
1984	1.37E1	4.74E2 <sup>†</sup>
1985	1.62E1	2.20E2
1986	3.28E1	3.12E2
1987 <sup>(1)</sup>	2.70E1	4.20E1
1988	2.40E1	7.50E1
1989	0.00E0	1.08E2
1990	2.73E2	1.74E2
1991	2.20E1	1.45E2
1992	0.00E0	1.46E2
1993	0.00E0	1.49E2
1994	0.00E0	1.06E2
1995	4.30E1	1.58E2
1996	3.79E1	1.83E2
1997	4.73E1	1.35E2
1998	7.28E1	1.61E2 <sup>††</sup>
1999	1.34E2	0.00E0 <sup>†††</sup>
2000	1.06E2	0.00E0
2001	3.19E1	0.00E0
2002	8.44E1	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	5.96E1
2005	4.51E1	4.11E1
2006	1.77E1	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011	6.68E1 <sup>††††</sup>	3.35E1 <sup>††††</sup>
2012	0.00E0	0.00E0
2013	2.57E1	0.00E0
2014 <sup>(2)</sup>	0.00E0	0.00E0
2015	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

Qualitative results reported prior to 1974

1979 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

† Control location changed to 073 in 1984

†† Control location 081 added in 1998

††† Control location 073 removed in 1999

†††† 2011 concentration affected by Fukushima Daiichi

### **3.6 FISH**

In 2015, gamma spectroscopy was performed on 12 fish samples. Two downstream indicator and one control location were sampled. Cs-137 was identified in five of the eight indicator location samples. Cs-137 was detected in one of the four control location samples at a mean concentration of 12.0 pCi/kg. The highest average indicator concentration for Cs-137 was 19.4 pCi/kg (0.97 % of reporting level).

Figures 3.6-1 and 3.6-2 are graphs displaying the annual means for Cs-137 and Cs-134. Historically, both are contributors to the calculated dose from liquid effluents from ingestion of fish. Radioactivity concentrations in downstream fish samples are higher than those reported in preoperational fish samples, however, concentrations in fish have decreased over time with decreases in radioactive material releases from the plant.

One factor affecting the trend analysis is a change in sampling locations. In 1984, a second downstream fish location was added. Location 063 is closer to the liquid effluent discharge point and has been the highest mean indicator since it was added.

Table 3.6 lists the highest indicator location annual means since the preoperational period for radionuclides detected in 2015. Also included in the table are radionuclides that have been identified in this media since the change in analysis systems in 1987. Comparison of data to previous years does not indicate any increases in concentrations.

K-40 observed in fish samples is a naturally occurring radionuclide.

Figure 3.6-1

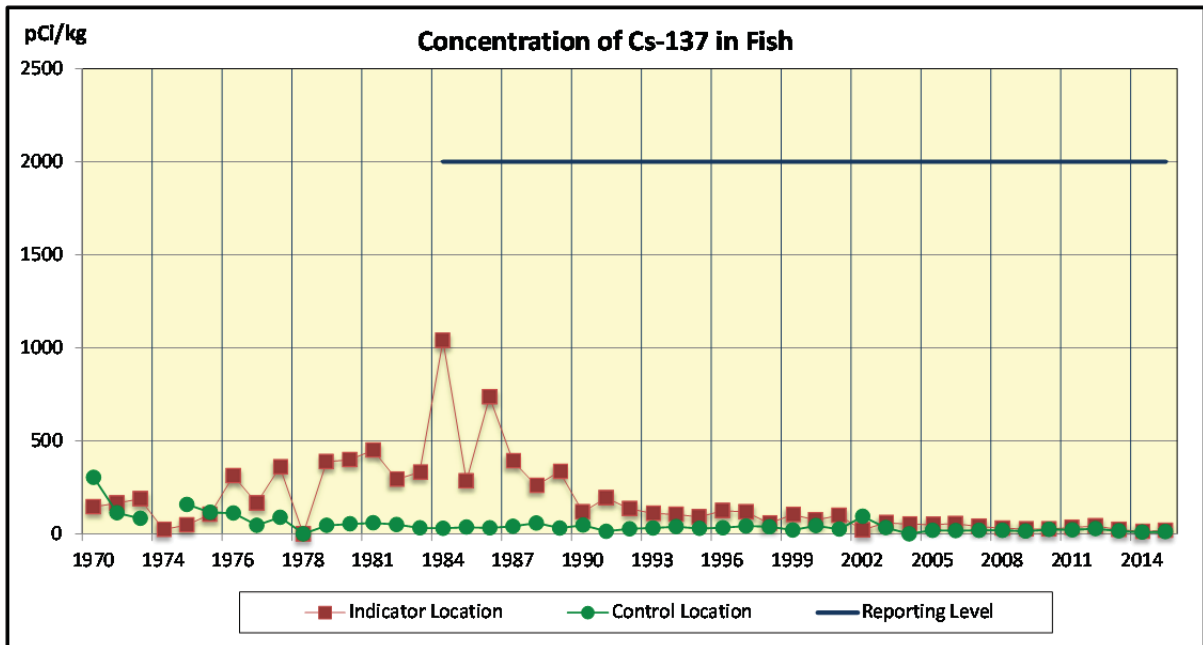
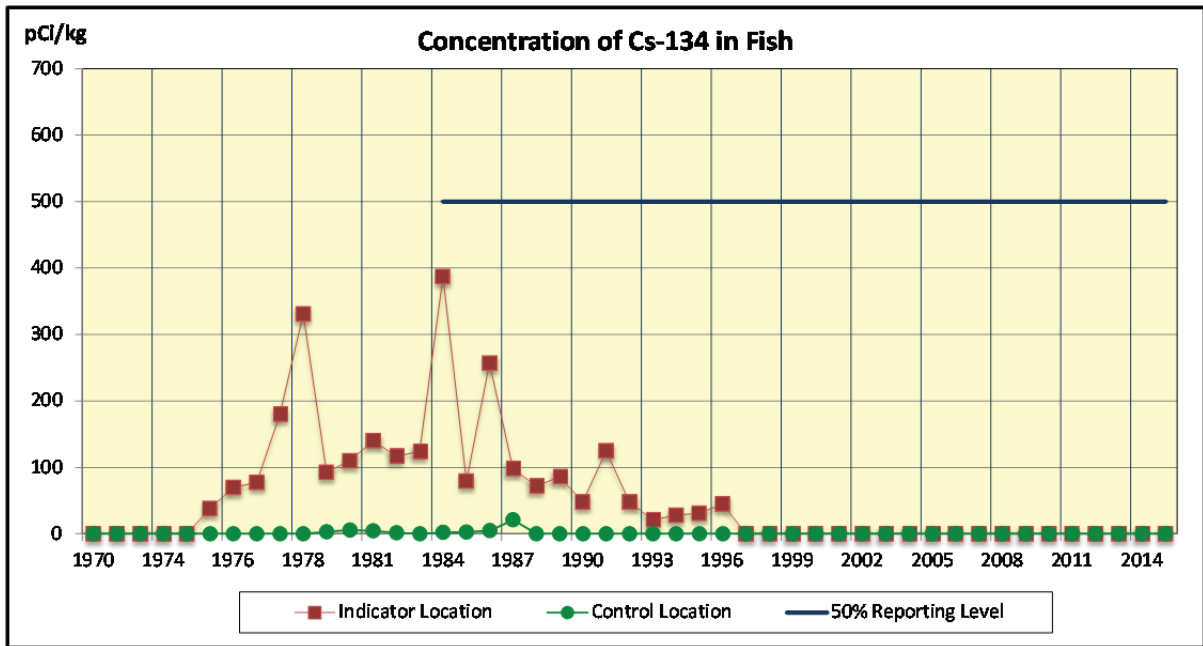


Figure 3.6-2



*Current reporting levels implemented 1984*

**Table 3.6 Mean Concentrations of Radionuclides in Fish**

Year	Co-58 (pCi/kg)	Co-60 (pCi/kg)	Cs-134 (pCi/kg)	Cs-137 (pCi/kg)
Preop ending Jan.1971	0.00E0	0.00E0	0.00E0	1.46E2
Preop ending Jan.1973	0.00E0	0.00E0	0.00E0	1.66E2
Feb. 1973 - June 1973	Qualitative results reported-no significant measurements above background			
July 1973 - Dec. 1973	0.00E0	0.00E0	0.00E0	1.89E2
Jan. 1974 - June 1974	0.00E0	0.00E0	0.00E0	2.47E1
July 1974 - Dec. 1974	0.00E0	0.00E0	0.00E0	4.85E1
Jan. 1975 - June 1975	0.00E0	0.00E0	3.81E1	1.05E2
July 1975 - Dec. 1975	8.50E1	0.00E0	7.00E1	3.13E2
1976	5.70E1	1.14E2	7.73E1	1.66E2
1977	0.00E0	0.00E0	1.80E2	3.60E2
1978	3.27E2	0.00E0	3.31E2	0.00E0
1979	1.91E0	1.56E1	9.26E1	3.88E2
1980	1.45E1	1.90E1	1.10E2	3.99E2
1981	2.25E1	1.49E1	1.40E2	4.51E2
1982	9.83E-1	8.03E0	1.17E2	2.94E2
1983	3.35E1	4.53E0	1.24E2	3.32E2
1984	1.21E2	6.23E1	3.87E2	1.04E3
1985	1.62E1	1.10E1	7.93E1	2.85E2
1986	9.56E1	2.59E1	2.57E2	7.36E2
1987 <sup>(1)</sup>	1.63E2	6.30E1	9.80E1	3.93E2
1988	9.60E1	0.00E0	7.20E1	2.60E2
1989	4.30E1	1.50E1	8.60E1	3.36E2
1990	1.50E1	0.00E0	4.80E1	1.19E2
1991	4.59E1	0.00E0	1.25E2	1.94E2
1992	6.10E1	0.00E0	4.80E1	1.36E2
1993	0.00E0	0.00E0	2.10E1	1.10E2
1994	0.00E0	0.00E0	2.80E1	1.05E2
1995	0.00E0	0.00E0	3.10E1	9.20E1
1996	0.00E0	0.00E0	4.49E1	1.25E2
1997	0.00E0	0.00E0	0.00E0	1.18E2
1998	0.00E0	0.00E0	0.00E0	5.79E1
1999	0.00E0	0.00E0	0.00E0	1.04E2
2000	0.00E0	0.00E0	0.00E0	7.54E1
2001	1.72E1	0.00E0	0.00E0	9.92E1
2002	0.00E0	0.00E0	0.00E0	9.37E1
2003	5.02E1	0.00E0	0.00E0	6.04E1
2004	0.00E0	0.00E0	0.00E0	5.29E1
2005	0.00E0	0.00E0	0.00E0	5.14E1
2006	0.00E0	0.00E0	0.00E0	5.58E1
2007	0.00E0	0.00E0	0.00E0	4.10E1
2008	0.00E0	0.00E0	0.00E0	3.13E1
2009	9.01E0	0.00E0	0.00E0	2.68E1
2010	0.00E0	0.00E0	0.00E0	2.69E1
2011	0.00E0	0.00E0	0.00E0	3.53E1
2012	1.23E2	3.61E1	0.00E0	4.32E1
2013	0.00E0	0.00E0	0.00E0	2.44E1
2014 <sup>(2)</sup>	0.00E0	0.00E0	0.00E0	1.40E1
2015	0.00E0	0.00E0	0.00E0	1.94E1

0.00E0 indicates no detectable measurements

1979 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

### 3.7 SHORELINE SEDIMENT

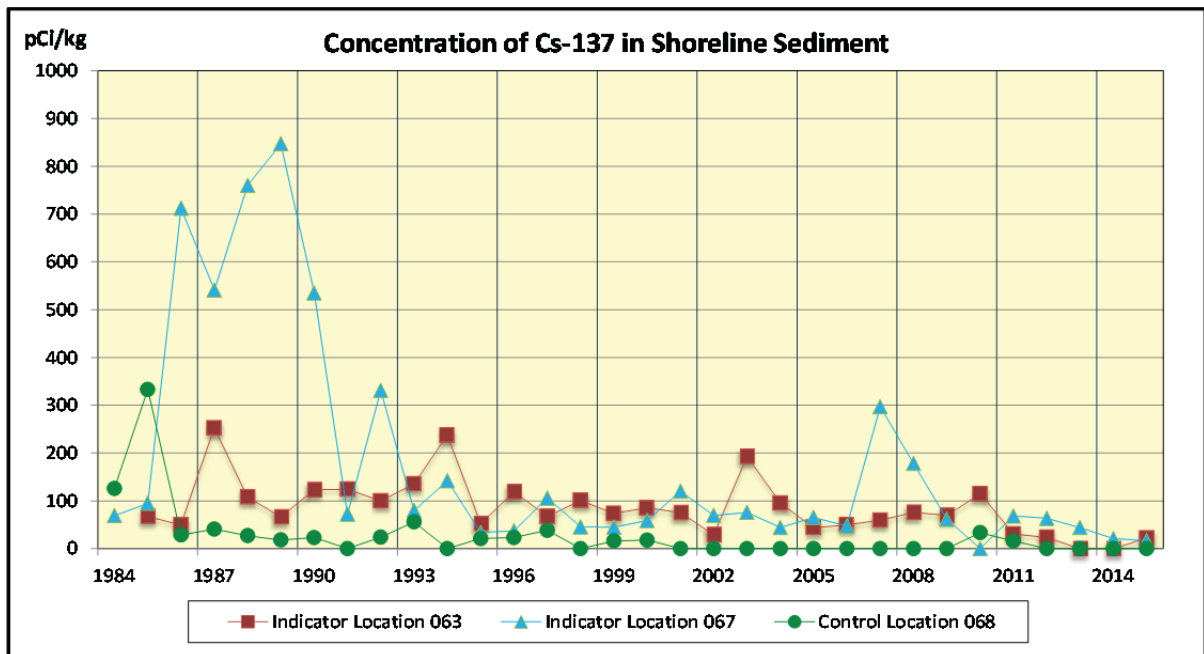
Gamma spectroscopy was performed on six sediment samples. Two downstream indicator locations and one control location were sampled. Four samples were taken from indicator locations and two from the control location.

Cs-137 was identified in two of the four indicator location samples. Cs-137 was not identified in the control location samples. The highest 2015 individual sample Cs-137 concentration was 22.4 pCi/kg. For comparison, the highest 2014 individual sample Cs-137 concentration was 21.1 pCi/kg. Table 3.7 lists the highest indicator location annual means since shoreline sediment was initiated in 1984. Included in the table are radionuclides that have been identified in this media since the change in analysis systems in 1987.

Visual inspection of the tabular data did not reveal any trends. Figure 3.7 is a graph of the Cs-137 annual means. Historically, Cs-137 is a contributor to the calculated dose from liquid effluents from shoreline sediment. No trends are apparent.

K-40 and Be-7 observed in shoreline samples are naturally occurring radionuclides.

Figure 3.7



*There are no reporting levels for shoreline sediment*

**Table 3.7 Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)**

Year	Mn-54	Co-58	Co-60	Zn-65	Cs-134	Cs-137	Ag-110m	Sb-125
1984	1.10E1	1.09E1	1.19E1	0.00E0	7.77E1	5.16E1	0.00E0	0.00E0
1985	9.39E0	1.27E0	4.79E0	0.00E0	7.63E1	9.47E1	0.00E0	0.00E0
1986	2.24E1	1.62E1	2.50E1	0.00E0	1.41E2	7.12E2	0.00E0	0.00E0
1987 <sup>(1)</sup>	5.40E1	4.70E2	5.07E2	0.00E0	1.01E2	6.22E2	3.46E2	0.00E0
1988	3.30E1	1.20E2	1.87E2	6.70E1	6.60E1	7.59E2	1.62E2	3.67E2
1989	2.30E1	1.24E2	1.96E2	0.00E0	5.40E1	8.48E2	5.50E1	1.86E2
1990	3.40E1	8.00E1	2.59E2	0.00E0	4.50E1	5.36E2	1.71E2	9.00E1
1991	3.26E1	5.60E1	8.57E1	0.00E0	6.91E1	1.24E2	1.10E2	1.78E2
1992	8.79E1	1.79E2	1.12E2	0.00E0	5.60E1	3.31E2	1.69E2	2.08E2
1993	8.20E1	8.20E1	6.50E1	0.00E0	3.20E1	1.36E2	5.63E1	1.11E2
1994	5.30E1	7.00E1	1.49E2	0.00E0	6.70E1	2.38E2	1.04E2	1.29E2
1995	1.43E2	3.90E1	2.40E1	0.00E0	1.10E1	5.20E1	0.00E0	0.00E0
1996	0.00E0	5.10E1	0.00E0	0.00E0	1.98E1	1.19E2	0.00E0	0.00E0
1997	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.06E2	0.00E0	0.00E0
1998	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.01E2	0.00E0	0.00E0
1999	6.96E1	0.00E0	0.00E0	0.00E0	0.00E0	7.38E1	0.00E0	0.00E0
2000	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	8.54E1	0.00E0	0.00E0
2001	0.00E0	2.10E1	0.00E0	0.00E0	0.00E0	1.20E2	0.00E0	0.00E0
2002	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.96E1	0.00E0	0.00E0
2003	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.93E2	0.00E0	0.00E0
2004	8.54E1	0.00E0	0.00E0	0.00E0	0.00E0	9.56E1	0.00E0	0.00E0
2005	2.00E2	0.00E0	0.00E0	0.00E0	0.00E0	6.53E1	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	5.01E1	0.00E0	0.00E0
2007	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.97E2	0.00E0	0.00E0
2008	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.78E2	0.00E0	0.00E0
2009	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.97E1	0.00E0	0.00E0
2010	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.15E2	0.00E0	0.00E0
2011	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.83E1	0.00E0	0.00E0
2012	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.35E1	0.00E0	0.00E0
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	4.37E1	0.00E0	0.00E0
2014 <sup>(2)</sup>	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.11E1	0.00E0	0.00E0
2015	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.24E1	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change



## **3.8 DIRECT GAMMA RADIATION**

### **3.8.1 ENVIRONMENTAL TLD**

Oconee is licensed with an exclusion area boundary defined by UFSAR Section 2.1.1.2 as a 1 mile radius from station center. This is the same boundary established for determining radioactive effluent release limits. No permanent public access is permitted within the exclusion area. TLD locations designated as "inner ring" were placed within exclusion area upon inception of the REMP and all are used as indicators. Due to close proximity with Oconee, inner ring TLD locations are not good indicators of radiation exposure to a member of the public, but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. TLD locations designated as "outer ring" are outside the 1 mile exclusion area but within a 5 mile radius of station center. All outer ring TLD locations are used as indicators. A subset of TLD locations within a 7 to 13 mile radius from station center are designated as "special interest". The two "control" locations are greater than 9 miles from station center. These locations were chosen to reduce the probability of influence from Oconee operation on data. The control locations are not used as background subtraction in the TLD analysis. Their purpose is to provide a comparison to indicator locations.

In 2015, 168 total TLDs were analyzed, 160 at indicator locations and 8 at control locations. TLDs are collected and analyzed quarterly. Transit and laboratory background dose is determined and subtracted from gross field readings as required by ANSI N545-1975. Based on Appendix B TLD data, the highest annual total dose was 104 mrem at indicator location 040, 4.74 miles E of station center. Figure 3.8 and Table 3.8-A show TLD inner ring, outer ring, and control location annual averages in mrem per year. Data is provided from 1984 when TLD locations were added and arranged in an inner ring and outer ring configuration. Preoperational data is also provided in the table. As shown in the graph, historical inner and outer ring averages compare similarly, while control data is somewhat higher. This is most likely an artifact of the underlying geologic structures at the control locations. Comparing data from the 2015 Oconee Annual Radiological Effluent Release Report (ARERR), dose to a member of the public resulting from gaseous effluent releases at Oconee is a small fraction of measured TLD dose. Therefore, it can be concluded that gaseous effluents from Oconee had negligible impact on measured TLD values.

Starting in 2014, enhanced analytical methods were implemented. Quarterly and annual baseline dose was determined using appropriate statistical methods considering data from 2000 through 2012. Quarterly and annual dose for 2015 was compared to baseline values to determine if an Investigation Level had been exceeded for evaluation of potential dose to a member of the public. No TLD location exceeded the Quarterly or Annual Investigation Level in 2015, therefore no evaluation of dose to a member of the public from direct or scattered radiation was performed. Table 3.8-B summarizes the data.

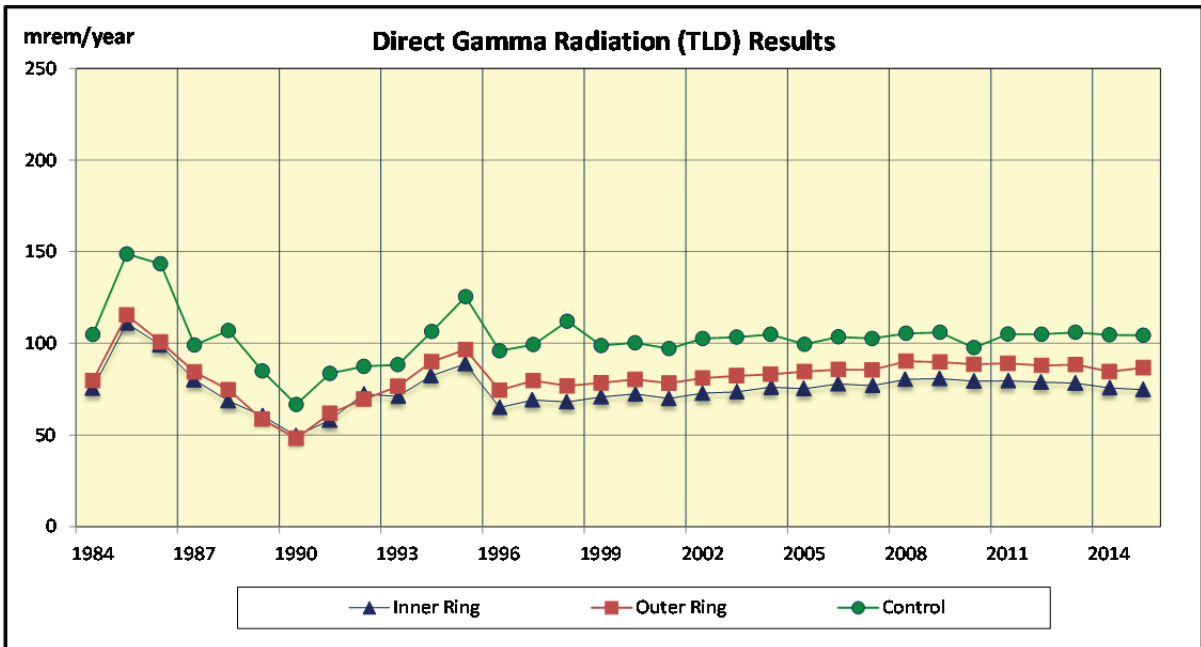
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 5.9.

### 3.8.2 ISFSI

The Oconee ISFSI began operation in 1990. It is located 0.25 miles southwest of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI employs the NUHOMS® horizontal storage module design. Irradiated fuel assemblies are confined, protected, and shielded by a reinforced concrete module. The system is completely passive and designed to provide shielding and safe confinement of spent fuel for a range of postulated accident conditions and natural phenomena. Decay heat is removed from the module by a passive ventilation system. No radiological liquid or gaseous effluents are expected from the passive storage provided by the ISFSI. Therefore any dose to offsite locations would be from direct and scattered gamma radiation.

The Oconee REMP serves as the operational program for the ISFSI. Several environmental TLD locations are presently located at the Oconee site boundary fence near the ISFSI. The closest of these is 0.3 miles from the ISFSI, well within the 1 mile exclusion boundary. In addition, dose rates at the ISFSI restricted area fence are monitored with TLDs as part of the routine REMP. These are used, in part, to control occupational exposure and augment the REMP according to the Oconee ISFSI UFSAR. The maximum TLD dose at the ISFSI fence, which is not accessible to the public, was 631 mrem per standard quarter. This is consistent with previous measurements.

Figure 3.8



*There is no reporting level for Direct Radiation (TLD)*

**Table 3.8-A Direct Gamma Radiation (TLD) Results**

<b>Year</b>	<b>Inner Ring Average (mrem/yr)</b>	<b>Outer Ring Average (mrem/yr)</b>	<b>Control Average (mrem/yr)</b>
Preoperational	1.07E2	1.18E2	1.42E2
1984	7.54E1	7.96E1	1.05E2
1985	1.11E2	1.15E2	1.49E2
1986	9.90E1	1.01E2	1.43E2
1987	8.01E1	8.44E1	9.91E1
1988	6.87E1	7.47E1	1.07E2
1989	6.05E1	5.86E1	8.49E1
1990	4.96E1	4.82E1	6.66E1
1991	5.81E1	6.18E1	8.36E1
1992	7.24E1	6.95E1	8.74E1
1993	7.11E1	7.66E1	8.84E1
1994	8.25E1	9.00E1	1.06E2
1995	8.89E1	9.66E1	1.25E2
1996	6.51E1	7.44E1	9.60E1
1997	6.92E1	7.96E1	9.93E1
1998	6.81E1	7.68E1	1.12E2
1999	7.08E1	7.84E1	9.88E1
2000	7.24E1	8.03E1	1.00E2
2001	6.99E1	7.83E1	9.71E1
2002	7.28E1	8.11E1	1.03E2
2003	7.36E1	8.23E1	1.03E2
2004	7.61E1	8.31E1	1.05E2
2005	7.54E1	8.46E1	9.95E1
2006	7.79E1	8.57E1	1.04E2
2007	7.70E1	8.55E1	1.03E2
2008	8.04E1	9.03E1	1.05E2
2009	8.08E1	8.98E1	1.06E2
2010	7.94E1	8.85E1	9.77E1
2011	7.96E1	8.91E1	1.05E2
2012	7.89E1	8.79E1	1.05E2
2013	7.83E1	8.84E1	1.06E2
2014	7.58E1	8.46E1	1.05E2
2015	7.48E1	8.67E1	1.04E2

**Table 3.8-B Direct Gamma Radiation (TLD) Oconee 2015 Investigation Level**

Oconee 2015 MDD <sub>Q</sub> : 7	Oconee 2015 MDD <sub>A</sub> : 11
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Quarterly (mrem)										Annual(mrem)		
Location	B <sub>Q</sub>	M <sub>Q</sub> Q1	M <sub>Q</sub> Q2	M <sub>Q</sub> Q3	M <sub>Q</sub> Q4	L <sub>Q</sub> Q1	L <sub>Q</sub> Q2	L <sub>Q</sub> Q3	L <sub>Q</sub> Q4	B <sub>A</sub>	M <sub>A</sub> <sup>*</sup>	L <sub>A</sub>
20	18.9	18.7	19.1	17.3	18.5	ND	ND	ND	ND	75.7	73.6	ND
21	14.0	15.8	14.1	12.5	13.3	ND	ND	ND	ND	56.9	55.7	ND
22-P	21.8	22.6	23.3	20.8	21.6	ND	ND	ND	ND	89.7	88.3	ND
23-P	21.9	24.1	21.9	20.3	22.6	ND	ND	ND	ND	87.8	88.9	ND
24-P	22.8	26.6	22.9	22.3	23.5	ND	ND	ND	ND	98.6	95.3	ND
25	17.1	19.8	17.2	17.0	17.1	ND	ND	ND	ND	72.9	71.1	ND
26	16.5	16.1	16.7	15.2	16.0	ND	ND	ND	ND	67.2	63.9	ND
27-P	19.2	20.0	17.4	18.1	18.5	ND	ND	ND	ND	78.1	74.1	ND
28	17.0	18.7	15.6	15.0	17.9	ND	ND	ND	ND	68.3	67.2	ND
29	15.7	19.5	15.0	14.3	15.5	ND	ND	ND	ND	63.3	64.3	ND
30	17.0	18.6	16.4	16.1	18.1	ND	ND	ND	ND	70.6	69.2	ND
31	16.4	17.2	14.6	14.8	16.3	ND	ND	ND	ND	65.7	63.0	ND
32	22.9	20.8	18.0	16.8	19.4	ND	ND	ND	ND	94.5	75.0	ND
33	19.5	17.8	16.6	15.6	17.3	ND	ND	ND	ND	77.9	67.3	ND
34	21.5	19.9	16.4	15.8	17.9	ND	ND	ND	ND	86.0	69.9	ND
35	22.9	25.6	22.9	21.7	24.1	ND	ND	ND	ND	93.3	94.2	ND
36-P	26.5	26.0	---	22.6	27.0	ND	ND	ND	ND	105.1	100.8	ND
37-P	20.4	21.2	17.9	17.8	17.8	ND	ND	ND	ND	82.0	74.6	ND
38-P	21.9	23.0	22.5	22.0	22.7	ND	ND	ND	ND	87.5	90.3	ND
39-P	24.2	24.8	23.8	22.6	24.7	ND	ND	ND	ND	96.2	95.9	ND
40	23.7	27.9	24.9	23.9	26.2	ND	ND	ND	ND	101.1	103.0	ND
41-P	17.3	18.4	15.7	15.2	17.4	ND	ND	ND	ND	69.1	66.7	ND
42-P	25.0	27.6	24.2	24.5	26.1	ND	ND	ND	ND	102.2	102.5	ND
43	23.8	25.2	22.1	23.7	24.4	ND	ND	ND	ND	95.3	95.4	ND
44-P	18.3	20.0	18.6	17.3	19.0	ND	ND	ND	ND	80.0	74.9	ND
45-P	17.0	18.1	15.3	15.6	16.6	ND	ND	ND	ND	67.9	65.6	ND
46-P	21.5	28.0	21.2	21.3	23.2	ND	ND	ND	ND	91.8	93.7	ND
47	22.4	25.4	21.1	20.7	21.5	ND	ND	ND	ND	91.1	88.6	ND
48-P	25.3	27.7	24.6	23.1	24.2	ND	ND	ND	ND	101.3	99.7	ND
49-P	20.7	21.9	21.1	21.5	21.6	ND	ND	ND	ND	82.6	86.0	ND
50-P	17.7	18.2	17.9	16.3	22.5	ND	ND	ND	ND	70.9	75.0	ND
51-P	19.0	23.4	18.4	18.2	19.0	ND	ND	ND	ND	76.2	79.0	ND
52-P	22.9	27.6	23.1	22.4	23.0	ND	ND	ND	ND	94.8	96.0	ND
53-P	25.1	27.3	23.6	22.0	24.8	ND	ND	ND	ND	102.3	97.7	ND
54-P	18.5	20.0	17.6	16.2	17.9	ND	ND	ND	ND	76.5	71.6	ND
55-P	15.5	17.8	15.2	16.0	16.5	ND	ND	ND	ND	65.1	65.5	ND
56-P	22.8	26.1	22.0	21.7	24.2	ND	ND	ND	ND	91.8	94.1	ND
57-P	22.4	25.9	22.7	21.9	22.8	ND	ND	ND	ND	93.6	93.3	ND
58	29.3	32.6	32.0	29.5	29.7	ND	ND	ND	ND	119.7	123.8	ND
59	24.1	25.0	23.8	23.4	25.0	ND	ND	ND	ND	98.5	97.1	ND
76	20.8	21.9	21.1	21.3	23.1	ND	ND	ND	ND	89.0	87.3	ND
81	21.9	23.8	21.1	20.6	23.2	ND	ND	ND	ND	91.1	88.6	ND

\* Ma determined by normalizing available quarterly data to 4 full quarters  
' --- ' indicates no data resulting from missing TLD, erroneous TLD reading, or omitted after investigation <sup>(note)</sup>.

Note: Data may be omitted after investigation considering the following:

- Other TLD locations' data from upwind, downwind, and adjacent sectors
- Review of documentation on location's characteristics, geography, topography, etc.
- Comparison with other radiological data (i.e. gaseous effluent releases, direct radiation reports, surveys, dose calculations, Area TLDs, etc.)

**Table 3.8-B definition of terms**

- $MDD_Q$  = minimum differential dose, quarterly, 3 times 90<sup>th</sup> percentile  $s_Q$  determined from analysis in mrem
- $MDD_A$  = minimum differential dose, annual, 3 times 90<sup>th</sup> percentile  $s_A$  determined from analysis in mrem
- $B_Q$  = Quarterly baseline (mrem)
- $M_Q$  = location's 91 day standard quarter normalized dose (mrem per standard quarter) averaged between multiple TLDs at each location. Appendix B and Appendix E indicate only the Alpha TLD and are not average values.
- $L_Q$  = quarterly investigation level dose (mrem)
- $B_A$  = baseline background dose (mrem) (annual)
- $M_A$  = annual monitoring data -  $M_a$  determined by normalizing available quarterly data to 4 full quarters
- $L_A$  = annual investigation level dose (mrem)
- ND = not detected

### 3.9 LAND USE CENSUS

The Land Use Census was conducted during the growing season (5/19 – 5/20/2015) as required by SLC 16.11.6. Table 3.9 summarizes census results. A map indicating identified locations is shown in Figure 3.9. The nearest residence is located in the NNW sector at 1.03 miles. No program changes were required based on the results of the census.

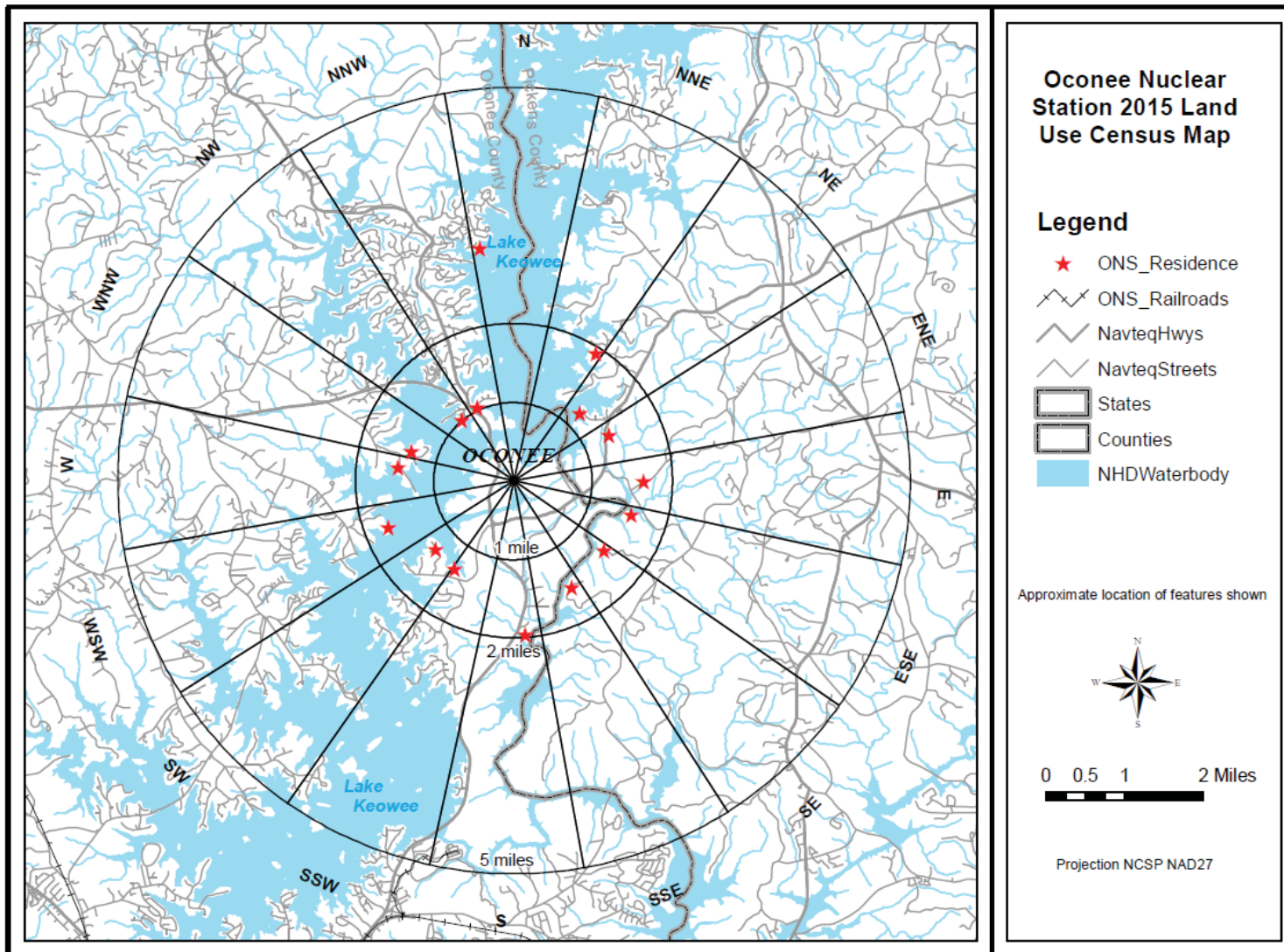
**Table 3.9 Oconee 2015 Land Use Census Results**

<b>Sector</b>		<b>Distance (Miles)</b>	<b>Sector</b>		<b>Distance (Miles)</b>
<b>N</b>	Nearest Residence	2.98	<b>S</b>	Nearest Residence	1.96
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>NNE</b>	Nearest Residence	1.84	<b>SSW</b>	Nearest Residence	1.36
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>NE</b>	Nearest Residence	1.20	<b>SW</b>	Nearest Residence	1.31
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>ENE</b>	Nearest Residence	1.34	<b>WSW</b>	Nearest Residence	1.76
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>E</b>	Nearest Residence	1.64	<b>W</b>	Nearest Residence	1.58
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>ESE</b>	Nearest Residence	1.57	<b>WNW</b>	Nearest Residence	1.35
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>SE</b>	Nearest Residence	1.46	<b>NW</b>	Nearest Residence	1.04
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>SSE</b>	Nearest Residence	1.54	<b>NNW</b>	Nearest Residence	1.03
	Nearest Milk Animal	-		Nearest Milk Animal	-

“-“ indicates no occurrences within the 5 mile radius

\* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

Figure 3.9



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## 4.0 EVALUATION OF DOSE

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### 4.1 DOSE FROM ENVIRONMENTAL MEASUREMENTS

Annual doses to maximum exposed individuals were estimated based on measured concentrations of radionuclides in 2015 ONS REMP samples. The primary purpose of estimating doses based on sample results is to allow comparison to effluent program dose estimates. Doses based on sample results were conservatively calculated in a manner as equivalent as possible to effluent-based dose estimates.

Doses based on REMP sample results were calculated using the methodology and data presented in NRC Regulatory Guide 1.109. Measured radionuclide concentrations, averaged over the entire year for a specific radionuclide, indicator location, and sample type, were used to calculate REMP-based doses, after subtracting the applicable average background concentration (as measured at the corresponding control location). Regulatory Guide 1.109 consumption rates for the maximum exposed individual were used in the calculations. A dose factor of zero was assumed when the guide listed “NO DATA” as the dose factor for a given radionuclide and organ.

Maximum dose estimates calculated using drinking water, fish, and shoreline sediment results are reported in Table 4.1-A. The individual critical population and pathway dose calculations are contained in Table 4.1-B.

No radionuclides attributable to ONS operations were detected in milk, airborne radioiodine or airborne particulate samples. Naturally occurring K-40 and Be-7 were detected in some samples but were not included in any REMP-based dose estimates. Dose estimates were not calculated for surface water samples because surface water is not considered a potable drinking water source although surface water tritium concentrations are used in calculating doses from fish. REMP TLD exposure results are discussed in Section 3.8.

The maximum environmental organ dose estimate for any single sample type (excluding TLD results) collected during 2015 was 3.36E-2 mrem to the child liver, total body, thyroid, kidney, lung, and GI-LLI from the consumption of drinking water.

### 4.2 ESTIMATED DOSE FROM RELEASES

Throughout the year, dose estimates were calculated based on actual 2015 liquid and gaseous effluent release data. Effluent-based dose estimates were calculated using the RETDAS computer program which employs methodology and data presented in NRC Regulatory Guide 1.109. These doses are shown in Table 4.1-A along with the corresponding REMP-based dose estimates. Summaries of RETDAS dose calculations are reported in the Annual Radioactive Effluent Release Report.



The effluent-based liquid release doses are summations of the dose contributions of the drinking water, fish and shoreline pathways. For iodine, particulate, and tritium exposure the effluent-based gaseous release doses are summations of the dose contributors from ground/plane, milk, inhalation and vegetation pathways.

### **4.3 COMPARISON OF DOSES**

The liquid environmental and release data doses given in Table 4.1-A agree reasonably well. The similarity of the doses indicate that the radioactivity levels in the environment do not differ significantly from those expected based on effluent measurements and modeling of the environmental exposure pathways.

There are some differences in how effluent and environmental doses are calculated that affect the comparison. Doses calculated from environmental data are conservative because they are based on a mean that includes only samples with a net positive activity versus a mean that includes all sample results (i.e. zero results are not included in the mean). Also, airborne tritium is not measured in environmental samples but is used to calculate effluent doses.

Additionally, in 2010 Oconee began reporting estimated dose from effluent Carbon 14 (C-14). This change came about with the issuing of Regulatory Guide 1.21, Revision 2, Measuring, Evaluating and Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste. A description of this change is found in the 2010 Annual Radiological Effluent Release Report. C-14 is not easily measured in the environment and therefore, environmental and effluent doses from C-14 cannot be compared directly.

In calculations based on liquid release effluent pathways, fish, drinking water, and shoreline sediment were the predominant dose pathways based on environmental and effluent samples. The maximum total organ dose based on 2015 environmental sample results was 5.93E-2 mrem to the child liver. The maximum total organ dose of 1.71E-1 mrem for liquid effluent-based estimates was to the child liver.

In calculations based on gaseous release pathways, vegetation was the predominant dose pathway for effluent samples. The gaseous effluent dose is due to C-14 and tritium in broadleaf vegetation. The maximum total organ dose for gaseous effluent estimates was 3.51E-1 mrem to the child bone, with C-14 being the primary dose contributor. No radioactivity was detected from gaseous pathways in environmental samples; therefore, there is no calculated dose.

The doses calculated do not exceed 40CFR190 or 10CFR50 dose commitment limits for members of the public. Doses to members of the public attributable to the operation of ONS are being maintained well within regulatory limits and are described in the Annual Radiological Effluent Release Report (ARERR).

**TABLE 4.1-A**

**OCONEE NUCLEAR STATION  
2015 ENVIRONMENTAL AND EFFLUENT DOSE COMPARISON**

**LIQUID RELEASE PATHWAY**

<b>Organ</b>	<b>Environmental or Effluent Data</b>	<b>Critical Age <sup>(1)</sup></b>	<b>Critical Pathway <sup>(2)</sup></b>	<b>Location</b>	<b>Maximum Dose <sup>(3)</sup> (mrem)</b>
Skin	Environmental	Teen	Shoreline Sediment	063 (0.80 mi ESE)	5.88E-05
Skin	Effluent	Teen	Shoreline Sediment	Discharge Pt.	3.50E-04
Bone	Environmental	Child	Fish	067 (4.34 mi SSE)	1.67E-02
Bone	Effluent	Child	Fresh Water Fish	Discharge Pt.	3.16E-02
Liver	Environmental	Child	Drinking Water	066 (18.9 mi SSE)	5.93E-02
Liver	Effluent	Child	Drinking Water	18.9 mi SSE	1.71E-01
T. Body	Environmental	Adult	Fish	067 (4.34 mi SSE)	5.13E-02
T. Body	Effluent	Adult	Fresh Water Fish	Discharge Pt.	1.57E-01
Thyroid	Environmental	Child	Drinking Water	066 (18.9 mi SSE)	4.33E-02
Thyroid	Effluent	Child	Drinking Water	18.9 mi SSE	1.44E-01
Kidney	Environmental	Child	Drinking Water	066 (18.9 mi SSE)	4.86E-02
Kidney	Effluent	Child	Drinking Water	18.9 mi SSE	1.53E-01
Lung	Environmental	Child	Drinking Water	066 (18.9 mi SSE)	4.52E-02
Lung	Effluent	Child	Drinking Water	18.9 mi SSE	1.47E-01
GI-LLI	Environmental	Child	Drinking Water	066 (18.9 mi SSE)	4.34E-02
GI-LLI	Effluent	Adult	Fresh Water Fish	18.9 mi SSE	1.64E-01

(1) Critical Age is the highest total dose (all pathways) to an age group.

(2) Critical Pathway is the highest individual dose within the identified Critical Age group.

(3) Maximum dose is a summation of the fish, drinking water and shoreline sediment pathways.

GASEOUS RELEASE PATHWAY**IODINE, PARTICULATE, and TRITIUM**

<b>Organ</b>	<b>Environmental or Effluent Data</b>	<b>Critical Age <sup>(1)</sup></b>	<b>Critical Pathway <sup>(2)</sup></b>	<b>Location</b>	<b>Maximum Dose <sup>(3)</sup> (mrem)</b>
Skin	Environmental	-	-	-	0.00E+00
Skin	Effluent	All	Ground Plane	1.0 mi. SW	9.17E-12
Bone	Environmental	-	-	-	0.00E+00
Bone	Effluent	Child	Vegetation	1.0 mi. SW	3.51E-01
Liver	Environmental	-	-	-	0.00E+00
Liver	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01
T. Body	Environmental	-	-	-	0.00E+00
T. Body	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01
Thyroid	Environmental	-	-	-	0.00E+00
Thyroid	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01
Kidney	Environmental	-	-	-	0.00E+00
Kidney	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01
Lung	Environmental	-	-	-	0.00E+00
Lung	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01
GI-LLI	Environmental	-	-	-	0.00E+00
GI-LLI	Effluent	Child	Vegetation	1.0 mi. SW	1.25E-01

(1) Critical Age is the highest total dose (all pathways) to an age group.

(2) Critical Pathway is the highest individual dose within the identified Critical Age group.

(3) Maximum dose is a summation of the ground/plane, inhalation, milk and vegetation pathways.

**TABLE 4.1-B***Maximum Individual Dose for 2015 based on Environmental Measurements (mrem) for Oconee Nuclear Station*

Age	Sample Medium	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Skin
<b>Infant</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	<u>TOTAL</u>	0.00E+00	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	0.00E+00
<b>Child</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.67E-02	2.57E-02	1.21E-02	9.74E-03	1.50E-02	1.16E-02	9.84E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	1.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.23E-05
	<u>TOTAL</u>	1.67E-02	5.93E-02	4.57E-02	4.33E-02	4.86E-02	4.52E-02	4.34E-02	1.23E-05
<b>Teen</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.33E-02	2.94E-02	1.79E-02	1.18E-02	1.78E-02	1.41E-02	1.21E-02	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	5.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.88E-05
	<u>TOTAL</u>	1.33E-02	4.70E-02	3.56E-02	2.94E-02	3.54E-02	3.17E-02	2.97E-02	5.88E-05
<b>Adult</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.24E-02	3.23E-02	2.64E-02	1.53E-02	2.11E-02	1.73E-02	1.57E-02	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	9.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-05
	<u>TOTAL</u>	1.24E-02	5.72E-02	5.13E-02	4.02E-02	4.60E-02	4.22E-02	4.06E-02	1.05E-05

Note: Dose tables are provided for sample media displaying positive nuclide occurrence.

***Oconee Nuclear Station***  
***Dose from Drinking Water Pathway for 2015 Data***  
***Maximum Exposed Infant***

Infant Dose from Drinking Water Pathway (mrem) = Usage (l) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/l)

Usage (intake in one year) = 330 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.99E-05	4.51E-06	NO DATA	4.41E-06	NO DATA	7.31E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	3.60E-06	8.98E-06	NO DATA	NO DATA	NO DATA	8.97E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	3.08E-05	5.38E-05	2.12E-05	NO DATA	NO DATA	1.59E-05	2.57E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	1.08E-05	2.55E-05	NO DATA	NO DATA	NO DATA	2.57E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.84E-05	6.31E-05	2.91E-05	NO DATA	3.06E-05	NO DATA	5.33E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	4.20E-08	1.73E-08	1.00E-08	NO DATA	1.24E-08	NO DATA	1.46E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	2.06E-07	5.02E-08	3.56E-08	NO DATA	5.41E-08	NO DATA	2.50E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	3.59E-05	4.23E-05	1.86E-05	1.39E-02	4.94E-05	NO DATA	1.51E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	3.77E-04	7.03E-04	7.10E-05	NO DATA	1.81E-04	7.42E-05	1.91E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	5.22E-04	6.11E-04	4.33E-05	NO DATA	1.64E-04	6.64E-05	1.91E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	1.71E-04	1.71E-07	8.81E-06	NO DATA	4.06E-08	1.05E-07	4.20E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	066	325	0.00E+00	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02
Dose Commitment (mrem) =										0.00E+00	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02

***Oconee Nuclear Station***  
***Dose from Drinking Water Pathway for 2015 Data***  
***Maximum Exposed Child***

Child Dose from Drinking Water Pathway (mrem) = Usage (l) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/l)

Usage (intake in one year)= 510 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.07E-05	2.85E-06	NO DATA	3.00E-06	NO DATA	8.98E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	1.80E-06	5.51E-06	NO DATA	NO DATA	NO DATA	1.05E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	1.65E-05	2.67E-05	1.33E-05	NO DATA	NO DATA	7.74E-06	2.78E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C0-60	NO DATA	5.29E-06	1.56E-05	NO DATA	NO DATA	NO DATA	2.93E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.37E-05	3.65E-05	2.27E-05	NO DATA	2.30E-05	NO DATA	6.41E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	2.25E-08	8.76E-09	6.26E-09	NO DATA	8.23E-09	NO DATA	1.62E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	1.16E-07	2.55E-08	2.27E-08	NO DATA	3.65E-08	NO DATA	2.66E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	1.72E-05	1.73E-05	9.83E-06	5.72E-03	2.84E-05	NO DATA	1.54E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	2.34E-04	3.84E-04	8.10E-05	NO DATA	1.19E-04	4.27E-05	2.07E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	3.27E-04	3.13E-04	4.62E-05	NO DATA	1.02E-04	3.67E-05	1.96E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	8.31E-05	7.28E-08	4.85E-06	NO DATA	2.37E-08	4.34E-08	4.21E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	066	325	0.00E+00	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02
Dose Commitment (mrem) =										0.00E+00	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02

***Oconee Nuclear Station  
Dose from Fish Pathway for 2015 Data  
Maximum Exposed Child***

Child Dose from Fish Pathway (mrem) = Usage (kg) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/kg)

H-3 Concentration in Fish = Surface Water pCi/l x Bioaccumulation Factor 0.9 pCi/kg per pCi/l = 7730 pCi/l x 0.9 = 6957 pCi/kg

Usage (intake in one year) = 6.9 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Fish (pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	1.07E-05	2.85E-06	NO DATA	3.00E-06	NO DATA	8.98E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	1.80E-06	5.51E-06	NO DATA	NO DATA	NO DATA	1.05E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	1.65E-05	2.67E-05	1.33E-05	NO DATA	NO DATA	7.74E-06	2.78E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C0-60	NO DATA	5.29E-06	1.56E-05	NO DATA	NO DATA	NO DATA	2.93E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	1.37E-05	3.65E-05	2.27E-05	NO DATA	2.30E-05	NO DATA	6.41E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	2.34E-04	3.84E-04	8.10E-05	NO DATA	1.19E-04	4.27E-05	2.07E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	3.27E-04	3.13E-04	4.62E-05	NO DATA	1.02E-04	3.67E-05	1.96E-06	067	7.40	1.67E-02	1.60E-02	2.36E-03	0.00E+00	5.21E-03	1.87E-03	1.00E-04
H-3	NO DATA	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	063	6957	0.00E+00	9.74E-03	9.74E-03	9.74E-03	9.74E-03	9.74E-03	9.74E-03
Dose Commitment (mrem) =										1.67E-02	2.57E-02	1.21E-02	9.74E-03	1.50E-02	1.16E-02	9.84E-03

***Oconee Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2015 Data***  
***Maximum Exposed Child***

Shoreline Recreation = 14 hr (in one year)  
 Shore Width Factor = 0.2  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

Child Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m<sup>2</sup>) x Shore Width Factor x Sediment Surface Mass (kg/m<sup>2</sup>) x Sediment Concentration (pCi/kg)

Radionuclide	External Dose Factor Standing <u>on Contaminated Ground</u>		Indicator Location	Highest Annual Net <u>Mean Concentration</u> Sediment (pCi/kg)	<u>Dose</u>	
	(mrem/hr per pCi/m <sup>2</sup> )				(mrem)	
	T. Body	Skin			T. Body	Skin
Cs-134	1.20E-08	1.40E-08	ALL	0.00	0.00E+00	0.00E+00
Cs-137	4.20E-09	4.90E-09	063	22.4	1.05E-05	1.23E-05
Dose Commitment (mrem) =					1.05E-05	1.23E-05



***Oconee Nuclear Station  
Dose from Drinking Water Pathway for 2015 Data  
Maximum Exposed Teen***

Teen Dose from Drinking Water Pathway (mrem) = Usage (l) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/l)

Usage (intake in one year)= 510 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	5.90E-06	1.17E-06	NO DATA	1.76E-06	NO DATA	1.21E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	9.72E-07	2.24E-06	NO DATA	NO DATA	NO DATA	1.34E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	5.87E-06	1.37E-05	5.29E-06	NO DATA	NO DATA	4.32E-06	3.24E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.81E-06	6.33E-06	NO DATA	NO DATA	NO DATA	3.66E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	5.76E-06	2.00E-05	9.33E-06	NO DATA	1.28E-05	NO DATA	8.47E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	8.22E-09	4.56E-09	2.51E-09	NO DATA	4.42E-09	NO DATA	1.95E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	4.12E-08	1.30E-08	8.94E-09	NO DATA	1.91E-08	NO DATA	3.00E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	5.85E-06	8.19E-06	4.40E-06	2.39E-03	1.41E-05	NO DATA	1.62E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	8.37E-05	1.97E-04	9.14E-05	NO DATA	6.26E-05	2.39E-05	2.45E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.12E-04	1.49E-04	5.19E-05	NO DATA	5.07E-05	1.97E-05	2.12E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	2.84E-05	3.48E-08	1.83E-06	NO DATA	1.18E-08	2.34E-08	4.38E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	066	325	0.00E+00	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02
Dose Commitment (mrem)=										0.00E+00	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02	1.76E-02

***Oconee Nuclear Station  
Dose from Fish Pathway for 2015 Data  
Maximum Exposed Teen***

Teen Dose from Fish Pathway (mrem) = Usage (kg) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/kg)

H-3 Concentration in Fish = Surface Water pCi/l x Bioaccumulation Factor 0.9 pCi/kg per pCi/l = 7730 pCi/l x 0.9 = 6957 pCi/kg

Usage (intake in one year) = 16 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Location	(pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	5.90E-06	1.17E-06	NO DATA	1.76E-06	NO DATA	1.21E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	9.72E-07	2.24E-06	NO DATA	NO DATA	NO DATA	1.34E-05	ALL	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	5.87E-06	1.37E-05	5.29E-06	NO DATA	NO DATA	4.32E-06	3.24E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.81E-06	6.33E-06	NO DATA	NO DATA	NO DATA	3.66E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	5.76E-06	2.00E-05	9.33E-06	NO DATA	1.28E-05	NO DATA	8.47E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	8.37E-05	1.97E-04	9.14E-05	NO DATA	6.26E-05	2.39E-05	2.45E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	1.12E-04	1.49E-04	5.19E-05	NO DATA	5.07E-05	1.97E-05	2.12E-06	067	7.40	1.33E-02	1.76E-02	6.14E-03	0.00E+00	6.00E-03	2.33E-03	2.51E-04
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	063	6957	0.00E+00	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02
Dose Commitment (mrem) =										1.33E-02	2.94E-02	1.79E-02	1.18E-02	1.78E-02	1.41E-02	1.21E-02

***Oconee Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2015 Data***  
***Maximum Exposed Teen***

Shoreline Recreation = 67 hr (in one year)  
 Shore Width Factor = 0.2  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

Teen Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m<sup>2</sup>) x Shore Width Factor x Sediment Surface Mass (kg/m<sup>2</sup>) x Sediment Concentration (pCi/kg)

Radionuclide	External Dose Factor Standing on Contaminated Ground		Indicator Location	Highest Annual Net Mean Concentration Sediment (pCi/kg)	Dose	
	(mrem/hr per pCi/m <sup>2</sup> ) T. Body	Skin			(mrem) T. Body	Skin
Cs-134	1.20E-08	1.40E-08	ALL	0.00	0.00E+00	0.00E+00
Cs-137	4.20E-09	4.90E-09	063	22.4	5.04E-05	5.88E-05
Dose Commitment (mrem) =					5.04E-05	5.88E-05

**Oconee Nuclear Station**  
**Dose from Drinking Water Pathway for 2015 Data**  
**Maximum Exposed Adult**

Adult Dose from Drinking Water Pathway (mrem) = Usage (l) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/l)

Usage (intake in one year) = 730 l

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>		<u>Dose (mrem)</u>						
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Indicator Location	Water (pCi/l)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	4.57E-06	8.72E-07	NO DATA	1.36E-06	NO DATA	1.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	7.45E-07	1.67E-06	NO DATA	NO DATA	NO DATA	1.51E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	4.34E-06	1.02E-05	3.91E-06	NO DATA	NO DATA	2.85E-06	3.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.14E-06	4.72E-06	NO DATA	NO DATA	NO DATA	4.02E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	4.84E-06	1.54E-05	6.96E-06	NO DATA	1.03E-05	NO DATA	9.70E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-95	6.22E-09	3.46E-09	1.86E-09	NO DATA	3.42E-09	NO DATA	2.10E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	3.04E-08	9.75E-09	6.60E-09	NO DATA	1.53E-08	NO DATA	3.09E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	4.16E-06	5.95E-06	3.41E-06	1.95E-03	1.02E-05	NO DATA	1.57E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	6.22E-05	1.48E-04	1.21E-04	NO DATA	4.79E-05	1.59E-05	2.59E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	7.97E-05	1.09E-04	7.14E-05	NO DATA	3.70E-05	1.23E-05	2.11E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BaLa-140	2.03E-05	2.55E-08	1.33E-06	NO DATA	8.67E-09	1.46E-08	4.18E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	NO DATA	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	066	325	0.00E+00	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02
Dose Commitment (mrem) =										0.00E+00	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02	2.49E-02

***Oconee Nuclear Station  
Dose from Fish Pathway for 2015 Data  
Maximum Exposed Adult***

Adult Dose from Fish Pathway (mrem) = Usage (kg) x Dose Factor (mrem/pCi ingested) x Concentration (pCi/kg)

H-3 Concentration in Fish = Surface Water pCi/l x Bioaccumulation Factor 0.9 pCi/kg per pCi/l = 7730 pCi/l x 0.9 = 6957 pCi/kg

Usage (intake in one year) = 21 kg

Radionuclide	<u>Ingestion Dose Factor</u>							<u>Highest Annual Net Mean Concentration</u>			<u>Dose (mrem)</u>					
	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Location	(pCi/kg)	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
Mn-54	NO DATA	4.57E-06	8.72E-07	NO DATA	1.36E-06	NO DATA	1.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	NO DATA	7.45E-07	1.67E-06	NO DATA	NO DATA	NO DATA	1.51E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fe-59	4.34E-06	1.02E-05	3.91E-06	NO DATA	NO DATA	2.85E-06	3.40E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60	NO DATA	2.14E-06	4.72E-06	NO DATA	NO DATA	NO DATA	4.02E-05	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zn-65	4.84E-06	1.54E-05	6.96E-06	NO DATA	1.03E-05	NO DATA	9.70E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	6.22E-05	1.48E-04	1.21E-04	NO DATA	4.79E-05	1.59E-05	2.59E-06	ALL	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	7.97E-05	1.09E-04	7.14E-05	NO DATA	3.70E-05	1.23E-05	2.11E-06	067	7.40	1.24E-02	1.69E-02	1.11E-02	0.00E+00	5.75E-03	1.91E-03	3.28E-04
H-3	NO DATA	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	063	6957	0.00E+00	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02
Dose Commitment (mrem) =										1.24E-02	3.23E-02	2.64E-02	1.53E-02	2.11E-02	1.73E-02	1.57E-02

***Oconee Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2015 Data***  
***Maximum Exposed Adult***

Shoreline Recreation = 12 hr (in one year)  
 Shore Width Factor = 0.2  
 Sediment Surface Mass = 40 kg/m<sup>2</sup>

Adult Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m<sup>2</sup>) x Shore Width Factor x Sediment Surface Mass (kg/m<sup>2</sup>) x Sediment Concentration (pCi/kg)

Radionuclide	<u>External Dose Factor Standing on Contaminated Ground</u> (mrem/hr per pCi/m <sup>2</sup> )		<u>Highest Annual Net Mean Concentration</u>		<u>Dose</u> (mrem)	
	T. Body	Skin	Indicator Location	Sediment (pCi/kg)	T. Body	Skin
Cs-134	1.20E-08	1.40E-08	ALL	0.00	0.00E+00	0.00E+00
Cs-137	4.20E-09	4.90E-09	063	22.4	9.03E-06	1.05E-05
Dose Commitment (mrem) =					9.03E-06	1.05E-05

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## 5.0 QUALITY ASSURANCE

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### 5.1 SAMPLE COLLECTION

EnRad Laboratories, Fisheries and Aquatic Ecology performed the environmental sample collections as specified by approved sample collection procedures.

### 5.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is located in Huntersville, North Carolina, at Duke Energy's Environmental Center. During 2015, a vendor laboratory, General Engineering Laboratory, LLC (GEL), performed some environmental sample analyses as specified by approved analysis procedures.

### 5.3 DOSIMETRY ANALYSIS

The Radiation Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures.

### 5.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

#### 5.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

#### 5.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

#### 5.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include tritium analyses in drinking water, surface water, and ground water samples.

## **5.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM**

In 2015 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable. In addition, EnRad Laboratory participated in the Environmental Resource Associates (ERA) RadChem™ Proficiency Testing program to satisfy the North Carolina state drinking water radiochemistry certification requirements.

EnRad Laboratory participated in three interlaboratory programs: Eckert & Ziegler Analytics (EZA), ERA, and Fleet Scientific Services (FSS). EZA results were evaluated against IP 84750 acceptance criteria stated in EnRad procedure 515, Cross Check Program Administration. ERA evaluated the results reported by EnRad based on the National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. FSS results were evaluated as prescribed in the Duke Energy Nuclear Generation Procedure SRPMP 9-2.

Low-level Iodine-131 analysis of drinking water was not required during 2015 since the dose calculated for the consumption of the water was not greater than 1 mrem per year and there were no abnormal releases exceeding 1 pCi/liter I-131 in 2015 in the ONS program. This dose was calculated monthly during 2015 to ensure that low-level Iodine-131 analysis of drinking water samples was not required.

### **5.5.1 DUKE ENERGY INTERLABORATORY PROGRAM**

EnRad Laboratories participated in the Duke Energy Fleet Scientific Services (FSS) Interlaboratory Program during 2015. Interlaboratory cross check samples including mixed gamma in water (Marinelli beakers), low-level I-131 in water, gross beta in water, and tritium in water samples were analyzed during 2015. A summary of the EnRad Laboratory program results for 2015 is documented in Table 5.0-A.

### **5.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM**

EnRad Laboratories participated in the Eckert & Ziegler Analytics Cross Check Program during 2015. Cross check samples including air filters (single and composites), air cartridges, gross beta in water, various mixed gamma samples in Marinelli beakers (soil, vegetation, milk, and water), tritium in water, and Iodine in milk and water samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2015 is documented in Table 5.0-B.

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2015. During 2015, there were three EZA Cross Check results in non-agreement. The first non-agreement result was in the second quarter mixed gamma in vegetation sample (E11250). Agreement was achieved in seven of eight identified nuclides, with Cs-137 being the nuclide that was found in non-agreement (NCR # 01939292). Due to the non-agreement, an evaluation was conducted to track actions and resolve how to prevent recurrence. The evaluation identified a slight negative bias for all nuclides which could be attributed to three



factors: (1) mismatch between cross check geometry and calibration geometry fill-depth, (2) insufficient training of laboratory personnel regarding the importance of geometry effects, and (3) EnRad procedure # 52 when revised the procedural guidance on sample preparation to agree with calibration geometries' fill-depth was removed. How to prevent recurrence: (1) laboratory personnel were provided training to ensure an understanding of the importance of reproducing the proper geometry in all sample analyses, (2) ensure cross checks are ordered that correctly reflect calibration geometries, (3) revise EnRad procedure # 52 to address proper sample preparation to ensure proper geometry agreement, and (4) request from EZA a third quarter mixed gamma in vegetation (E11335) sample (all nuclides were in agreement and no bias was present).

The next two non-agreement results were second quarter LLI-131 in Water (E11248) and third quarter LLI-131 in Water (E11337); NCR # 01937710 and NCR # 01967544 respectively. After the second failure, the LLI-131 in Water analysis was immediately suspended at EnRad Analytical Laboratory (October 2015) and samples requiring this analysis were sent to a vendor lab (GEL). During the fourth quarter of 2015, EnRad requested and analyzed six LLI-131 in Water samples prepared by FSS and all samples were in agreement. Second quarter LLI-131 in Water (E11248) - NCR # 01937710 non-agreement was determined to have been caused by an incomplete chemical separation as the source of the cross check failure. The exact cause of the incomplete separation could not be established and given that the accompanying QC samples were acceptable, no precise cause could be attributed to the failure. In accordance with standard practice, another cross check was obtained for third quarter 2015 to validate the LLI-131 in Water methodology. The third quarter LLI-131 in Water (E11337) also yielded unacceptable results (NCR # 01967544) with result similar to the second quarter results. Immediate corrective actions included reviewing analysis package, EnRad Analytical Laboratory immediately suspended the LLI-131 in Water analysis and samples requiring this analysis were sent to a vendor lab (GEL) for analysis. Due to the second non-agreement, another evaluation was conducted to determine the cause and how to prevent recurrence. The evaluation identified the following items to help prevent recurrence: (1) revise EnRad procedure # 54 to specify method (pH) limitations of steps and to apply dechlorination steps only when needed; (2) revise EnRad procedure # 515 to address specific activity ranges, chemical matrix types, physical matrix types, or specific geometry requirements - such as I-131 cross check samples be ordered at a lower pH; (3) analyze a final set of test samples in appropriate pH to validate cause had been resolved. All FSS LLI-131 samples analyzed during fourth quarter 2015 were in agreement.

Low-Level Iodine 131 (LLI-131) activity has not been observed in water analyses at EnRad Analytical Laboratory in 2015; therefore, there is no possibility that I-131 results may have been underreported in 2015. During first quarter of 2015, EnRad Analytical Laboratory analyzed a LLI-131 in Milk (E11171) with acceptable results (Ratio: 99%). LLI-131 in Milk methodology is essentially the same as that of water and they have similar densities.

### **5.5.3 ERA PROFICIENCY TESTING**

EnRad Laboratories performed method proficiency testing through a program administered by Environmental Resource Associates (ERA) of Arvada, CO. ERA supplied requested method proficiency samples for analysis and nuclide concentration determination. ERA reported proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Health Drinking Water Laboratory Certification Program. A summary of these proficiency test data for 2015 is documented in Table 5.0-C.

## **5.6 INTERCOMPARISON PROGRAM**

Oconee Nuclear Station routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis parameters for drinking water, surface water, milk, fish, broadleaf vegetation, and shoreline sediment samples that have been collected. Samples are routinely split with a vendor laboratory for intercomparison analysis.

## **5.7 TLD INTERCOMPARISON PROGRAM**

### **5.7.1 NUCLEAR TECHNOLOGY SERVICES INTERCOMPARISON PROGRAM**

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. A summary of the 2015 Nuclear Technology Services Intercomparison Report is documented in Table 5.0-D. The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. During third quarter of 2015 an environmental external TLD cross check failed and NCR # 02012855 was written to document this failure. To prevent recurrence, the TLD was pulled and visually inspected for cracks in the elements and overall integrity of the TLD - no abnormalities were found. A dose response check was performed and one of the elements fell outside the acceptable limits; therefore, the TLD was removed from service by separating it from the usable TLD population and writing OOS (out of service) over the barcode with a permanent marker to prevent future use. Fourth quarter 2015 results were all acceptable. Complete documentation of any evaluation will be available and provided to the NRC upon request.

### **5.7.2 INTERNAL CROSS CHECK (DUKE ENERGY)**

Radiation Dosimetry and Records participates in a quarterly TLD intracomparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly and submits them for analysis of the unknown estimated delivered exposure. A summary of the 2015 Internal Cross Check (Duke Energy) Program is documented in Table 5.0-D.

## **5.8 GENERAL ENGINEERING LABORATORY, LLC (GEL)**

General Engineering Laboratory, LLC (GEL) participated in various Quality Assurance Programs for Inter-laboratory, Intra-laboratory, Third Party Cross Check programs, and a number of proficiency testing programs during 2015. A summary of the GEL quality assurance program results for the sample media types sent to GEL during 2015 is documented in Table 5.0-E. GEL Quality Assurance Program results not appearing in Table 5.0-E will be supplied upon request.

# TABLE 5.0-A

## DUKE ENERGY

### INTERLABORATORY COMPARISON PROGRAM

#### 2015 EnRad Fleet Scientific Services Cross Check Performance Summary

Cross check samples were distributed by Fleet Scientific Services (FSS) in accordance with Duke Energy Nuclear Generation Procedure SRPMP 9-2. Thirteen water samples were analyzed for tritium, gross beta, and mixed gamma emitters, while two water samples were analyzed for low-level I-131. The below table lists results for specific analyses. One hundred and twenty results were reported and evaluated as prescribed in procedure SRPMP 9-2. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). These results passed the acceptance criteria for the program with 100% agreement.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Water			4	pCi/L	1.13E+02	1.17E+02	0.96	Agreement
LLI-131	Q154L1W1	I-131	4	pCi/L	1.19E+02	1.17E+02	1.01	Agreement
			4	pCi/L	1.19E+02	1.17E+02	1.01	Agreement
			4	pCi/L	5.57E+01	5.71E+01	0.97	Agreement
	Q154L1W2	I-131	4	pCi/L	5.51E+01	5.71E+01	0.96	Agreement
4			pCi/L	5.41E+01	5.71E+01	0.95	Agreement	
4			pCi/L	5.41E+01	5.71E+01	0.95	Agreement	
Tritium in Water	Q151TWR1	H-3	1	pCi/L	2.22E+03	2.08E+03	1.07	Agreement
			1	pCi/L	2.14E+03	2.08E+03	1.03	Agreement
	Q151TWR2	H-3	1	pCi/L	4.74E+02	4.42E+02	1.07	Agreement
			1	pCi/L	5.20E+02	4.42E+02	1.18	Agreement
	Q151TWR3	H-3	1	pCi/L	8.35E+03	8.45E+03	0.99	Agreement
			1	pCi/L	8.44E+03	8.45E+03	1.00	Agreement
Tritium in Water	Q153TWR1	H-3	3	pCi/L	1.45E+05	1.49E+05	0.97	Agreement
			3	pCi/L	1.47E+05	1.49E+05	0.99	Agreement
			3	pCi/L	1.49E+05	1.49E+05	1.00	Agreement
	Q153TWR2	H-3	3	pCi/L	2.82E+03	2.77E+03	1.02	Agreement
			3	pCi/L	2.79E+03	2.77E+03	1.01	Agreement
			3	pCi/L	2.69E+03	2.77E+03	0.97	Agreement
	Q153TWR3	H-3	3	pCi/L	3.70E+02	3.35E+02	1.11	Agreement
			3	pCi/L	3.34E+02	3.35E+02	1.00	Agreement
			3	pCi/L	3.20E+02	3.35E+02	0.96	Agreement
			3	pCi/L	3.20E+02	3.35E+02	0.96	Agreement
Beta in Water	Q153ABW1	Cs-137	3	pCi/L	1.31E+02	1.27E+02	1.03	Agreement
			3	pCi/L	1.29E+02	1.27E+02	1.02	Agreement
			3	pCi/L	1.28E+02	1.27E+02	1.01	Agreement
	Q153ABW2	Cs-137	3	pCi/L	3.24E+02	3.26E+02	0.99	Agreement
			3	pCi/L	3.32E+02	3.26E+02	1.02	Agreement
			3	pCi/L	3.24E+02	3.26E+02	0.99	Agreement
	Q153ABW3	Cs-137	3	pCi/L	2.04E+02	1.97E+02	1.04	Agreement
			3	pCi/L	2.05E+02	1.97E+02	1.04	Agreement
			3	pCi/L	2.03E+02	1.97E+02	1.03	Agreement

## TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q151GWR1 1.0 L	Mn-54	1	pCi/L	7.06E+03	6.65E+03	1.06	Agreement
			1	pCi/L	7.18E+03	6.65E+03	1.08	Agreement
			1	pCi/L	7.16E+03	6.65E+03	1.08	Agreement
		Co-57	1	pCi/L	4.84E+03	4.87E+03	0.99	Agreement
			1	pCi/L	4.93E+03	4.87E+03	1.01	Agreement
			1	pCi/L	4.88E+03	4.87E+03	1.00	Agreement
		Fe-59	1	pCi/L	7.92E+03	7.41E+03	1.07	Agreement
			1	pCi/L	8.06E+03	7.41E+03	1.09	Agreement
			1	pCi/L	8.10E+03	7.41E+03	1.09	Agreement
	Co-60	1	pCi/L	6.13E+03	6.14E+03	1.00	Agreement	
		1	pCi/L	6.25E+03	6.14E+03	1.02	Agreement	
		1	pCi/L	6.21E+03	6.14E+03	1.01	Agreement	
	Cs-134	1	pCi/L	7.53E+03	8.53E+03	0.88	Agreement	
		1	pCi/L	7.59E+03	8.53E+03	0.89	Agreement	
		1	pCi/L	7.59E+03	8.53E+03	0.89	Agreement	
	Cs-137	1	pCi/L	1.34E+04	1.32E+04	1.02	Agreement	
		1	pCi/L	1.37E+04	1.32E+04	1.04	Agreement	
		1	pCi/L	1.37E+04	1.32E+04	1.04	Agreement	
	Q151GWR1 3.5 L	Mn-54	1	pCi/L	7.38E+03	6.65E+03	1.11	Agreement
			1	pCi/L	7.32E+03	6.65E+03	1.10	Agreement
			1	pCi/L	7.40E+03	6.65E+03	1.11	Agreement
Co-57		1	pCi/L	5.14E+03	4.87E+03	1.05	Agreement	
		1	pCi/L	5.01E+03	4.87E+03	1.03	Agreement	
		1	pCi/L	5.17E+03	4.87E+03	1.06	Agreement	
Fe-59		1	pCi/L	8.12E+03	7.41E+03	1.10	Agreement	
		1	pCi/L	8.15E+03	7.41E+03	1.10	Agreement	
		1	pCi/L	8.12E+03	7.41E+03	1.10	Agreement	
Co-60		1	pCi/L	6.41E+03	6.14E+03	1.04	Agreement	
		1	pCi/L	6.42E+03	6.14E+03	1.05	Agreement	
		1	pCi/L	6.41E+03	6.14E+03	1.04	Agreement	
Cs-134		1	pCi/L	8.09E+03	8.53E+03	0.95	Agreement	
		1	pCi/L	8.01E+03	8.53E+03	0.94	Agreement	
		1	pCi/L	8.15E+03	8.53E+03	0.96	Agreement	
Cs-137		1	pCi/L	1.42E+04	1.32E+04	1.08	Agreement	
		1	pCi/L	1.41E+04	1.32E+04	1.07	Agreement	
		1	pCi/L	1.42E+04	1.32E+04	1.08	Agreement	

## TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q153GWR 1.0 L	Mn-54	3	pCi/L	8.38E+03	7.79E+03	1.08	Agreement
			3	pCi/L	8.43E+03	7.79E+03	1.08	Agreement
			3	pCi/L	8.48E+03	7.79E+03	1.09	Agreement
		Co-57	3	pCi/L	1.05E+04	1.05E+04	1.00	Agreement
			3	pCi/L	1.06E+04	1.05E+04	1.01	Agreement
			3	pCi/L	1.06E+04	1.05E+04	1.01	Agreement
		Fe-59	3	pCi/L	2.65E+04	2.40E+04	1.10	Agreement
			3	pCi/L	2.69E+04	2.40E+04	1.12	Agreement
			3	pCi/L	2.69E+04	2.40E+04	1.12	Agreement
		Co-60	3	pCi/L	1.24E+04	1.22E+04	1.02	Agreement
			3	pCi/L	1.25E+04	1.22E+04	1.02	Agreement
			3	pCi/L	1.26E+04	1.22E+04	1.03	Agreement
		Zn-65	3	pCi/L	1.89E+04	1.74E+04	1.09	Agreement
			3	pCi/L	1.91E+04	1.74E+04	1.10	Agreement
			3	pCi/L	1.92E+04	1.74E+04	1.10	Agreement
		Y-88	3	pCi/L	8.62E+03	8.86E+03	0.97	Agreement
			3	pCi/L	8.81E+03	8.86E+03	0.99	Agreement
			3	pCi/L	8.89E+03	8.86E+03	1.00	Agreement
		Sn-113	3	pCi/L	1.35E+04	1.31E+04	1.03	Agreement
			3	pCi/L	1.36E+04	1.31E+04	1.04	Agreement
			3	pCi/L	1.34E+04	1.31E+04	1.03	Agreement
Cs-134	3	pCi/L	6.29E+03	6.91E+03	0.91	Agreement		
	3	pCi/L	6.29E+03	6.91E+03	0.91	Agreement		
	3	pCi/L	6.37E+03	6.91E+03	0.92	Agreement		
Cs-137	3	pCi/L	1.22E+04	1.17E+04	1.05	Agreement		
	3	pCi/L	1.22E+04	1.17E+04	1.05	Agreement		
	3	pCi/L	1.22E+04	1.17E+04	1.05	Agreement		

## TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q153GWR 3.5 L	Mn-54	3	pCi/L	8.47E+03	7.79E+03	1.09	Agreement
			3	pCi/L	8.56E+03	7.79E+03	1.10	Agreement
			3	pCi/L	8.47E+03	7.79E+03	1.09	Agreement
		Co-57	3	pCi/L	1.07E+04	1.05E+04	1.02	Agreement
			3	pCi/L	1.09E+04	1.05E+04	1.04	Agreement
			3	pCi/L	1.07E+04	1.05E+04	1.02	Agreement
		Fe-59	3	pCi/L	2.66E+04	2.40E+04	1.11	Agreement
			3	pCi/L	2.67E+04	2.40E+04	1.11	Agreement
			3	pCi/L	2.66E+04	2.40E+04	1.11	Agreement
		Co-60	3	pCi/L	1.27E+04	1.22E+04	1.04	Agreement
			3	pCi/L	1.28E+04	1.22E+04	1.05	Agreement
			3	pCi/L	1.27E+04	1.22E+04	1.04	Agreement
		Zn-65	3	pCi/L	1.90E+04	1.74E+04	1.09	Agreement
			3	pCi/L	1.92E+04	1.74E+04	1.10	Agreement
			3	pCi/L	1.90E+04	1.74E+04	1.09	Agreement
		Y-88	3	pCi/L	8.93E+03	8.86E+03	1.01	Agreement
			3	pCi/L	8.96E+03	8.86E+03	1.01	Agreement
			3	pCi/L	9.00E+03	8.86E+03	1.02	Agreement
		Sn-113	3	pCi/L	1.38E+04	1.31E+04	1.06	Agreement
			3	pCi/L	1.40E+04	1.31E+04	1.07	Agreement
			3	pCi/L	1.38E+04	1.31E+04	1.06	Agreement
Cs-134	3	pCi/L	6.53E+03	6.91E+03	0.94	Agreement		
	3	pCi/L	6.58E+03	6.91E+03	0.95	Agreement		
	3	pCi/L	6.55E+03	6.91E+03	0.95	Agreement		
Cs-137	3	pCi/L	1.23E+04	1.17E+04	1.05	Agreement		
	3	pCi/L	1.24E+04	1.17E+04	1.06	Agreement		
	3	pCi/L	1.23E+04	1.17E+04	1.05	Agreement		

# TABLE 5.0-B

## ECKERT & ZIEGLER ANALYTICS

### CROSS CHECK PROGRAM

#### 2015 Cross Check Results for EnRad Laboratories

Interlaboratory Cross check samples are received, prepared, and analyzed in all four quarters of 2015. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Seventy-three environmental results were reported, of which 70 (95.9%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Filter	E11279	Ce-141	3	pCi	87.6	84.9	1.03	Agreement
		Cr-51	3	pCi	218	215	1.02	Agreement
		Cs-134	3	pCi	83.6	84.4	0.99	Agreement
		Cs-137	3	pCi	102	102	1.00	Agreement
		Co-58	3	pCi	108	105	1.03	Agreement
		Mn-54	3	pCi	113	116	0.98	Agreement
		Fe-59	3	pCi	93	89.9	1.03	Agreement
		Zn-65	3	pCi	141	141	1.00	Agreement
		Co-60	3	pCi	133	132	1.01	Agreement



## TABLE 5.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gross Beta	E11281	Gross Beta	3	pCi	205	216	0.95	Agreement
Filter	E11411	Gross Beta	4	pCi	256	240	1.07	Agreement
Gross Beta	E11249	Cs-137	2	pCi/L	259	248	1.04	Agreement
in Water	E11407	Cs-137	4	pCi/L	242	247	0.98	Agreement
I-131 Charcoal	E11172	I-131	1	pCi	82.0	78.4	1.05	Agreement
Cartridge	E11278	I-131	3	pCi	81.5	81.4	1.00	Agreement
LLI-131 in	E11248	I-131	2	pCi/L	67.8	98.4	0.69	Non-Agreement*
Water	E11337	I-131	3	pCi/L	58.5	96.5	0.61	Non-Agreement**
LLI-131 in Milk	E11171	I-131	1	pCi/L	98.3	99.0	0.99	Agreement
Tritium in Water	E11252	H-3	2	pCi/L	13,100	13,000	1.01	Agreement
Gamma in Vegetation (Coffee Grounds)	E11250	Cr-51	2	pCi/g	0.430	0.474	0.91	Agreement
		Cs-134	2	pCi/g	0.230	0.279	0.82	Agreement
		Cs-137	2	pCi/g	0.170	0.215	0.79	Non-Agreement***
		Co-58	2	pCi/g	0.100	0.117	0.85	Agreement
		Mn-54	2	pCi/g	0.150	0.173	0.87	Agreement
		Fe-59	2	pCi/g	0.260	0.260	1.00	Agreement
		Zn-65	2	pCi/g	0.400	0.427	0.94	Agreement
		Co-60	2	pCi/g	0.300	0.331	0.91	Agreement
Gamma in Vegetation (Coffee Grounds)	E11335	Ce-141	3	pCi/g	0.307	0.312	0.98	Agreement
		Cr-51	3	pCi/g	0.819	0.788	1.04	Agreement
		Cs-134	3	pCi/g	0.272	0.310	0.88	Agreement
		Cs-137	3	pCi/g	0.383	0.373	1.03	Agreement
		Co-58	3	pCi/g	0.389	0.385	1.01	Agreement
		Mn-54	3	pCi/g	0.449	0.425	1.06	Agreement
		Fe-59	3	pCi/g	0.361	0.331	1.09	Agreement
		Zn-65	3	pCi/g	0.561	0.517	1.08	Agreement
		Co-60	3	pCi/g	0.493	0.483	1.02	Agreement

\* NCR # 01937710  
 \*\* NCR # 01967544  
 \*\*\* NCR # 01939292

## TABLE 5.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E11280	Ce-141	3	pCi	141	140	1.01	Agreement
		Cr-51	3	pCi	370	353	1.05	Agreement
		Cs-134	3	pCi	136	139	0.98	Agreement
		Cs-137	3	pCi	164	167	0.98	Agreement
		Co-58	3	pCi	167	172	0.97	Agreement
		Mn-54	3	pCi	195	190	1.03	Agreement
		Fe-59	3	pCi	179	148	1.21	Agreement
		Zn-65	3	pCi	224	232	0.97	Agreement
		Co-60	3	pCi	213	216	0.99	Agreement
Gamma in Water	E11282	I-131	3	pCi/L	94.6	96.7	0.98	Agreement
		Ce-141	3	pCi/L	196	199	0.99	Agreement
		Cr-51	3	pCi/L	508	502	1.01	Agreement
		Cs-134	3	pCi/L	176	198	0.89	Agreement
		Cs-137	3	pCi/L	237	238	1.00	Agreement
		Co-58	3	pCi/L	240	246	0.98	Agreement
		Mn-54	3	pCi/L	286	271	1.06	Agreement
		Fe-59	3	pCi/L	229	211	1.09	Agreement
		Zn-65	3	pCi/L	353	330	1.07	Agreement
Gamma in Milk	E11170	I-131	1	pCi/L	97.9	97.5	1.00	Agreement
		Ce-141	1	pCi/L	221	211	1.05	Agreement
		Cr-51	1	pCi/L	607	555	1.09	Agreement
		Cs-134	1	pCi/L	181	191	0.95	Agreement
		Cs-137	1	pCi/L	266	253	1.05	Agreement
		Co-58	1	pCi/L	285	272	1.05	Agreement
		Mn-54	1	pCi/L	262	240	1.09	Agreement
		Fe-59	1	pCi/L	334	295	1.13	Agreement
		Zn-65	1	pCi/L	509	453	1.12	Agreement
Gamma in Soil	E11251	Cr-51	2	pCi/g	0.460	0.482	0.95	Agreement
		Cs-134	2	pCi/g	0.260	0.284	0.91	Agreement
		Cs-137	2	pCi/g	0.270	0.298	0.91	Agreement
		Co-58	2	pCi/g	0.110	0.119	0.92	Agreement
		Mn-54	2	pCi/g	0.170	0.176	0.97	Agreement
		Fe-59	2	pCi/g	0.260	0.264	0.98	Agreement
		Zn-65	2	pCi/g	0.430	0.434	0.99	Agreement
		Co-60	2	pCi/g	0.300	0.336	0.89	Agreement

# TABLE 5.0-C

## ENVIRONMENTAL RESOURCE ASSOCIATES (ERA)

### PROFICIENCY TESTING

#### 2015 Proficiency Test Results for EnRad Laboratories

North Carolina Department of Health and Human Services Laboratory Certification

EnRad Laboratories

Proficiency test samples are received, prepared, and analyzed in second and fourth quarters of 2015. Results are reported directly to Environmental Resource Associates as described in the instruction package within the study period. Proficiency test data are reported to ERA for evaluation. The acceptance criteria for the program was based on the National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. Fourteen results were reported of which 14 (100 %) met the acceptance criteria. ERA reports proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Drinking Water Laboratory Certification Program. This testing is to satisfy the North Carolina state drinking water radiochemistry certification requirements.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	ERA Value	Acceptance Limits	Evaluation
Gamma Emitters in Water	Rad-101	Ba-133	2	pCi/L	75.5	82.5	69.3 - 90.8	Agreement
		Cs-134	2	pCi/L	69.0	75.7	61.8-83.3	Agreement
		Cs-137	2	pCi/L	188.0	189.0	170 - 210	Agreement
		Co-60	2	pCi/L	81.1	84.5	76.0 - 95.3	Agreement
		Zn-65	2	pCi/L	219.0	203.0	183 - 238	Agreement
Gamma Emitters in Water	Rad -103	Ba-133	4	pCi/L	29.6	32.5	25.9 - 36.7	Agreement
		Cs-134	4	pCi/L	54.0	62.3	50.6 - 68.5	Agreement
		Cs-137	4	pCi/L	160	157	141 -175	Agreement
		Co-60	4	pCi/L	71.2	71.1	64.0 - 80.7	Agreement
		Zn-65	4	pCi/L	141	126	113 -149	Agreement
Tritium in Water	Rad -101	H-3	2	pCi/L	3180	3280	2770-3620	Agreement
	Rad -103	H-3	4	pCi/L	20600	21300	18700-23400	Agreement
Iodine-131 in Water	Rad -101	I-131	2	pCi/L	23.3	23.8	19.7 - 28.3	Agreement
	Rad -103	I-131	4	pCi/L	25.4	26.3	21.9 - 31.0	Agreement

# TABLE 5.0-D

## 2015 ENVIRONMENTAL DOSIMETER CROSS-CHECK RESULTS

### Nuclear Technology Services

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. Complete documentation of any evaluation will be available and provided to the NRC upon request.

1st Quarter 2015						2nd Quarter 2015					
TLD	Reported	Delivered	Bias	Pass/Fail		TLD	Reported	Delivered	Bias	Pass/Fail	
Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail	Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail
102480	75.35	70.21	7.32	<+/-15%	Pass	102723	18.37	21.52	-14.64	<+/-15%	Pass
102376	72.44	70.21	3.18	<+/-15%	Pass	103394	19.49	21.52	-9.43	<+/-15%	Pass
102444	73.21	70.21	4.27	<+/-15%	Pass	103058	19.49	21.52	-9.43	<+/-15%	Pass
103070	78.11	70.21	11.25	<+/-15%	Pass	103120	19.83	21.52	-7.85	<+/-15%	Pass
102008	77.96	70.21	11.04	<+/-15%	Pass	103419	19.34	21.52	-10.13	<+/-15%	Pass
Average Bias (B)			7.41			Average Bias (B)			-10.30		
Standard Deviation (S)			3.73			Standard Deviation (S)			2.57		
Measure Performance  B +S			11.14	<15%	Pass	Measure Performance  B +S			12.86	<15%	Pass
3rd Quarter 2015						4th Quarter 2015					
TLD	Reported	Delivered	Bias	Pass/Fail		TLD	Reported	Delivered	Bias	Pass/Fail	
Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail	Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail
103243	20.29	18.7	8.68	<+/-15%	Pass	102869	72.88	66.9	8.91	<+/-15%	Pass
103294	20.64	18.7	10.55	<+/-15%	Pass	102239	71.35	66.9	6.62	<+/-15%	Pass
100502	19.30	18.7	3.37	<+/-15%	Pass	101338	72.24	66.9	7.95	<+/-15%	Pass
100025	19.51	18.7	4.50	<+/-15%	Pass	100372	69.80	66.9	4.30	<+/-15%	Pass
102816	21.91	18.7	17.35	<+/-15%	Fail	100357	70.90	66.9	5.95	<+/-15%	Pass
Average Bias (B)			8.89			Average Bias (B)			6.75		
Standard Deviation (S)			5.57			Standard Deviation (S)			1.78		
Measure Performance  B +S			14.46	<15%	Pass	Measure Performance  B +S			8.53	<15%	Pass

Fail - refer to NCR # 02012855

# TABLE 5.0-D (Cont.)

## Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD intracomparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly and submits them for analysis of the unknown estimated delivered exposure.

1st Quarter 2015						2nd Quarter 2015					
TLD	Reported	Delivered	Bias	Pass/Fail		TLD	Reported	Delivered	Bias	Pass/Fail	
Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail	Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail
103012	30.82	30.0	2.73	<+/-15%	Pass	100193	22.07	21.8	1.24	<+/-15%	Pass
103524	31.64	30.0	5.47	<+/-15%	Pass	101191	21.06	21.8	-3.39	<+/-15%	Pass
102769	32.31	30.0	7.70	<+/-15%	Pass	101201	21.74	21.8	-0.28	<+/-15%	Pass
103754	31.29	30.0	4.30	<+/-15%	Pass	100158	21.94	21.8	0.64	<+/-15%	Pass
102798	30.86	30.0	2.87	<+/-15%	Pass	101319	21.99	21.8	0.87	<+/-15%	Pass
103737	31.50	30.0	5.00	<+/-15%	Pass	101183	22.46	21.8	3.03	<+/-15%	Pass
102985	32.05	30.0	6.83	<+/-15%	Pass	101330	21.40	21.8	-1.83	<+/-15%	Pass
102108	29.99	30.0	-0.03	<+/-15%	Pass	100351	22.36	21.8	2.57	<+/-15%	Pass
102867	31.00	30.0	3.33	<+/-15%	Pass	101038	22.36	21.8	2.57	<+/-15%	Pass
103500	31.61	30.0	5.37	<+/-15%	Pass		22.49	21.8	3.17	<+/-15%	Pass
	Average Bias (B)		4.36				Average Bias (B)		0.86		
	Standard Deviation (S)		2.24				Standard Deviation (S)		2.18		
	Measure Performance  B +S		6.60	<15%	Pass		Measure Performance  B +S		3.04	<15%	Pass
3rd Quarter 2015						4th Quarter 2015					
TLD	Reported	Delivered	Bias	Pass/Fail		TLD	Reported	Delivered	Bias	Pass/Fail	
Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail	Number	(mR)	(mR)	(% diff)	Criteria	Pass/Fail
103703	48.64	43.6	11.56	<+/-15%	Pass	100057	55.76	54.5	2.31	<+/-15%	Pass
102917	46.91	43.6	7.59	<+/-15%	Pass	103022	62.04	54.5	13.83	<+/-15%	Pass
100170	44.30	43.6	1.61	<+/-15%	Pass	103254	55.74	54.5	2.28	<+/-15%	Pass
102841	46.18	43.6	5.92	<+/-15%	Pass	100154	60.56	54.5	11.12	<+/-15%	Pass
101149	43.63	43.6	0.07	<+/-15%	Pass	103256	55.71	54.5	2.22	<+/-15%	Pass
102474	44.87	43.6	2.91	<+/-15%	Pass	101225	58.10	54.5	6.61	<+/-15%	Pass
100522	46.11	43.6	5.76	<+/-15%	Pass	100799	59.79	54.5	9.71	<+/-15%	Pass
103016	48.70	43.6	11.70	<+/-15%	Pass	100417	61.06	54.5	12.04	<+/-15%	Pass
100095	46.11	43.6	5.76	<+/-15%	Pass	103683	57.37	54.5	5.27	<+/-15%	Pass
100381	42.87	43.6	-1.67	<+/-15%	Pass	102114	55.74	54.5	2.28	<+/-15%	Pass
	Average Bias (B)		5.12				Average Bias (B)		6.77		
	Standard Deviation (S)		4.49				Standard Deviation (S)		4.58		
	Measure Performance  B +S		9.61	<15%	Pass		Measure Performance  B +S		11.34	<15%	Pass

# TABLE 5.0-E

## 2015 ANNUAL QUALITY ASSURANCE REPORT

### for the RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

#### for GEL Laboratories, LLC (GEL)

Sample	Nuclide	Quarter	Units	GEL Value	Known Value	Acceptance Range/Ratio	Evaluation
<b>HDT in Soil</b>	Fe-55	2 <sup>nd</sup>	Bq/Kg	330	205	Sens. Eval.	Agreement
MAPEP-15-MaS32							Agreement
(2Q 2015)		4 <sup>th</sup>	Bq/kg	557	555	389 - 722	Agreement
<b>MAPEP-15-MaS33</b>	Sr-90	2 <sup>nd</sup>	Bq/Kg	601.00	653	457 - 849	Agreement
(4Q 2015)		4 <sup>th</sup>	Bq/kg	403	425	298 - 553	Agreement
<b>Gamma in Soil</b>	Am-241	2 <sup>nd</sup>	Bq/Kg	97.0	68.0	68 - 126	Agreement
		4 <sup>th</sup>	Bq/Kg	61.7	49.5	34.7 - 64.4	Warning
	Co-57	2 <sup>nd</sup>	Bq/Kg	0.369	---	False Pos Test	Agreement
		4 <sup>th</sup>	Bq/Kg	1240.0	1180	826 - 1534	Agreement
MAPEP-15-MaS32	Cs-134	2 <sup>nd</sup>	Bq/Kg	639	678	475 - 881	Agreement
(2Q 2015)		4 <sup>th</sup>	Bq/Kg	933	1010	707 - 1313	Agreement
	Cs-137	2 <sup>nd</sup>	Bq/Kg	-0.279	---	False Pos Test	Agreement
		4 <sup>th</sup>	Bq/Kg	861.00	809	566 - 1052	Agreement
	Mn-54	2 <sup>nd</sup>	Bq/Kg	1280	1198	839 - 1557	Agreement
MAPEP-15-MaS33		4 <sup>th</sup>	Bq/Kg	1450	1340	938 - 1742	Agreement
(4Q 2015)	Zn-65	2 <sup>nd</sup>	Bq/Kg	1190.0	1064	745 - 1383	Agreement
		4 <sup>th</sup>	Bq/Kg	761.0	662	463 - 861	Agreement
	Co-60	2 <sup>nd</sup>	Bq/Kg	852	817	572 - 1062	Agreement
		4 <sup>th</sup>	Bq/Kg	2.45	1.30	Sens. Eval.	Agreement
	K-40	2 <sup>nd</sup>	Bq/Kg	684	622	435 - 809	Agreement
		4 <sup>th</sup>	Bq/Kg	687	599	419 - 779	Agreement

Note: \* HTD refers to Hard-to-detect radionuclides

## TABLE 5.0-E (Cont.)

Sample	Nuclide	Quarter	Units	GEL Value	Known Value	Acceptance Range/Ratio	Evaluation
Gamma in Water	Ce-141	4 <sup>th</sup>	pCi/L	302	284	1.06	Agreement
		1 <sup>st</sup>	pCi/L	140	139	1.01	Agreement
EZA 4Q 2014 E11060		2 <sup>nd</sup>	pCi/L	1.24E-01	Not Pres.	---	Agreement
		3 <sup>rd</sup>	pCi/L	205	199	1.03	Agreement
		4 <sup>th</sup>	pCi/L	127	112	1.14	Agreement
		Cr-51	4 <sup>th</sup>	pCi/L	543	526	1.03
1 <sup>st</sup>	pCi/L		395	366	1.08	Agreement	
2 <sup>nd</sup>	pCi/L		347	293	1.18	Agreement	
3 <sup>rd</sup>	pCi/L		542	502	1.08	Agreement	
EZA 1Q 2015 E11177	Cs-134	4 <sup>th</sup>	pCi/L	260	244	1.07	Agreement
		4 <sup>th</sup>	pCi/L	190	213	0.89	Agreement
		1 <sup>st</sup>	pCi/L	112	126	0.89	Agreement
		2 <sup>nd</sup>	pCi/L	163	173	0.94	Agreement
EZA 2Q 2015 E11219	Cs-137	3 <sup>rd</sup>	pCi/L	175	198	0.89	Agreement
		4 <sup>th</sup>	pCi/L	125	139	0.90	Agreement
		4 <sup>th</sup>	pCi/L	258	257	1.01	Agreement
		1 <sup>st</sup>	pCi/L	169	167	1.01	Agreement
EZA 3Q 2015 E11313	Co-58	2 <sup>nd</sup>	pCi/L	134	133	1.01	Agreement
		3 <sup>rd</sup>	pCi/L	240	238	1.01	Agreement
		4 <sup>th</sup>	pCi/L	112	99.5	1.13	Agreement
		4 <sup>th</sup>	pCi/L	173	168	1.03	Agreement
EZA 4Q 2015 E11415	Fe-59	1 <sup>st</sup>	pCi/L	178	180	0.99	Agreement
		2 <sup>nd</sup>	pCi/L	72.1	72.6	0.99	Agreement
		3 <sup>rd</sup>	pCi/L	245	246	1.00	Agreement
		4 <sup>th</sup>	pCi/L	97.3	95.6	1.02	Agreement
EZA 3Q 2015 E11313	Mn-54	4 <sup>th</sup>	pCi/L	306	292	1.05	Agreement
		1 <sup>st</sup>	pCi/L	166	159	1.05	Agreement
		2 <sup>nd</sup>	pCi/L	117	107	1.10	Agreement
		3 <sup>rd</sup>	pCi/L	288	271	1.06	Agreement
EZA 4Q 2015 E11415	Zn-65	4 <sup>th</sup>	pCi/L	141	126	1.12	Agreement
		4 <sup>th</sup>	pCi/L	251	226	1.11	Agreement
		1 <sup>st</sup>	pCi/L	214	195	1.10	Agreement
		2 <sup>nd</sup>	pCi/L	176	161	1.09	Agreement
EZA 4Q 2015 E11415	Co-60	3 <sup>rd</sup>	pCi/L	231	211	1.10	Agreement
		4 <sup>th</sup>	pCi/L	111	93.4	1.19	Agreement
		4 <sup>th</sup>	pCi/L	420	384	1.09	Agreement
		1 <sup>st</sup>	pCi/L	325	299	1.09	Agreement
EZA 4Q 2015 E11415		2 <sup>nd</sup>	pCi/L	285	264	1.08	Agreement
		3 <sup>rd</sup>	pCi/L	375	330	1.14	Agreement
		4 <sup>th</sup>	pCi/L	243	215	1.13	Agreement
		4 <sup>th</sup>	pCi/L	324	304	1.06	Agreement
EZA 4Q 2015 E11415		1 <sup>st</sup>	pCi/L	323	328	0.98	Agreement
		2 <sup>nd</sup>	pCi/L	210	205	1.03	Agreement
		3 <sup>rd</sup>	pCi/L	311	308	1.01	Agreement
		4 <sup>th</sup>	pCi/L	192	185	1.04	Agreement

## TABLE 5.0-E (Cont.)

Sample	Nuclide	Quarter	Units	GEL Value	Known Value	Acceptance Range/Ratio	Evaluation
<b>Tritium in Water</b>							
MAPEP-15-GrW32 (2Q 2015)	H-3	2 <sup>nd</sup>	Bq/L	633	563	394 - 732	Agreement
MAPEP-15-M aW33 (4Q 2015)	H-3	4 <sup>th</sup>	Bq/L	212	216	151 - 281	Agreement
<b>I-131 in Water with EZA</b>							
4Q 2014 E11060	I-131	4 <sup>th</sup>	pCi/L	111	95.3	1.16	Agreement
1Q 2015 E11177	I-131	1 <sup>st</sup>	pCi/L	99.2	96.7	1.03	Agreement
2Q 2015 E11219	I-131	2 <sup>nd</sup>	pCi/L	95.3	93.4	1.02	Agreement
3Q 2015 E11313	I-131	3 <sup>rd</sup>	pCi/L	100	96.7	1.03	Agreement
4Q 2015 E11415	I-131	4 <sup>th</sup>	pCi/L	105	92.6	1.13	Agreement

Other GEL 2015 Annual Environmental Quality Assurance Report results will be supplied upon request.



**APPENDIX A**

**ENVIRONMENTAL SAMPLING**  
**&**  
**ANALYSIS PROCEDURES**

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# APPENDIX A

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## ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at Oconee Nuclear Station is required to ensure compliance with Station Selected Licensee Commitments. Analytical procedures were employed to ensure that Selected Licensee Commitments detection capabilities were achieved.

Environmental sampling and analyses were performed by EnRad Laboratories, Dosimetry and Records, and Fisheries and Aquatic Ecology.

Section IV of this appendix describes the environmental sampling frequencies and analysis procedures by media type.

### **I. CHANGE OF SAMPLING PROCEDURES**

Location 024 (TLD) was relocated within the east sector due to riverbank erosion, which changed the distance from 0.79 miles to 0.81 miles (NCR # 01903305).

### **II. DESCRIPTION OF ANALYSIS PROCEDURES**

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Canberra analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-weighed amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried, mixed thoroughly, and a net resin weight determined before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed quarterly by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 2900TR liquid scintillation system or Perkin-Elmer 3100TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable.

Gross beta analysis is performed by concentrating a designated aliquot of sample precipitate and analyzing by Tennelec XLB Series 5 gas-flow proportional counters.

Samples are batch processed with a blank to ensure sample contamination has not occurred.

### **III. CHANGE OF ANALYSIS PROCEDURES**

Gross beta analysis of air particulate filters using an un-attenuated (single point) filter specific calibration in a flat bottom planchet was implemented from second quarter 2015 forward (NCR # 01938255).

REMP air sampling heads and air particulate media were changed to standardize the vendors, sampling head, and filter size across the REMP nuclear fleet (NCR # 00726335).

### **IV. SAMPLING AND ANALYSIS PROCEDURES**

#### **A.1 AIRBORNE PARTICULATE AND RADIOIODINE**

Airborne particulate and radioiodine samples at each of six locations were composited continuously by means of continuous air samplers. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly. A separate weekly gamma analysis was performed on each charcoal cartridge. A weekly gross beta analysis was performed on each filter. A quarterly gamma analysis was performed on the quarterly filter composite (by location). The continuous composite samples were collected from the locations listed below.

Location 077 = Skimmer Wall (1.00 mi. SW)  
Location 078.1 = Recreation Site (0.53 mi. WSW)  
Location 079 = Keowee Dam (0.56 mi. NE)  
Location 081 = Clemson Operations Center (9.33 mi. SE)(Control)  
Location 084 = Sue Craig Road (2.58 mi. NNE)  
Location 085 = Lake Services / Building B9125 (0.88 mi. NNW)

#### **A.2 DRINKING WATER**

Monthly composite samplers were operated to collect an aliquot at least every two hours. Gross beta and gamma analysis was performed on the monthly composites. Tritium analysis was performed on the quarterly composites. The composites were collected monthly from the locations listed below.

Location 060 = Greenville Water Intake Rd. (3.23 mi. NE)  
Location 064 = Seneca (6.67 mi. SSW)(Control)  
Location 066 = Anderson (18.9 mi SSE)

### **A.3 SURFACE WATER**

Monthly composite samplers were operated to collect an aliquot at least every two hours. Gamma analysis was performed on the monthly composites. Tritium analysis was performed on the quarterly composites sample. The composites were collected monthly from the locations listed below.

Location 062 = Lake Keowee Hydro Intake (0.85 mi. ENE)(Control)  
Location 063.1 = Lake Hartwell Hwy 183 Bridge (0.79 mi. E)

### **A.4 MILK**

Biweekly grab samples were collected at one location although the Oconee ODCM requires semimonthly samples. Biweekly grab samples are taken to meet the required sample frequency for scheduling purposes. A gamma and low-level Iodine-131 analysis was performed on each sample. The biweekly grab samples were collected from the location listed below.

Location 071 = Clemson Dairy (10.2 mi. SSE)(Control)

### **A.5 BROADLEAF VEGETATION**

Monthly samples were collected and a gamma analysis was performed on each sample. The samples were collected from the locations listed below.

Location 077 = Skimmer Wall (1.00 mi. SW)  
Location 079 = Keowee Dam (0.56 mi. NE)  
Location 081 = Clemson Operations Center (9.33 mi. SE)(Control)  
Location 084 = Sue Craig Road (2.58 mi. NNE)

### **A.6 FISH**

Semiannual samples were collected and a gamma analysis was performed on the edible portions of each sample. The samples were collected from the locations listed below.

Location 060 = Greenville Water Intake Rd. (2.28 mi. NE)(Control)  
Location 063 = Lake Hartwell Hwy 183 Bridge (0.80 mi. ESE)  
Location 067 = Lawrence Ramsey Bridge Hwy 27 (4.34 mi. SSE)

### **A.7 SHORELINE SEDIMENT**

Semiannual samples were collected and a gamma analysis was performed on each sample following the drying and removal of rocks and clams. The samples were collected from the locations listed below.

Location 063 = Lake Hartwell Hwy 183 Bridge (0.80 mi. ESE)  
Location 067 = Lawrence Ramsey Bridge Hwy 27 (4.34 mi. SSE)

Location 068 = High Falls County Park (1.82 mi. W)(Control)

#### **A.8 DIRECT GAMMA RADIATION (TLD)**

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-two locations. A gamma exposure rate was determined for each TLD. The TLDs were placed as indicated below.

- \* An inner ring of 17 TLDs, one in each meteorological sector in the general area of the site boundary.
- \* An outer ring of 16 TLDs, one in each meteorological sector in the 6 to 8 kilometer range.
- \* The remaining TLDs were placed in special interest areas such as population centers, residential areas, schools, and control locations.

TLD Locations are listed in Table 2.1-B.

#### **A.9 ANNUAL LAND USE CENSUS**

An annual Land Use Census was conducted to identify within a distance of 8 kilometers (5.0 miles) from the station, the following locations in each of the sixteen meteorological sectors:

- \* The Nearest Residence
- \* The Nearest Milk-giving Animal (cow, goat, etc.) where milk is used for human consumption

The census was conducted during the growing season 5/19 – 5/20/2015. Results are shown in Table 3.9. No changes were made to the sampling procedures during 2015 as a result of the 2015 census.

### **V. GLOBAL POSITIONING SYSTEM (GPS) ANALYSIS**

The Oconee site centerline used for GPS measurements was referenced from the Oconee Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1.1, Specification of Location. Waypoint coordinates used for ONS GPS measurements were latitude 34°-47'-38.2"N and longitude 82°-53'-55.4"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using three significant figures.

**APPENDIX B**

**RADIOLOGICAL  
ENVIRONMENTAL MONITORING  
PROGRAM**

**SUMMARY OF RESULTS**

**OCONEE NUCLEAR STATION  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Oconee Nuclear Station  
Oconee County, South Carolina

Docket Numbers 50-269, 270, 287  
Calendar Year 2015

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2) (3)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2) (3)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range <sup>(2) (3)</sup>		
Air Particulate (pCi/m <sup>3</sup> )	Gross Beta 312 <sup>(4)</sup>	See Table 2.2-C	2.04E-2 (260/260) 2.09E-3 – 4.31E-2	077 (1.00 mi SW)	2.13E-2 (52/52) 2.09E-3 – 4.31E-2	081 (9.33 mi SE) 1.78E-2 (52/52) 2.03E-3 – 3.76E-2	0
	Gamma 24	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Radioiodine (pCi/m <sup>3</sup> )	Gamma 312 <sup>(4)</sup>	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 39	4	1.80 (20/26) 0.73 – 4.97	066 (18.9 mi SSE)	2.34 (10/13) 0.87 – 4.97	064 (6.67 mi SSW) 1.46 (9/13) 0.61 – 2.65	0
	Gamma 39	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 12	2000	325 (3/8) 250 - 468	066 (18.9 mi SSE)	325 (3/4) 250 - 468	All less than LLD	0
Surface Water (pCi/l)	Gamma 26	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 8	2000	7730 (4/4) 4460 - 9900	063.1 (0.79 mi E)	7730 (4/4) 4460 - 9900	All less than LLD	0
Milk (pCi/l)	Gamma 26	See Table 2.2-C	No Indicator Location	----	----	All less than LLD	0
	I-131 26	See Table 2.2-C	No Indicator Location	----	----	All less than LLD	0

**OCONEE NUCLEAR STATION  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Oconee Nuclear Station  
Oconee County, South Carolina

Docket Numbers 50-269, 270, 287  
Calendar Year 2015

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2) (3)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2) (3)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range <sup>(2) (3)</sup>		
Broadleaf Vegetation (pCi/kg, wet)	Gamma 48	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	17.8 (5/8)	067	19.4 (3/4)	060 (2.28 mi NE) 12.0 (1/4)	0
	Cs-137	150	11.1 – 29.4	(4.34 mi SSE)	11.1 – 29.4	12.0 – 12.0	
Sediments--Shoreline (pCi/kg, dry)	Gamma 6	See Table 2.2-C	19.5 (2/4)	063	22.4 (1/2)	All less than LLD	0
	Cs-137	180	16.5 – 22.4	(0.80 mi ESE)	22.4 – 22.4		
TLD (mR per quarter) <sup>(5)</sup>	TLD Readout 168 <sup>(4)</sup>	-----	21.6 (160/160) 14.1 – 35.2	040 (4.74 mi E)	27.4 (4/4) 24.4 – 30.3	058 (9.39 mi WSW) 081 (9.33 mi SE) 27.5 (8/8) 21.9 – 33.0	0



## Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).

**APPENDIX C**

**SAMPLING DEVIATIONS  
&  
UNAVAILABLE ANALYSES**

# APPENDIX C

## OCONEE NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing Repair
IW	Inclement Weather	SL	Sample Loss/Lost due to Lab Accident
LC	Line Clog to Sampler	SM	Motor / Rotor Seized
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism
PM	Preventive Maintenance	CN	Construction

### C.1 SAMPLING DEVIATIONS

#### Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a "Sampling Deviation." However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an "Unavailable Analyses" and does not have any data reported. The air samplers operated for a total of 99.7% availability in 2015.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
079	2/9/15 – 2/16/15	PI	1.44 hours downtime due to a power interruption to sampling equipment.	NCR # 01589975
085	2/9/15 – 2/16/15	PI	9.87 hours downtime due to a power interruption to sampling equipment.	NCR # 01589980
085	2/16/15 – 2/23/15	PI	10.9 hours downtime due to ice storm.	NCR # 01589987
078.1	6/22/15 – 6/29/15	PO	59.2 hours downtime due to severe thunderstorm.	NCR # 01935364
079	6/22/15 – 6/29/15	PO	61.3 hours downtime due to severe thunderstorm.	NCR # 01935367
077	8/10/15 – 8/17/15	PI	1.90 hours downtime due to severe thunderstorm.	NCR # 01947222
078.1	8/10/15 – 8/17/15	PI	1.93 hours downtime due to severe thunderstorm.	NCR # 01947224
077	9/28/15 – 10/5/15	PI	5.95 hours downtime due to severe thunderstorm.	NCR # 01962196
078.1	9/28/15 – 10/5/15	PI	5.94 hours downtime due to severe thunderstorm.	NCR # 01962202
079	10/5/15 – 10/12/15	PI	1.83 hours downtime due to severe thunderstorm.	NCR # 01966014
085	11/16/15 – 11/23/15	PI	2.71 hours downtime due to a power interruption to sampling equipment.	NCR # 01979530

## Surface Water

REMP monthly surface water samples (Surface Water (SW)) or drinking water samples (Drinking Water (DW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a "Sampling Deviation." However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an "Unavailable Analyses" and does not have any data reported. The water samplers operated for a total of 98.0% availability in 2015.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
062	5/26/15 – 6/22/15 6/22/15 – 7/20/15	PS	Reservoir pump malfunctioned and out of service. Downtime of 150 hours incurred during composite period 5/26/2015 – 6/22/2015. The reservoir pump was returned to service effective 6/29/2015. Downtime of 166.4 hours was incurred during composite period 6/22/2015 – 7/20/2015.	NCR # 01933406 NCR # 01937975

## C.2 UNAVAILABLE ANALYSES

There were no unavailable analyses during 2015.

# **APPENDIX D**

## **ANALYTICAL DEVIATIONS**

No Analytical deviations were incurred for the  
2015 Radiological Environmental Monitoring Program

**APPENDIX E**

**RADIOLOGICAL  
ENVIRONMENTAL MONITORING  
PROGRAM RESULTS**

**2015**

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2015.

# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
364932	12/29/2014 - 1/5/2015	Beta	2.25E-02	2.80E-03	2.66E-03
365128	1/5/2015 - 1/12/2015	Beta	2.75E-02	3.06E-03	2.69E-03
365355	1/12/2015 - 1/19/2015	Beta	1.92E-02	2.66E-03	2.68E-03
366699	1/19/2015 - 1/26/2015	Beta	1.94E-02	2.68E-03	2.63E-03
367114	1/26/2015 - 2/2/2015	Beta	1.45E-02	2.42E-03	2.69E-03
367607	2/2/2015 - 2/9/2015	Beta	2.44E-02	2.94E-03	2.69E-03
369028	2/9/2015 - 2/16/2015	Beta	2.00E-02	2.71E-03	2.71E-03
369740	2/16/2015 - 2/23/2015	Beta	2.75E-02	3.16E-03	3.06E-03
370655	2/23/2015 - 3/2/2015	Beta	2.29E-02	2.80E-03	2.62E-03
371602	3/2/2015 - 3/9/2015	Beta	1.72E-02	2.56E-03	2.63E-03
371968	3/9/2015 - 3/16/2015	Beta	1.45E-02	2.49E-03	2.84E-03
372451	3/16/2015 - 3/23/2015	Beta	1.85E-02	2.59E-03	2.53E-03
373904	3/23/2015 - 3/30/2015	Beta	2.22E-02	2.85E-03	2.86E-03
373910	12/29/2014 - 3/30/2015	Cs-134	<4.36E-04	0.00E+00	4.36E-04
		Cs-137	<4.45E-04	0.00E+00	4.45E-04
		Be-7	1.44E-01	2.22E-02	1.10E-02
		K-40	8.22E-03	5.81E-03	7.33E-03
374608	3/30/2015 - 4/6/2015	Beta	1.61E-02	2.63E-03	2.94E-03
374995	4/6/2015 - 4/13/2015	Beta	1.68E-02	2.65E-03	2.91E-03
375676	4/13/2015 - 4/20/2015	Beta	9.08E-03	2.20E-03	2.84E-03
376883	4/20/2015 - 4/27/2015	Beta	1.91E-02	2.59E-03	2.50E-03
377542	4/27/2015 - 5/4/2015	Beta	1.56E-02	2.56E-03	2.82E-03
378116	5/4/2015 - 5/11/2015	Beta	2.75E-02	3.12E-03	2.96E-03
378515	5/11/2015 - 5/18/2015	Beta	2.66E-02	3.09E-03	2.93E-03
379005	5/18/2015 - 5/26/2015	Beta	1.94E-02	2.42E-03	2.20E-03
379508	5/26/2015 - 6/1/2015	Beta	1.60E-02	2.78E-03	3.06E-03
380255	6/1/2015 - 6/8/2015	Beta	1.60E-02	2.60E-03	2.91E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
380529	6/8/2015 - 6/15/2015	Beta	2.29E-02	2.84E-03	2.67E-03
380855	6/15/2015 - 6/22/2015	Beta	2.43E-02	2.90E-03	2.67E-03
381316	6/22/2015 - 6/29/2015	Beta	2.34E-02	2.90E-03	2.74E-03
381322	3/30/2015 - 6/29/2015	Cs-134	<4.64E-04	0.00E+00	4.64E-04
		Cs-137	<5.58E-04	0.00E+00	5.58E-04
		Be-7	1.57E-01	2.48E-02	1.26E-02
		K-40	<1.03E-02	0.00E+00	1.03E-02
381648	6/29/2015 - 7/6/2015	Beta	1.81E-02	2.69E-03	2.87E-03
382217	7/6/2015 - 7/13/2015	Beta	2.89E-02	3.11E-03	2.72E-03
382641	7/13/2015 - 7/20/2015	Beta	2.18E-02	2.75E-03	2.52E-03
383568	7/20/2015 - 7/27/2015	Beta	2.35E-02	2.95E-03	2.91E-03
384142	7/27/2015 - 8/3/2015	Beta	2.84E-02	3.14E-03	2.84E-03
384710	8/3/2015 - 8/10/2015	Beta	2.61E-02	2.95E-03	2.50E-03
385461	8/10/2015 - 8/17/2015	Beta	2.66E-02	3.05E-03	2.83E-03
385977	8/17/2015 - 8/24/2015	Beta	1.21E-02	2.34E-03	2.75E-03
386874	8/24/2015 - 8/31/2015	Beta	3.16E-02	3.20E-03	2.59E-03
387458	8/31/2015 - 9/8/2015	Beta	3.11E-02	2.95E-03	2.30E-03
388815	9/8/2015 - 9/14/2015	Beta	1.77E-02	3.05E-03	3.59E-03
389457	9/14/2015 - 9/21/2015	Beta	3.18E-02	3.29E-03	2.93E-03
390060	9/21/2015 - 9/28/2015	Beta	1.24E-02	2.34E-03	2.68E-03
390692	6/29/2015 - 9/28/2015	Cs-134	<5.68E-04	0.00E+00	5.68E-04
		Cs-137	<5.24E-04	0.00E+00	5.24E-04
		Be-7	1.41E-01	2.22E-02	9.83E-03
		K-40	<1.26E-02	0.00E+00	1.26E-02
390686	9/28/2015 - 10/5/2015	Beta	2.09E-03	1.90E-03	3.12E-03
392005	10/5/2015 - 10/12/2015	Beta	2.24E-02	2.83E-03	2.76E-03
392279	10/12/2015 - 10/19/2015	Beta	2.30E-02	2.89E-03	2.73E-03
393480	10/19/2015 - 10/26/2015	Beta	2.98E-02	3.17E-03	2.80E-03
393878	10/26/2015 - 11/2/2015	Beta	2.23E-02	2.90E-03	2.89E-03





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
394898	11/2/2015 - 11/9/2015	Beta	1.05E-02	2.22E-03	2.69E-03
395352	11/9/2015 - 11/16/2015	Beta	1.59E-02	2.55E-03	2.76E-03
395679	11/16/2015 - 11/23/2015	Beta	2.54E-02	3.01E-03	2.82E-03
396172	11/23/2015 - 11/30/2015	Beta	2.27E-02	2.82E-03	2.63E-03
396689	11/30/2015 - 12/7/2015	Beta	2.47E-02	2.96E-03	2.81E-03
397234	12/7/2015 - 12/14/2015	Beta	4.31E-02	3.65E-03	2.57E-03
397944	12/14/2015 - 12/21/2015	Beta	1.89E-02	2.68E-03	2.70E-03
398333	12/21/2015 - 12/28/2015	Beta	1.23E-02	2.28E-03	2.58E-03
398722	9/28/2015 - 12/28/2015	Cs-134	<6.58E-04	0.00E+00	6.58E-04
		Cs-137	<4.72E-04	0.00E+00	4.72E-04
		Be-7	1.31E-01	2.32E-02	1.54E-02
		K-40	<1.16E-02	0.00E+00	1.16E-02

## Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364933	12/29/2014 - 1/5/2015	Beta	2.02E-02	2.70E-03	2.66E-03
365129	1/5/2015 - 1/12/2015	Beta	2.60E-02	2.99E-03	2.69E-03
365356	1/12/2015 - 1/19/2015	Beta	1.98E-02	2.69E-03	2.68E-03
366700	1/19/2015 - 1/26/2015	Beta	1.81E-02	2.61E-03	2.64E-03
367115	1/26/2015 - 2/2/2015	Beta	1.43E-02	2.41E-03	2.69E-03
367608	2/2/2015 - 2/9/2015	Beta	2.12E-02	2.79E-03	2.69E-03
369029	2/9/2015 - 2/16/2015	Beta	1.96E-02	2.69E-03	2.71E-03
369741	2/16/2015 - 2/23/2015	Beta	2.54E-02	3.08E-03	3.06E-03
370656	2/23/2015 - 3/2/2015	Beta	2.36E-02	2.84E-03	2.62E-03
371603	3/2/2015 - 3/9/2015	Beta	1.89E-02	2.65E-03	2.63E-03
371969	3/9/2015 - 3/16/2015	Beta	1.75E-02	2.64E-03	2.84E-03
372452	3/16/2015 - 3/23/2015	Beta	2.03E-02	2.67E-03	2.53E-03
373905	3/23/2015 - 3/30/2015	Beta	1.84E-02	2.68E-03	2.86E-03
373911	12/29/2014 - 3/30/2015	Cs-134	<4.49E-04	0.00E+00	4.49E-04
		Cs-137	<5.01E-04	0.00E+00	5.01E-04
		Be-7	1.48E-01	2.26E-02	9.84E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
373911	12/29/2014 - 3/30/2015	K-40	<9.66E-03	0.00E+00	9.66E-03
374609	3/30/2015 - 4/6/2015	Beta	1.70E-02	2.67E-03	2.94E-03
374996	4/6/2015 - 4/13/2015	Beta	1.78E-02	2.70E-03	2.91E-03
375677	4/13/2015 - 4/20/2015	Beta	9.37E-03	2.21E-03	2.83E-03
376884	4/20/2015 - 4/27/2015	Beta	1.92E-02	2.60E-03	2.51E-03
377543	4/27/2015 - 5/4/2015	Beta	1.66E-02	2.61E-03	2.82E-03
378117	5/4/2015 - 5/11/2015	Beta	2.72E-02	3.11E-03	2.96E-03
378516	5/11/2015 - 5/18/2015	Beta	3.00E-02	3.23E-03	2.93E-03
379006	5/18/2015 - 5/26/2015	Beta	1.74E-02	2.33E-03	2.21E-03
379509	5/26/2015 - 6/1/2015	Beta	1.37E-02	2.66E-03	3.06E-03
380256	6/1/2015 - 6/8/2015	Beta	1.72E-02	2.66E-03	2.91E-03
380530	6/8/2015 - 6/15/2015	Beta	1.87E-02	2.65E-03	2.67E-03
380856	6/15/2015 - 6/22/2015	Beta	2.40E-02	2.89E-03	2.67E-03
381317	6/22/2015 - 6/26/2015	Beta	2.52E-02	3.98E-03	4.26E-03
381323	3/30/2015 - 6/26/2015	Cs-134	<6.01E-04	0.00E+00	6.01E-04
		Cs-137	<4.74E-04	0.00E+00	4.74E-04
		Be-7	1.49E-01	2.34E-02	1.21E-02
		K-40	<1.33E-02	0.00E+00	1.33E-02
381649	6/29/2015 - 7/6/2015	Beta	1.53E-02	2.55E-03	2.88E-03
382218	7/6/2015 - 7/13/2015	Beta	2.78E-02	3.06E-03	2.72E-03
382642	7/13/2015 - 7/20/2015	Beta	2.35E-02	2.83E-03	2.52E-03
383569	7/20/2015 - 7/27/2015	Beta	1.98E-02	2.79E-03	2.91E-03
384143	7/27/2015 - 8/3/2015	Beta	2.84E-02	3.14E-03	2.84E-03
384711	8/3/2015 - 8/10/2015	Beta	2.59E-02	2.94E-03	2.50E-03
385462	8/10/2015 - 8/17/2015	Beta	2.80E-02	3.11E-03	2.83E-03
385978	8/17/2015 - 8/24/2015	Beta	1.16E-02	2.31E-03	2.75E-03
386875	8/24/2015 - 8/31/2015	Beta	3.16E-02	3.20E-03	2.59E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID: 387459	Sample Dates: 8/31/2015 - 9/8/2015	Nuclide Beta	Activity 3.05E-02	2 Sigma Error 2.93E-03	MDA 2.30E-03
Sample ID: 388816	Sample Dates: 9/8/2015 - 9/14/2015	Nuclide Beta	Activity 1.91E-02	2 Sigma Error 3.12E-03	MDA 3.59E-03
Sample ID: 389458	Sample Dates: 9/14/2015 - 9/21/2015	Nuclide Beta	Activity 2.83E-02	2 Sigma Error 3.15E-03	MDA 2.93E-03
Sample ID: 390061	Sample Dates: 9/21/2015 - 9/28/2015	Nuclide Beta	Activity 1.35E-02	2 Sigma Error 2.40E-03	MDA 2.68E-03
Sample ID: 390693	Sample Dates: 6/29/2015 - 9/28/2015	Nuclide Cs-134 Cs-137 Be-7 K-40	Activity <5.65E-04 <6.20E-04 1.41E-01 <1.45E-02	2 Sigma Error 0.00E+00 0.00E+00 2.35E-02 0.00E+00	MDA 5.65E-04 6.20E-04 1.14E-02 1.45E-02
Sample ID: 390687	Sample Dates: 9/28/2015 - 10/5/2015	Nuclide Beta	Activity 2.75E-03	2 Sigma Error 1.95E-03	MDA 3.12E-03
Sample ID: 392006	Sample Dates: 10/5/2015 - 10/12/2015	Nuclide Beta	Activity 2.35E-02	2 Sigma Error 2.88E-03	MDA 2.76E-03
Sample ID: 392280	Sample Dates: 10/12/2015 - 10/19/2015	Nuclide Beta	Activity 2.94E-02	2 Sigma Error 3.17E-03	MDA 2.73E-03
Sample ID: 393481	Sample Dates: 10/19/2015 - 10/26/2015	Nuclide Beta	Activity 3.40E-02	2 Sigma Error 3.33E-03	MDA 2.80E-03
Sample ID: 393879	Sample Dates: 10/26/2015 - 11/2/2015	Nuclide Beta	Activity 2.40E-02	2 Sigma Error 2.98E-03	MDA 2.89E-03
Sample ID: 394899	Sample Dates: 11/2/2015 - 11/9/2015	Nuclide Beta	Activity 1.03E-02	2 Sigma Error 2.21E-03	MDA 2.70E-03
Sample ID: 395353	Sample Dates: 11/9/2015 - 11/16/2015	Nuclide Beta	Activity 1.79E-02	2 Sigma Error 2.65E-03	MDA 2.76E-03
Sample ID: 395680	Sample Dates: 11/16/2015 - 11/23/2015	Nuclide Beta	Activity 2.40E-02	2 Sigma Error 2.95E-03	MDA 2.82E-03
Sample ID: 396173	Sample Dates: 11/23/2015 - 11/30/2015	Nuclide Beta	Activity 1.88E-02	2 Sigma Error 2.64E-03	MDA 2.63E-03
Sample ID: 396690	Sample Dates: 11/30/2015 - 12/7/2015	Nuclide Beta	Activity 2.25E-02	2 Sigma Error 2.86E-03	MDA 2.81E-03
Sample ID: 397235	Sample Dates: 12/7/2015 - 12/14/2015	Nuclide Beta	Activity 3.61E-02	2 Sigma Error 3.38E-03	MDA 2.57E-03
Sample ID: 397945	Sample Dates: 12/14/2015 - 12/21/2015	Nuclide Beta	Activity 1.93E-02	2 Sigma Error 2.69E-03	MDA 2.70E-03
Sample ID: 398334	Sample Dates: 12/21/2015 - 12/28/2015	Nuclide Beta	Activity 1.09E-02	2 Sigma Error 2.20E-03	MDA 2.58E-03
Sample ID: 398723	Sample Dates: 9/28/2015 - 12/28/2015	Nuclide Cs-134 Cs-137 Be-7 K-40	Activity <4.44E-04 <4.91E-04 1.27E-01 <1.11E-02	2 Sigma Error 0.00E+00 0.00E+00 2.23E-02 0.00E+00	MDA 4.44E-04 4.91E-04 1.43E-02 1.11E-02

## Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID: 364934	Sample Dates: 12/29/2014 - 1/5/2015	Nuclide Beta	Activity 1.98E-02	2 Sigma Error 2.67E-03	MDA 2.66E-03
Sample ID: 365130	Sample Dates: 1/5/2015 - 1/12/2015	Nuclide Beta	Activity 2.89E-02	2 Sigma Error 3.12E-03	MDA 2.69E-03
Sample ID: 365357	Sample Dates: 1/12/2015 - 1/19/2015	Nuclide Beta	Activity 1.83E-02	2 Sigma Error 2.62E-03	MDA 2.68E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
366701	1/19/2015 - 1/26/2015	Beta	1.54E-02	2.48E-03	2.64E-03
367116	1/26/2015 - 2/2/2015	Beta	1.17E-02	2.27E-03	2.69E-03
367609	2/2/2015 - 2/9/2015	Beta	2.50E-02	2.97E-03	2.70E-03
369030	2/9/2015 - 2/16/2015	Beta	2.04E-02	2.74E-03	2.73E-03
369742	2/16/2015 - 2/23/2015	Beta	2.54E-02	3.08E-03	3.07E-03
370657	2/23/2015 - 3/2/2015	Beta	2.36E-02	2.84E-03	2.62E-03
371604	3/2/2015 - 3/9/2015	Beta	1.48E-02	2.44E-03	2.62E-03
371970	3/9/2015 - 3/16/2015	Beta	1.36E-02	2.45E-03	2.86E-03
372453	3/16/2015 - 3/23/2015	Beta	1.67E-02	2.49E-03	2.53E-03
373906	3/23/2015 - 3/30/2015	Beta	1.55E-02	2.53E-03	2.84E-03
373912	12/29/2014 - 3/30/2015	Cs-134	<5.63E-04	0.00E+00	5.63E-04
		Cs-137	<3.44E-04	0.00E+00	3.44E-04
		Be-7	1.17E-01	1.92E-02	9.72E-03
		K-40	1.07E-02	5.43E-03	1.81E-03
374610	3/30/2015 - 4/6/2015	Beta	1.32E-02	2.52E-03	3.01E-03
374997	4/6/2015 - 4/13/2015	Beta	1.80E-02	2.68E-03	2.86E-03
375678	4/13/2015 - 4/20/2015	Beta	7.38E-03	2.10E-03	2.83E-03
376885	4/20/2015 - 4/27/2015	Beta	2.01E-02	2.64E-03	2.50E-03
377544	4/27/2015 - 5/4/2015	Beta	1.56E-02	2.56E-03	2.83E-03
378118	5/4/2015 - 5/11/2015	Beta	2.31E-02	2.94E-03	2.96E-03
378517	5/11/2015 - 5/18/2015	Beta	2.00E-02	2.80E-03	2.93E-03
379007	5/18/2015 - 5/26/2015	Beta	1.78E-02	2.34E-03	2.20E-03
379510	5/26/2015 - 6/1/2015	Beta	1.45E-02	2.71E-03	3.07E-03
380257	6/1/2015 - 6/8/2015	Beta	1.25E-02	2.42E-03	2.92E-03
380531	6/8/2015 - 6/15/2015	Beta	1.84E-02	2.64E-03	2.67E-03
380857	6/15/2015 - 6/22/2015	Beta	2.11E-02	2.75E-03	2.65E-03
381318	6/22/2015 - 6/26/2015	Beta	2.14E-02	3.85E-03	4.37E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
381324	3/30/2015 - 6/26/2015	Cs-134	<5.96E-04	0.00E+00	5.96E-04
		Cs-137	<7.11E-04	0.00E+00	7.11E-04
		Be-7	1.20E-01	2.03E-02	1.20E-02
		K-40	<1.11E-02	0.00E+00	1.11E-02
381650	6/29/2015 - 7/6/2015	Beta	1.49E-02	2.54E-03	2.89E-03
382219	7/6/2015 - 7/13/2015	Beta	2.63E-02	3.00E-03	2.72E-03
382643	7/13/2015 - 7/20/2015	Beta	1.96E-02	2.64E-03	2.51E-03
383570	7/20/2015 - 7/27/2015	Beta	2.43E-02	2.99E-03	2.92E-03
384144	7/27/2015 - 8/3/2015	Beta	2.46E-02	2.98E-03	2.84E-03
384712	8/3/2015 - 8/10/2015	Beta	2.60E-02	2.95E-03	2.50E-03
385463	8/10/2015 - 8/17/2015	Beta	2.60E-02	2.99E-03	2.79E-03
385979	8/17/2015 - 8/24/2015	Beta	1.29E-02	2.40E-03	2.76E-03
386876	8/24/2015 - 8/31/2015	Beta	2.96E-02	3.12E-03	2.59E-03
387460	8/31/2015 - 9/8/2015	Beta	3.01E-02	2.91E-03	2.30E-03
388817	9/8/2015 - 9/14/2015	Beta	1.32E-02	2.81E-03	3.57E-03
389459	9/14/2015 - 9/21/2015	Beta	2.80E-02	3.14E-03	2.93E-03
390062	9/21/2015 - 9/28/2015	Beta	1.11E-02	2.27E-03	2.69E-03
390694	6/29/2015 - 9/28/2015	Cs-134	<5.98E-04	0.00E+00	5.98E-04
		Cs-137	<4.71E-04	0.00E+00	4.71E-04
		Be-7	1.17E-01	2.04E-02	1.14E-02
		K-40	<1.04E-02	0.00E+00	1.04E-02
390688	9/28/2015 - 10/5/2015	Beta	3.93E-03	1.96E-03	3.01E-03
392007	10/5/2015 - 10/12/2015	Beta	1.85E-02	2.65E-03	2.75E-03
392281	10/12/2015 - 10/19/2015	Beta	2.29E-02	2.91E-03	2.77E-03
393482	10/19/2015 - 10/26/2015	Beta	3.07E-02	3.20E-03	2.80E-03
393880	10/26/2015 - 11/2/2015	Beta	2.10E-02	2.84E-03	2.89E-03
394900	11/2/2015 - 11/9/2015	Beta	8.44E-03	2.09E-03	2.68E-03
395354	11/9/2015 - 11/16/2015	Beta	1.80E-02	2.66E-03	2.77E-03
395681	11/16/2015 - 11/23/2015	Beta	2.20E-02	2.86E-03	2.82E-03



## OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396174	11/23/2015 - 11/30/2015	Beta	1.87E-02	2.64E-03	2.63E-03
396691	11/30/2015 - 12/7/2015	Beta	2.28E-02	2.87E-03	2.80E-03
397236	12/7/2015 - 12/14/2015	Beta	3.68E-02	3.42E-03	2.58E-03
397946	12/14/2015 - 12/21/2015	Beta	1.90E-02	2.68E-03	2.70E-03
398335	12/21/2015 - 12/28/2015	Beta	1.08E-02	2.19E-03	2.57E-03
398724	9/28/2015 - 12/28/2015	Cs-134	<6.34E-04	0.00E+00	6.34E-04
		Cs-137	<4.96E-04	0.00E+00	4.96E-04
		Be-7	1.37E-01	2.36E-02	1.21E-02
		K-40	4.25E-03	6.35E-03	1.06E-02

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364935	12/29/2014 - 1/5/2015	Beta	1.80E-02	2.58E-03	2.65E-03
365131	1/5/2015 - 1/12/2015	Beta	2.10E-02	2.77E-03	2.69E-03
365358	1/12/2015 - 1/19/2015	Beta	1.89E-02	2.65E-03	2.68E-03
366702	1/19/2015 - 1/26/2015	Beta	1.17E-02	2.27E-03	2.63E-03
367117	1/26/2015 - 2/2/2015	Beta	1.44E-02	2.43E-03	2.71E-03
367610	2/2/2015 - 2/9/2015	Beta	1.95E-02	2.70E-03	2.68E-03
369031	2/9/2015 - 2/16/2015	Beta	1.73E-02	2.58E-03	2.71E-03
369743	2/16/2015 - 2/23/2015	Beta	2.00E-02	2.84E-03	3.05E-03
370658	2/23/2015 - 3/2/2015	Beta	1.98E-02	2.67E-03	2.63E-03
371605	3/2/2015 - 3/9/2015	Beta	1.61E-02	2.51E-03	2.62E-03
371971	3/9/2015 - 3/16/2015	Beta	1.15E-02	2.33E-03	2.84E-03
372454	3/16/2015 - 3/23/2015	Beta	1.44E-02	2.38E-03	2.53E-03
373907	3/23/2015 - 3/30/2015	Beta	1.66E-02	2.60E-03	2.86E-03
373913	12/29/2014 - 3/30/2015	Cs-134	<1.27E-04	0.00E+00	1.27E-04
		Cs-137	<6.45E-04	0.00E+00	6.45E-04
		Be-7	1.17E-01	1.96E-02	1.17E-02
		K-40	<1.11E-02	0.00E+00	1.11E-02
374611	3/30/2015 - 4/6/2015	Beta	1.30E-02	2.48E-03	2.96E-03
374998	4/6/2015 - 4/13/2015	Beta	1.63E-02	2.60E-03	2.88E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
375679	4/13/2015 - 4/20/2015	Beta	6.34E-03	2.04E-03	2.84E-03
376886	4/20/2015 - 4/27/2015	Beta	1.58E-02	2.44E-03	2.51E-03
377545	4/27/2015 - 5/4/2015	Beta	1.37E-02	2.45E-03	2.81E-03
378119	5/4/2015 - 5/11/2015	Beta	2.03E-02	2.81E-03	2.96E-03
378518	5/11/2015 - 5/18/2015	Beta	2.52E-02	3.03E-03	2.94E-03
379008	5/18/2015 - 5/26/2015	Beta	1.63E-02	2.27E-03	2.20E-03
379511	5/26/2015 - 6/1/2015	Beta	1.25E-02	2.60E-03	3.07E-03
380258	6/1/2015 - 6/8/2015	Beta	1.44E-02	2.51E-03	2.90E-03
380532	6/8/2015 - 6/15/2015	Beta	1.64E-02	2.54E-03	2.68E-03
380858	6/15/2015 - 6/22/2015	Beta	1.94E-02	2.68E-03	2.68E-03
381319	6/22/2015 - 6/29/2015	Beta	1.99E-02	2.73E-03	2.73E-03
381325	3/30/2015 - 6/29/2015	Cs-134	<5.65E-04	0.00E+00	5.65E-04
		Cs-137	<4.87E-04	0.00E+00	4.87E-04
		Be-7	1.22E-01	2.03E-02	1.25E-02
		K-40	<1.26E-02	0.00E+00	1.26E-02
381651	6/29/2015 - 7/6/2015	Beta	1.27E-02	2.42E-03	2.88E-03
382220	7/6/2015 - 7/13/2015	Beta	2.08E-02	2.76E-03	2.72E-03
382644	7/13/2015 - 7/20/2015	Beta	1.93E-02	2.63E-03	2.52E-03
383571	7/20/2015 - 7/27/2015	Beta	1.78E-02	2.69E-03	2.91E-03
384145	7/27/2015 - 8/3/2015	Beta	2.36E-02	2.93E-03	2.84E-03
384713	8/3/2015 - 8/10/2015	Beta	2.15E-02	2.74E-03	2.50E-03
385464	8/10/2015 - 8/17/2015	Beta	2.19E-02	2.83E-03	2.81E-03
385980	8/17/2015 - 8/24/2015	Beta	1.02E-02	2.23E-03	2.74E-03
386877	8/24/2015 - 8/31/2015	Beta	2.12E-02	2.75E-03	2.59E-03
387461	8/31/2015 - 9/8/2015	Beta	2.42E-02	2.67E-03	2.30E-03
388818	9/8/2015 - 9/14/2015	Beta	1.47E-02	2.90E-03	3.59E-03
389460	9/14/2015 - 9/21/2015	Beta	2.39E-02	2.97E-03	2.94E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390063	9/21/2015 - 9/28/2015	Beta	1.29E-02	2.36E-03	2.67E-03
390695	6/29/2015 - 9/28/2015	Cs-134	<5.68E-04	0.00E+00	5.68E-04
		Cs-137	<3.45E-04	0.00E+00	3.45E-04
		Be-7	1.23E-01	2.02E-02	8.34E-03
		K-40	<1.11E-02	0.00E+00	1.11E-02
390689	9/28/2015 - 10/5/2015	Beta	2.03E-03	1.83E-03	3.01E-03
392008	10/5/2015 - 10/12/2015	Beta	2.05E-02	2.75E-03	2.76E-03
392282	10/12/2015 - 10/19/2015	Beta	2.23E-02	2.85E-03	2.72E-03
393483	10/19/2015 - 10/26/2015	Beta	2.83E-02	3.11E-03	2.81E-03
393881	10/26/2015 - 11/2/2015	Beta	2.14E-02	2.86E-03	2.89E-03
394901	11/2/2015 - 11/9/2015	Beta	1.07E-02	2.23E-03	2.70E-03
395355	11/9/2015 - 11/16/2015	Beta	1.73E-02	2.62E-03	2.77E-03
395682	11/16/2015 - 11/23/2015	Beta	2.33E-02	2.90E-03	2.80E-03
396175	11/23/2015 - 11/30/2015	Beta	2.07E-02	2.74E-03	2.64E-03
396692	11/30/2015 - 12/7/2015	Beta	2.37E-02	2.92E-03	2.82E-03
397237	12/7/2015 - 12/14/2015	Beta	3.76E-02	3.43E-03	2.56E-03
397947	12/14/2015 - 12/21/2015	Beta	1.97E-02	2.72E-03	2.71E-03
398336	12/21/2015 - 12/28/2015	Beta	9.53E-03	2.12E-03	2.58E-03
398725	9/28/2015 - 12/28/2015	Cs-134	<5.28E-04	0.00E+00	5.28E-04
		Cs-137	<4.13E-04	0.00E+00	4.13E-04
		Be-7	1.26E-01	2.22E-02	1.44E-02
		K-40	<1.34E-02	0.00E+00	1.34E-02

## Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364936	12/29/2014 - 1/5/2015	Beta	1.76E-02	2.55E-03	2.64E-03
365132	1/5/2015 - 1/12/2015	Beta	2.89E-02	3.12E-03	2.69E-03
365359	1/12/2015 - 1/19/2015	Beta	1.95E-02	2.67E-03	2.67E-03
366703	1/19/2015 - 1/26/2015	Beta	1.50E-02	2.45E-03	2.64E-03
367118	1/26/2015 - 2/2/2015	Beta	1.44E-02	2.42E-03	2.69E-03
367611	2/2/2015 - 2/9/2015	Beta	2.35E-02	2.89E-03	2.69E-03





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
369032	2/9/2015 - 2/16/2015	Beta	1.86E-02	2.65E-03	2.71E-03
369744	2/16/2015 - 2/23/2015	Beta	2.79E-02	3.17E-03	3.05E-03
370659	2/23/2015 - 3/2/2015	Beta	2.21E-02	2.77E-03	2.62E-03
371606	3/2/2015 - 3/9/2015	Beta	1.76E-02	2.58E-03	2.63E-03
371972	3/9/2015 - 3/16/2015	Beta	1.53E-02	2.53E-03	2.84E-03
372455	3/16/2015 - 3/23/2015	Beta	1.83E-02	2.57E-03	2.53E-03
373908	3/23/2015 - 3/30/2015	Beta	1.80E-02	2.66E-03	2.87E-03
373914	12/29/2014 - 3/30/2015	Cs-134	<7.44E-04	0.00E+00	7.44E-04
		Cs-137	<6.45E-04	0.00E+00	6.45E-04
		Be-7	1.44E-01	2.28E-02	1.47E-02
		K-40	<1.06E-02	0.00E+00	1.06E-02
374612	3/30/2015 - 4/6/2015	Beta	1.59E-02	2.63E-03	2.97E-03
374999	4/6/2015 - 4/13/2015	Beta	1.77E-02	2.67E-03	2.87E-03
375680	4/13/2015 - 4/20/2015	Beta	6.82E-03	2.06E-03	2.84E-03
376887	4/20/2015 - 4/27/2015	Beta	1.80E-02	2.54E-03	2.50E-03
377546	4/27/2015 - 5/4/2015	Beta	1.65E-02	2.60E-03	2.82E-03
378120	5/4/2015 - 5/11/2015	Beta	2.43E-02	2.99E-03	2.96E-03
378519	5/11/2015 - 5/18/2015	Beta	2.47E-02	3.01E-03	2.93E-03
379009	5/18/2015 - 5/26/2015	Beta	1.71E-02	2.31E-03	2.21E-03
379512	5/26/2015 - 6/1/2015	Beta	1.28E-02	2.61E-03	3.06E-03
380259	6/1/2015 - 6/8/2015	Beta	1.67E-02	2.63E-03	2.91E-03
380533	6/8/2015 - 6/15/2015	Beta	2.03E-02	2.73E-03	2.68E-03
380859	6/15/2015 - 6/22/2015	Beta	2.28E-02	2.84E-03	2.67E-03
381320	6/22/2015 - 6/29/2015	Beta	2.21E-02	2.84E-03	2.73E-03
381326	3/30/2015 - 6/29/2015	Cs-134	<5.62E-04	0.00E+00	5.62E-04
		Cs-137	<5.83E-04	0.00E+00	5.83E-04
		Be-7	1.48E-01	2.33E-02	8.52E-03
		K-40	<1.49E-02	0.00E+00	1.49E-02
381652	6/29/2015 - 7/6/2015	Beta	1.42E-02	2.50E-03	2.87E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
382221	7/6/2015 - 7/13/2015	Beta	2.79E-02	3.07E-03	2.72E-03
382645	7/13/2015 - 7/20/2015	Beta	2.16E-02	2.74E-03	2.52E-03
383572	7/20/2015 - 7/27/2015	Beta	2.12E-02	2.86E-03	2.92E-03
384146	7/27/2015 - 8/3/2015	Beta	2.61E-02	3.04E-03	2.84E-03
384714	8/3/2015 - 8/10/2015	Beta	2.38E-02	2.85E-03	2.50E-03
385465	8/10/2015 - 8/17/2015	Beta	2.63E-02	3.02E-03	2.80E-03
385981	8/17/2015 - 8/24/2015	Beta	1.11E-02	2.29E-03	2.75E-03
386878	8/24/2015 - 8/31/2015	Beta	2.92E-02	3.10E-03	2.59E-03
387462	8/31/2015 - 9/8/2015	Beta	2.96E-02	2.89E-03	2.30E-03
388819	9/8/2015 - 9/14/2015	Beta	1.46E-02	2.89E-03	3.59E-03
389461	9/14/2015 - 9/21/2015	Beta	2.84E-02	3.16E-03	2.94E-03
390064	9/21/2015 - 9/28/2015	Beta	1.19E-02	2.31E-03	2.68E-03
390696	6/29/2015 - 9/28/2015	Cs-134	<7.87E-04	0.00E+00	7.87E-04
		Cs-137	<4.96E-04	0.00E+00	4.96E-04
		Be-7	1.30E-01	2.33E-02	1.67E-02
		K-40	1.08E-02	5.65E-03	1.95E-03
390690	9/28/2015 - 10/5/2015	Beta	3.20E-03	1.91E-03	3.01E-03
392009	10/5/2015 - 10/12/2015	Beta	1.65E-02	2.56E-03	2.76E-03
392283	10/12/2015 - 10/19/2015	Beta	2.28E-02	2.88E-03	2.73E-03
393484	10/19/2015 - 10/26/2015	Beta	3.06E-02	3.20E-03	2.81E-03
393882	10/26/2015 - 11/2/2015	Beta	2.12E-02	2.85E-03	2.88E-03
394902	11/2/2015 - 11/9/2015	Beta	9.00E-03	2.13E-03	2.69E-03
395356	11/9/2015 - 11/16/2015	Beta	2.17E-02	2.83E-03	2.77E-03
395683	11/16/2015 - 11/23/2015	Beta	1.83E-02	2.68E-03	2.82E-03
396176	11/23/2015 - 11/30/2015	Beta	1.98E-02	2.69E-03	2.63E-03
396693	11/30/2015 - 12/7/2015	Beta	2.35E-02	2.91E-03	2.81E-03
397238	12/7/2015 - 12/14/2015	Beta	3.86E-02	3.48E-03	2.57E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397948	12/14/2015 - 12/21/2015	Beta	1.66E-02	2.56E-03	2.70E-03
398337	12/21/2015 - 12/28/2015	Beta	9.39E-03	2.11E-03	2.58E-03
398726	9/28/2015 - 12/28/2015	Cs-134	<6.39E-04	0.00E+00	6.39E-04
		Cs-137	<5.00E-04	0.00E+00	5.00E-04
		Be-7	1.32E-01	2.38E-02	1.30E-02
		K-40	7.53E-03	5.99E-03	8.01E-03

## Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364937	12/29/2014 - 1/5/2015	Beta	1.88E-02	2.63E-03	2.66E-03
365133	1/5/2015 - 1/12/2015	Beta	2.50E-02	2.95E-03	2.68E-03
365360	1/12/2015 - 1/19/2015	Beta	1.63E-02	2.52E-03	2.68E-03
366704	1/19/2015 - 1/26/2015	Beta	1.62E-02	2.52E-03	2.64E-03
367119	1/26/2015 - 2/2/2015	Beta	1.04E-02	2.20E-03	2.69E-03
367612	2/2/2015 - 2/9/2015	Beta	2.29E-02	2.87E-03	2.69E-03
369033	2/9/2015 - 2/16/2015	Beta	2.26E-02	2.94E-03	2.87E-03
369745	2/16/2015 - 2/23/2015	Beta	2.41E-02	3.16E-03	3.27E-03
370660	2/23/2015 - 3/2/2015	Beta	2.22E-02	2.77E-03	2.62E-03
371607	3/2/2015 - 3/9/2015	Beta	1.52E-02	2.46E-03	2.62E-03
371973	3/9/2015 - 3/16/2015	Beta	1.43E-02	2.48E-03	2.85E-03
372456	3/16/2015 - 3/23/2015	Beta	1.57E-02	2.44E-03	2.53E-03
373909	3/23/2015 - 3/30/2015	Beta	1.65E-02	2.59E-03	2.86E-03
373915	12/29/2014 - 3/30/2015	Cs-134	<6.68E-04	0.00E+00	6.68E-04
		Cs-137	<3.47E-04	0.00E+00	3.47E-04
		Be-7	1.29E-01	2.07E-02	1.10E-02
		K-40	<1.35E-02	0.00E+00	1.35E-02
374613	3/30/2015 - 4/6/2015	Beta	1.40E-02	2.52E-03	2.95E-03
375000	4/6/2015 - 4/13/2015	Beta	1.78E-02	2.69E-03	2.90E-03
375681	4/13/2015 - 4/20/2015	Beta	6.88E-03	2.06E-03	2.83E-03
376888	4/20/2015 - 4/27/2015	Beta	2.01E-02	2.64E-03	2.51E-03
377547	4/27/2015 - 5/4/2015	Beta	1.66E-02	2.61E-03	2.82E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
378121	5/4/2015 - 5/11/2015	Beta	2.43E-02	2.99E-03	2.95E-03
378520	5/11/2015 - 5/18/2015	Beta	2.59E-02	3.07E-03	2.94E-03
379010	5/18/2015 - 5/26/2015	Beta	1.81E-02	2.36E-03	2.20E-03
379513	5/26/2015 - 6/1/2015	Beta	1.40E-02	2.67E-03	3.05E-03
380260	6/1/2015 - 6/8/2015	Beta	1.40E-02	2.50E-03	2.92E-03
380534	6/8/2015 - 6/15/2015	Beta	1.89E-02	2.66E-03	2.67E-03
380860	6/15/2015 - 6/22/2015	Beta	2.10E-02	2.75E-03	2.67E-03
381321	6/22/2015 - 6/29/2015	Beta	2.63E-02	3.02E-03	2.72E-03
381327	3/30/2015 - 6/29/2015	Cs-134	<7.04E-04	0.00E+00	7.04E-04
		Cs-137	<4.75E-04	0.00E+00	4.75E-04
		Be-7	1.27E-01	2.12E-02	9.33E-03
		K-40	<1.15E-02	0.00E+00	1.15E-02
381653	6/29/2015 - 7/6/2015	Beta	1.38E-02	2.48E-03	2.89E-03
382222	7/6/2015 - 7/13/2015	Beta	2.62E-02	3.00E-03	2.72E-03
382646	7/13/2015 - 7/20/2015	Beta	1.72E-02	2.53E-03	2.52E-03
383573	7/20/2015 - 7/27/2015	Beta	2.34E-02	2.95E-03	2.91E-03
384147	7/27/2015 - 8/3/2015	Beta	2.73E-02	3.09E-03	2.84E-03
384715	8/3/2015 - 8/10/2015	Beta	2.94E-02	3.10E-03	2.50E-03
385466	8/10/2015 - 8/17/2015	Beta	2.45E-02	2.94E-03	2.80E-03
385982	8/17/2015 - 8/24/2015	Beta	1.31E-02	2.40E-03	2.75E-03
386879	8/24/2015 - 8/31/2015	Beta	2.14E-02	2.75E-03	2.59E-03
387463	8/31/2015 - 9/8/2015	Beta	3.15E-02	2.97E-03	2.30E-03
388820	9/8/2015 - 9/14/2015	Beta	1.52E-02	2.92E-03	3.59E-03
389462	9/14/2015 - 9/21/2015	Beta	3.26E-02	3.32E-03	2.93E-03
390065	9/21/2015 - 9/28/2015	Beta	1.10E-02	2.26E-03	2.68E-03
390697	6/29/2015 - 9/28/2015	Cs-134	<6.87E-04	0.00E+00	6.87E-04
		Cs-137	<6.88E-04	0.00E+00	6.88E-04
		Be-7	1.10E-01	2.12E-02	1.61E-02
		K-40	<1.45E-02	0.00E+00	1.45E-02



## OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390691	9/28/2015 - 10/5/2015	Beta	3.36E-03	1.92E-03	3.01E-03
392010	10/5/2015 - 10/12/2015	Beta	1.71E-02	2.59E-03	2.76E-03
392284	10/12/2015 - 10/19/2015	Beta	2.80E-02	3.11E-03	2.73E-03
393485	10/19/2015 - 10/26/2015	Beta	3.49E-02	3.37E-03	2.80E-03
393883	10/26/2015 - 11/2/2015	Beta	2.69E-02	3.10E-03	2.89E-03
394903	11/2/2015 - 11/9/2015	Beta	1.31E-02	2.37E-03	2.70E-03
395357	11/9/2015 - 11/16/2015	Beta	2.05E-02	2.77E-03	2.76E-03
395684	11/16/2015 - 11/23/2015	Beta	2.69E-02	3.11E-03	2.87E-03
396177	11/23/2015 - 11/30/2015	Beta	2.33E-02	2.85E-03	2.63E-03
396694	11/30/2015 - 12/7/2015	Beta	2.84E-02	3.12E-03	2.81E-03
397239	12/7/2015 - 12/14/2015	Beta	4.07E-02	3.56E-03	2.57E-03
397949	12/14/2015 - 12/21/2015	Beta	2.33E-02	2.88E-03	2.70E-03
398338	12/21/2015 - 12/28/2015	Beta	1.28E-02	2.31E-03	2.57E-03
398727	9/28/2015 - 12/28/2015	Cs-134	<3.61E-04	0.00E+00	3.61E-04
		Cs-137	<6.09E-04	0.00E+00	6.09E-04
		Be-7	1.62E-01	2.56E-02	1.27E-02
		K-40	<1.29E-02	0.00E+00	1.29E-02

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364938	12/29/2014 - 1/5/2015	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.77E-01	2.07E-01	4.74E-02
365134	1/5/2015 - 1/12/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<9.72E-03	0.00E+00	9.72E-03
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	5.18E-01	2.21E-01	2.12E-01
365361	1/12/2015 - 1/19/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	2.89E-01	1.68E-01	6.52E-02
366705	1/19/2015 - 1/26/2015	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<7.79E-02	0.00E+00	7.79E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
366705	1/19/2015 - 1/26/2015	K-40	2.87E-01	1.65E-01	2.03E-01
367120	1/26/2015 - 2/2/2015	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<9.15E-02	0.00E+00	9.15E-02
		K-40	4.81E-01	2.24E-01	2.53E-01
367613	2/2/2015 - 2/9/2015	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<7.04E-01	0.00E+00	7.04E-01
369034	2/9/2015 - 2/16/2015	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<3.92E-03	0.00E+00	3.92E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<4.59E-02	0.00E+00	4.59E-02
		K-40	3.20E-01	1.59E-01	1.97E-01
369746	2/16/2015 - 2/23/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.04E-01	2.25E-01	2.37E-01
370661	2/23/2015 - 3/2/2015	I-131	<9.07E-03	0.00E+00	9.07E-03
		Cs-134	<7.81E-03	0.00E+00	7.81E-03
		Cs-137	<7.34E-03	0.00E+00	7.34E-03
		Be-7	<6.62E-02	0.00E+00	6.62E-02
		K-40	4.34E-01	1.40E-01	2.80E-02
371608	3/2/2015 - 3/9/2015	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<9.47E-03	0.00E+00	9.47E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.28E-02	0.00E+00	5.28E-02
		K-40	<3.01E-01	0.00E+00	3.01E-01
371974	3/9/2015 - 3/16/2015	I-131	<4.80E-03	0.00E+00	4.80E-03
		Cs-134	<4.22E-03	0.00E+00	4.22E-03
		Cs-137	<4.52E-03	0.00E+00	4.52E-03
		Be-7	<3.57E-02	0.00E+00	3.57E-02
		K-40	3.90E-01	1.08E-01	9.41E-02
372457	3/16/2015 - 3/23/2015	I-131	<7.48E-03	0.00E+00	7.48E-03
		Cs-134	<3.70E-03	0.00E+00	3.70E-03
		Cs-137	<8.82E-03	0.00E+00	8.82E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	3.46E-01	1.34E-01	1.13E-01
373916	3/23/2015 - 3/30/2015	I-131	<6.01E-03	0.00E+00	6.01E-03
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<5.51E-03	0.00E+00	5.51E-03
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	3.58E-01	1.25E-01	2.77E-02
374614	3/30/2015 - 4/6/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<8.82E-02	0.00E+00	8.82E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374614	3/30/2015 - 4/6/2015	K-40	6.81E-01	2.51E-01	2.23E-01
375001	4/6/2015 - 4/13/2015	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	4.98E-01	2.40E-01	2.81E-01
375682	4/13/2015 - 4/20/2015	I-131	<8.49E-03	0.00E+00	8.49E-03
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	3.40E-01	1.34E-01	1.19E-01
376889	4/20/2015 - 4/27/2015	I-131	<6.77E-03	0.00E+00	6.77E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<7.36E-02	0.00E+00	7.36E-02
		K-40	3.63E-01	1.34E-01	1.01E-01
377548	4/27/2015 - 5/4/2015	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<8.77E-02	0.00E+00	8.77E-02
		K-40	7.05E-01	2.49E-01	1.93E-01
378122	5/4/2015 - 5/11/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<9.33E-02	0.00E+00	9.33E-02
		K-40	4.73E-01	2.14E-01	2.19E-01
378521	5/11/2015 - 5/18/2015	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<9.49E-02	0.00E+00	9.49E-02
		K-40	8.04E-01	2.63E-01	1.91E-01
379011	5/18/2015 - 5/26/2015	I-131	<7.20E-03	0.00E+00	7.20E-03
		Cs-134	<4.53E-03	0.00E+00	4.53E-03
		Cs-137	<3.85E-03	0.00E+00	3.85E-03
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	3.47E-01	1.28E-01	1.12E-01
379514	5/26/2015 - 6/1/2015	I-131	<6.85E-03	0.00E+00	6.85E-03
		Cs-134	<8.48E-03	0.00E+00	8.48E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<6.80E-02	0.00E+00	6.80E-02
		K-40	4.63E-01	1.62E-01	1.08E-01
380261	6/1/2015 - 6/8/2015	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	7.45E-01	2.38E-01	4.81E-02
380535	6/8/2015 - 6/15/2015	I-131	<9.79E-03	0.00E+00	9.79E-03
		Cs-134	<5.44E-03	0.00E+00	5.44E-03
		Cs-137	<5.84E-03	0.00E+00	5.84E-03
		Be-7	<5.74E-02	0.00E+00	5.74E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
380535	6/8/2015 - 6/15/2015	K-40	4.01E-01	1.34E-01	2.86E-02
380861	6/15/2015 - 6/22/2015	I-131	<7.26E-03	0.00E+00	7.26E-03
		Cs-134	<5.69E-03	0.00E+00	5.69E-03
		Cs-137	<8.84E-03	0.00E+00	8.84E-03
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	<2.67E-01	0.00E+00	2.67E-01
381328	6/22/2015 - 6/29/2015	I-131	<6.94E-03	0.00E+00	6.94E-03
		Cs-134	<5.49E-03	0.00E+00	5.49E-03
		Cs-137	<5.89E-03	0.00E+00	5.89E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	3.02E-01	1.44E-01	1.69E-01
381654	6/29/2015 - 7/6/2015	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	6.21E-01	2.30E-01	1.81E-01
382223	7/6/2015 - 7/13/2015	I-131	<7.87E-03	0.00E+00	7.87E-03
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	3.85E-01	1.49E-01	1.47E-01
382647	7/13/2015 - 7/20/2015	I-131	<7.44E-03	0.00E+00	7.44E-03
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<4.20E-02	0.00E+00	4.20E-02
		K-40	4.67E-01	1.45E-01	2.81E-02
383574	7/20/2015 - 7/27/2015	I-131	<8.70E-03	0.00E+00	8.70E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<6.60E-03	0.00E+00	6.60E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	3.61E-01	1.47E-01	1.47E-01
384148	7/27/2015 - 8/3/2015	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<8.31E-03	0.00E+00	8.31E-03
		Cs-137	<6.67E-03	0.00E+00	6.67E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	2.92E-01	1.26E-01	1.17E-01
384716	8/3/2015 - 8/10/2015	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.57E-01	2.13E-01	2.25E-01
385467	8/10/2015 - 8/17/2015	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	5.12E-01	2.30E-01	2.49E-01
385983	8/17/2015 - 8/24/2015	I-131	<7.52E-03	0.00E+00	7.52E-03
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<6.54E-03	0.00E+00	6.54E-03
		Be-7	<7.13E-02	0.00E+00	7.13E-02





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
385983	8/17/2015 - 8/24/2015	K-40	5.11E-01	1.53E-01	2.82E-02
386880	8/24/2015 - 8/31/2015	I-131	<9.76E-03	0.00E+00	9.76E-03
		Cs-134	<6.78E-03	0.00E+00	6.78E-03
		Cs-137	<7.18E-03	0.00E+00	7.18E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	3.45E-01	1.55E-01	1.82E-01
387464	8/31/2015 - 9/8/2015	I-131	<7.27E-03	0.00E+00	7.27E-03
		Cs-134	<6.31E-03	0.00E+00	6.31E-03
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	3.85E-01	1.31E-01	9.83E-02
388821	9/8/2015 - 9/14/2015	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<7.36E-03	0.00E+00	7.36E-03
		Cs-137	<9.15E-03	0.00E+00	9.15E-03
		Be-7	<7.13E-02	0.00E+00	7.13E-02
		K-40	3.97E-01	1.54E-01	1.29E-01
389463	9/14/2015 - 9/21/2015	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	<4.77E-01	0.00E+00	4.77E-01
390066	9/21/2015 - 9/28/2015	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<7.80E-02	0.00E+00	7.80E-02
		K-40	7.16E-01	2.34E-01	4.85E-02
390698	9/28/2015 - 10/5/2015	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<9.09E-02	0.00E+00	9.09E-02
		K-40	4.89E-01	2.43E-01	2.92E-01
392011	10/5/2015 - 10/12/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	3.56E-01	2.09E-01	2.68E-01
392285	10/12/2015 - 10/19/2015	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	4.97E-01	2.17E-01	2.08E-01
393486	10/19/2015 - 10/26/2015	I-131	<6.70E-03	0.00E+00	6.70E-03
		Cs-134	<9.87E-03	0.00E+00	9.87E-03
		Cs-137	<6.36E-03	0.00E+00	6.36E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	3.34E-01	1.20E-01	2.74E-02
393884	10/26/2015 - 11/2/2015	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<1.94E-02	0.00E+00	1.94E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
393884	10/26/2015 - 11/2/2015	K-40	3.28E-01	1.70E-01	1.65E-01
394904	11/2/2015 - 11/9/2015	I-131	<5.60E-03	0.00E+00	5.60E-03
		Cs-134	<3.63E-03	0.00E+00	3.63E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<2.93E-02	0.00E+00	2.93E-02
		K-40	3.14E-01	1.36E-01	1.40E-01
395358	11/9/2015 - 11/16/2015	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	5.25E-01	2.30E-01	2.39E-01
395685	11/16/2015 - 11/23/2015	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
396178	11/23/2015 - 11/30/2015	I-131	<5.35E-03	0.00E+00	5.35E-03
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<8.18E-03	0.00E+00	8.18E-03
		Be-7	<4.82E-02	0.00E+00	4.82E-02
		K-40	2.89E-01	1.22E-01	1.02E-01
396695	11/30/2015 - 12/7/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<9.33E-02	0.00E+00	9.33E-02
		K-40	7.28E-01	2.50E-01	1.97E-01
397240	12/7/2015 - 12/14/2015	I-131	<5.41E-03	0.00E+00	5.41E-03
		Cs-134	<7.48E-03	0.00E+00	7.48E-03
		Cs-137	<8.12E-03	0.00E+00	8.12E-03
		Be-7	<6.02E-02	0.00E+00	6.02E-02
		K-40	3.97E-01	1.43E-01	1.08E-01
397950	12/14/2015 - 12/21/2015	I-131	<8.31E-03	0.00E+00	8.31E-03
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<6.27E-03	0.00E+00	6.27E-03
		Be-7	<6.93E-02	0.00E+00	6.93E-02
		K-40	2.96E-01	1.19E-01	3.09E-02
398339	12/21/2015 - 12/28/2015	I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	<6.05E-02	0.00E+00	6.05E-02
		K-40	5.17E-01	1.76E-01	1.55E-01
<b>Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]</b>					
364939	12/29/2014 - 1/5/2015	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	5.60E-01	2.03E-01	4.74E-02
365135	1/5/2015 - 1/12/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365135	1/5/2015 - 1/12/2015	Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	6.66E-01	2.26E-01	4.87E-02
365362	1/12/2015 - 1/19/2015	I-131	<9.07E-03	0.00E+00	9.07E-03
		Cs-134	<9.44E-03	0.00E+00	9.44E-03
		Cs-137	<8.49E-03	0.00E+00	8.49E-03
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	6.12E-01	1.82E-01	3.32E-02
366706	1/19/2015 - 1/26/2015	I-131	<6.66E-03	0.00E+00	6.66E-03
		Cs-134	<3.98E-03	0.00E+00	3.98E-03
		Cs-137	<1.82E-03	0.00E+00	1.82E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	4.08E-01	1.41E-01	3.07E-02
367121	1/26/2015 - 2/2/2015	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.48E-01	2.26E-01	2.73E-01
367614	2/2/2015 - 2/9/2015	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<9.38E-02	0.00E+00	9.38E-02
		K-40	<6.77E-01	0.00E+00	6.77E-01
369035	2/9/2015 - 2/16/2015	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<9.11E-03	0.00E+00	9.11E-03
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<6.18E-01	0.00E+00	6.18E-01
369747	2/16/2015 - 2/23/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<9.59E-03	0.00E+00	9.59E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	<3.69E-01	0.00E+00	3.69E-01
370662	2/23/2015 - 3/2/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<8.89E-03	0.00E+00	8.89E-03
		Cs-137	<6.30E-03	0.00E+00	6.30E-03
		Be-7	<3.57E-02	0.00E+00	3.57E-02
		K-40	2.72E-01	1.17E-01	1.05E-01
371609	3/2/2015 - 3/9/2015	I-131	<4.56E-03	0.00E+00	4.56E-03
		Cs-134	<6.69E-03	0.00E+00	6.69E-03
		Cs-137	<5.89E-03	0.00E+00	5.89E-03
		Be-7	<4.93E-02	0.00E+00	4.93E-02
		K-40	3.25E-01	1.28E-01	9.67E-02
371975	3/9/2015 - 3/16/2015	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<7.41E-03	0.00E+00	7.41E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	3.44E-01	1.24E-01	2.83E-02
372458	3/16/2015 - 3/23/2015	I-131	<9.00E-03	0.00E+00	9.00E-03
		Cs-134	<4.53E-03	0.00E+00	4.53E-03
		Cs-137	<7.95E-03	0.00E+00	7.95E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
372458	3/16/2015 - 3/23/2015	Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	3.76E-01	1.49E-01	1.49E-01
373917	3/23/2015 - 3/30/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<5.06E-03	0.00E+00	5.06E-03
		Cs-137	<8.23E-03	0.00E+00	8.23E-03
		Be-7	<4.55E-02	0.00E+00	4.55E-02
		K-40	2.99E-01	1.24E-01	1.13E-01
374615	3/30/2015 - 4/6/2015	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.49E-01	2.02E-01	4.80E-02
375002	4/6/2015 - 4/13/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	6.86E-01	2.30E-01	4.89E-02
375683	4/13/2015 - 4/20/2015	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<3.98E-02	0.00E+00	3.98E-02
		K-40	2.99E-01	1.37E-01	1.44E-01
376890	4/20/2015 - 4/27/2015	I-131	<8.83E-03	0.00E+00	8.83E-03
		Cs-134	<8.54E-03	0.00E+00	8.54E-03
		Cs-137	<7.66E-03	0.00E+00	7.66E-03
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	<2.60E-01	0.00E+00	2.60E-01
377549	4/27/2015 - 5/4/2015	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<9.56E-02	0.00E+00	9.56E-02
		K-40	5.39E-01	2.23E-01	2.05E-01
378123	5/4/2015 - 5/11/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<9.31E-02	0.00E+00	9.31E-02
		K-40	4.92E-01	1.90E-01	4.76E-02
378522	5/11/2015 - 5/18/2015	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.81E-01	2.05E-01	2.43E-01
379012	5/18/2015 - 5/26/2015	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<6.12E-03	0.00E+00	6.12E-03
		Cs-137	<5.01E-03	0.00E+00	5.01E-03
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	3.08E-01	1.09E-01	2.45E-02
379515	5/26/2015 - 6/1/2015	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<5.47E-03	0.00E+00	5.47E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
379515	5/26/2015 - 6/1/2015	Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	3.96E-01	1.81E-01	2.13E-01
380262	6/1/2015 - 6/8/2015	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.29E-01	2.25E-01	2.23E-01
380536	6/8/2015 - 6/15/2015	I-131	<8.66E-03	0.00E+00	8.66E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<7.32E-03	0.00E+00	7.32E-03
		Be-7	<5.63E-02	0.00E+00	5.63E-02
		K-40	3.36E-01	1.23E-01	2.84E-02
380862	6/15/2015 - 6/22/2015	I-131	<6.05E-03	0.00E+00	6.05E-03
		Cs-134	<6.44E-03	0.00E+00	6.44E-03
		Cs-137	<6.57E-03	0.00E+00	6.57E-03
		Be-7	<4.23E-02	0.00E+00	4.23E-02
		K-40	3.92E-01	1.50E-01	1.46E-01
381329	6/22/2015 - 6/26/2015	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<8.78E-03	0.00E+00	8.78E-03
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	5.44E-01	2.04E-01	1.47E-01
381655	6/29/2015 - 7/6/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	6.38E-01	2.35E-01	1.88E-01
382224	7/6/2015 - 7/13/2015	I-131	<8.57E-03	0.00E+00	8.57E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	4.78E-01	1.70E-01	1.57E-01
382648	7/13/2015 - 7/20/2015	I-131	<9.76E-03	0.00E+00	9.76E-03
		Cs-134	<7.60E-03	0.00E+00	7.60E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	<6.11E-02	0.00E+00	6.11E-02
		K-40	4.70E-01	1.45E-01	2.77E-02
383575	7/20/2015 - 7/27/2015	I-131	<7.17E-03	0.00E+00	7.17E-03
		Cs-134	<9.83E-03	0.00E+00	9.83E-03
		Cs-137	<4.95E-03	0.00E+00	4.95E-03
		Be-7	<6.95E-02	0.00E+00	6.95E-02
		K-40	2.95E-01	1.42E-01	1.61E-01
384149	7/27/2015 - 8/3/2015	I-131	<6.79E-03	0.00E+00	6.79E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<8.91E-03	0.00E+00	8.91E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	2.66E-01	1.46E-01	1.91E-01
384717	8/3/2015 - 8/10/2015	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
384717	8/3/2015 - 8/10/2015	Be-7	<9.54E-02	0.00E+00	9.54E-02
		K-40	5.62E-01	2.16E-01	1.59E-01
385468	8/10/2015 - 8/17/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<8.66E-02	0.00E+00	8.66E-02
		K-40	<4.99E-01	0.00E+00	4.99E-01
385984	8/17/2015 - 8/24/2015	I-131	<9.24E-03	0.00E+00	9.24E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<7.57E-03	0.00E+00	7.57E-03
		Be-7	<4.87E-02	0.00E+00	4.87E-02
		K-40	5.48E-01	1.73E-01	1.35E-01
386881	8/24/2015 - 8/31/2015	I-131	<6.82E-03	0.00E+00	6.82E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<4.56E-03	0.00E+00	4.56E-03
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	4.19E-01	1.38E-01	2.84E-02
387465	8/31/2015 - 9/8/2015	I-131	<5.64E-03	0.00E+00	5.64E-03
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<4.95E-02	0.00E+00	4.95E-02
		K-40	3.14E-01	1.18E-01	9.27E-02
388822	9/8/2015 - 9/14/2015	I-131	<9.35E-03	0.00E+00	9.35E-03
		Cs-134	<8.80E-03	0.00E+00	8.80E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<7.39E-02	0.00E+00	7.39E-02
		K-40	3.75E-01	1.55E-01	1.49E-01
389464	9/14/2015 - 9/21/2015	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.41E-01	1.76E-01	1.77E-01
390067	9/21/2015 - 9/28/2015	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<9.48E-02	0.00E+00	9.48E-02
		K-40	5.37E-01	2.40E-01	2.63E-01
390699	9/28/2015 - 10/5/2015	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	8.11E-01	2.54E-01	4.99E-02
392012	10/5/2015 - 10/12/2015	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.94E-01	2.40E-01	1.77E-01
392286	10/12/2015 - 10/19/2015	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
392286	10/12/2015 - 10/19/2015	Be-7	<8.86E-02	0.00E+00	8.86E-02
		K-40	6.54E-01	2.60E-01	2.65E-01
393487	10/19/2015 - 10/26/2015	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.42E-03	0.00E+00	8.42E-03
		Cs-137	<8.65E-03	0.00E+00	8.65E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	2.44E-01	1.24E-01	1.35E-01
393885	10/26/2015 - 11/2/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	5.50E-01	2.03E-01	4.81E-02
394905	11/2/2015 - 11/9/2015	I-131	<9.91E-03	0.00E+00	9.91E-03
		Cs-134	<6.20E-03	0.00E+00	6.20E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<6.71E-02	0.00E+00	6.71E-02
		K-40	4.11E-01	1.44E-01	1.14E-01
395359	11/9/2015 - 11/16/2015	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.43E-01	2.33E-01	2.39E-01
395686	11/16/2015 - 11/23/2015	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.88E-01	2.29E-01	2.01E-01
396179	11/23/2015 - 11/30/2015	I-131	<6.11E-03	0.00E+00	6.11E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<6.17E-02	0.00E+00	6.17E-02
		K-40	4.72E-01	1.46E-01	2.78E-02
396696	11/30/2015 - 12/7/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	4.90E-01	2.23E-01	2.41E-01
397241	12/7/2015 - 12/14/2015	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<8.12E-03	0.00E+00	8.12E-03
		Be-7	<4.82E-02	0.00E+00	4.82E-02
		K-40	4.16E-01	1.57E-01	1.51E-01
397951	12/14/2015 - 12/21/2015	I-131	<7.56E-03	0.00E+00	7.56E-03
		Cs-134	<7.75E-03	0.00E+00	7.75E-03
		Cs-137	<5.63E-03	0.00E+00	5.63E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	3.79E-01	1.38E-01	1.03E-01
398340	12/21/2015 - 12/28/2015	I-131	<5.33E-03	0.00E+00	5.33E-03
		Cs-134	<7.32E-03	0.00E+00	7.32E-03
		Cs-137	<7.94E-03	0.00E+00	7.94E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [ INDICATOR - WSW @ 0.53 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398340	12/21/2015 - 12/28/2015	Be-7	<6.54E-02	0.00E+00	6.54E-02
		K-40	3.32E-01	1.33E-01	1.18E-01

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364940	12/29/2014 - 1/5/2015	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.68E-01	2.16E-01	1.62E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365136	1/5/2015 - 1/12/2015	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<8.73E-02	0.00E+00	8.73E-02
		K-40	6.55E-01	2.36E-01	1.73E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365363	1/12/2015 - 1/19/2015	I-131	<9.32E-03	0.00E+00	9.32E-03
		Cs-134	<9.64E-03	0.00E+00	9.64E-03
		Cs-137	<9.16E-03	0.00E+00	9.16E-03
		Be-7	<7.67E-02	0.00E+00	7.67E-02
		K-40	3.41E-01	1.57E-01	1.47E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
366707	1/19/2015 - 1/26/2015	I-131	<6.90E-03	0.00E+00	6.90E-03
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<4.65E-03	0.00E+00	4.65E-03
		Be-7	<4.35E-02	0.00E+00	4.35E-02
		K-40	4.48E-01	1.50E-01	1.06E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367122	1/26/2015 - 2/2/2015	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<9.09E-02	0.00E+00	9.09E-02
		K-40	6.01E-01	2.09E-01	4.65E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367615	2/2/2015 - 2/9/2015	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<3.78E-02	0.00E+00	3.78E-02
		K-40	4.09E-01	1.36E-01	2.84E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
369036	2/9/2015 - 2/16/2015	I-131	<8.11E-03	0.00E+00	8.11E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<8.01E-03	0.00E+00	8.01E-03
		Be-7	<6.06E-02	0.00E+00	6.06E-02
		K-40	4.17E-01	1.61E-01	1.58E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
369748	2/16/2015 - 2/23/2015	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<8.29E-03	0.00E+00	8.29E-03
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.78E-01	2.42E-01	1.89E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
370663	2/23/2015 - 3/2/2015	I-131	<9.12E-03	0.00E+00	9.12E-03
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<9.81E-03	0.00E+00	9.81E-03
		Be-7	<6.39E-02	0.00E+00	6.39E-02
		K-40	4.76E-01	1.58E-01	1.10E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
371610	3/2/2015 - 3/9/2015	I-131	<9.21E-03	0.00E+00	9.21E-03
		Cs-134	<7.42E-03	0.00E+00	7.42E-03





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
371610	3/2/2015 - 3/9/2015	Cs-137	<6.60E-03	0.00E+00	6.60E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	2.88E-01	1.23E-01	1.06E-01
371976	3/9/2015 - 3/16/2015	I-131	<8.97E-03	0.00E+00	8.97E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<9.44E-03	0.00E+00	9.44E-03
		Be-7	<3.62E-02	0.00E+00	3.62E-02
		K-40	3.51E-01	1.40E-01	1.35E-01
372459	3/16/2015 - 3/23/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<6.73E-03	0.00E+00	6.73E-03
		Be-7	<4.31E-02	0.00E+00	4.31E-02
		K-40	3.55E-01	1.37E-01	1.18E-01
373918	3/23/2015 - 3/30/2015	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<8.26E-03	0.00E+00	8.26E-03
		Cs-137	<8.48E-03	0.00E+00	8.48E-03
		Be-7	<5.00E-02	0.00E+00	5.00E-02
		K-40	4.79E-01	1.50E-01	2.95E-02
374616	3/30/2015 - 4/6/2015	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<9.81E-03	0.00E+00	9.81E-03
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	6.54E-01	2.25E-01	4.92E-02
375003	4/6/2015 - 4/13/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.50E-01	2.03E-01	4.80E-02
375684	4/13/2015 - 4/20/2015	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<4.67E-03	0.00E+00	4.67E-03
		Cs-137	<7.52E-03	0.00E+00	7.52E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	3.88E-01	1.32E-01	2.85E-02
376891	4/20/2015 - 4/27/2015	I-131	<9.54E-03	0.00E+00	9.54E-03
		Cs-134	<6.85E-03	0.00E+00	6.85E-03
		Cs-137	<7.79E-03	0.00E+00	7.79E-03
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	3.79E-01	1.57E-01	1.69E-01
377550	4/27/2015 - 5/4/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	4.03E-01	1.92E-01	1.83E-01
378124	5/4/2015 - 5/11/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	5.82E-01	2.24E-01	1.87E-01
378523	5/11/2015 - 5/18/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
378523	5/11/2015 - 5/18/2015	Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	5.17E-01	1.97E-01	4.83E-02
379013	5/18/2015 - 5/26/2015	I-131	<7.19E-03	0.00E+00	7.19E-03
		Cs-134	<4.52E-03	0.00E+00	4.52E-03
		Cs-137	<4.85E-03	0.00E+00	4.85E-03
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	3.24E-01	1.20E-01	9.53E-02
379516	5/26/2015 - 6/1/2015	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<7.82E-02	0.00E+00	7.82E-02
		K-40	<5.45E-01	0.00E+00	5.45E-01
380263	6/1/2015 - 6/8/2015	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	7.49E-01	2.52E-01	1.81E-01
380537	6/8/2015 - 6/15/2015	I-131	<6.64E-03	0.00E+00	6.64E-03
		Cs-134	<5.42E-03	0.00E+00	5.42E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<5.32E-02	0.00E+00	5.32E-02
		K-40	3.36E-01	1.47E-01	1.62E-01
380863	6/15/2015 - 6/22/2015	I-131	<8.24E-03	0.00E+00	8.24E-03
		Cs-134	<5.04E-03	0.00E+00	5.04E-03
		Cs-137	<6.98E-03	0.00E+00	6.98E-03
		Be-7	<6.58E-02	0.00E+00	6.58E-02
		K-40	3.39E-01	1.20E-01	2.70E-02
381330	6/22/2015 - 6/26/2015	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<5.91E-02	0.00E+00	5.91E-02
		K-40	6.29E-01	2.67E-01	3.13E-01
381656	6/29/2015 - 7/6/2015	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	6.56E-01	2.60E-01	2.71E-01
382225	7/6/2015 - 7/13/2015	I-131	<8.96E-03	0.00E+00	8.96E-03
		Cs-134	<8.32E-03	0.00E+00	8.32E-03
		Cs-137	<5.77E-03	0.00E+00	5.77E-03
		Be-7	<5.60E-02	0.00E+00	5.60E-02
		K-40	<2.85E-01	0.00E+00	2.85E-01
382649	7/13/2015 - 7/20/2015	I-131	<6.09E-03	0.00E+00	6.09E-03
		Cs-134	<7.86E-03	0.00E+00	7.86E-03
		Cs-137	<5.71E-03	0.00E+00	5.71E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	4.68E-01	1.46E-01	2.82E-02
383576	7/20/2015 - 7/27/2015	I-131	<9.18E-03	0.00E+00	9.18E-03
		Cs-134	<7.73E-03	0.00E+00	7.73E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
383576	7/20/2015 - 7/27/2015	Cs-137	<5.62E-03	0.00E+00	5.62E-03
		Be-7	<5.96E-02	0.00E+00	5.96E-02
		K-40	4.15E-01	1.62E-01	1.72E-01
384150	7/27/2015 - 8/3/2015	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<3.92E-03	0.00E+00	3.92E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<7.44E-02	0.00E+00	7.44E-02
		K-40	2.89E-01	1.53E-01	1.94E-01
384718	8/3/2015 - 8/10/2015	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	8.18E-01	2.51E-01	4.82E-02
385469	8/10/2015 - 8/17/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	4.12E-01	2.02E-01	2.18E-01
385985	8/17/2015 - 8/24/2015	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.33E-03	0.00E+00	7.33E-03
		Cs-137	<5.63E-03	0.00E+00	5.63E-03
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	2.94E-01	1.32E-01	1.38E-01
386882	8/24/2015 - 8/31/2015	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<5.75E-03	0.00E+00	5.75E-03
		Cs-137	<5.51E-03	0.00E+00	5.51E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	3.88E-01	1.39E-01	1.05E-01
387466	8/31/2015 - 9/8/2015	I-131	<8.26E-03	0.00E+00	8.26E-03
		Cs-134	<5.58E-03	0.00E+00	5.58E-03
		Cs-137	<6.93E-03	0.00E+00	6.93E-03
		Be-7	<4.14E-02	0.00E+00	4.14E-02
		K-40	3.82E-01	1.31E-01	9.93E-02
388823	9/8/2015 - 9/14/2015	I-131	<7.44E-03	0.00E+00	7.44E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<5.02E-03	0.00E+00	5.02E-03
		Be-7	<6.21E-02	0.00E+00	6.21E-02
		K-40	3.93E-01	1.65E-01	1.74E-01
389465	9/14/2015 - 9/21/2015	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<8.07E-03	0.00E+00	8.07E-03
		Be-7	<9.49E-02	0.00E+00	9.49E-02
		K-40	4.53E-01	2.14E-01	2.31E-01
390068	9/21/2015 - 9/28/2015	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	2.97E-01	1.92E-01	2.49E-01
390700	9/28/2015 - 10/5/2015	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390700	9/28/2015 - 10/5/2015	Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<9.55E-02	0.00E+00	9.55E-02
		K-40	4.97E-01	1.92E-01	4.81E-02
392013	10/5/2015 - 10/12/2015	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	5.68E-01	2.03E-01	4.66E-02
392287	10/12/2015 - 10/19/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<9.79E-02	0.00E+00	9.79E-02
		K-40	<4.80E-01	0.00E+00	4.80E-01
393488	10/19/2015 - 10/26/2015	I-131	<7.91E-03	0.00E+00	7.91E-03
		Cs-134	<4.49E-03	0.00E+00	4.49E-03
		Cs-137	<7.88E-03	0.00E+00	7.88E-03
		Be-7	<6.77E-02	0.00E+00	6.77E-02
		K-40	2.71E-01	1.19E-01	1.06E-01
393886	10/26/2015 - 11/2/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<6.55E-03	0.00E+00	6.55E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.42E-02	0.00E+00	9.42E-02
		K-40	5.03E-01	2.25E-01	2.38E-01
394906	11/2/2015 - 11/9/2015	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<4.88E-03	0.00E+00	4.88E-03
		Cs-137	<7.84E-03	0.00E+00	7.84E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	4.63E-01	1.57E-01	1.15E-01
395360	11/9/2015 - 11/16/2015	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.57E-01	2.05E-01	4.87E-02
395687	11/16/2015 - 11/23/2015	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	7.93E-01	2.63E-01	2.01E-01
396180	11/23/2015 - 11/30/2015	I-131	<7.43E-03	0.00E+00	7.43E-03
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<6.21E-03	0.00E+00	6.21E-03
		Be-7	<5.65E-02	0.00E+00	5.65E-02
		K-40	4.51E-01	1.48E-01	3.05E-02
396697	11/30/2015 - 12/7/2015	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.84E-01	2.06E-01	1.88E-01
397242	12/7/2015 - 12/14/2015	I-131	<7.68E-03	0.00E+00	7.68E-03
		Cs-134	<7.95E-03	0.00E+00	7.95E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397242	12/7/2015 - 12/14/2015	Cs-137	<8.77E-03	0.00E+00	8.77E-03
		Be-7	<4.34E-02	0.00E+00	4.34E-02
		K-40	3.86E-01	1.33E-01	2.90E-02
397952	12/14/2015 - 12/21/2015	I-131	<9.81E-03	0.00E+00	9.81E-03
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.13E-02	0.00E+00	5.13E-02
		K-40	4.20E-01	1.64E-01	1.66E-01
398341	12/21/2015 - 12/28/2015	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<8.67E-03	0.00E+00	8.67E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	3.81E-01	1.45E-01	1.13E-01
<b>Sample Point 081 [ CONTROL - SE @ 9.33 miles ]</b>					
364941	12/29/2014 - 1/5/2015	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<9.39E-03	0.00E+00	9.39E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<9.93E-02	0.00E+00	9.93E-02
		K-40	5.74E-01	2.06E-01	4.72E-02
365137	1/5/2015 - 1/12/2015	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<4.60E-01	0.00E+00	4.60E-01
365364	1/12/2015 - 1/19/2015	I-131	<9.30E-03	0.00E+00	9.30E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<9.31E-03	0.00E+00	9.31E-03
		Be-7	<4.59E-02	0.00E+00	4.59E-02
		K-40	4.56E-01	1.58E-01	1.20E-01
366708	1/19/2015 - 1/26/2015	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	5.08E-01	2.57E-01	2.31E-01
367123	1/26/2015 - 2/2/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.14E-01	2.24E-01	2.34E-01
367616	2/2/2015 - 2/9/2015	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	<5.86E-01	0.00E+00	5.86E-01
369037	2/9/2015 - 2/16/2015	I-131	<7.48E-03	0.00E+00	7.48E-03
		Cs-134	<8.69E-03	0.00E+00	8.69E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<4.17E-02	0.00E+00	4.17E-02
		K-40	3.77E-01	1.41E-01	1.23E-01
369749	2/16/2015 - 2/23/2015	I-131	<2.24E-02	0.00E+00	2.24E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
369749	2/16/2015 - 2/23/2015	Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	5.32E-01	1.99E-01	4.80E-02
370664	2/23/2015 - 3/2/2015	I-131	<7.31E-03	0.00E+00	7.31E-03
		Cs-134	<5.95E-03	0.00E+00	5.95E-03
		Cs-137	<5.72E-03	0.00E+00	5.72E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	4.64E-01	1.44E-01	2.80E-02
371611	3/2/2015 - 3/9/2015	I-131	<6.71E-03	0.00E+00	6.71E-03
		Cs-134	<7.62E-03	0.00E+00	7.62E-03
		Cs-137	<7.57E-03	0.00E+00	7.57E-03
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	3.64E-01	1.37E-01	1.07E-01
371977	3/9/2015 - 3/16/2015	I-131	<9.22E-03	0.00E+00	9.22E-03
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<8.67E-03	0.00E+00	8.67E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	3.83E-01	1.71E-01	2.02E-01
372460	3/16/2015 - 3/23/2015	I-131	<8.63E-03	0.00E+00	8.63E-03
		Cs-134	<6.41E-03	0.00E+00	6.41E-03
		Cs-137	<6.54E-03	0.00E+00	6.54E-03
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	3.27E-01	1.59E-01	1.99E-01
373919	3/23/2015 - 3/30/2015	I-131	<7.30E-03	0.00E+00	7.30E-03
		Cs-134	<9.79E-03	0.00E+00	9.79E-03
		Cs-137	<6.32E-03	0.00E+00	6.32E-03
		Be-7	<5.71E-02	0.00E+00	5.71E-02
		K-40	3.53E-01	1.24E-01	2.73E-02
374617	3/30/2015 - 4/6/2015	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	5.48E-01	2.13E-01	1.53E-01
375004	4/6/2015 - 4/13/2015	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.90E-01	2.27E-01	1.85E-01
375685	4/13/2015 - 4/20/2015	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	<2.82E-01	0.00E+00	2.82E-01
376892	4/20/2015 - 4/27/2015	I-131	<9.02E-03	0.00E+00	9.02E-03
		Cs-134	<5.31E-03	0.00E+00	5.31E-03
		Cs-137	<6.60E-03	0.00E+00	6.60E-03
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	4.01E-01	1.33E-01	2.79E-02
377551	4/27/2015 - 5/4/2015	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<1.57E-02	0.00E+00	1.57E-02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
377551	4/27/2015 - 5/4/2015	Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.12E-01	2.16E-01	4.88E-02
378125	5/4/2015 - 5/11/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.13E-01	2.34E-01	2.04E-01
378524	5/11/2015 - 5/18/2015	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<7.08E-03	0.00E+00	7.08E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<5.24E-02	0.00E+00	5.24E-02
		K-40	3.59E-01	1.36E-01	9.05E-02
379014	5/18/2015 - 5/26/2015	I-131	<6.79E-03	0.00E+00	6.79E-03
		Cs-134	<6.47E-03	0.00E+00	6.47E-03
		Cs-137	<7.55E-03	0.00E+00	7.55E-03
		Be-7	<4.17E-02	0.00E+00	4.17E-02
		K-40	2.32E-01	1.36E-01	1.86E-01
379517	5/26/2015 - 6/1/2015	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.31E-01	2.75E-01	3.38E-01
380264	6/1/2015 - 6/8/2015	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<8.69E-02	0.00E+00	8.69E-02
		K-40	6.43E-01	2.31E-01	1.65E-01
380538	6/8/2015 - 6/15/2015	I-131	<5.69E-03	0.00E+00	5.69E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<4.41E-03	0.00E+00	4.41E-03
		Be-7	<1.07E-02	0.00E+00	1.07E-02
		K-40	2.67E-01	1.08E-01	2.79E-02
380864	6/15/2015 - 6/22/2015	I-131	<8.61E-03	0.00E+00	8.61E-03
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	4.56E-01	1.55E-01	1.10E-01
381331	6/22/2015 - 6/29/2015	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	7.43E-01	2.92E-01	3.25E-01
381657	6/29/2015 - 7/6/2015	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.62E-02	0.00E+00	8.62E-02
		K-40	<4.83E-01	0.00E+00	4.83E-01
382226	7/6/2015 - 7/13/2015	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<8.59E-03	0.00E+00	8.59E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
382226	7/6/2015 - 7/13/2015	Cs-134	<5.82E-03	0.00E+00	5.82E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	4.04E-01	1.34E-01	2.81E-02
382650	7/13/2015 - 7/20/2015	I-131	<8.49E-03	0.00E+00	8.49E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<7.11E-03	0.00E+00	7.11E-03
		Be-7	<5.43E-02	0.00E+00	5.43E-02
		K-40	4.04E-01	1.52E-01	1.48E-01
383577	7/20/2015 - 7/27/2015	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<8.23E-03	0.00E+00	8.23E-03
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	3.62E-01	1.63E-01	1.95E-01
384151	7/27/2015 - 8/3/2015	I-131	<9.16E-03	0.00E+00	9.16E-03
		Cs-134	<4.66E-03	0.00E+00	4.66E-03
		Cs-137	<5.79E-03	0.00E+00	5.79E-03
		Be-7	<6.01E-02	0.00E+00	6.01E-02
		K-40	<3.00E-01	0.00E+00	3.00E-01
384719	8/3/2015 - 8/10/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.68E-01	2.35E-01	1.62E-01
385470	8/10/2015 - 8/17/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.11E-01	2.39E-01	3.20E-01
385986	8/17/2015 - 8/24/2015	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<6.50E-03	0.00E+00	6.50E-03
		Cs-137	<6.24E-03	0.00E+00	6.24E-03
		Be-7	<3.19E-02	0.00E+00	3.19E-02
		K-40	<3.43E-01	0.00E+00	3.43E-01
386883	8/24/2015 - 8/31/2015	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	<7.14E-02	0.00E+00	7.14E-02
		K-40	3.47E-01	1.51E-01	1.61E-01
387467	8/31/2015 - 9/8/2015	I-131	<6.81E-03	0.00E+00	6.81E-03
		Cs-134	<6.31E-03	0.00E+00	6.31E-03
		Cs-137	<5.62E-03	0.00E+00	5.62E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	<2.60E-01	0.00E+00	2.60E-01
388824	9/8/2015 - 9/14/2015	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<7.79E-02	0.00E+00	7.79E-02
		K-40	4.13E-01	1.50E-01	3.50E-02
389466	9/14/2015 - 9/21/2015	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<1.80E-02	0.00E+00	1.80E-02





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
389466	9/14/2015 - 9/21/2015	Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<9.56E-02	0.00E+00	9.56E-02
		K-40	4.84E-01	2.57E-01	3.33E-01
390069	9/21/2015 - 9/28/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<5.31E-02	0.00E+00	5.31E-02
		K-40	<4.28E-01	0.00E+00	4.28E-01
390701	9/28/2015 - 10/5/2015	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.27E-01	2.71E-01	3.53E-01
392014	10/5/2015 - 10/12/2015	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	5.37E-01	1.98E-01	4.69E-02
392288	10/12/2015 - 10/19/2015	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<8.27E-03	0.00E+00	8.27E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	6.96E-01	2.44E-01	1.74E-01
393489	10/19/2015 - 10/26/2015	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.36E-02	0.00E+00	9.36E-02
		K-40	5.12E-01	1.95E-01	4.78E-02
393887	10/26/2015 - 11/2/2015	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.96E-01	1.92E-01	4.80E-02
394907	11/2/2015 - 11/9/2015	I-131	<9.08E-03	0.00E+00	9.08E-03
		Cs-134	<5.78E-03	0.00E+00	5.78E-03
		Cs-137	<6.43E-03	0.00E+00	6.43E-03
		Be-7	<4.21E-02	0.00E+00	4.21E-02
		K-40	4.11E-01	1.35E-01	2.79E-02
395361	11/9/2015 - 11/16/2015	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.74E-01	2.09E-01	4.86E-02
395688	11/16/2015 - 11/23/2015	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<9.52E-03	0.00E+00	9.52E-03
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<8.27E-02	0.00E+00	8.27E-02
		K-40	7.00E-01	2.46E-01	1.97E-01
396181	11/23/2015 - 11/30/2015	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<8.16E-03	0.00E+00	8.16E-03



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396181	11/23/2015 - 11/30/2015	Cs-134	<7.81E-03	0.00E+00	7.81E-03
		Cs-137	<9.70E-03	0.00E+00	9.70E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.58E-01	1.27E-01	2.85E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396698	11/30/2015 - 12/7/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397243	12/7/2015 - 12/14/2015	I-131	<8.50E-03	0.00E+00	8.50E-03
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	<2.86E-01	0.00E+00	2.86E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397953	12/14/2015 - 12/21/2015	I-131	<6.22E-03	0.00E+00	6.22E-03
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<8.52E-03	0.00E+00	8.52E-03
		Be-7	<3.64E-02	0.00E+00	3.64E-02
		K-40	4.68E-01	1.46E-01	2.82E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398342	12/21/2015 - 12/28/2015	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<9.06E-03	0.00E+00	9.06E-03
		Cs-137	<8.14E-03	0.00E+00	8.14E-03
		Be-7	<6.01E-02	0.00E+00	6.01E-02
		K-40	<1.38E-01	0.00E+00	1.38E-01

## Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364942	12/29/2014 - 1/5/2015	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.91E-02	0.00E+00	9.91E-02
		K-40	4.52E-01	2.18E-01	2.47E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365138	1/5/2015 - 1/12/2015	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.77E-01	2.09E-01	4.88E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365365	1/12/2015 - 1/19/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<5.75E-03	0.00E+00	5.75E-03
		Be-7	<4.28E-02	0.00E+00	4.28E-02
		K-40	3.84E-01	1.30E-01	2.81E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
366709	1/19/2015 - 1/26/2015	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367124	1/26/2015 - 2/2/2015	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.45E-01	2.62E-01	3.07E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367617	2/2/2015 - 2/9/2015	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<5.91E-03	0.00E+00	5.91E-03
		Cs-137	<7.99E-03	0.00E+00	7.99E-03
		Be-7	<5.73E-02	0.00E+00	5.73E-02
		K-40	4.11E-01	1.52E-01	1.41E-01
369038	2/9/2015 - 2/16/2015	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<9.13E-03	0.00E+00	9.13E-03
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	4.80E-01	2.82E-01	3.39E-01
369750	2/16/2015 - 2/23/2015	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<7.80E-02	0.00E+00	7.80E-02
		K-40	5.49E-01	2.02E-01	4.80E-02
370665	2/23/2015 - 3/2/2015	I-131	<5.60E-03	0.00E+00	5.60E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<6.19E-02	0.00E+00	6.19E-02
		K-40	4.01E-01	1.54E-01	1.55E-01
371612	3/2/2015 - 3/9/2015	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<6.53E-03	0.00E+00	6.53E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	3.32E-01	1.36E-01	1.15E-01
371978	3/9/2015 - 3/16/2015	I-131	<8.54E-03	0.00E+00	8.54E-03
		Cs-134	<5.38E-03	0.00E+00	5.38E-03
		Cs-137	<8.14E-03	0.00E+00	8.14E-03
		Be-7	<1.09E-02	0.00E+00	1.09E-02
		K-40	3.91E-01	1.45E-01	1.28E-01
372461	3/16/2015 - 3/23/2015	I-131	<6.90E-03	0.00E+00	6.90E-03
		Cs-134	<5.40E-03	0.00E+00	5.40E-03
		Cs-137	<8.17E-03	0.00E+00	8.17E-03
		Be-7	<6.68E-02	0.00E+00	6.68E-02
		K-40	<2.83E-01	0.00E+00	2.83E-01
373920	3/23/2015 - 3/30/2015	I-131	<6.09E-03	0.00E+00	6.09E-03
		Cs-134	<4.58E-03	0.00E+00	4.58E-03
		Cs-137	<5.70E-03	0.00E+00	5.70E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	<3.20E-01	0.00E+00	3.20E-01
374618	3/30/2015 - 4/6/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.91E-01	2.29E-01	1.94E-01
375005	4/6/2015 - 4/13/2015	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.88E-01	2.37E-01	2.79E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
375686	4/13/2015 - 4/20/2015	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<9.45E-02	0.00E+00	9.45E-02
		K-40	4.28E-01	2.17E-01	2.52E-01
376893	4/20/2015 - 4/27/2015	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<6.25E-03	0.00E+00	6.25E-03
		Cs-137	<7.12E-03	0.00E+00	7.12E-03
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	3.26E-01	1.19E-01	2.76E-02
377552	4/27/2015 - 5/4/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<9.74E-03	0.00E+00	9.74E-03
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<8.77E-02	0.00E+00	8.77E-02
		K-40	6.80E-01	2.65E-01	2.70E-01
378126	5/4/2015 - 5/11/2015	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.18E-01	2.09E-01	1.69E-01
378525	5/11/2015 - 5/18/2015	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<9.47E-02	0.00E+00	9.47E-02
		K-40	5.85E-01	2.30E-01	2.04E-01
379015	5/18/2015 - 5/26/2015	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<6.57E-03	0.00E+00	6.57E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03
		Be-7	<4.41E-02	0.00E+00	4.41E-02
		K-40	3.54E-01	1.23E-01	8.92E-02
379518	5/26/2015 - 6/1/2015	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	8.98E-01	2.84E-01	5.66E-02
380265	6/1/2015 - 6/8/2015	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<8.72E-02	0.00E+00	8.72E-02
		K-40	5.67E-01	2.40E-01	2.50E-01
380539	6/8/2015 - 6/15/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<7.86E-02	0.00E+00	7.86E-02
		K-40	6.79E-01	2.27E-01	4.84E-02
380865	6/15/2015 - 6/22/2015	I-131	<8.94E-03	0.00E+00	8.94E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<5.71E-03	0.00E+00	5.71E-03
		Be-7	<5.91E-02	0.00E+00	5.91E-02
		K-40	<3.08E-01	0.00E+00	3.08E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
381332	6/22/2015 - 6/29/2015	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	6.69E-01	2.46E-01	2.08E-01
381658	6/29/2015 - 7/6/2015	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	5.48E-01	2.02E-01	4.79E-02
382227	7/6/2015 - 7/13/2015	I-131	<7.89E-03	0.00E+00	7.89E-03
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<8.93E-03	0.00E+00	8.93E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	4.06E-01	1.45E-01	1.18E-01
382651	7/13/2015 - 7/20/2015	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<4.63E-03	0.00E+00	4.63E-03
		Cs-137	<5.76E-03	0.00E+00	5.76E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	<2.61E-01	0.00E+00	2.61E-01
383578	7/20/2015 - 7/27/2015	I-131	<7.47E-03	0.00E+00	7.47E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<9.98E-03	0.00E+00	9.98E-03
		Be-7	<6.81E-02	0.00E+00	6.81E-02
		K-40	<3.09E-01	0.00E+00	3.09E-01
384152	7/27/2015 - 8/3/2015	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.46E-01	2.22E-01	2.00E-01
384720	8/3/2015 - 8/10/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	5.60E-01	2.17E-01	1.67E-01
385471	8/10/2015 - 8/17/2015	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<8.58E-02	0.00E+00	8.58E-02
		K-40	7.48E-01	2.55E-01	2.01E-01
385987	8/17/2015 - 8/24/2015	I-131	<8.23E-03	0.00E+00	8.23E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<7.60E-03	0.00E+00	7.60E-03
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	2.97E-01	1.15E-01	2.88E-02
386884	8/24/2015 - 8/31/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	5.68E-01	2.28E-01	2.08E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
387468	8/31/2015 - 9/8/2015	I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<4.70E-03	0.00E+00	4.70E-03
		Cs-137	<8.14E-03	0.00E+00	8.14E-03
		Be-7	<4.22E-02	0.00E+00	4.22E-02
		K-40	2.54E-01	1.21E-01	1.40E-01
388825	9/8/2015 - 9/14/2015	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<7.41E-03	0.00E+00	7.41E-03
		Be-7	<3.26E-02	0.00E+00	3.26E-02
		K-40	6.01E-01	1.88E-01	1.35E-01
389467	9/14/2015 - 9/21/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	4.63E-01	2.05E-01	1.91E-01
390070	9/21/2015 - 9/28/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	6.49E-01	2.35E-01	1.74E-01
390702	9/28/2015 - 10/5/2015	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	4.40E-01	2.10E-01	2.25E-01
392015	10/5/2015 - 10/12/2015	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.07E-01	2.06E-01	2.36E-01
392289	10/12/2015 - 10/19/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.06E-01	0.00E+00	5.06E-01
393490	10/19/2015 - 10/26/2015	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<9.35E-02	0.00E+00	9.35E-02
		K-40	<4.98E-01	0.00E+00	4.98E-01
393888	10/26/2015 - 11/2/2015	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<9.40E-02	0.00E+00	9.40E-02
		K-40	5.65E-01	2.24E-01	1.96E-01
394908	11/2/2015 - 11/9/2015	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.80E-03	0.00E+00	5.80E-03
		Cs-137	<7.20E-03	0.00E+00	7.20E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	<2.66E-01	0.00E+00	2.66E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
395362	11/9/2015 - 11/16/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	7.18E-01	2.35E-01	4.86E-02
395689	11/16/2015 - 11/23/2015	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.82E-01	2.08E-01	4.78E-02
396182	11/23/2015 - 11/30/2015	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<7.74E-03	0.00E+00	7.74E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	4.26E-01	1.55E-01	1.22E-01
396699	11/30/2015 - 12/7/2015	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<9.34E-02	0.00E+00	9.34E-02
		K-40	4.74E-01	2.01E-01	1.73E-01
397244	12/7/2015 - 12/14/2015	I-131	<7.46E-03	0.00E+00	7.46E-03
		Cs-134	<8.11E-03	0.00E+00	8.11E-03
		Cs-137	<7.63E-03	0.00E+00	7.63E-03
		Be-7	<6.54E-02	0.00E+00	6.54E-02
		K-40	5.15E-01	1.56E-01	2.91E-02
397954	12/14/2015 - 12/21/2015	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<8.16E-03	0.00E+00	8.16E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<4.06E-02	0.00E+00	4.06E-02
		K-40	2.96E-01	1.19E-01	3.09E-02
398343	12/21/2015 - 12/28/2015	I-131	<8.58E-03	0.00E+00	8.58E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<4.38E-03	0.00E+00	4.38E-03
		Be-7	<3.60E-02	0.00E+00	3.60E-02
		K-40	4.04E-01	1.46E-01	1.24E-01
<b>Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]</b>					
364943	12/29/2014 - 1/5/2015	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<9.98E-02	0.00E+00	9.98E-02
		K-40	6.88E-01	2.39E-01	1.70E-01
365139	1/5/2015 - 1/12/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	5.26E-01	2.48E-01	2.92E-01
365366	1/12/2015 - 1/19/2015	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<9.08E-03	0.00E+00	9.08E-03
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.76E-01	2.74E-01	2.45E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
366710	1/19/2015 - 1/26/2015	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<6.93E-03	0.00E+00	6.93E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<6.45E-02	0.00E+00	6.45E-02
		K-40	4.26E-01	1.61E-01	1.29E-01
367125	1/26/2015 - 2/2/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<9.29E-03	0.00E+00	9.29E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	7.21E-01	2.48E-01	1.98E-01
367618	2/2/2015 - 2/9/2015	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<6.75E-03	0.00E+00	6.75E-03
		Cs-137	<8.39E-03	0.00E+00	8.39E-03
		Be-7	<6.66E-02	0.00E+00	6.66E-02
		K-40	3.97E-01	1.47E-01	1.28E-01
369039	2/9/2015 - 2/16/2015	I-131	<7.87E-03	0.00E+00	7.87E-03
		Cs-134	<7.99E-03	0.00E+00	7.99E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<6.40E-02	0.00E+00	6.40E-02
		K-40	<3.86E-01	0.00E+00	3.86E-01
369751	2/16/2015 - 2/23/2015	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	6.84E-01	2.35E-01	5.15E-02
370666	2/23/2015 - 3/2/2015	I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<8.00E-03	0.00E+00	8.00E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<6.50E-02	0.00E+00	6.50E-02
		K-40	4.50E-01	1.52E-01	1.18E-01
371613	3/2/2015 - 3/9/2015	I-131	<7.44E-03	0.00E+00	7.44E-03
		Cs-134	<5.49E-03	0.00E+00	5.49E-03
		Cs-137	<7.61E-03	0.00E+00	7.61E-03
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	4.46E-01	1.52E-01	1.14E-01
371979	3/9/2015 - 3/16/2015	I-131	<7.89E-03	0.00E+00	7.89E-03
		Cs-134	<7.71E-03	0.00E+00	7.71E-03
		Cs-137	<5.60E-03	0.00E+00	5.60E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	4.36E-01	1.40E-01	2.81E-02
372462	3/16/2015 - 3/23/2015	I-131	<6.17E-03	0.00E+00	6.17E-03
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<6.70E-03	0.00E+00	6.70E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	3.68E-01	1.39E-01	1.14E-01
373921	3/23/2015 - 3/30/2015	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<6.74E-03	0.00E+00	6.74E-03
		Cs-137	<6.39E-03	0.00E+00	6.39E-03
		Be-7	<4.62E-02	0.00E+00	4.62E-02
		K-40	3.07E-01	1.15E-01	2.77E-02





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374619	3/30/2015 - 4/6/2015	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	7.29E-01	2.36E-01	4.82E-02
375006	4/6/2015 - 4/13/2015	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<8.72E-02	0.00E+00	8.72E-02
		K-40	6.65E-01	2.42E-01	1.93E-01
375687	4/13/2015 - 4/20/2015	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.41E-02	0.00E+00	9.41E-02
		K-40	5.15E-01	2.31E-01	2.51E-01
376894	4/20/2015 - 4/27/2015	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<6.92E-03	0.00E+00	6.92E-03
		Cs-137	<8.60E-03	0.00E+00	8.60E-03
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	4.02E-01	1.34E-01	2.79E-02
377553	4/27/2015 - 5/4/2015	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	5.05E-01	2.32E-01	2.56E-01
378127	5/4/2015 - 5/11/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<9.31E-02	0.00E+00	9.31E-02
		K-40	4.92E-01	1.90E-01	4.76E-02
378526	5/11/2015 - 5/18/2015	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<5.33E-02	0.00E+00	5.33E-02
		K-40	5.72E-01	2.08E-01	4.84E-02
379016	5/18/2015 - 5/26/2015	I-131	<6.65E-03	0.00E+00	6.65E-03
		Cs-134	<6.06E-03	0.00E+00	6.06E-03
		Cs-137	<9.56E-03	0.00E+00	9.56E-03
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	3.97E-01	1.37E-01	1.01E-01
379519	5/26/2015 - 6/1/2015	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<5.70E-01	0.00E+00	5.70E-01
380266	6/1/2015 - 6/8/2015	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<9.59E-03	0.00E+00	9.59E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<8.74E-02	0.00E+00	8.74E-02
		K-40	3.97E-01	2.06E-01	2.37E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
380540	6/8/2015 - 6/15/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	8.56E-01	2.57E-01	4.83E-02
380866	6/15/2015 - 6/22/2015	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<5.76E-03	0.00E+00	5.76E-03
		Cs-137	<8.40E-03	0.00E+00	8.40E-03
		Be-7	<7.26E-02	0.00E+00	7.26E-02
		K-40	3.18E-01	1.18E-01	2.78E-02
381333	6/22/2015 - 6/29/2015	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<9.66E-03	0.00E+00	9.66E-03
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.85E-01	2.38E-01	2.30E-01
381659	6/29/2015 - 7/6/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<8.64E-02	0.00E+00	8.64E-02
		K-40	5.93E-01	2.23E-01	1.69E-01
382228	7/6/2015 - 7/13/2015	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<9.86E-03	0.00E+00	9.86E-03
		Be-7	<4.14E-02	0.00E+00	4.14E-02
		K-40	3.95E-01	1.50E-01	1.47E-01
382652	7/13/2015 - 7/20/2015	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<4.94E-03	0.00E+00	4.94E-03
		Cs-137	<6.14E-03	0.00E+00	6.14E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	3.23E-01	1.23E-01	3.02E-02
383579	7/20/2015 - 7/27/2015	I-131	<8.01E-03	0.00E+00	8.01E-03
		Cs-134	<9.46E-03	0.00E+00	9.46E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<4.26E-02	0.00E+00	4.26E-02
		K-40	3.86E-01	1.38E-01	9.89E-02
384153	7/27/2015 - 8/3/2015	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<8.06E-03	0.00E+00	8.06E-03
		Be-7	<9.38E-02	0.00E+00	9.38E-02
		K-40	4.81E-01	2.43E-01	3.00E-01
384721	8/3/2015 - 8/10/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<8.75E-02	0.00E+00	8.75E-02
		K-40	6.41E-01	2.37E-01	1.95E-01
385472	8/10/2015 - 8/17/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<4.38E-01	0.00E+00	4.38E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
385988	8/17/2015 - 8/24/2015	I-131	<6.96E-03	0.00E+00	6.96E-03
		Cs-134	<7.42E-03	0.00E+00	7.42E-03
		Cs-137	<9.22E-03	0.00E+00	9.22E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	3.46E-01	1.38E-01	1.24E-01
386885	8/24/2015 - 8/31/2015	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.66E-01	1.95E-01	2.22E-01
387469	8/31/2015 - 9/8/2015	I-131	<8.28E-03	0.00E+00	8.28E-03
		Cs-134	<6.01E-03	0.00E+00	6.01E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	3.19E-01	1.11E-01	2.47E-02
388826	9/8/2015 - 9/14/2015	I-131	<4.60E-03	0.00E+00	4.60E-03
		Cs-134	<8.30E-03	0.00E+00	8.30E-03
		Cs-137	<8.24E-03	0.00E+00	8.24E-03
		Be-7	<6.66E-02	0.00E+00	6.66E-02
		K-40	4.46E-01	1.61E-01	1.29E-01
389468	9/14/2015 - 9/21/2015	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	4.86E-01	2.36E-01	2.81E-01
390071	9/21/2015 - 9/28/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	5.91E-01	2.11E-01	4.85E-02
390703	9/28/2015 - 10/5/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	5.18E-01	2.13E-01	1.84E-01
392016	10/5/2015 - 10/12/2015	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<9.37E-02	0.00E+00	9.37E-02
		K-40	4.80E-01	2.28E-01	2.64E-01
392290	10/12/2015 - 10/19/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.31E-01	2.75E-01	3.20E-01
393491	10/19/2015 - 10/26/2015	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	5.34E-01	2.12E-01	1.70E-01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [ INDICATOR - NNW @ 0.88 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
393889	10/26/2015 - 11/2/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<5.37E-01	0.00E+00	5.37E-01
394909	11/2/2015 - 11/9/2015	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	7.63E-01	2.58E-01	2.07E-01
395363	11/9/2015 - 11/16/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<9.50E-02	0.00E+00	9.50E-02
		K-40	7.75E-01	2.56E-01	1.76E-01
395690	11/16/2015 - 11/23/2015	I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	3.43E-01	2.06E-01	2.62E-01
396183	11/23/2015 - 11/30/2015	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<9.45E-02	0.00E+00	9.45E-02
		K-40	<4.20E-01	0.00E+00	4.20E-01
396700	11/30/2015 - 12/7/2015	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	6.95E-01	2.27E-01	4.71E-02
397245	12/7/2015 - 12/14/2015	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<7.36E-03	0.00E+00	7.36E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	<4.29E-02	0.00E+00	4.29E-02
		K-40	4.06E-01	1.45E-01	1.16E-01
397955	12/14/2015 - 12/21/2015	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<9.11E-03	0.00E+00	9.11E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	3.92E-01	1.51E-01	1.46E-01
398344	12/21/2015 - 12/28/2015	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<8.17E-03	0.00E+00	8.17E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	4.61E-01	1.45E-01	2.84E-02

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [ INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364787	12/8/2014 - 1/5/2015	Beta	1.01E+00	7.08E-01	1.15E+00
		Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<3.50E+00	0.00E+00	3.50E+00
		Fe-59	<6.09E+00	0.00E+00	6.09E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [ INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364787	12/8/2014 - 1/5/2015	Co-60	<4.06E+00	0.00E+00	4.06E+00
		Zn-65	<9.40E+00	0.00E+00	9.40E+00
		Zr-95	<6.23E+00	0.00E+00	6.23E+00
		Nb-95	<4.42E+00	0.00E+00	4.42E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<2.83E+00	0.00E+00	2.83E+00
		BaLa-140	<9.64E+00	0.00E+00	9.64E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	2.89E+01	2.74E+01	4.21E+01
		366884	1/5/2015 - 2/2/2015	Beta	8.24E-01
Mn-54	<2.99E+00			0.00E+00	2.99E+00
Co-58	<2.41E+00			0.00E+00	2.41E+00
Fe-59	<7.29E+00			0.00E+00	7.29E+00
Co-60	<2.75E+00			0.00E+00	2.75E+00
Zn-65	<5.06E+00			0.00E+00	5.06E+00
Zr-95	<6.52E+00			0.00E+00	6.52E+00
Nb-95	<3.64E+00			0.00E+00	3.64E+00
I-131	<1.12E+01			0.00E+00	1.12E+01
Cs-134	<2.85E+00			0.00E+00	2.85E+00
Cs-137	<2.65E+00			0.00E+00	2.65E+00
BaLa-140	<8.21E+00			0.00E+00	8.21E+00
Be-7	<2.56E+01			0.00E+00	2.56E+01
K-40	<4.54E+01			0.00E+00	4.54E+01
369985	2/2/2015 - 3/2/2015			Beta	<6.4E-01
		Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<2.46E+00	0.00E+00	2.46E+00
		Fe-59	<5.06E+00	0.00E+00	5.06E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<5.06E+00	0.00E+00	5.06E+00
		Zr-95	<4.23E+00	0.00E+00	4.23E+00
		Nb-95	<4.17E+00	0.00E+00	4.17E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<2.87E+00	0.00E+00	2.87E+00
		Cs-137	<2.45E+00	0.00E+00	2.45E+00
		BaLa-140	<6.32E+00	0.00E+00	6.32E+00
		Be-7	<2.09E+01	0.00E+00	2.09E+01
		K-40	7.96E+01	2.79E+01	3.06E+01
		372374	12/8/2014 - 3/2/2015	H3DW	<7.28E+01
372750	3/2/2015 - 3/30/2015	Beta	8.74E-01	6.75E-01	1.10E+00
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.99E+00	0.00E+00	3.99E+00
		Fe-59	<5.90E+00	0.00E+00	5.90E+00
		Co-60	<4.21E+00	0.00E+00	4.21E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<7.86E+00	0.00E+00	7.86E+00
		Nb-95	<5.63E+00	0.00E+00	5.63E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.86E+00	0.00E+00	2.86E+00
		Cs-137	<4.66E+00	0.00E+00	4.66E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	<6.97E+01	0.00E+00	6.97E+01
		375843	3/30/2015 - 4/27/2015	Beta	7.30E-01
Mn-54	<3.15E+00			0.00E+00	3.15E+00
Co-58	<3.15E+00			0.00E+00	3.15E+00
Fe-59	<7.07E+00			0.00E+00	7.07E+00
Co-60	<3.81E+00			0.00E+00	3.81E+00
Zn-65	<7.01E+00			0.00E+00	7.01E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [ INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
375843	3/30/2015 - 4/27/2015	Zr-95	<5.59E+00	0.00E+00	5.59E+00
		Nb-95	<5.03E+00	0.00E+00	5.03E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.34E+00	0.00E+00	4.34E+00
		Cs-137	<3.78E+00	0.00E+00	3.78E+00
		BaLa-140	<9.29E+00	0.00E+00	9.29E+00
		Be-7	<3.13E+01	0.00E+00	3.13E+01
		K-40	<5.92E+01	0.00E+00	5.92E+01
378814	4/27/2015 - 5/26/2015	Beta	1.68E+00	7.51E-01	1.17E+00
		Mn-54	<2.14E+00	0.00E+00	2.14E+00
		Co-58	<2.38E+00	0.00E+00	2.38E+00
		Fe-59	<4.74E+00	0.00E+00	4.74E+00
		Co-60	<3.18E+00	0.00E+00	3.18E+00
		Zn-65	<3.45E+00	0.00E+00	3.45E+00
		Zr-95	<4.76E+00	0.00E+00	4.76E+00
		Nb-95	<3.22E+00	0.00E+00	3.22E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<2.69E+00	0.00E+00	2.69E+00
		Cs-137	<2.45E+00	0.00E+00	2.45E+00
		BaLa-140	<9.57E+00	0.00E+00	9.57E+00
		Be-7	<2.09E+01	0.00E+00	2.09E+01
		K-40	5.83E+01	2.57E+01	3.29E+01
380271	3/2/2015 - 5/26/2015	H3DW	<-2.7E+01	0.00E+00	1.88E+02
380691	5/26/2015 - 6/22/2015	Beta	1.27E+00	7.59E-01	1.22E+00
		Mn-54	<3.69E+00	0.00E+00	3.69E+00
		Co-58	<4.10E+00	0.00E+00	4.10E+00
		Fe-59	<7.76E+00	0.00E+00	7.76E+00
		Co-60	<5.45E+00	0.00E+00	5.45E+00
		Zn-65	<7.91E+00	0.00E+00	7.91E+00
		Zr-95	<4.50E+00	0.00E+00	4.50E+00
		Nb-95	<4.02E+00	0.00E+00	4.02E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<5.14E+00	0.00E+00	5.14E+00
		Cs-137	<3.99E+00	0.00E+00	3.99E+00
		BaLa-140	<6.62E+00	0.00E+00	6.62E+00
		Be-7	<3.63E+01	0.00E+00	3.63E+01
		K-40	<6.52E+01	0.00E+00	6.52E+01
382382	6/22/2015 - 7/20/2015	Beta	<-5.7E-01	0.00E+00	1.40E+00
		Mn-54	<2.58E+00	0.00E+00	2.58E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<6.10E+00	0.00E+00	6.10E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<5.87E+00	0.00E+00	5.87E+00
		Zr-95	<6.05E+00	0.00E+00	6.05E+00
		Nb-95	<3.54E+00	0.00E+00	3.54E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.96E+00	0.00E+00	2.96E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<6.13E+00	0.00E+00	6.13E+00
		Be-7	<2.88E+01	0.00E+00	2.88E+01
		K-40	5.78E+01	2.42E+01	2.37E+01
384917	7/20/2015 - 8/17/2015	Beta	1.75E+00	7.27E-01	1.12E+00
		Mn-54	<3.77E+00	0.00E+00	3.77E+00
		Co-58	<3.18E+00	0.00E+00	3.18E+00
		Fe-59	<8.74E+00	0.00E+00	8.74E+00
		Co-60	<2.69E+00	0.00E+00	2.69E+00
		Zn-65	<8.48E+00	0.00E+00	8.48E+00
		Zr-95	<5.63E+00	0.00E+00	5.63E+00
		Nb-95	<5.18E+00	0.00E+00	5.18E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [ INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
384917	7/20/2015 - 8/17/2015	I-131	<8.39E+00	0.00E+00	8.39E+00
		Cs-134	<3.14E+00	0.00E+00	3.14E+00
		Cs-137	<3.47E+00	0.00E+00	3.47E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<2.55E+01	0.00E+00	2.55E+01
		K-40	<5.01E+01	0.00E+00	5.01E+01
388125	5/26/2015 - 8/17/2015	H3DW	<2.81E+01	0.00E+00	1.99E+02
388175	8/17/2015 - 9/14/2015	Beta	1.59E+00	7.65E-01	1.21E+00
		Mn-54	<3.53E+00	0.00E+00	3.53E+00
		Co-58	<3.92E+00	0.00E+00	3.92E+00
		Fe-59	<6.75E+00	0.00E+00	6.75E+00
		Co-60	<5.35E+00	0.00E+00	5.35E+00
		Zn-65	<8.72E+00	0.00E+00	8.72E+00
		Zr-95	<6.96E+00	0.00E+00	6.96E+00
		Nb-95	<2.85E+00	0.00E+00	2.85E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.42E+00	0.00E+00	4.42E+00
		Cs-137	<4.12E+00	0.00E+00	4.12E+00
		BaLa-140	<2.15E+00	0.00E+00	2.15E+00
		Be-7	<3.89E+01	0.00E+00	3.89E+01
		K-40	2.58E+01	2.97E+01	4.76E+01
		391257	9/14/2015 - 10/12/2015	Beta	1.46E+00
Mn-54	<1.99E+00			0.00E+00	1.99E+00
Co-58	<2.14E+00			0.00E+00	2.14E+00
Fe-59	<4.68E+00			0.00E+00	4.68E+00
Co-60	<2.04E+00			0.00E+00	2.04E+00
Zn-65	<3.94E+00			0.00E+00	3.94E+00
Zr-95	<3.15E+00			0.00E+00	3.15E+00
Nb-95	<2.46E+00			0.00E+00	2.46E+00
I-131	<1.17E+01			0.00E+00	1.17E+01
Cs-134	<2.66E+00			0.00E+00	2.66E+00
Cs-137	<1.94E+00			0.00E+00	1.94E+00
BaLa-140	<4.94E+00			0.00E+00	4.94E+00
Be-7	<2.39E+01			0.00E+00	2.39E+01
K-40	3.08E+01			2.42E+01	3.76E+01
394440	10/12/2015 - 11/9/2015			Beta	1.36E+00
		Mn-54	<2.30E+00	0.00E+00	2.30E+00
		Co-58	<2.93E+00	0.00E+00	2.93E+00
		Fe-59	<6.78E+00	0.00E+00	6.78E+00
		Co-60	<2.96E+00	0.00E+00	2.96E+00
		Zn-65	<6.10E+00	0.00E+00	6.10E+00
		Zr-95	<6.14E+00	0.00E+00	6.14E+00
		Nb-95	<3.90E+00	0.00E+00	3.90E+00
		I-131	<8.90E+00	0.00E+00	8.90E+00
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<2.95E+00	0.00E+00	2.95E+00
		BaLa-140	<8.74E+00	0.00E+00	8.74E+00
		Be-7	<2.38E+01	0.00E+00	2.38E+01
		K-40	<5.24E+01	0.00E+00	5.24E+01
		396356	11/9/2015 - 12/7/2015	Beta	<6.22E-01
Mn-54	<2.54E+00			0.00E+00	2.54E+00
Co-58	<2.52E+00			0.00E+00	2.52E+00
Fe-59	<6.01E+00			0.00E+00	6.01E+00
Co-60	<2.91E+00			0.00E+00	2.91E+00
Zn-65	<7.17E+00			0.00E+00	7.17E+00
Zr-95	<5.02E+00			0.00E+00	5.02E+00
Nb-95	<3.35E+00			0.00E+00	3.35E+00
I-131	<1.07E+01			0.00E+00	1.07E+01
Cs-134	<3.57E+00			0.00E+00	3.57E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [ INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396356	11/9/2015 - 12/7/2015	Cs-137	<3.72E+00	0.00E+00	3.72E+00
		BaLa-140	<7.40E+00	0.00E+00	7.40E+00
		Be-7	<2.74E+01	0.00E+00	2.74E+01
		K-40	<5.25E+01	0.00E+00	5.25E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397100	8/17/2015 - 12/7/2015	H3DW	<-2.4E+01	0.00E+00	1.99E+02

Sample Point 064 [ CONTROL - SSW @ 6.67 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA	
364788	12/8/2014 - 1/5/2015	Beta	1.60E+00	7.35E-01	1.15E+00	
		Mn-54	<2.36E+00	0.00E+00	2.36E+00	
		Co-58	<2.32E+00	0.00E+00	2.32E+00	
		Fe-59	<5.91E+00	0.00E+00	5.91E+00	
		Co-60	<2.24E+00	0.00E+00	2.24E+00	
		Zn-65	<4.93E+00	0.00E+00	4.93E+00	
		Zr-95	<4.65E+00	0.00E+00	4.65E+00	
		Nb-95	<3.73E+00	0.00E+00	3.73E+00	
		I-131	<9.99E+00	0.00E+00	9.99E+00	
		Cs-134	<2.39E+00	0.00E+00	2.39E+00	
		Cs-137	<3.11E+00	0.00E+00	3.11E+00	
		BaLa-140	<6.11E+00	0.00E+00	6.11E+00	
		Be-7	<1.77E+01	0.00E+00	1.77E+01	
		K-40	3.10E+01	2.21E+01	3.32E+01	

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA	
366885	1/5/2015 - 2/2/2015	Beta	9.64E-01	7.18E-01	1.17E+00	
		Mn-54	<2.54E+00	0.00E+00	2.54E+00	
		Co-58	<2.35E+00	0.00E+00	2.35E+00	
		Fe-59	<6.18E+00	0.00E+00	6.18E+00	
		Co-60	<2.79E+00	0.00E+00	2.79E+00	
		Zn-65	<4.85E+00	0.00E+00	4.85E+00	
		Zr-95	<6.23E+00	0.00E+00	6.23E+00	
		Nb-95	<3.07E+00	0.00E+00	3.07E+00	
		I-131	<1.08E+01	0.00E+00	1.08E+01	
		Cs-134	<2.92E+00	0.00E+00	2.92E+00	
		Cs-137	<1.92E+00	0.00E+00	1.92E+00	
		BaLa-140	<7.94E+00	0.00E+00	7.94E+00	
		Be-7	<2.36E+01	0.00E+00	2.36E+01	
		K-40	2.73E+01	2.00E+01	2.80E+01	

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA	
369986	2/2/2015 - 3/2/2015	Beta	<-1.1E+00	0.00E+00	1.41E+00	
		Mn-54	<2.71E+00	0.00E+00	2.71E+00	
		Co-58	<3.48E+00	0.00E+00	3.48E+00	
		Fe-59	<7.98E+00	0.00E+00	7.98E+00	
		Co-60	<3.20E+00	0.00E+00	3.20E+00	
		Zn-65	<7.00E+00	0.00E+00	7.00E+00	
		Zr-95	<5.69E+00	0.00E+00	5.69E+00	
		Nb-95	<3.81E+00	0.00E+00	3.81E+00	
		I-131	<1.19E+01	0.00E+00	1.19E+01	
		Cs-134	<3.01E+00	0.00E+00	3.01E+00	
		Cs-137	<2.34E+00	0.00E+00	2.34E+00	
		BaLa-140	<7.28E+00	0.00E+00	7.28E+00	
		Be-7	<3.06E+01	0.00E+00	3.06E+01	
		K-40	<3.56E+01	0.00E+00	3.56E+01	

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
372375	12/8/2014 - 3/2/2015	H3DW	<-2.2E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
372751	3/2/2015 - 3/30/2015	Beta	6.05E-01	6.59E-01	1.10E+00
		Mn-54	<3.46E+00	0.00E+00	3.46E+00
		Co-58	<4.24E+00	0.00E+00	4.24E+00
		Fe-59	<4.53E+00	0.00E+00	4.53E+00
		Co-60	<2.29E+00	0.00E+00	2.29E+00
		Zn-65	<6.39E+00	0.00E+00	6.39E+00
		Zr-95	<4.35E+00	0.00E+00	4.35E+00





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [ CONTROL - SSW @ 6.67 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
372751	3/2/2015 - 3/30/2015	Nb-95	<4.91E+00	0.00E+00	4.91E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.69E+00	0.00E+00	3.69E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<7.49E+00	0.00E+00	7.49E+00
		Be-7	<3.46E+01	0.00E+00	3.46E+01
		K-40	5.36E+01	3.34E+01	4.60E+01
375844	3/30/2015 - 4/27/2015	Beta	<4.07E-01	0.00E+00	1.28E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<3.43E+00	0.00E+00	3.43E+00
		Fe-59	<7.10E+00	0.00E+00	7.10E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<6.87E+00	0.00E+00	6.87E+00
		Zr-95	<6.09E+00	0.00E+00	6.09E+00
		Nb-95	<4.20E+00	0.00E+00	4.20E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.42E+00	0.00E+00	3.42E+00
		Cs-137	<3.78E+00	0.00E+00	3.78E+00
		BaLa-140	<6.94E+00	0.00E+00	6.94E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	<5.57E+01	0.00E+00	5.57E+01
378815	4/27/2015 - 5/26/2015	Beta	1.77E+00	7.54E-01	1.17E+00
		Mn-54	<3.51E+00	0.00E+00	3.51E+00
		Co-58	<2.19E+00	0.00E+00	2.19E+00
		Fe-59	<5.24E+00	0.00E+00	5.24E+00
		Co-60	<4.48E+00	0.00E+00	4.48E+00
		Zn-65	<7.81E+00	0.00E+00	7.81E+00
		Zr-95	<5.48E+00	0.00E+00	5.48E+00
		Nb-95	<5.03E+00	0.00E+00	5.03E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.06E+00	0.00E+00	4.06E+00
		Cs-137	<2.87E+00	0.00E+00	2.87E+00
		BaLa-140	<8.99E+00	0.00E+00	8.99E+00
		Be-7	<3.44E+01	0.00E+00	3.44E+01
		K-40	<5.29E+01	0.00E+00	5.29E+01
380272	3/2/2015 - 5/26/2015	Nuclide	Activity	2 Sigma Error	MDA
		H3DW	<1.58E+01	0.00E+00	1.90E+02
380692	5/26/2015 - 6/22/2015	Beta	2.65E+00	8.21E-01	1.22E+00
		Mn-54	<2.58E+00	0.00E+00	2.58E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<7.61E+00	0.00E+00	7.61E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<8.86E+00	0.00E+00	8.86E+00
		Nb-95	<2.77E+00	0.00E+00	2.77E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.99E+00	0.00E+00	4.99E+00
		Cs-137	<3.04E+00	0.00E+00	3.04E+00
		BaLa-140	<8.25E+00	0.00E+00	8.25E+00
		Be-7	<3.64E+01	0.00E+00	3.64E+01
		K-40	1.41E+01	2.95E+01	5.19E+01
382383	6/22/2015 - 7/20/2015	Nuclide	Activity	2 Sigma Error	MDA
		Beta	<5.7E-01	0.00E+00	1.40E+00
		Mn-54	<3.48E+00	0.00E+00	3.48E+00
		Co-58	<3.68E+00	0.00E+00	3.68E+00
		Fe-59	<5.45E+00	0.00E+00	5.45E+00
		Co-60	<3.38E+00	0.00E+00	3.38E+00
		Zn-65	<6.23E+00	0.00E+00	6.23E+00
		Zr-95	<6.74E+00	0.00E+00	6.74E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [ CONTROL - SSW @ 6.67 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
382383	6/22/2015 - 7/20/2015	Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<8.89E+00	0.00E+00	8.89E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	4.45E+01	2.60E+01	3.29E+01
384918	7/20/2015 - 8/17/2015	Mn-54	<2.46E+00	0.00E+00	2.46E+00
		Co-58	<2.76E+00	0.00E+00	2.76E+00
		Fe-59	<5.81E+00	0.00E+00	5.81E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<5.59E+00	0.00E+00	5.59E+00
		Zr-95	<5.08E+00	0.00E+00	5.08E+00
		Nb-95	<2.75E+00	0.00E+00	2.75E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.82E+00	0.00E+00	2.82E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<8.14E+00	0.00E+00	8.14E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	1.06E+01	1.97E+01	3.40E+01
388126	5/26/2015 - 8/17/2015	H3DW	<7.97E+01	0.00E+00	1.98E+02
388176	8/17/2015 - 9/14/2015	Beta	1.62E+00	7.66E-01	1.21E+00
		Mn-54	<3.30E+00	0.00E+00	3.30E+00
		Co-58	<3.37E+00	0.00E+00	3.37E+00
		Fe-59	<5.21E+00	0.00E+00	5.21E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<7.13E+00	0.00E+00	7.13E+00
		Zr-95	<5.98E+00	0.00E+00	5.98E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.42E+00	0.00E+00	2.42E+00
		Cs-137	<4.14E+00	0.00E+00	4.14E+00
		BaLa-140	<5.05E+00	0.00E+00	5.05E+00
		Be-7	<2.78E+01	0.00E+00	2.78E+01
		K-40	3.53E+01	3.10E+01	4.72E+01
391258	9/14/2015 - 10/12/2015	Beta	1.91E+00	7.70E-01	1.18E+00
		Mn-54	<1.69E+00	0.00E+00	1.69E+00
		Co-58	<2.21E+00	0.00E+00	2.21E+00
		Fe-59	<4.80E+00	0.00E+00	4.80E+00
		Co-60	<2.03E+00	0.00E+00	2.03E+00
		Zn-65	<4.37E+00	0.00E+00	4.37E+00
		Zr-95	<4.33E+00	0.00E+00	4.33E+00
		Nb-95	<3.04E+00	0.00E+00	3.04E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<2.44E+00	0.00E+00	2.44E+00
		Cs-137	<2.33E+00	0.00E+00	2.33E+00
		BaLa-140	<7.10E+00	0.00E+00	7.10E+00
		Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	3.58E+01	1.83E+01	2.27E+01
394441	10/12/2015 - 11/9/2015	Beta	1.11E+00	7.01E-01	1.13E+00
		Mn-54	<3.25E+00	0.00E+00	3.25E+00
		Co-58	<3.20E+00	0.00E+00	3.20E+00
		Fe-59	<5.32E+00	0.00E+00	5.32E+00
		Co-60	<2.21E+00	0.00E+00	2.21E+00
		Zn-65	<5.31E+00	0.00E+00	5.31E+00
		Zr-95	<5.67E+00	0.00E+00	5.67E+00
		Nb-95	<3.73E+00	0.00E+00	3.73E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<2.22E+00	0.00E+00	2.22E+00
		Cs-137	<2.78E+00	0.00E+00	2.78E+00
		BaLa-140	<7.69E+00	0.00E+00	7.69E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [ CONTROL - SSW @ 6.67 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
394441	10/12/2015 - 11/9/2015	Be-7	<3.37E+01	0.00E+00	3.37E+01
		K-40	<4.90E+01	0.00E+00	4.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396357	11/9/2015 - 12/7/2015	Beta	<1.16E-01	0.00E+00	1.36E+00
		Mn-54	<3.63E+00	0.00E+00	3.63E+00
		Co-58	<3.04E+00	0.00E+00	3.04E+00
		Fe-59	<6.75E+00	0.00E+00	6.75E+00
		Co-60	<3.65E+00	0.00E+00	3.65E+00
		Zn-65	<7.94E+00	0.00E+00	7.94E+00
		Zr-95	<7.44E+00	0.00E+00	7.44E+00
		Nb-95	<4.74E+00	0.00E+00	4.74E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<2.30E+00	0.00E+00	2.30E+00
		Cs-137	<3.38E+00	0.00E+00	3.38E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		K-40	<6.79E+01	0.00E+00	6.79E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397101	8/17/2015 - 12/7/2015	H3DWH	<-1.1E+02	0.00E+00	1.99E+02

Sample Point 066 [ INDICATOR - SSE @ 18.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
364789	12/8/2014 - 1/5/2015	Beta	1.35E+00	7.27E-01	1.16E+00
		Mn-54	<1.99E+00	0.00E+00	1.99E+00
		Co-58	<2.41E+00	0.00E+00	2.41E+00
		Fe-59	<4.86E+00	0.00E+00	4.86E+00
		Co-60	<2.17E+00	0.00E+00	2.17E+00
		Zn-65	<4.28E+00	0.00E+00	4.28E+00
		Zr-95	<4.36E+00	0.00E+00	4.36E+00
		Nb-95	<3.29E+00	0.00E+00	3.29E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.65E+00	0.00E+00	2.65E+00
		Cs-137	<2.08E+00	0.00E+00	2.08E+00
		BaLa-140	<6.57E+00	0.00E+00	6.57E+00
		K-40	1.81E+02	3.38E+01	3.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
366886	1/5/2015 - 2/2/2015	Beta	1.50E+00	7.43E-01	1.17E+00
		Mn-54	<2.97E+00	0.00E+00	2.97E+00
		Co-58	<4.09E+00	0.00E+00	4.09E+00
		Fe-59	<7.36E+00	0.00E+00	7.36E+00
		Co-60	<3.71E+00	0.00E+00	3.71E+00
		Zn-65	<7.82E+00	0.00E+00	7.82E+00
		Zr-95	<6.94E+00	0.00E+00	6.94E+00
		Nb-95	<4.61E+00	0.00E+00	4.61E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.07E+00	0.00E+00	4.07E+00
		Cs-137	<3.70E+00	0.00E+00	3.70E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		K-40	<4.88E+01	0.00E+00	4.88E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
369987	2/2/2015 - 3/2/2015	Beta	<1.23E-01	0.00E+00	1.42E+00
		Mn-54	<2.81E+00	0.00E+00	2.81E+00
		Co-58	<2.90E+00	0.00E+00	2.90E+00
		Fe-59	<7.28E+00	0.00E+00	7.28E+00
		Co-60	<4.18E+00	0.00E+00	4.18E+00
		Zn-65	<5.41E+00	0.00E+00	5.41E+00
		Zr-95	<5.15E+00	0.00E+00	5.15E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.86E+00	0.00E+00	2.86E+00
		Cs-137	<2.82E+00	0.00E+00	2.82E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [ INDICATOR - SSE @ 18.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
369987	2/2/2015 - 3/2/2015	Be-7	<2.39E+01	0.00E+00	2.39E+01
		K-40	<5.63E+01	0.00E+00	5.63E+01
372376	12/8/2014 - 3/2/2015	H3DW	2.56E+02	1.14E+02	1.84E+02
372752	3/2/2015 - 3/30/2015	Beta	3.36E+00	8.00E-01	1.11E+00
		Mn-54	<2.35E+00	0.00E+00	2.35E+00
		Co-58	<3.48E+00	0.00E+00	3.48E+00
		Fe-59	<7.37E+00	0.00E+00	7.37E+00
		Co-60	<3.35E+00	0.00E+00	3.35E+00
		Zn-65	<4.42E+00	0.00E+00	4.42E+00
		Zr-95	<6.18E+00	0.00E+00	6.18E+00
		Nb-95	<3.78E+00	0.00E+00	3.78E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.47E+00	0.00E+00	3.47E+00
		Cs-137	<3.24E+00	0.00E+00	3.24E+00
		BaLa-140	<7.53E+00	0.00E+00	7.53E+00
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	3.76E+01	2.94E+01	4.36E+01
		375845	3/30/2015 - 4/27/2015	Beta	8.65E-01
Mn-54	<2.52E+00			0.00E+00	2.52E+00
Co-58	<2.72E+00			0.00E+00	2.72E+00
Fe-59	<4.56E+00			0.00E+00	4.56E+00
Co-60	<3.08E+00			0.00E+00	3.08E+00
Zn-65	<5.45E+00			0.00E+00	5.45E+00
Zr-95	<3.61E+00			0.00E+00	3.61E+00
Nb-95	<3.34E+00			0.00E+00	3.34E+00
I-131	<9.83E+00			0.00E+00	9.83E+00
Cs-134	<2.88E+00			0.00E+00	2.88E+00
Cs-137	<2.51E+00			0.00E+00	2.51E+00
BaLa-140	<7.73E+00			0.00E+00	7.73E+00
Be-7	<2.47E+01			0.00E+00	2.47E+01
K-40	3.22E+01			2.27E+01	3.28E+01
378816	4/27/2015 - 5/26/2015			Beta	1.86E+00
		Mn-54	<2.99E+00	0.00E+00	2.99E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<5.81E+00	0.00E+00	5.81E+00
		Co-60	<3.10E+00	0.00E+00	3.10E+00
		Zn-65	<4.98E+00	0.00E+00	4.98E+00
		Zr-95	<5.31E+00	0.00E+00	5.31E+00
		Nb-95	<4.15E+00	0.00E+00	4.15E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.20E+00	0.00E+00	3.20E+00
		Cs-137	<2.69E+00	0.00E+00	2.69E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<3.14E+01	0.00E+00	3.14E+01
		K-40	<4.83E+01	0.00E+00	4.83E+01
		380273	3/2/2015 - 5/26/2015	H3DW	2.50E+02
380693	5/26/2015 - 6/22/2015	Beta	2.08E+00	8.03E-01	1.23E+00
		Mn-54	<3.19E+00	0.00E+00	3.19E+00
		Co-58	<3.43E+00	0.00E+00	3.43E+00
		Fe-59	<6.30E+00	0.00E+00	6.30E+00
		Co-60	<2.29E+00	0.00E+00	2.29E+00
		Zn-65	<5.13E+00	0.00E+00	5.13E+00
		Zr-95	<5.88E+00	0.00E+00	5.88E+00
		Nb-95	<4.54E+00	0.00E+00	4.54E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.54E+00	0.00E+00	3.54E+00
		Cs-137	<3.27E+00	0.00E+00	3.27E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [ INDICATOR - SSE @ 18.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
380693	5/26/2015 - 6/22/2015	BaLa-140	<6.36E+00	0.00E+00	6.36E+00
		Be-7	<2.06E+01	0.00E+00	2.06E+01
		K-40	3.16E+01	3.57E+01	5.78E+01
382384	6/22/2015 - 7/20/2015	Beta	<3.89E-01	0.00E+00	1.42E+00
		Mn-54	<3.50E+00	0.00E+00	3.50E+00
		Co-58	<3.14E+00	0.00E+00	3.14E+00
		Fe-59	<7.09E+00	0.00E+00	7.09E+00
		Co-60	<1.84E+00	0.00E+00	1.84E+00
		Zn-65	<6.91E+00	0.00E+00	6.91E+00
		Zr-95	<6.47E+00	0.00E+00	6.47E+00
		Nb-95	<5.08E+00	0.00E+00	5.08E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<3.50E+00	0.00E+00	3.50E+00
		BaLa-140	<9.93E+00	0.00E+00	9.93E+00
		Be-7	<2.67E+01	0.00E+00	2.67E+01
		K-40	6.31E+01	3.23E+01	3.95E+01
384919	7/20/2015 - 8/17/2015	Beta	4.97E+00	8.76E-01	1.13E+00
		Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<3.74E+00	0.00E+00	3.74E+00
		Fe-59	<6.30E+00	0.00E+00	6.30E+00
		Co-60	<3.13E+00	0.00E+00	3.13E+00
		Zn-65	<5.37E+00	0.00E+00	5.37E+00
		Zr-95	<5.50E+00	0.00E+00	5.50E+00
		Nb-95	<4.63E+00	0.00E+00	4.63E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<8.71E+00	0.00E+00	8.71E+00
		Be-7	<2.94E+01	0.00E+00	2.94E+01
		K-40	5.98E+01	2.82E+01	3.17E+01
388127	5/26/2015 - 8/17/2015	H3DW	4.68E+02	1.28E+02	1.98E+02
388177	8/17/2015 - 9/14/2015	Beta	2.96E+00	8.32E-01	1.22E+00
		Mn-54	<2.28E+00	0.00E+00	2.28E+00
		Co-58	<3.43E+00	0.00E+00	3.43E+00
		Fe-59	<7.63E+00	0.00E+00	7.63E+00
		Co-60	<2.31E+00	0.00E+00	2.31E+00
		Zn-65	<6.09E+00	0.00E+00	6.09E+00
		Zr-95	<5.67E+00	0.00E+00	5.67E+00
		Nb-95	<3.95E+00	0.00E+00	3.95E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.01E+00	0.00E+00	3.01E+00
		Cs-137	<2.85E+00	0.00E+00	2.85E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<2.30E+01	0.00E+00	2.30E+01
		K-40	4.67E+01	2.17E+01	2.37E+01
391259	9/14/2015 - 10/12/2015	Beta	2.42E+00	7.94E-01	1.19E+00
		Mn-54	<2.04E+00	0.00E+00	2.04E+00
		Co-58	<2.42E+00	0.00E+00	2.42E+00
		Fe-59	<5.67E+00	0.00E+00	5.67E+00
		Co-60	<2.20E+00	0.00E+00	2.20E+00
		Zn-65	<5.04E+00	0.00E+00	5.04E+00
		Zr-95	<4.62E+00	0.00E+00	4.62E+00
		Nb-95	<3.09E+00	0.00E+00	3.09E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<2.73E+00	0.00E+00	2.73E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<5.61E+00	0.00E+00	5.61E+00
		Be-7	4.61E+00	1.50E+01	2.60E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [ INDICATOR - SSE @ 18.9 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
391259	9/14/2015 - 10/12/2015	K-40	3.62E+01	2.58E+01	3.92E+01
394442	10/12/2015 - 11/9/2015	Beta	2.07E+00	7.56E-01	1.14E+00
		Mn-54	<3.97E+00	0.00E+00	3.97E+00
		Co-58	<4.06E+00	0.00E+00	4.06E+00
		Fe-59	<8.21E+00	0.00E+00	8.21E+00
		Co-60	<4.14E+00	0.00E+00	4.14E+00
		Zn-65	<9.42E+00	0.00E+00	9.42E+00
		Zr-95	<6.78E+00	0.00E+00	6.78E+00
		Nb-95	<4.78E+00	0.00E+00	4.78E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.04E+00	0.00E+00	4.04E+00
		Cs-137	<3.35E+00	0.00E+00	3.35E+00
		BaLa-140	<6.12E+00	0.00E+00	6.12E+00
		Be-7	<3.32E+01	0.00E+00	3.32E+01
		K-40	1.70E+01	2.96E+01	5.07E+01
396358	11/9/2015 - 12/7/2015	Beta	<5.01E-01	0.00E+00	1.37E+00
		Mn-54	<3.03E+00	0.00E+00	3.03E+00
		Co-58	<2.95E+00	0.00E+00	2.95E+00
		Fe-59	<7.05E+00	0.00E+00	7.05E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<4.63E+00	0.00E+00	4.63E+00
		Zr-95	<7.23E+00	0.00E+00	7.23E+00
		Nb-95	<5.10E+00	0.00E+00	5.10E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.75E+00	0.00E+00	2.75E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	<4.87E+01	0.00E+00	4.87E+01
397102	8/17/2015 - 12/7/2015	H3DW	<1.91E+02	0.00E+00	1.99E+02

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 060 [ CONTROL FISH / INDICATOR - NE @ 3.23 miles ]

Sample ID:	Sample Dates:	Location	Nuclide	Activity	2 Sigma Error	MDA
374824	4/14/2015 - 4/14/2015	FREESWIM	Mn-54	<5.10E+00	0.00E+00	5.10E+00
			Co-58	<5.27E+00	0.00E+00	5.27E+00
			Fe-59	<1.33E+01	0.00E+00	1.33E+01
			Co-60	<4.98E+00	0.00E+00	4.98E+00
			Zn-65	<1.54E+01	0.00E+00	1.54E+01
			Nb-95	<5.55E+00	0.00E+00	5.55E+00
			I-131	<5.48E+00	0.00E+00	5.48E+00
			Cs-134	<5.05E+00	0.00E+00	5.05E+00
			Cs-137	1.20E+01	5.15E+00	7.11E+00
			Be-7	<3.45E+01	0.00E+00	3.45E+01
			K-40	3.21E+03	3.30E+02	6.35E+01
			Ag-110M	<4.60E+00	0.00E+00	4.60E+00
			Sb-122	<8.11E+00	0.00E+00	8.11E+00
			Sb-125	<1.13E+01	0.00E+00	1.13E+01
374825	4/13/2015 - 4/14/2015	BOTMFEEDER	Mn-54	<1.35E+01	0.00E+00	1.35E+01
			Co-58	<1.16E+01	0.00E+00	1.16E+01
			Fe-59	<2.47E+01	0.00E+00	2.47E+01
			Co-60	<1.33E+01	0.00E+00	1.33E+01
			Zn-65	<2.74E+01	0.00E+00	2.74E+01
			Nb-95	<1.20E+01	0.00E+00	1.20E+01
			I-131	<1.23E+01	0.00E+00	1.23E+01
			Cs-134	<1.05E+01	0.00E+00	1.05E+01
			Cs-137	<1.32E+01	0.00E+00	1.32E+01
			Be-7	<6.54E+01	0.00E+00	6.54E+01
			K-40	2.87E+03	4.33E+02	1.18E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 060 [ CONTROL FISH / INDICATOR - NE @ 3.23 miles ]

Sample ID:	374825	Sample Dates:	4/13/2015 - 4/14/2015	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Ag-110M	<8.85E+00	0.00E+00	8.85E+00
					Sb-122	<2.09E+01	0.00E+00	2.09E+01
					Sb-125	<2.37E+01	0.00E+00	2.37E+01

Sample ID:	391448	Sample Dates:	10/12/2015 - 10/12/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.17E+01	0.00E+00	1.17E+01
					Co-58	<1.60E+01	0.00E+00	1.60E+01
					Fe-59	<2.80E+01	0.00E+00	2.80E+01
					Co-60	<2.05E+01	0.00E+00	2.05E+01
					Zn-65	<2.26E+01	0.00E+00	2.26E+01
					Nb-95	<1.54E+01	0.00E+00	1.54E+01
					I-131	<1.93E+01	0.00E+00	1.93E+01
					Cs-134	<1.42E+01	0.00E+00	1.42E+01
					Cs-137	<2.00E+01	0.00E+00	2.00E+01
					Be-7	<1.19E+02	0.00E+00	1.19E+02
					K-40	4.23E+03	6.03E+02	2.36E+02
					Ag-110M	<1.35E+01	0.00E+00	1.35E+01
					Sb-122	<9.42E+01	0.00E+00	9.42E+01
					Sb-125	<3.42E+01	0.00E+00	3.42E+01

Sample ID:	391449	Sample Dates:	10/12/2015 - 10/12/2015	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.04E+01	0.00E+00	1.04E+01
					Co-58	<1.94E+01	0.00E+00	1.94E+01
					Fe-59	<1.99E+01	0.00E+00	1.99E+01
					Co-60	<1.48E+01	0.00E+00	1.48E+01
					Zn-65	<2.08E+01	0.00E+00	2.08E+01
					Nb-95	<1.98E+01	0.00E+00	1.98E+01
					I-131	<2.00E+01	0.00E+00	2.00E+01
					Cs-134	<1.88E+01	0.00E+00	1.88E+01
					Cs-137	<2.18E+01	0.00E+00	2.18E+01
					Be-7	<9.89E+01	0.00E+00	9.89E+01
					K-40	3.48E+03	5.84E+02	3.62E+02
					Ag-110M	<7.19E+00	0.00E+00	7.19E+00
					Sb-122	<1.09E+02	0.00E+00	1.09E+02
					Sb-125	<3.17E+01	0.00E+00	3.17E+01

## Sample Point 063 [ INDICATOR - ESE @ 0.8 miles ]

Sample ID:	374826	Sample Dates:	4/13/2015 - 4/13/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.46E+01	0.00E+00	1.46E+01
					Co-58	<1.72E+01	0.00E+00	1.72E+01
					Fe-59	<3.38E+01	0.00E+00	3.38E+01
					Co-60	<1.65E+01	0.00E+00	1.65E+01
					Zn-65	<4.92E+01	0.00E+00	4.92E+01
					Nb-95	<1.29E+01	0.00E+00	1.29E+01
					I-131	<1.59E+01	0.00E+00	1.59E+01
					Cs-134	<1.27E+01	0.00E+00	1.27E+01
					Cs-137	1.47E+01	1.40E+01	2.17E+01
					Be-7	<1.40E+02	0.00E+00	1.40E+02
					K-40	3.89E+03	6.43E+02	3.46E+02
					Ag-110M	<1.13E+01	0.00E+00	1.13E+01
					Sb-122	<3.46E+01	0.00E+00	3.46E+01
					Sb-125	<3.85E+01	0.00E+00	3.85E+01

Sample ID:	374827	Sample Dates:	4/13/2015 - 4/13/2015	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.72E+01	0.00E+00	2.72E+01
					Co-58	<1.69E+01	0.00E+00	1.69E+01
					Fe-59	<6.26E+01	0.00E+00	6.26E+01
					Co-60	<2.44E+01	0.00E+00	2.44E+01
					Zn-65	<4.95E+01	0.00E+00	4.95E+01
					Nb-95	<2.14E+01	0.00E+00	2.14E+01
					I-131	<2.22E+01	0.00E+00	2.22E+01
					Cs-134	<2.19E+01	0.00E+00	2.19E+01
					Cs-137	<2.47E+01	0.00E+00	2.47E+01
					Be-7	<1.62E+02	0.00E+00	1.62E+02
					K-40	2.66E+03	6.32E+02	5.03E+02
					Ag-110M	<2.61E+01	0.00E+00	2.61E+01
					Sb-122	<5.04E+01	0.00E+00	5.04E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 063 [ INDICATOR - ESE @ 0.8 miles ]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
374827	4/13/2015 - 4/13/2015		Sb-125	<5.70E+01	0.00E+00	5.70E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
391450	10/12/2015 - 10/12/2015		Mn-54	<1.50E+01	0.00E+00	1.50E+01
			Co-58	<1.32E+01	0.00E+00	1.32E+01
			Fe-59	<4.12E+01	0.00E+00	4.12E+01
			Co-60	<1.85E+01	0.00E+00	1.85E+01
			Zn-65	<3.56E+01	0.00E+00	3.56E+01
			Nb-95	<1.21E+01	0.00E+00	1.21E+01
			I-131	<1.96E+01	0.00E+00	1.96E+01
			Cs-134	<1.10E+01	0.00E+00	1.10E+01
			Cs-137	1.63E+01	1.44E+01	2.22E+01
			Be-7	<9.25E+01	0.00E+00	9.25E+01
			K-40	3.01E+03	5.02E+02	1.59E+02
			Ag-110M	<1.38E+01	0.00E+00	1.38E+01
			Sb-122	<8.29E+01	0.00E+00	8.29E+01
			Sb-125	<2.97E+01	0.00E+00	2.97E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
391451	10/12/2015 - 10/12/2015		Mn-54	<2.16E+01	0.00E+00	2.16E+01
			Co-58	<1.16E+01	0.00E+00	1.16E+01
			Fe-59	<5.60E+01	0.00E+00	5.60E+01
			Co-60	<2.38E+01	0.00E+00	2.38E+01
			Zn-65	<5.11E+01	0.00E+00	5.11E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<2.34E+01	0.00E+00	2.34E+01
			Cs-134	<2.05E+01	0.00E+00	2.05E+01
			Cs-137	<3.36E+01	0.00E+00	3.36E+01
			Be-7	<1.61E+02	0.00E+00	1.61E+02
			K-40	2.85E+03	5.55E+02	6.00E+01
			Ag-110M	<1.59E+01	0.00E+00	1.59E+01
			Sb-122	<9.84E+01	0.00E+00	9.84E+01
			Sb-125	<3.97E+01	0.00E+00	3.97E+01

Sample Point 067 [ INDICATOR - SSE @ 4.34 miles ]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
374828	4/13/2015 - 4/13/2015		Mn-54	<1.18E+01	0.00E+00	1.18E+01
			Co-58	<9.76E+00	0.00E+00	9.76E+00
			Fe-59	<2.70E+01	0.00E+00	2.70E+01
			Co-60	<1.39E+01	0.00E+00	1.39E+01
			Zn-65	<2.72E+01	0.00E+00	2.72E+01
			Nb-95	<1.07E+01	0.00E+00	1.07E+01
			I-131	<1.43E+01	0.00E+00	1.43E+01
			Cs-134	<1.43E+01	0.00E+00	1.43E+01
			Cs-137	<1.92E+01	0.00E+00	1.92E+01
			Be-7	<1.09E+02	0.00E+00	1.09E+02
			K-40	<8.53E+02	0.00E+00	8.53E+02
			Ag-110M	<1.18E+01	0.00E+00	1.18E+01
			Sb-122	<2.57E+01	0.00E+00	2.57E+01
			Sb-125	<3.78E+01	0.00E+00	3.78E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
374829	4/13/2015 - 4/14/2015		Mn-54	<4.99E+00	0.00E+00	4.99E+00
			Co-58	<5.58E+00	0.00E+00	5.58E+00
			Fe-59	<1.49E+01	0.00E+00	1.49E+01
			Co-60	<6.08E+00	0.00E+00	6.08E+00
			Zn-65	<1.38E+01	0.00E+00	1.38E+01
			Nb-95	<6.11E+00	0.00E+00	6.11E+00
			I-131	<9.32E+00	0.00E+00	9.32E+00
			Cs-134	<5.85E+00	0.00E+00	5.85E+00
			Cs-137	1.11E+01	4.81E+00	6.39E+00
			Be-7	<3.96E+01	0.00E+00	3.96E+01
			K-40	2.78E+03	3.03E+02	9.23E+01
			Ag-110M	<4.58E+00	0.00E+00	4.58E+00
			Sb-122	<4.42E+01	0.00E+00	4.42E+01
			Sb-125	<1.26E+01	0.00E+00	1.26E+01





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 067 [ INDICATOR - SSE @ 4.34 miles ]

Sample ID:	391452	Sample Dates:	10/12/2015 - 10/12/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<8.63E+00	0.00E+00	8.63E+00
					Co-58	<1.16E+01	0.00E+00	1.16E+01
					Fe-59	<2.68E+01	0.00E+00	2.68E+01
					Co-60	<1.41E+01	0.00E+00	1.41E+01
					Zn-65	<3.28E+01	0.00E+00	3.28E+01
					Nb-95	<1.39E+01	0.00E+00	1.39E+01
					I-131	<1.20E+01	0.00E+00	1.20E+01
					Cs-134	<1.56E+01	0.00E+00	1.56E+01
					Cs-137	1.77E+01	1.17E+01	1.63E+01
					Be-7	<1.23E+02	0.00E+00	1.23E+02
					K-40	3.42E+03	5.20E+02	2.34E+02
					Ag-110M	<1.22E+01	0.00E+00	1.22E+01
					Sb-122	<7.49E+01	0.00E+00	7.49E+01
					Sb-125	<2.02E+01	0.00E+00	2.02E+01

Sample ID:	391453	Sample Dates:	10/12/2015 - 10/13/2015	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.20E+01	0.00E+00	1.20E+01
					Co-58	<1.51E+01	0.00E+00	1.51E+01
					Fe-59	<3.21E+01	0.00E+00	3.21E+01
					Co-60	<1.90E+01	0.00E+00	1.90E+01
					Zn-65	<3.68E+01	0.00E+00	3.68E+01
					Nb-95	<8.63E+00	0.00E+00	8.63E+00
					I-131	<2.13E+01	0.00E+00	2.13E+01
					Cs-134	<1.64E+01	0.00E+00	1.64E+01
					Cs-137	2.94E+01	1.54E+01	1.96E+01
					Be-7	<1.37E+02	0.00E+00	1.37E+02
					K-40	3.26E+03	5.64E+02	3.66E+02
					Ag-110M	<1.70E+01	0.00E+00	1.70E+01
					Sb-122	<9.01E+01	0.00E+00	9.01E+01
					Sb-125	<3.59E+01	0.00E+00	3.59E+01

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [ CONTROL - SSE @ 10.2 miles ]

Sample ID:	365367	Sample Dates:	1/12/2015 - 1/12/2015		Nuclide	Activity	2 Sigma Error	MDA
					LLI-131	<6.28E-01	0.00E+00	6.28E-01
					I-131	<3.73E+00	0.00E+00	3.73E+00
					Cs-134	<4.27E+00	0.00E+00	4.27E+00
					Cs-137	<3.59E+00	0.00E+00	3.59E+00
					BaLa-140	<3.84E+00	0.00E+00	3.84E+00
					Be-7	<3.68E+01	0.00E+00	3.68E+01
					K-40	1.35E+03	1.72E+02	5.34E+01

Sample ID:	367126	Sample Dates:	1/26/2015 - 1/26/2015		Nuclide	Activity	2 Sigma Error	MDA
					LLI-131	<6.19E-01	0.00E+00	6.19E-01
					I-131	<1.02E+01	0.00E+00	1.02E+01
					Cs-134	<1.16E+01	0.00E+00	1.16E+01
					Cs-137	<1.10E+01	0.00E+00	1.10E+01
					BaLa-140	<1.06E+01	0.00E+00	1.06E+01
					Be-7	<8.65E+01	0.00E+00	8.65E+01
					K-40	1.52E+03	2.72E+02	1.34E+02

Sample ID:	369040	Sample Dates:	2/9/2015 - 2/9/2015		Nuclide	Activity	2 Sigma Error	MDA
					LLI-131	<6.21E-01	0.00E+00	6.21E-01
					I-131	<7.52E+00	0.00E+00	7.52E+00
					Cs-134	<7.84E+00	0.00E+00	7.84E+00
					Cs-137	<8.17E+00	0.00E+00	8.17E+00
					BaLa-140	<8.79E+00	0.00E+00	8.79E+00
					Be-7	<6.06E+01	0.00E+00	6.06E+01
					K-40	1.34E+03	2.26E+02	1.06E+02

Sample ID:	370667	Sample Dates:	2/23/2015 - 2/23/2015		Nuclide	Activity	2 Sigma Error	MDA
					LLI-131	<6.34E-01	0.00E+00	6.34E-01
					I-131	<5.20E+00	0.00E+00	5.20E+00
					Cs-134	<4.75E+00	0.00E+00	4.75E+00
					Cs-137	<5.32E+00	0.00E+00	5.32E+00
					BaLa-140	<3.90E+00	0.00E+00	3.90E+00
					Be-7	<3.91E+01	0.00E+00	3.91E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [ CONTROL - SSE @ 10.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
370667	2/23/2015 - 2/23/2015	K-40	1.41E+03	1.81E+02	8.26E+01
371980	3/9/2015 - 3/9/2015	LLI-131	<5.51E-01	0.00E+00	5.51E-01
		I-131	<3.97E+00	0.00E+00	3.97E+00
		Cs-134	<4.93E+00	0.00E+00	4.93E+00
		Cs-137	<4.03E+00	0.00E+00	4.03E+00
		BaLa-140	<3.10E+00	0.00E+00	3.10E+00
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	1.46E+03	1.82E+02	5.49E+01
373922	3/23/2015 - 3/23/2015	LLI-131	<6.44E-01	0.00E+00	6.44E-01
		I-131	<5.53E+00	0.00E+00	5.53E+00
		Cs-134	<6.96E+00	0.00E+00	6.96E+00
		Cs-137	<7.82E+00	0.00E+00	7.82E+00
		BaLa-140	<9.91E+00	0.00E+00	9.91E+00
		Be-7	<5.44E+01	0.00E+00	5.44E+01
		K-40	1.14E+03	3.66E+02	7.26E+01
375011	4/6/2015 - 4/6/2015	LLI-131	<6.15E-01	0.00E+00	6.15E-01
		I-131	<7.59E+00	0.00E+00	7.59E+00
		Cs-134	<7.60E+00	0.00E+00	7.60E+00
		Cs-137	<7.58E+00	0.00E+00	7.58E+00
		BaLa-140	<2.31E+00	0.00E+00	2.31E+00
		Be-7	<3.47E+01	0.00E+00	3.47E+01
		K-40	1.75E+03	2.56E+02	7.88E+01
376895	4/20/2015 - 4/20/2015	LLI-131	<5.00E-01	0.00E+00	5.00E-01
		I-131	<8.08E+00	0.00E+00	8.08E+00
		Cs-134	<8.42E+00	0.00E+00	8.42E+00
		Cs-137	<6.62E+00	0.00E+00	6.62E+00
		BaLa-140	<6.07E+00	0.00E+00	6.07E+00
		Be-7	<6.09E+01	0.00E+00	6.09E+01
		K-40	1.45E+03	2.30E+02	8.53E+01
378132	5/4/2015 - 5/4/2015	LLI-131	<5.78E-01	0.00E+00	5.78E-01
		I-131	<5.54E+00	0.00E+00	5.54E+00
		Cs-134	<7.54E+00	0.00E+00	7.54E+00
		Cs-137	<7.49E+00	0.00E+00	7.49E+00
		BaLa-140	<7.64E+00	0.00E+00	7.64E+00
		Be-7	<3.77E+01	0.00E+00	3.77E+01
		K-40	1.47E+03	2.35E+02	1.08E+02
379017	5/18/2015 - 5/18/2015	LLI-131	<5.05E-01	0.00E+00	5.05E-01
		I-131	<7.45E+00	0.00E+00	7.45E+00
		Cs-134	<6.96E+00	0.00E+00	6.96E+00
		Cs-137	<6.15E+00	0.00E+00	6.15E+00
		BaLa-140	<2.33E+00	0.00E+00	2.33E+00
		Be-7	<4.74E+01	0.00E+00	4.74E+01
		K-40	1.41E+03	2.26E+02	7.74E+01
380274	6/1/2015 - 6/1/2015	LLI-131	<5.17E-01	0.00E+00	5.17E-01
		I-131	<6.75E+00	0.00E+00	6.75E+00
		Cs-134	<4.93E+00	0.00E+00	4.93E+00
		Cs-137	<7.82E+00	0.00E+00	7.82E+00
		BaLa-140	<7.70E+00	0.00E+00	7.70E+00
		Be-7	<4.70E+01	0.00E+00	4.70E+01
		K-40	1.63E+03	2.50E+02	1.07E+02
380867	6/15/2015 - 6/15/2015	LLI-131	<5.71E-01	0.00E+00	5.71E-01
		I-131	<6.92E+00	0.00E+00	6.92E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<7.08E+00	0.00E+00	7.08E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [ CONTROL - SSE @ 10.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
380867	6/15/2015 - 6/15/2015	BaLa-140	<9.29E+00	0.00E+00	9.29E+00
		Be-7	<5.75E+01	0.00E+00	5.75E+01
		K-40	1.43E+03	2.38E+02	1.48E+02
381660	6/29/2015 - 6/29/2015	LLI-131	<5.19E-01	0.00E+00	5.19E-01
		I-131	<6.87E+00	0.00E+00	6.87E+00
		Cs-134	<7.40E+00	0.00E+00	7.40E+00
		Cs-137	<6.54E+00	0.00E+00	6.54E+00
		BaLa-140	<5.93E+00	0.00E+00	5.93E+00
		Be-7	<5.61E+01	0.00E+00	5.61E+01
		K-40	1.37E+03	2.21E+02	8.40E+01
382653	7/13/2015 - 7/13/2015	LLI-131	<4.45E-01	0.00E+00	4.45E-01
		I-131	<4.78E+00	0.00E+00	4.78E+00
		Cs-134	<7.88E+00	0.00E+00	7.88E+00
		Cs-137	<7.73E+00	0.00E+00	7.73E+00
		BaLa-140	<2.18E+00	0.00E+00	2.18E+00
		Be-7	<5.15E+01	0.00E+00	5.15E+01
		K-40	1.44E+03	2.36E+02	1.36E+02
384154	7/27/2015 - 7/27/2015	LLI-131	<6.04E-01	0.00E+00	6.04E-01
		I-131	<7.12E+00	0.00E+00	7.12E+00
		Cs-134	<7.86E+00	0.00E+00	7.86E+00
		Cs-137	<8.39E+00	0.00E+00	8.39E+00
		BaLa-140	<6.18E+00	0.00E+00	6.18E+00
		Be-7	<5.44E+01	0.00E+00	5.44E+01
		K-40	1.38E+03	2.18E+02	1.72E+01
385473	8/10/2015 - 8/10/2015	LLI-131	<5.26E-01	0.00E+00	5.26E-01
		I-131	<5.87E+00	0.00E+00	5.87E+00
		Cs-134	<8.34E+00	0.00E+00	8.34E+00
		Cs-137	<1.10E+01	0.00E+00	1.10E+01
		BaLa-140	<2.43E+00	0.00E+00	2.43E+00
		Be-7	<4.33E+01	0.00E+00	4.33E+01
		K-40	1.42E+03	2.30E+02	6.92E+01
386886	8/24/2015 - 8/24/2015	LLI-131	<5.01E-01	0.00E+00	5.01E-01
		I-131	<6.05E+00	0.00E+00	6.05E+00
		Cs-134	<8.09E+00	0.00E+00	8.09E+00
		Cs-137	<7.18E+00	0.00E+00	7.18E+00
		BaLa-140	<6.07E+00	0.00E+00	6.07E+00
		Be-7	<4.81E+01	0.00E+00	4.81E+01
		K-40	1.33E+03	2.22E+02	1.18E+02
388831	9/8/2015 - 9/8/2015	LLI-131	<5.20E-01	0.00E+00	5.20E-01
		I-131	<7.29E+00	0.00E+00	7.29E+00
		Cs-134	<7.27E+00	0.00E+00	7.27E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<2.33E+00	0.00E+00	2.33E+00
		Be-7	<4.60E+01	0.00E+00	4.60E+01
		K-40	1.62E+03	2.55E+02	1.17E+02
390072	9/21/2015 - 9/21/2015	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<5.19E+00	0.00E+00	5.19E+00
		Cs-134	<6.38E+00	0.00E+00	6.38E+00
		Cs-137	<5.05E+00	0.00E+00	5.05E+00
		BaLa-140	<6.35E+00	0.00E+00	6.35E+00
		Be-7	<6.73E+01	0.00E+00	6.73E+01
		K-40	1.47E+03	2.36E+02	1.19E+02
392021	10/5/2015 - 10/5/2015	LLI-131	<6.25E-01	0.00E+00	6.25E-01
		I-131	<7.98E+00	0.00E+00	7.98E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [ CONTROL - SSE @ 10.2 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
392021	10/5/2015 - 10/5/2015	Cs-134	<5.16E+00	0.00E+00	5.16E+00
		Cs-137	<8.89E+00	0.00E+00	8.89E+00
		BaLa-140	<2.46E+00	0.00E+00	2.46E+00
		Be-7	<5.25E+01	0.00E+00	5.25E+01
		K-40	1.58E+03	2.51E+02	1.19E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
393492	10/19/2015 - 10/19/2015	LLI-131	<5.62E-01	0.00E+00	5.62E-01
		I-131	<7.34E+00	0.00E+00	7.34E+00
		Cs-134	<8.33E+00	0.00E+00	8.33E+00
		Cs-137	<9.55E+00	0.00E+00	9.55E+00
		BaLa-140	<6.35E+00	0.00E+00	6.35E+00
		Be-7	<4.91E+01	0.00E+00	4.91E+01
K-40	1.45E+03	2.44E+02	1.50E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
394914	11/2/2015 - 11/2/2015	LLI-131	<6.46E-01	0.00E+00	6.46E-01
		I-131	<5.52E+00	0.00E+00	5.52E+00
		Cs-134	<7.86E+00	0.00E+00	7.86E+00
		Cs-137	<8.06E+00	0.00E+00	8.06E+00
		BaLa-140	<7.47E+00	0.00E+00	7.47E+00
		Be-7	<4.65E+01	0.00E+00	4.65E+01
K-40	1.27E+03	2.13E+02	1.02E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
395691	11/16/2015 - 11/16/2015	LLI-131	<5.80E-01	0.00E+00	5.80E-01
		I-131	<5.88E+00	0.00E+00	5.88E+00
		Cs-134	<6.86E+00	0.00E+00	6.86E+00
		Cs-137	<6.95E+00	0.00E+00	6.95E+00
		BaLa-140	<2.19E+00	0.00E+00	2.19E+00
		Be-7	<5.62E+01	0.00E+00	5.62E+01
K-40	1.60E+03	2.43E+02	8.82E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
396701	11/30/2015 - 11/30/2015	LLI-131	<5.17E-01	0.00E+00	5.17E-01
		I-131	<5.22E+00	0.00E+00	5.22E+00
		Cs-134	<6.42E+00	0.00E+00	6.42E+00
		Cs-137	<9.19E+00	0.00E+00	9.19E+00
		BaLa-140	<6.07E+00	0.00E+00	6.07E+00
		Be-7	<4.71E+01	0.00E+00	4.71E+01
K-40	1.57E+03	2.40E+02	7.51E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397956	12/14/2015 - 12/14/2015	LLI-131	<5.90E-01	0.00E+00	5.90E-01
		I-131	<4.95E+00	0.00E+00	4.95E+00
		Cs-134	<9.28E+00	0.00E+00	9.28E+00
		Cs-137	<9.02E+00	0.00E+00	9.02E+00
		BaLa-140	<2.44E+00	0.00E+00	2.44E+00
		Be-7	<5.76E+01	0.00E+00	5.76E+01
K-40	1.39E+03	2.31E+02	8.93E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398734	12/28/2015 - 12/28/2015	LLI-131	<6.43E-01	0.00E+00	6.43E-01
		I-131	<4.89E+00	0.00E+00	4.89E+00
		Cs-134	<7.97E+00	0.00E+00	7.97E+00
		Cs-137	<8.51E+00	0.00E+00	8.51E+00
		BaLa-140	<2.25E+00	0.00E+00	2.25E+00
		Be-7	<5.68E+01	0.00E+00	5.68E+01
K-40	<1.38E+02	0.00E+00	1.38E+02		

Media Type: SEDIMENT\_SHORE Concentration (Activity): pCi/kg

Sample Point 063 [ INDICATOR - ESE @ 0.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374816	3/30/2015 - 3/30/2015	Mn-54	<9.67E+00	0.00E+00	9.67E+00
		Co-58	<9.34E+00	0.00E+00	9.34E+00
		Fe-59	<2.51E+01	0.00E+00	2.51E+01
		Co-60	<9.21E+00	0.00E+00	9.21E+00
		Zn-65	<2.36E+01	0.00E+00	2.36E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SEDIMENT\_SHORE Concentration (Activity): pCi/kg

Sample Point 063 [ INDICATOR - ESE @ 0.8 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374816	3/30/2015 - 3/30/2015	Zr-95	<1.63E+01	0.00E+00	1.63E+01
		Nb-95	<1.08E+01	0.00E+00	1.08E+01
		I-131	<2.95E+01	0.00E+00	2.95E+01
		Cs-134	<1.36E+01	0.00E+00	1.36E+01
		Cs-137	<1.06E+01	0.00E+00	1.06E+01
		Be-7	1.79E+02	7.56E+01	1.18E+02
		K-40	2.78E+04	2.27E+03	1.21E+02
		Co-57	<7.84E+00	0.00E+00	7.84E+00
		Mo-99	<3.91E+03	0.00E+00	3.91E+03
		Ag-110M	<7.35E+00	0.00E+00	7.35E+00
		Sb-122	<6.49E+02	0.00E+00	6.49E+02
		Sb-125	<2.04E+01	0.00E+00	2.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390116	9/21/2015 - 9/21/2015	Mn-54	<1.31E+01	0.00E+00	1.31E+01
		Co-58	<1.15E+01	0.00E+00	1.15E+01
		Fe-59	<3.20E+01	0.00E+00	3.20E+01
		Co-60	<1.36E+01	0.00E+00	1.36E+01
		Zn-65	<3.04E+01	0.00E+00	3.04E+01
		Zr-95	<2.01E+01	0.00E+00	2.01E+01
		Nb-95	<1.33E+01	0.00E+00	1.33E+01
		I-131	<1.77E+01	0.00E+00	1.77E+01
		Cs-134	<1.52E+01	0.00E+00	1.52E+01
		Cs-137	2.24E+01	1.12E+01	1.73E+01
		Be-7	<1.06E+02	0.00E+00	1.06E+02
		K-40	2.93E+04	2.49E+03	2.11E+02
		Co-57	<8.76E+00	0.00E+00	8.76E+00
		Mo-99	<7.17E+02	0.00E+00	7.17E+02
		Ag-110M	<1.01E+01	0.00E+00	1.01E+01
		Sb-122	<1.15E+02	0.00E+00	1.15E+02
		Sb-125	<4.79E+01	0.00E+00	4.79E+01

Sample Point 067 [ INDICATOR - SSE @ 4.34 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374817	3/30/2015 - 3/30/2015	Mn-54	<5.48E+01	0.00E+00	5.48E+01
		Co-58	<3.45E+01	0.00E+00	3.45E+01
		Fe-59	<6.75E+01	0.00E+00	6.75E+01
		Co-60	<3.44E+01	0.00E+00	3.44E+01
		Zn-65	<7.28E+01	0.00E+00	7.28E+01
		Zr-95	<9.61E+01	0.00E+00	9.61E+01
		Nb-95	<4.73E+01	0.00E+00	4.73E+01
		I-131	<8.61E+01	0.00E+00	8.61E+01
		Cs-134	<8.94E+01	0.00E+00	8.94E+01
		Cs-137	<4.77E+01	0.00E+00	4.77E+01
		Be-7	<3.90E+02	0.00E+00	3.90E+02
		K-40	9.94E+03	1.09E+03	6.02E+02
		Co-57	<4.02E+01	0.00E+00	4.02E+01
		Mo-99	<3.87E+03	0.00E+00	3.87E+03
		Ag-110M	<4.24E+01	0.00E+00	4.24E+01
		Sb-122	<8.10E+02	0.00E+00	8.10E+02
		Sb-125	<9.83E+01	0.00E+00	9.83E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390117	9/21/2015 - 9/21/2015	Mn-54	<1.20E+01	0.00E+00	1.20E+01
		Co-58	<9.45E+00	0.00E+00	9.45E+00
		Fe-59	<2.05E+01	0.00E+00	2.05E+01
		Co-60	<9.23E+00	0.00E+00	9.23E+00
		Zn-65	<3.05E+01	0.00E+00	3.05E+01
		Zr-95	<2.08E+01	0.00E+00	2.08E+01
		Nb-95	<1.13E+01	0.00E+00	1.13E+01
		I-131	<1.75E+01	0.00E+00	1.75E+01
		Cs-134	<1.59E+01	0.00E+00	1.59E+01
		Cs-137	1.65E+01	1.04E+01	1.13E+01
		Be-7	6.40E+01	6.12E+01	9.94E+01
		K-40	1.30E+04	1.13E+03	1.56E+02
		Co-57	<8.32E+00	0.00E+00	8.32E+00
		Mo-99	<7.46E+02	0.00E+00	7.46E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SEDIMENT\_SHORE Concentration (Activity): pCi/kg

Sample Point 067 [ INDICATOR - SSE @ 4.34 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390117	9/21/2015 - 9/21/2015	Ag-110M	<8.58E+00	0.00E+00	8.58E+00
		Sb-122	<1.33E+02	0.00E+00	1.33E+02
		Sb-125	<2.33E+01	0.00E+00	2.33E+01

Sample Point 068 [ CONTROL - W @ 1.82 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
374818	3/30/2015 - 3/30/2015	Mn-54	<1.78E+01	0.00E+00	1.78E+01
		Co-58	<1.99E+01	0.00E+00	1.99E+01
		Fe-59	<4.76E+01	0.00E+00	4.76E+01
		Co-60	<1.84E+01	0.00E+00	1.84E+01
		Zn-65	<4.42E+01	0.00E+00	4.42E+01
		Zr-95	<3.30E+01	0.00E+00	3.30E+01
		Nb-95	<1.78E+01	0.00E+00	1.78E+01
		I-131	<5.12E+01	0.00E+00	5.12E+01
		Cs-134	<2.58E+01	0.00E+00	2.58E+01
		Cs-137	<2.28E+01	0.00E+00	2.28E+01
		Be-7	4.03E+02	1.55E+02	2.05E+02
		K-40	4.39E+03	5.96E+02	1.89E+02
		Co-57	<1.56E+01	0.00E+00	1.56E+01
		Mo-99	<3.96E+03	0.00E+00	3.96E+03
		Ag-110M	<1.86E+01	0.00E+00	1.86E+01
		Sb-122	<8.15E+02	0.00E+00	8.15E+02
		Sb-125	<4.04E+01	0.00E+00	4.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
390118	9/21/2015 - 9/21/2015	Mn-54	<1.37E+01	0.00E+00	1.37E+01
		Co-58	<1.36E+01	0.00E+00	1.36E+01
		Fe-59	<3.40E+01	0.00E+00	3.40E+01
		Co-60	<1.68E+01	0.00E+00	1.68E+01
		Zn-65	<2.76E+01	0.00E+00	2.76E+01
		Zr-95	<2.61E+01	0.00E+00	2.61E+01
		Nb-95	<1.78E+01	0.00E+00	1.78E+01
		I-131	<2.43E+01	0.00E+00	2.43E+01
		Cs-134	<1.95E+01	0.00E+00	1.95E+01
		Cs-137	<1.58E+01	0.00E+00	1.58E+01
		Be-7	5.58E+01	1.01E+02	1.71E+02
		K-40	5.47E+03	7.02E+02	3.06E+02
		Co-57	<1.15E+01	0.00E+00	1.15E+01
		Mo-99	<7.73E+02	0.00E+00	7.73E+02
		Ag-110M	<1.43E+01	0.00E+00	1.43E+01
		Sb-122	<1.29E+02	0.00E+00	1.29E+02
		Sb-125	<3.74E+01	0.00E+00	3.74E+01

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [ CONTROL - ENE @ 0.85 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365144	12/8/2014 - 1/5/2015	Mn-54	<2.74E+00	0.00E+00	2.74E+00
		Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<5.88E+00	0.00E+00	5.88E+00
		Co-60	<2.50E+00	0.00E+00	2.50E+00
		Zn-65	<4.70E+00	0.00E+00	4.70E+00
		Zr-95	<5.30E+00	0.00E+00	5.30E+00
		Nb-95	<3.80E+00	0.00E+00	3.80E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.95E+00	0.00E+00	2.95E+00
		Cs-137	<2.37E+00	0.00E+00	2.37E+00
		BaLa-140	<6.59E+00	0.00E+00	6.59E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	1.64E+02	3.42E+01	3.36E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367623	1/5/2015 - 2/2/2015	Mn-54	<2.97E+00	0.00E+00	2.97E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<5.37E+00	0.00E+00	5.37E+00
		Co-60	<2.82E+00	0.00E+00	2.82E+00
		Zn-65	<5.19E+00	0.00E+00	5.19E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [ CONTROL - ENE @ 0.85 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367623	1/5/2015 - 2/2/2015	Zr-95	<6.15E+00	0.00E+00	6.15E+00
		Nb-95	<3.12E+00	0.00E+00	3.12E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<1.83E+00	0.00E+00	1.83E+00
		Cs-137	<2.29E+00	0.00E+00	2.29E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<2.44E+01	0.00E+00	2.44E+01
		K-40	3.17E+01	1.68E+01	2.26E+01
		371618	2/2/2015 - 3/2/2015	Mn-54	<3.51E+00
Co-58	<2.93E+00			0.00E+00	2.93E+00
Fe-59	<8.57E+00			0.00E+00	8.57E+00
Co-60	<3.28E+00			0.00E+00	3.28E+00
Zn-65	<6.74E+00			0.00E+00	6.74E+00
Zr-95	<5.95E+00			0.00E+00	5.95E+00
Nb-95	<3.15E+00			0.00E+00	3.15E+00
I-131	<1.10E+01			0.00E+00	1.10E+01
Cs-134	<3.67E+00			0.00E+00	3.67E+00
Cs-137	<3.01E+00			0.00E+00	3.01E+00
BaLa-140	<9.05E+00			0.00E+00	9.05E+00
Be-7	<2.63E+01			0.00E+00	2.63E+01
K-40	2.92E+01			2.43E+01	3.59E+01
372377	12/8/2014 - 3/2/2015			H3SW	<-5.9E+00
374620	3/2/2015 - 3/30/2015	Mn-54	<2.35E+00	0.00E+00	2.35E+00
		Co-58	<2.08E+00	0.00E+00	2.08E+00
		Fe-59	<4.67E+00	0.00E+00	4.67E+00
		Co-60	<3.04E+00	0.00E+00	3.04E+00
		Zn-65	<5.60E+00	0.00E+00	5.60E+00
		Zr-95	<4.95E+00	0.00E+00	4.95E+00
		Nb-95	<3.14E+00	0.00E+00	3.14E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.78E+00	0.00E+00	2.78E+00
		Cs-137	<3.02E+00	0.00E+00	3.02E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<2.25E+01	0.00E+00	2.25E+01
		K-40	6.39E+01	2.99E+01	3.92E+01
		377554	3/30/2015 - 4/27/2015	Mn-54	<4.03E+00
Co-58	<3.42E+00			0.00E+00	3.42E+00
Fe-59	<9.33E+00			0.00E+00	9.33E+00
Co-60	<3.14E+00			0.00E+00	3.14E+00
Zn-65	<5.76E+00			0.00E+00	5.76E+00
Zr-95	<7.70E+00			0.00E+00	7.70E+00
Nb-95	<3.17E+00			0.00E+00	3.17E+00
I-131	<1.16E+01			0.00E+00	1.16E+01
Cs-134	<3.42E+00			0.00E+00	3.42E+00
Cs-137	<2.83E+00			0.00E+00	2.83E+00
BaLa-140	<6.77E+00			0.00E+00	6.77E+00
Be-7	<3.40E+01			0.00E+00	3.40E+01
K-40	3.16E+01			2.73E+01	4.05E+01
379520	4/27/2015 - 5/26/2015			Mn-54	<2.16E+00
		Co-58	<2.41E+00	0.00E+00	2.41E+00
		Fe-59	<5.93E+00	0.00E+00	5.93E+00
		Co-60	<1.46E+00	0.00E+00	1.46E+00
		Zn-65	<5.88E+00	0.00E+00	5.88E+00
		Zr-95	<4.92E+00	0.00E+00	4.92E+00
		Nb-95	<3.01E+00	0.00E+00	3.01E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<2.86E+00	0.00E+00	2.86E+00
		Cs-137	<2.50E+00	0.00E+00	2.50E+00
		BaLa-140	<5.89E+00	0.00E+00	5.89E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [ CONTROL - ENE @ 0.85 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
379520	4/27/2015 - 5/26/2015	Be-7	<2.27E+01	0.00E+00	2.27E+01
		K-40	6.24E+01	2.58E+01	3.23E+01
380275	3/2/2015 - 5/26/2015	H3SW	<-1.6E+01	0.00E+00	1.89E+02
381334	6/22/2015 - 6/22/2015	Mn-54	<2.78E+00	0.00E+00	2.78E+00
		Co-58	<3.65E+00	0.00E+00	3.65E+00
		Fe-59	<5.55E+00	0.00E+00	5.55E+00
		Co-60	<3.08E+00	0.00E+00	3.08E+00
		Zn-65	<6.86E+00	0.00E+00	6.86E+00
		Zr-95	<4.85E+00	0.00E+00	4.85E+00
		Nb-95	<3.94E+00	0.00E+00	3.94E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.92E+00	0.00E+00	2.92E+00
		Cs-137	<3.41E+00	0.00E+00	3.41E+00
		BaLa-140	<9.09E+00	0.00E+00	9.09E+00
		Be-7	<3.06E+01	0.00E+00	3.06E+01
		K-40	5.36E+01	3.22E+01	4.39E+01
383580	6/29/2015 - 7/20/2015	Mn-54	<2.87E+00	0.00E+00	2.87E+00
		Co-58	<3.67E+00	0.00E+00	3.67E+00
		Fe-59	<8.64E+00	0.00E+00	8.64E+00
		Co-60	<4.53E+00	0.00E+00	4.53E+00
		Zn-65	<8.29E+00	0.00E+00	8.29E+00
		Zr-95	<6.92E+00	0.00E+00	6.92E+00
		Nb-95	<5.57E+00	0.00E+00	5.57E+00
		I-131	<8.86E+00	0.00E+00	8.86E+00
		Cs-134	<4.62E+00	0.00E+00	4.62E+00
		Cs-137	<3.04E+00	0.00E+00	3.04E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<3.30E+01	0.00E+00	3.30E+01
		K-40	<7.16E+01	0.00E+00	7.16E+01
385989	7/20/2015 - 8/17/2015	Mn-54	<2.13E+00	0.00E+00	2.13E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<5.23E+00	0.00E+00	5.23E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<4.27E+00	0.00E+00	4.27E+00
		Zr-95	<5.59E+00	0.00E+00	5.59E+00
		Nb-95	<3.03E+00	0.00E+00	3.03E+00
		I-131	<8.62E+00	0.00E+00	8.62E+00
		Cs-134	<2.73E+00	0.00E+00	2.73E+00
		Cs-137	<2.58E+00	0.00E+00	2.58E+00
		BaLa-140	<6.34E+00	0.00E+00	6.34E+00
		Be-7	<2.54E+01	0.00E+00	2.54E+01
		K-40	2.48E+01	1.95E+01	2.85E+01
388128	5/26/2015 - 8/17/2015	H3SW	<6.33E+01	0.00E+00	1.96E+02
389469	8/17/2015 - 9/14/2015	Mn-54	<2.77E+00	0.00E+00	2.77E+00
		Co-58	<2.86E+00	0.00E+00	2.86E+00
		Fe-59	<3.82E+00	0.00E+00	3.82E+00
		Co-60	<4.77E+00	0.00E+00	4.77E+00
		Zn-65	<5.21E+00	0.00E+00	5.21E+00
		Zr-95	<6.43E+00	0.00E+00	6.43E+00
		Nb-95	<3.45E+00	0.00E+00	3.45E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.26E+00	0.00E+00	3.26E+00
		Cs-137	<4.05E+00	0.00E+00	4.05E+00
		BaLa-140	<8.79E+00	0.00E+00	8.79E+00
		Be-7	<4.12E+01	0.00E+00	4.12E+01
		K-40	3.44E+01	2.90E+01	4.30E+01





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [ CONTROL - ENE @ 0.85 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
392291	9/14/2015 - 10/12/2015	Mn-54	<2.21E+00	0.00E+00	2.21E+00
		Co-58	<2.60E+00	0.00E+00	2.60E+00
		Fe-59	<5.72E+00	0.00E+00	5.72E+00
		Co-60	<2.00E+00	0.00E+00	2.00E+00
		Zn-65	<4.63E+00	0.00E+00	4.63E+00
		Zr-95	<4.35E+00	0.00E+00	4.35E+00
		Nb-95	<2.39E+00	0.00E+00	2.39E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.44E+00	0.00E+00	2.44E+00
		Cs-137	<2.28E+00	0.00E+00	2.28E+00
		BaLa-140	<5.23E+00	0.00E+00	5.23E+00
		Be-7	<1.99E+01	0.00E+00	1.99E+01
		K-40	5.72E+01	2.27E+01	2.78E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
395364	10/12/2015 - 11/9/2015	Mn-54	<2.50E+00	0.00E+00	2.50E+00
		Co-58	<2.27E+00	0.00E+00	2.27E+00
		Fe-59	<5.01E+00	0.00E+00	5.01E+00
		Co-60	<2.31E+00	0.00E+00	2.31E+00
		Zn-65	<4.46E+00	0.00E+00	4.46E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<3.05E+00	0.00E+00	3.05E+00
		I-131	<9.91E+00	0.00E+00	9.91E+00
		Cs-134	<2.18E+00	0.00E+00	2.18E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	4.21E+01	2.42E+01	3.40E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397103	8/17/2015 - 12/7/2015	H3SW	<-3.4E+01	0.00E+00	1.98E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
397250	11/9/2015 - 12/7/2015	Mn-54	<2.73E+00	0.00E+00	2.73E+00
		Co-58	<2.74E+00	0.00E+00	2.74E+00
		Fe-59	<5.42E+00	0.00E+00	5.42E+00
		Co-60	<3.43E+00	0.00E+00	3.43E+00
		Zn-65	<5.04E+00	0.00E+00	5.04E+00
		Zr-95	<4.46E+00	0.00E+00	4.46E+00
		Nb-95	<3.42E+00	0.00E+00	3.42E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.12E+00	0.00E+00	3.12E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<8.92E+00	0.00E+00	8.92E+00
		Be-7	<2.71E+01	0.00E+00	2.71E+01
		K-40	6.00E+01	2.44E+01	2.44E+01

## Sample Point 063.1 [ INDICATOR - E @ 0.79 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
365145	12/8/2014 - 1/5/2015	Mn-54	<2.26E+00	0.00E+00	2.26E+00
		Co-58	<2.07E+00	0.00E+00	2.07E+00
		Fe-59	<5.31E+00	0.00E+00	5.31E+00
		Co-60	<2.45E+00	0.00E+00	2.45E+00
		Zn-65	<4.67E+00	0.00E+00	4.67E+00
		Zr-95	<4.43E+00	0.00E+00	4.43E+00
		Nb-95	<3.49E+00	0.00E+00	3.49E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.74E+00	0.00E+00	2.74E+00
		Cs-137	<2.31E+00	0.00E+00	2.31E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<2.05E+01	0.00E+00	2.05E+01
		K-40	2.99E+01	1.48E+01	2.61E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367624	1/5/2015 - 2/2/2015	Mn-54	<3.17E+00	0.00E+00	3.17E+00
		Co-58	<3.32E+00	0.00E+00	3.32E+00
		Fe-59	<5.59E+00	0.00E+00	5.59E+00
		Co-60	<2.78E+00	0.00E+00	2.78E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [ INDICATOR - E @ 0.79 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
367624	1/5/2015 - 2/2/2015	Zn-65	<5.88E+00	0.00E+00	5.88E+00
		Zr-95	<3.45E+00	0.00E+00	3.45E+00
		Nb-95	<3.68E+00	0.00E+00	3.68E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.36E+00	0.00E+00	3.36E+00
		Cs-137	<2.88E+00	0.00E+00	2.88E+00
		BaLa-140	<9.32E+00	0.00E+00	9.32E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	2.00E+01	2.18E+01	3.49E+01
		371619	2/2/2015 - 3/2/2015	Mn-54	<1.73E+00
Co-58	<2.89E+00			0.00E+00	2.89E+00
Fe-59	<6.02E+00			0.00E+00	6.02E+00
Co-60	<3.01E+00			0.00E+00	3.01E+00
Zn-65	<6.54E+00			0.00E+00	6.54E+00
Zr-95	<4.74E+00			0.00E+00	4.74E+00
Nb-95	<3.59E+00			0.00E+00	3.59E+00
I-131	<1.05E+01			0.00E+00	1.05E+01
Cs-134	<3.00E+00			0.00E+00	3.00E+00
Cs-137	<2.89E+00			0.00E+00	2.89E+00
BaLa-140	<7.26E+00			0.00E+00	7.26E+00
Be-7	<2.56E+01			0.00E+00	2.56E+01
K-40	3.16E+01			2.53E+01	3.87E+01
372378	12/8/2014 - 3/2/2015	H3SW	7.37E+03	2.40E+02	1.84E+02
374621	3/2/2015 - 3/30/2015	Mn-54	<2.79E+00	0.00E+00	2.79E+00
		Co-58	<3.51E+00	0.00E+00	3.51E+00
		Fe-59	<8.37E+00	0.00E+00	8.37E+00
		Co-60	<4.23E+00	0.00E+00	4.23E+00
		Zn-65	<7.50E+00	0.00E+00	7.50E+00
		Zr-95	<5.51E+00	0.00E+00	5.51E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.49E+00	0.00E+00	3.49E+00
		Cs-137	<3.26E+00	0.00E+00	3.26E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.52E+01	0.00E+00	3.52E+01
		K-40	1.07E+02	4.18E+01	5.03E+01
377555	3/30/2015 - 4/27/2015	Mn-54	<2.31E+00	0.00E+00	2.31E+00
		Co-58	<3.47E+00	0.00E+00	3.47E+00
		Fe-59	<6.36E+00	0.00E+00	6.36E+00
		Co-60	<2.25E+00	0.00E+00	2.25E+00
		Zn-65	<5.72E+00	0.00E+00	5.72E+00
		Zr-95	<5.35E+00	0.00E+00	5.35E+00
		Nb-95	<3.74E+00	0.00E+00	3.74E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<3.47E+00	0.00E+00	3.47E+00
		Cs-137	<2.56E+00	0.00E+00	2.56E+00
		BaLa-140	<6.20E+00	0.00E+00	6.20E+00
		Be-7	<2.18E+01	0.00E+00	2.18E+01
		K-40	2.62E+01	2.38E+01	3.68E+01
379521	4/27/2015 - 5/26/2015	Mn-54	<2.87E+00	0.00E+00	2.87E+00
		Co-58	<3.41E+00	0.00E+00	3.41E+00
		Fe-59	<5.88E+00	0.00E+00	5.88E+00
		Co-60	<2.56E+00	0.00E+00	2.56E+00
		Zn-65	<6.02E+00	0.00E+00	6.02E+00
		Zr-95	<4.87E+00	0.00E+00	4.87E+00
		Nb-95	<3.51E+00	0.00E+00	3.51E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.84E+00	0.00E+00	3.84E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [ INDICATOR - E @ 0.79 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
379521	4/27/2015 - 5/26/2015	BaLa-140	<7.40E+00	0.00E+00	7.40E+00
		Be-7	<2.49E+01	0.00E+00	2.49E+01
		K-40	2.97E+01	1.91E+01	2.40E+01
380276	3/2/2015 - 5/26/2015	H3SW	4.46E+03	1.99E+02	1.88E+02
381335	5/26/2015 - 6/22/2015	Mn-54	<3.67E+00	0.00E+00	3.67E+00
		Co-58	<3.58E+00	0.00E+00	3.58E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<2.42E+00	0.00E+00	2.42E+00
		Zn-65	<7.93E+00	0.00E+00	7.93E+00
		Zr-95	<6.34E+00	0.00E+00	6.34E+00
		Nb-95	<5.36E+00	0.00E+00	5.36E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.55E+00	0.00E+00	3.55E+00
		Cs-137	<3.10E+00	0.00E+00	3.10E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<3.47E+01	0.00E+00	3.47E+01
		K-40	<5.43E+01	0.00E+00	5.43E+01
383581	6/22/2015 - 7/20/2015	Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<3.71E+00	0.00E+00	3.71E+00
		Fe-59	<5.28E+00	0.00E+00	5.28E+00
		Co-60	<1.80E+00	0.00E+00	1.80E+00
		Zn-65	<7.50E+00	0.00E+00	7.50E+00
		Zr-95	<7.29E+00	0.00E+00	7.29E+00
		Nb-95	<5.34E+00	0.00E+00	5.34E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.93E+00	0.00E+00	3.93E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<6.74E+00	0.00E+00	6.74E+00
		Be-7	<3.07E+01	0.00E+00	3.07E+01
		K-40	<6.05E+01	0.00E+00	6.05E+01
385990	7/20/2015 - 8/17/2015	Mn-54	<2.53E+00	0.00E+00	2.53E+00
		Co-58	<2.50E+00	0.00E+00	2.50E+00
		Fe-59	<5.06E+00	0.00E+00	5.06E+00
		Co-60	<2.24E+00	0.00E+00	2.24E+00
		Zn-65	<5.51E+00	0.00E+00	5.51E+00
		Zr-95	<5.54E+00	0.00E+00	5.54E+00
		Nb-95	<4.19E+00	0.00E+00	4.19E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.72E+00	0.00E+00	2.72E+00
		Cs-137	<2.23E+00	0.00E+00	2.23E+00
		BaLa-140	<6.62E+00	0.00E+00	6.62E+00
		Be-7	<2.15E+01	0.00E+00	2.15E+01
		K-40	5.49E+01	2.62E+01	3.36E+01
388129	5/26/2015 - 8/17/2015	H3SW	9.19E+03	2.70E+02	2.00E+02
389470	8/17/2015 - 9/14/2015	Mn-54	<2.42E+00	0.00E+00	2.42E+00
		Co-58	<4.06E+00	0.00E+00	4.06E+00
		Fe-59	<3.93E+00	0.00E+00	3.93E+00
		Co-60	<3.82E+00	0.00E+00	3.82E+00
		Zn-65	<7.02E+00	0.00E+00	7.02E+00
		Zr-95	<6.30E+00	0.00E+00	6.30E+00
		Nb-95	<5.06E+00	0.00E+00	5.06E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.89E+00	0.00E+00	3.89E+00
		Cs-137	<4.27E+00	0.00E+00	4.27E+00
		BaLa-140	<6.97E+00	0.00E+00	6.97E+00
		Be-7	<3.54E+01	0.00E+00	3.54E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [ INDICATOR - E @ 0.79 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
389470	8/17/2015 - 9/14/2015	K-40	<5.87E+01	0.00E+00	5.87E+01
392292	9/14/2015 - 10/12/2015	Mn-54	<1.70E+00	0.00E+00	1.70E+00
		Co-58	<1.77E+00	0.00E+00	1.77E+00
		Fe-59	<3.66E+00	0.00E+00	3.66E+00
		Co-60	<1.86E+00	0.00E+00	1.86E+00
		Zn-65	<3.81E+00	0.00E+00	3.81E+00
		Zr-95	<3.42E+00	0.00E+00	3.42E+00
		Nb-95	<2.37E+00	0.00E+00	2.37E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<1.83E+00	0.00E+00	1.83E+00
		Cs-137	<2.06E+00	0.00E+00	2.06E+00
		BaLa-140	<4.70E+00	0.00E+00	4.70E+00
		Be-7	<2.08E+01	0.00E+00	2.08E+01
		K-40	2.82E+01	1.62E+01	2.26E+01
395365	10/12/2015 - 11/9/2015	Mn-54	<3.49E+00	0.00E+00	3.49E+00
		Co-58	<3.14E+00	0.00E+00	3.14E+00
		Fe-59	<5.72E+00	0.00E+00	5.72E+00
		Co-60	<3.23E+00	0.00E+00	3.23E+00
		Zn-65	<6.49E+00	0.00E+00	6.49E+00
		Zr-95	<6.87E+00	0.00E+00	6.87E+00
		Nb-95	<3.97E+00	0.00E+00	3.97E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<3.89E+00	0.00E+00	3.89E+00
		BaLa-140	<9.86E+00	0.00E+00	9.86E+00
		Be-7	<3.41E+01	0.00E+00	3.41E+01
		K-40	2.13E+01	2.57E+01	4.14E+01
397104	8/17/2015 - 12/7/2015	H3SW	9.90E+03	2.78E+02	2.00E+02
397251	11/9/2015 - 12/7/2015	Mn-54	<3.07E+00	0.00E+00	3.07E+00
		Co-58	<3.33E+00	0.00E+00	3.33E+00
		Fe-59	<6.90E+00	0.00E+00	6.90E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<6.19E+00	0.00E+00	6.19E+00
		Zr-95	<5.30E+00	0.00E+00	5.30E+00
		Nb-95	<3.57E+00	0.00E+00	3.57E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.06E+00	0.00E+00	3.06E+00
		Cs-137	<2.60E+00	0.00E+00	2.60E+00
		BaLa-140	<7.56E+00	0.00E+00	7.56E+00
		Be-7	<2.10E+01	0.00E+00	2.10E+01
		K-40	<3.97E+01	0.00E+00	3.97E+01

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 020 [ INDICATOR - N @ 0.16 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371374	12/17/2014 - 3/17/2015	mR/Std Qtr	19.68
380025	3/17/2015 - 6/16/2015	mR/Std Qtr	20.77
387973	6/16/2015 - 9/15/2015	mR/Std Qtr	18.63
396948	9/15/2015 - 12/15/2015	mR/Std Qtr	19.24

Sample Point 021 [ INDICATOR - NNE @ 0.25 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371375	12/17/2014 - 3/17/2015	mR/Std Qtr	15.58



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 021 [ INDICATOR - NNE @ 0.25 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
380026	3/17/2015 - 6/16/2015	mR/Std Qtr	15.73
387974	6/16/2015 - 9/15/2015	mR/Std Qtr	14.12
396949	9/15/2015 - 12/15/2015	mR/Std Qtr	14.30

Sample Point 022 [ INDICATOR - NE @ 0.53 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371376	12/17/2014 - 3/17/2015	mR/Std Qtr	23.76
380027	3/17/2015 - 6/16/2015	mR/Std Qtr	23.68
387975	6/16/2015 - 9/15/2015	mR/Std Qtr	21.89
396950	9/15/2015 - 12/15/2015	mR/Std Qtr	22.41

Sample Point 023 [ INDICATOR - ENE @ 0.93 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371377	12/17/2014 - 3/17/2015	mR/Std Qtr	24.29
380028	3/17/2015 - 6/16/2015	mR/Std Qtr	23.00
387976	6/16/2015 - 9/15/2015	mR/Std Qtr	22.38
396951	9/15/2015 - 12/15/2015	mR/Std Qtr	23.78

Sample Point 024 [ INDICATOR - E @ 0.81 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371378	12/17/2014 - 3/17/2015	mR/Std Qtr	28.55
380029	3/17/2015 - 6/16/2015	mR/Std Qtr	23.89
387977	6/16/2015 - 9/15/2015	mR/Std Qtr	23.64
396952	9/15/2015 - 12/15/2015	mR/Std Qtr	24.35

Sample Point 025 [ INDICATOR - ESE @ 0.42 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371379	12/17/2014 - 3/17/2015	mR/Std Qtr	21.53
380030	3/17/2015 - 6/16/2015	mR/Std Qtr	16.78
387978	6/16/2015 - 9/15/2015	mR/Std Qtr	17.67
396953	9/15/2015 - 12/15/2015	mR/Std Qtr	18.23

Sample Point 026 [ INDICATOR - SE @ 0.34 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371380	12/17/2014 - 3/17/2015	mR/Std Qtr	16.88
380031	3/17/2015 - 6/16/2015	mR/Std Qtr	18.68
387979	6/16/2015 - 9/15/2015	mR/Std Qtr	15.43



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 026 [ INDICATOR - SE @ 0.34 miles ]

TLD RING TLD\_INNER

Sample ID: 396954	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 16.45
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Sample Point 027 [ INDICATOR - SSE @ 0.49 miles ]

TLD RING TLD\_INNER

Sample ID: 371381	Sample Dates: 12/17/2014 - 3/17/2015	Nuclide mR/Std Qtr	Activity 21.44
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Sample ID: 380032	Sample Dates: 3/17/2015 - 6/16/2015	Nuclide mR/Std Qtr	Activity 19.51
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Sample ID: 387980	Sample Dates: 6/16/2015 - 9/15/2015	Nuclide mR/Std Qtr	Activity 18.46
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Sample ID: 396955	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 20.61
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Sample Point 028 [ INDICATOR - S @ 0.46 miles ]

TLD RING TLD\_INNER

Sample ID: 371382	Sample Dates: 12/17/2014 - 3/17/2015	Nuclide mR/Std Qtr	Activity 20.04
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Sample ID: 380033	Sample Dates: 3/17/2015 - 6/16/2015	Nuclide mR/Std Qtr	Activity 17.26
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Sample ID: 387981	Sample Dates: 6/16/2015 - 9/15/2015	Nuclide mR/Std Qtr	Activity 15.30
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Sample ID: 396956	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 19.03
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Sample Point 029 [ INDICATOR - SSW @ 0.56 miles ]

TLD RING TLD\_INNER

Sample ID: 371383	Sample Dates: 12/17/2014 - 3/17/2015	Nuclide mR/Std Qtr	Activity 19.01
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Sample ID: 380034	Sample Dates: 3/17/2015 - 6/16/2015	Nuclide mR/Std Qtr	Activity 16.25
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Sample ID: 387982	Sample Dates: 6/16/2015 - 9/15/2015	Nuclide mR/Std Qtr	Activity 15.05
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Sample ID: 396957	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 16.03
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Sample Point 030 [ INDICATOR - SW @ 0.42 miles ]

TLD RING TLD\_INNER

Sample ID: 371384	Sample Dates: 12/17/2014 - 3/17/2015	Nuclide mR/Std Qtr	Activity 19.80
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Sample ID: 380035	Sample Dates: 3/17/2015 - 6/16/2015	Nuclide mR/Std Qtr	Activity 17.65
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Sample ID: 387983	Sample Dates: 6/16/2015 - 9/15/2015	Nuclide mR/Std Qtr	Activity 17.15
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Sample ID: 396958	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 18.71
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Sample Point 031 [ INDICATOR - WSW @ 0.27 miles ]

TLD RING TLD\_INNER

Sample ID: 371385	Sample Dates: 12/17/2014 - 3/17/2015	Nuclide mR/Std Qtr	Activity 19.26
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Sample ID: 380036	Sample Dates: 3/17/2015 - 6/16/2015	Nuclide mR/Std Qtr	Activity 15.37
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Sample ID: 387984	Sample Dates: 6/16/2015 - 9/15/2015	Nuclide mR/Std Qtr	Activity 15.98
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Sample ID: 396959	Sample Dates: 9/15/2015 - 12/15/2015	Nuclide mR/Std Qtr	Activity 17.55
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# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 032 [ INDICATOR - WNW @ 0.19 miles ]

TLD RING TLD\_INNER

Sample ID	Sample Dates	Nuclide	Activity
371386	12/17/2014 - 3/17/2015	mR/Std Qtr	22.62
380037	3/17/2015 - 6/16/2015	mR/Std Qtr	18.60
387985	6/16/2015 - 9/15/2015	mR/Std Qtr	17.70
396960	9/15/2015 - 12/15/2015	mR/Std Qtr	20.01

Sample Point 033 [ INDICATOR - WNW @ 0.21 miles ]

TLD RING TLD\_INNER

Sample ID	Sample Dates	Nuclide	Activity
371387	12/17/2014 - 3/17/2015	mR/Std Qtr	18.31
380038	3/17/2015 - 6/16/2015	mR/Std Qtr	16.70
387986	6/16/2015 - 9/15/2015	mR/Std Qtr	15.21
396961	9/15/2015 - 12/15/2015	mR/Std Qtr	18.15

Sample Point 034 [ INDICATOR - NW @ 0.22 miles ]

TLD RING TLD\_INNER

Sample ID	Sample Dates	Nuclide	Activity
371388	12/17/2014 - 3/17/2015	mR/Std Qtr	20.09
380039	3/17/2015 - 6/16/2015	mR/Std Qtr	16.73
387987	6/16/2015 - 9/15/2015	mR/Std Qtr	17.27
396962	9/15/2015 - 12/15/2015	mR/Std Qtr	19.04

Sample Point 035 [ INDICATOR - NNW @ 0.17 miles ]

TLD RING TLD\_INNER

Sample ID	Sample Dates	Nuclide	Activity
371389	12/17/2014 - 3/17/2015	mR/Std Qtr	26.94
380040	3/17/2015 - 6/16/2015	mR/Std Qtr	24.62
387988	6/16/2015 - 9/15/2015	mR/Std Qtr	23.82
396963	9/15/2015 - 12/15/2015	mR/Std Qtr	24.19

Sample Point 036 [ INDICATOR - N @ 4.18 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371390	12/17/2014 - 3/17/2015	mR/Std Qtr	26.89
380041	3/17/2015 - 6/16/2015	mR/Std Qtr	23.26
387989	6/16/2015 - 9/15/2015	mR/Std Qtr	23.81
396964	9/15/2015 - 12/15/2015	mR/Std Qtr	22.90

Sample Point 037 [ INDICATOR - NNE @ 4.85 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371391	12/17/2014 - 3/17/2015	mR/Std Qtr	21.62
380042	3/17/2015 - 6/16/2015	mR/Std Qtr	18.00



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 037 [ INDICATOR - NNE @ 4.85 miles ]

TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
387990	6/16/2015 - 9/15/2015	mR/Std Qtr	20.34
396965	9/15/2015 - 12/15/2015	mR/Std Qtr	18.44

Sample Point 038 [ INDICATOR - NE @ 4.24 miles ] TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371392	12/17/2014 - 3/17/2015	mR/Std Qtr	23.40
380043	3/17/2015 - 6/16/2015	mR/Std Qtr	22.68
387991	6/16/2015 - 9/15/2015	mR/Std Qtr	23.69
396966	9/15/2015 - 12/15/2015	mR/Std Qtr	24.88

Sample Point 039 [ INDICATOR - ENE @ 4.02 miles ] TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371393	12/17/2014 - 3/17/2015	mR/Std Qtr	26.21
380044	3/17/2015 - 6/16/2015	mR/Std Qtr	25.68
387992	6/16/2015 - 9/15/2015	mR/Std Qtr	24.49
396967	9/15/2015 - 12/15/2015	mR/Std Qtr	26.66

Sample Point 040 [ INDICATOR - E @ 4.74 miles ] TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371394	12/17/2014 - 3/17/2015	mR/Std Qtr	30.34
380045	3/17/2015 - 6/16/2015	mR/Std Qtr	27.16
387993	6/16/2015 - 9/15/2015	mR/Std Qtr	24.40
396968	9/15/2015 - 12/15/2015	mR/Std Qtr	27.56

Sample Point 041 [ INDICATOR - ESE @ 4.25 miles ] TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371395	12/17/2014 - 3/17/2015	mR/Std Qtr	19.70
380046	3/17/2015 - 6/16/2015	mR/Std Qtr	16.01
387994	6/16/2015 - 9/15/2015	mR/Std Qtr	15.82
396969	9/15/2015 - 12/15/2015	mR/Std Qtr	19.11

Sample Point 042 [ INDICATOR - SE @ 4.93 miles ] TLD RING TLD\_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371396	12/17/2014 - 3/17/2015	mR/Std Qtr	29.27
380047	3/17/2015 - 6/16/2015	mR/Std Qtr	25.77
387995	6/16/2015 - 9/15/2015	mR/Std Qtr	25.00
396970	9/15/2015 - 12/15/2015	mR/Std Qtr	28.02





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 043 [ INDICATOR - SSE @ 4.09 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371397	12/17/2014 - 3/17/2015	mR/Std Qtr	25.87
380048	3/17/2015 - 6/16/2015	mR/Std Qtr	23.66
387996	6/16/2015 - 9/15/2015	mR/Std Qtr	25.80
396971	9/15/2015 - 12/15/2015	mR/Std Qtr	26.32

Sample Point 044 [ INDICATOR - S @ 3.96 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371398	12/17/2014 - 3/17/2015	mR/Std Qtr	20.71
380049	3/17/2015 - 6/16/2015	mR/Std Qtr	17.86
387997	6/16/2015 - 9/15/2015	mR/Std Qtr	17.37
396972	9/15/2015 - 12/15/2015	mR/Std Qtr	18.71

Sample Point 045 [ INDICATOR - SSW @ 4.78 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371399	12/17/2014 - 3/17/2015	mR/Std Qtr	18.56
380050	3/17/2015 - 6/16/2015	mR/Std Qtr	16.93
387998	6/16/2015 - 9/15/2015	mR/Std Qtr	16.46
396973	9/15/2015 - 12/15/2015	mR/Std Qtr	16.99

Sample Point 046 [ INDICATOR - SW @ 4.61 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371400	12/17/2014 - 3/17/2015	mR/Std Qtr	28.13
380051	3/17/2015 - 6/16/2015	mR/Std Qtr	22.27
387999	6/16/2015 - 9/15/2015	mR/Std Qtr	22.35
396974	9/15/2015 - 12/15/2015	mR/Std Qtr	23.81

Sample Point 047 [ INDICATOR - WSW @ 3.58 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371401	12/17/2014 - 3/17/2015	mR/Std Qtr	25.61
380052	3/17/2015 - 6/16/2015	mR/Std Qtr	22.66
388000	6/16/2015 - 9/15/2015	mR/Std Qtr	20.60
396975	9/15/2015 - 12/15/2015	mR/Std Qtr	22.95

Sample Point 048 [ INDICATOR - W @ 3.64 miles ]

TLD RING TLD\_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371402	12/17/2014 - 3/17/2015	mR/Std Qtr	31.27
380053	3/17/2015 - 6/16/2015	mR/Std Qtr	25.80



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 048 [ INDICATOR - W @ 3.64 miles ]

TLD RING TLD\_OUTER

Sample ID:	388001	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	23.24

Sample ID:	396976	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	24.85

Sample Point 049 [ INDICATOR - WNW @ 3.6 miles ] TLD RING TLD\_OUTER

Sample ID:	371403	Sample Dates:	12/17/2014 - 3/17/2015	Nuclide	Activity
				mR/Std Qtr	28.63

Sample ID:	380054	Sample Dates:	3/17/2015 - 6/16/2015	Nuclide	Activity
				mR/Std Qtr	21.70

Sample ID:	388002	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	22.89

Sample ID:	396977	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	21.93

Sample Point 050 [ INDICATOR - NW @ 3.53 miles ] TLD RING TLD\_OUTER

Sample ID:	371404	Sample Dates:	12/17/2014 - 3/17/2015	Nuclide	Activity
				mR/Std Qtr	19.38

Sample ID:	380055	Sample Dates:	3/17/2015 - 6/16/2015	Nuclide	Activity
				mR/Std Qtr	20.36

Sample ID:	388003	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	17.25

Sample ID:	396978	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	25.21

Sample Point 051 [ INDICATOR - NNW @ 4.64 miles ] TLD RING TLD\_OUTER

Sample ID:	371405	Sample Dates:	12/17/2014 - 3/17/2015	Nuclide	Activity
				mR/Std Qtr	25.63

Sample ID:	380056	Sample Dates:	3/17/2015 - 6/16/2015	Nuclide	Activity
				mR/Std Qtr	18.84

Sample ID:	388004	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	19.63

Sample ID:	396979	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	18.98

Sample Point 052 [ INDICATOR - ENE @ 12.4 miles ] TLD RING TLD\_SPEC

Sample ID:	371406	Sample Dates:	12/17/2014 - 3/17/2015	Nuclide	Activity
				mR/Std Qtr	28.99

Sample ID:	380057	Sample Dates:	3/17/2015 - 6/16/2015	Nuclide	Activity
				mR/Std Qtr	24.37

Sample ID:	388005	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	23.74

Sample ID:	396980	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	25.63

Sample Point 053 [ INDICATOR - E @ 11.7 miles ] TLD RING TLD\_SPEC

Sample ID:	371407	Sample Dates:	12/17/2014 - 3/17/2015	Nuclide	Activity
				mR/Std Qtr	29.86

Sample ID:	380058	Sample Dates:	3/17/2015 - 6/16/2015	Nuclide	Activity
				mR/Std Qtr	25.97

Sample ID:	388006	Sample Dates:	6/16/2015 - 9/15/2015	Nuclide	Activity
				mR/Std Qtr	23.46

Sample ID:	396981	Sample Dates:	9/15/2015 - 12/15/2015	Nuclide	Activity
				mR/Std Qtr	26.22



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 054 [ INDICATOR - ESE @ 8.6 miles ]

TLD RING TLD\_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371408	12/17/2014 - 3/17/2015	mR/Std Qtr	22.41
380059	3/17/2015 - 6/16/2015	mR/Std Qtr	18.52
388007	6/16/2015 - 9/15/2015	mR/Std Qtr	17.34
396982	9/15/2015 - 12/15/2015	mR/Std Qtr	18.52

Sample Point 055 [ INDICATOR - SSE @ 9.27 miles ]

TLD RING TLD\_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371409	12/17/2014 - 3/17/2015	mR/Std Qtr	19.83
380060	3/17/2015 - 6/16/2015	mR/Std Qtr	15.74
388008	6/16/2015 - 9/15/2015	mR/Std Qtr	16.81
396983	9/15/2015 - 12/15/2015	mR/Std Qtr	18.11

Sample Point 056 [ INDICATOR - SSW @ 7.3 miles ]

TLD RING TLD\_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371410	12/17/2014 - 3/17/2015	mR/Std Qtr	35.15
380061	3/17/2015 - 6/16/2015	mR/Std Qtr	22.75
388009	6/16/2015 - 9/15/2015	mR/Std Qtr	23.48
396984	9/15/2015 - 12/15/2015	mR/Std Qtr	25.60

Sample Point 057 [ INDICATOR - SW @ 8.42 miles ]

TLD RING TLD\_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371411	12/17/2014 - 3/17/2015	mR/Std Qtr	25.33
380062	3/17/2015 - 6/16/2015	mR/Std Qtr	24.02
388010	6/16/2015 - 9/15/2015	mR/Std Qtr	22.98
396985	9/15/2015 - 12/15/2015	mR/Std Qtr	24.71

Sample Point 058 [ CONTROL - WSW @ 9.39 miles ]

TLD RING TLD\_CTRL

Sample ID	Sample Dates	Nuclide	Activity
371412	12/17/2014 - 3/17/2015	mR/Std Qtr	32.96
380063	3/17/2015 - 6/16/2015	mR/Std Qtr	32.90
388011	6/16/2015 - 9/15/2015	mR/Std Qtr	29.88
396986	9/15/2015 - 12/15/2015	mR/Std Qtr	31.10

Sample Point 059 [ INDICATOR - NW @ 9.2 miles ]

TLD RING TLD\_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371413	12/17/2014 - 3/17/2015	mR/Std Qtr	26.46
380064	3/17/2015 - 6/16/2015	mR/Std Qtr	24.30



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 059 [ INDICATOR - NW @ 9.2 miles ]

TLD RING TLD\_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
388012	6/16/2015 - 9/15/2015	mR/Std Qtr	25.85
396987	9/15/2015 - 12/15/2015	mR/Std Qtr	25.31

Sample Point 076 [ INDICATOR - W @ 0.19 miles ]

TLD RING TLD\_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371414	12/17/2014 - 3/17/2015	mR/Std Qtr	23.36
380065	3/17/2015 - 6/16/2015	mR/Std Qtr	21.97
388013	6/16/2015 - 9/15/2015	mR/Std Qtr	23.73
396988	9/15/2015 - 12/15/2015	mR/Std Qtr	24.39

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

TLD RING TLD\_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
371415	12/17/2014 - 3/17/2015	mR/Std Qtr	25.30
380066	3/17/2015 - 6/16/2015	mR/Std Qtr	21.89
388014	6/16/2015 - 9/15/2015	mR/Std Qtr	22.23
396989	9/15/2015 - 12/15/2015	mR/Std Qtr	23.60

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
365140	1/5/2015 - 1/5/2015	MIXEDBLV	Mn-54	<2.44E+01	0.00E+00	2.44E+01
			Co-58	<3.16E+01	0.00E+00	3.16E+01
			Fe-59	<5.56E+01	0.00E+00	5.56E+01
			Co-60	<3.76E+01	0.00E+00	3.76E+01
			Zn-65	<7.77E+01	0.00E+00	7.77E+01
			Zr-95	<5.82E+01	0.00E+00	5.82E+01
			Nb-95	<3.44E+01	0.00E+00	3.44E+01
			I-131	<2.49E+01	0.00E+00	2.49E+01
			Cs-134	<3.56E+01	0.00E+00	3.56E+01
			Cs-137	<3.54E+01	0.00E+00	3.54E+01
			BaLa-140	<2.32E+01	0.00E+00	2.32E+01
			Be-7	3.94E+03	5.70E+02	3.91E+02
			K-40	3.07E+03	6.38E+02	4.37E+02
			367619	2/2/2015 - 2/2/2015	MIXEDBLV	Mn-54
Co-58	<3.15E+01	0.00E+00				3.15E+01
Fe-59	<8.23E+01	0.00E+00				8.23E+01
Co-60	<4.38E+01	0.00E+00				4.38E+01
Zn-65	<9.87E+01	0.00E+00				9.87E+01
Zr-95	<5.17E+01	0.00E+00				5.17E+01
Nb-95	<3.35E+01	0.00E+00				3.35E+01
I-131	<2.81E+01	0.00E+00				2.81E+01
Cs-134	<4.37E+01	0.00E+00				4.37E+01
Cs-137	<4.65E+01	0.00E+00				4.65E+01
BaLa-140	<5.81E+01	0.00E+00				5.81E+01
Be-7	3.42E+03	5.73E+02				4.67E+02
K-40	<1.56E+03	0.00E+00				1.56E+03
371614	3/2/2015 - 3/2/2015	MIXEDBLV				Mn-54
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<4.81E+01	0.00E+00	4.81E+01
			Co-60	<2.21E+01	0.00E+00	2.21E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
371614	3/2/2015 - 3/2/2015	MIXEDBLV	Zn-65	<6.72E+01	0.00E+00	6.72E+01
			Zr-95	<2.91E+01	0.00E+00	2.91E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<2.59E+01	0.00E+00	2.59E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<2.96E+01	0.00E+00	2.96E+01
			Be-7	1.97E+03	3.52E+02	2.75E+02
			K-40	3.81E+03	6.66E+02	3.40E+02
			375007	4/6/2015 - 4/6/2015	MIXEDBLV	Mn-54
Co-58	<1.80E+01	0.00E+00				1.80E+01
Fe-59	<3.87E+01	0.00E+00				3.87E+01
Co-60	<2.48E+01	0.00E+00				2.48E+01
Zn-65	<4.31E+01	0.00E+00				4.31E+01
Zr-95	<4.17E+01	0.00E+00				4.17E+01
Nb-95	<2.02E+01	0.00E+00				2.02E+01
I-131	<1.85E+01	0.00E+00				1.85E+01
Cs-134	<3.03E+01	0.00E+00				3.03E+01
Cs-137	<2.34E+01	0.00E+00				2.34E+01
BaLa-140	<6.33E+00	0.00E+00				6.33E+00
Be-7	2.92E+03	4.27E+02				3.04E+02
K-40	4.90E+03	7.49E+02				4.34E+02
378128	5/4/2015 - 5/4/2015	MIXEDBLV				Mn-54
			Co-58	<1.49E+01	0.00E+00	1.49E+01
			Fe-59	<4.25E+01	0.00E+00	4.25E+01
			Co-60	<2.02E+01	0.00E+00	2.02E+01
			Zn-65	<4.48E+01	0.00E+00	4.48E+01
			Zr-95	<3.58E+01	0.00E+00	3.58E+01
			Nb-95	<1.65E+01	0.00E+00	1.65E+01
			I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<2.14E+01	0.00E+00	2.14E+01
			Cs-137	<1.44E+01	0.00E+00	1.44E+01
			BaLa-140	<1.59E+01	0.00E+00	1.59E+01
			Be-7	5.39E+02	1.67E+02	1.92E+02
			K-40	3.63E+03	5.65E+02	1.83E+02
			380267	6/1/2015 - 6/1/2015	MIXEDBLV	Mn-54
Co-58	<1.53E+01	0.00E+00				1.53E+01
Fe-59	<5.00E+01	0.00E+00				5.00E+01
Co-60	<2.58E+01	0.00E+00				2.58E+01
Zn-65	<3.59E+01	0.00E+00				3.59E+01
Zr-95	<2.65E+01	0.00E+00				2.65E+01
Nb-95	<2.12E+01	0.00E+00				2.12E+01
I-131	<1.81E+01	0.00E+00				1.81E+01
Cs-134	<1.87E+01	0.00E+00				1.87E+01
Cs-137	<1.72E+01	0.00E+00				1.72E+01
BaLa-140	<2.36E+01	0.00E+00				2.36E+01
Be-7	3.56E+02	1.61E+02				2.19E+02
K-40	3.12E+03	5.44E+02				2.71E+02
382229	7/6/2015 - 7/6/2015	MIXEDBLV				Mn-54
			Co-58	<2.13E+01	0.00E+00	2.13E+01
			Fe-59	<4.18E+01	0.00E+00	4.18E+01
			Co-60	<2.54E+01	0.00E+00	2.54E+01
			Zn-65	<6.49E+01	0.00E+00	6.49E+01
			Zr-95	<4.13E+01	0.00E+00	4.13E+01
			Nb-95	<1.97E+01	0.00E+00	1.97E+01
			I-131	<2.20E+01	0.00E+00	2.20E+01
			Cs-134	<2.61E+01	0.00E+00	2.61E+01
			Cs-137	<2.09E+01	0.00E+00	2.09E+01
			BaLa-140	<3.03E+01	0.00E+00	3.03E+01
			Be-7	7.41E+02	2.00E+02	2.08E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
382229	7/6/2015 - 7/6/2015		K-40	2.24E+03	5.16E+02	4.88E+02
384722	8/3/2015 - 8/3/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<1.89E+01	0.00E+00	1.89E+01
			Co-58	<2.01E+01	0.00E+00	2.01E+01
			Fe-59	<2.83E+01	0.00E+00	2.83E+01
			Co-60	<2.54E+01	0.00E+00	2.54E+01
			Zn-65	<4.41E+01	0.00E+00	4.41E+01
			Zr-95	<3.48E+01	0.00E+00	3.48E+01
			Nb-95	<2.00E+01	0.00E+00	2.00E+01
			I-131	<1.57E+01	0.00E+00	1.57E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	<1.68E+01	0.00E+00	1.68E+01
			BaLa-140	<1.82E+01	0.00E+00	1.82E+01
			Be-7	4.59E+02	1.67E+02	2.15E+02
			K-40	2.41E+03	4.60E+02	3.07E+02
388827	9/8/2015 - 9/8/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.43E+01	0.00E+00	2.43E+01
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<5.48E+01	0.00E+00	5.48E+01
			Co-60	<3.15E+01	0.00E+00	3.15E+01
			Zn-65	<6.15E+01	0.00E+00	6.15E+01
			Zr-95	<4.76E+01	0.00E+00	4.76E+01
			Nb-95	<2.75E+01	0.00E+00	2.75E+01
			I-131	<2.02E+01	0.00E+00	2.02E+01
			Cs-134	<4.69E+01	0.00E+00	4.69E+01
			Cs-137	<3.08E+01	0.00E+00	3.08E+01
			BaLa-140	<3.76E+01	0.00E+00	3.76E+01
			Be-7	1.09E+03	2.70E+02	2.73E+02
			K-40	2.99E+03	5.88E+02	2.93E+02
392017	10/5/2015 - 10/5/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.62E+01	0.00E+00	2.62E+01
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<3.38E+01	0.00E+00	3.38E+01
			Co-60	<2.13E+01	0.00E+00	2.13E+01
			Zn-65	<5.52E+01	0.00E+00	5.52E+01
			Zr-95	<3.77E+01	0.00E+00	3.77E+01
			Nb-95	<1.98E+01	0.00E+00	1.98E+01
			I-131	<2.18E+01	0.00E+00	2.18E+01
			Cs-134	<3.24E+01	0.00E+00	3.24E+01
			Cs-137	<2.29E+01	0.00E+00	2.29E+01
			BaLa-140	<6.17E+00	0.00E+00	6.17E+00
			Be-7	1.99E+03	3.17E+02	2.18E+02
			K-40	3.10E+03	5.26E+02	2.11E+02
394910	11/2/2015 - 11/2/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.62E+01	0.00E+00	2.62E+01
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<3.74E+01	0.00E+00	3.74E+01
			Co-60	<2.61E+01	0.00E+00	2.61E+01
			Zn-65	<4.53E+01	0.00E+00	4.53E+01
			Zr-95	<4.74E+01	0.00E+00	4.74E+01
			Nb-95	<2.18E+01	0.00E+00	2.18E+01
			I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<2.47E+01	0.00E+00	2.47E+01
			Cs-137	<2.22E+01	0.00E+00	2.22E+01
			BaLa-140	<1.74E+01	0.00E+00	1.74E+01
			Be-7	2.58E+03	3.88E+02	2.48E+02
			K-40	1.67E+03	3.99E+02	2.62E+02
397246	12/7/2015 - 12/7/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.36E+01	0.00E+00	2.36E+01
			Co-58	<2.27E+01	0.00E+00	2.27E+01
			Fe-59	<3.45E+01	0.00E+00	3.45E+01
			Co-60	<2.40E+01	0.00E+00	2.40E+01
			Zn-65	<5.56E+01	0.00E+00	5.56E+01
			Zr-95	<2.60E+01	0.00E+00	2.60E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [ INDICATOR - SW @ 1 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
397246	12/7/2015 - 12/7/2015		Nb-95	<2.20E+01	0.00E+00	2.20E+01
			I-131	<1.77E+01	0.00E+00	1.77E+01
			Cs-134	<2.11E+01	0.00E+00	2.11E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<1.81E+01	0.00E+00	1.81E+01
			Be-7	4.15E+03	5.33E+02	2.74E+02
			K-40	3.00E+03	5.52E+02	3.04E+02

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
365141	1/5/2015 - 1/5/2015		Mn-54	<3.31E+01	0.00E+00	3.31E+01
			Co-58	<2.47E+01	0.00E+00	2.47E+01
			Fe-59	<4.79E+01	0.00E+00	4.79E+01
			Co-60	<4.27E+01	0.00E+00	4.27E+01
			Zn-65	<8.08E+01	0.00E+00	8.08E+01
			Zr-95	<5.70E+01	0.00E+00	5.70E+01
			Nb-95	<3.71E+01	0.00E+00	3.71E+01
			I-131	<3.62E+01	0.00E+00	3.62E+01
			Cs-134	<3.58E+01	0.00E+00	3.58E+01
			Cs-137	<3.53E+01	0.00E+00	3.53E+01
			BaLa-140	<4.07E+01	0.00E+00	4.07E+01
			Be-7	2.99E+03	4.92E+02	3.73E+02
			K-40	3.57E+03	7.93E+02	7.57E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
367620	2/2/2015 - 2/2/2015		Mn-54	<3.27E+01	0.00E+00	3.27E+01
			Co-58	<3.57E+01	0.00E+00	3.57E+01
			Fe-59	<8.50E+01	0.00E+00	8.50E+01
			Co-60	<3.61E+01	0.00E+00	3.61E+01
			Zn-65	<7.85E+01	0.00E+00	7.85E+01
			Zr-95	<5.01E+01	0.00E+00	5.01E+01
			Nb-95	<3.61E+01	0.00E+00	3.61E+01
			I-131	<3.29E+01	0.00E+00	3.29E+01
			Cs-134	<4.36E+01	0.00E+00	4.36E+01
			Cs-137	<3.89E+01	0.00E+00	3.89E+01
			BaLa-140	<4.30E+01	0.00E+00	4.30E+01
			Be-7	1.04E+03	3.35E+02	4.06E+02
			K-40	2.81E+03	7.09E+02	6.27E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
371615	3/2/2015 - 3/2/2015		Mn-54	<2.23E+01	0.00E+00	2.23E+01
			Co-58	<2.01E+01	0.00E+00	2.01E+01
			Fe-59	<4.01E+01	0.00E+00	4.01E+01
			Co-60	<2.10E+01	0.00E+00	2.10E+01
			Zn-65	<5.11E+01	0.00E+00	5.11E+01
			Zr-95	<3.48E+01	0.00E+00	3.48E+01
			Nb-95	<2.36E+01	0.00E+00	2.36E+01
			I-131	<2.34E+01	0.00E+00	2.34E+01
			Cs-134	<3.21E+01	0.00E+00	3.21E+01
			Cs-137	<2.61E+01	0.00E+00	2.61E+01
			BaLa-140	<3.70E+01	0.00E+00	3.70E+01
			Be-7	2.59E+03	3.96E+02	2.40E+02
			K-40	3.27E+03	6.48E+02	5.57E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
375008	4/6/2015 - 4/6/2015		Mn-54	<2.19E+01	0.00E+00	2.19E+01
			Co-58	<1.70E+01	0.00E+00	1.70E+01
			Fe-59	<3.51E+01	0.00E+00	3.51E+01
			Co-60	<1.60E+01	0.00E+00	1.60E+01
			Zn-65	<3.12E+01	0.00E+00	3.12E+01
			Zr-95	<2.95E+01	0.00E+00	2.95E+01
			Nb-95	<2.12E+01	0.00E+00	2.12E+01
			I-131	<1.47E+01	0.00E+00	1.47E+01
			Cs-134	<2.24E+01	0.00E+00	2.24E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<1.46E+01	0.00E+00	1.46E+01
			Be-7	7.51E+02	1.87E+02	1.93E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
375008	4/6/2015 - 4/6/2015		K-40	2.33E+03	4.34E+02	2.12E+02
378129	5/4/2015 - 5/4/2015		Mn-54	<2.28E+01	0.00E+00	2.28E+01
			Co-58	<2.29E+01	0.00E+00	2.29E+01
			Fe-59	<2.80E+01	0.00E+00	2.80E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<5.53E+01	0.00E+00	5.53E+01
			Zr-95	<4.58E+01	0.00E+00	4.58E+01
			Nb-95	<2.33E+01	0.00E+00	2.33E+01
			I-131	<1.95E+01	0.00E+00	1.95E+01
			Cs-134	<2.45E+01	0.00E+00	2.45E+01
			Cs-137	<2.11E+01	0.00E+00	2.11E+01
			BaLa-140	<2.47E+01	0.00E+00	2.47E+01
			Be-7	6.44E+02	1.99E+02	2.25E+02
			K-40	4.17E+03	6.71E+02	2.10E+02
380268	6/1/2015 - 6/1/2015		Mn-54	<3.21E+01	0.00E+00	3.21E+01
			Co-58	<2.64E+01	0.00E+00	2.64E+01
			Fe-59	<4.31E+01	0.00E+00	4.31E+01
			Co-60	<1.91E+01	0.00E+00	1.91E+01
			Zn-65	<7.14E+01	0.00E+00	7.14E+01
			Zr-95	<5.29E+01	0.00E+00	5.29E+01
			Nb-95	<2.38E+01	0.00E+00	2.38E+01
			I-131	<2.92E+01	0.00E+00	2.92E+01
			Cs-134	<3.16E+01	0.00E+00	3.16E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<9.00E+00	0.00E+00	9.00E+00
			Be-7	<2.87E+02	0.00E+00	2.87E+02
			K-40	3.90E+03	7.63E+02	5.14E+02
382230	7/6/2015 - 7/6/2015		Mn-54	<2.09E+01	0.00E+00	2.09E+01
			Co-58	<2.87E+01	0.00E+00	2.87E+01
			Fe-59	<3.65E+01	0.00E+00	3.65E+01
			Co-60	<3.05E+01	0.00E+00	3.05E+01
			Zn-65	<6.63E+01	0.00E+00	6.63E+01
			Zr-95	<4.96E+01	0.00E+00	4.96E+01
			Nb-95	<2.76E+01	0.00E+00	2.76E+01
			I-131	<2.67E+01	0.00E+00	2.67E+01
			Cs-134	<3.40E+01	0.00E+00	3.40E+01
			Cs-137	<3.05E+01	0.00E+00	3.05E+01
			BaLa-140	<3.49E+01	0.00E+00	3.49E+01
			Be-7	1.67E+03	3.62E+02	3.51E+02
			K-40	2.30E+03	5.31E+02	2.45E+02
384723	8/3/2015 - 8/3/2015		Mn-54	<2.43E+01	0.00E+00	2.43E+01
			Co-58	<2.92E+01	0.00E+00	2.92E+01
			Fe-59	<6.28E+01	0.00E+00	6.28E+01
			Co-60	<3.80E+01	0.00E+00	3.80E+01
			Zn-65	<7.83E+01	0.00E+00	7.83E+01
			Zr-95	<4.78E+01	0.00E+00	4.78E+01
			Nb-95	<2.32E+01	0.00E+00	2.32E+01
			I-131	<3.00E+01	0.00E+00	3.00E+01
			Cs-134	<4.44E+01	0.00E+00	4.44E+01
			Cs-137	<3.14E+01	0.00E+00	3.14E+01
			BaLa-140	<4.88E+01	0.00E+00	4.88E+01
			Be-7	1.24E+03	3.20E+02	3.30E+02
			K-40	4.09E+03	8.21E+02	6.52E+02
388828	9/8/2015 - 9/8/2015		Mn-54	<2.66E+01	0.00E+00	2.66E+01
			Co-58	<3.42E+01	0.00E+00	3.42E+01
			Fe-59	<6.68E+01	0.00E+00	6.68E+01
			Co-60	<3.66E+01	0.00E+00	3.66E+01
			Zn-65	<5.91E+01	0.00E+00	5.91E+01
			Zr-95	<5.30E+01	0.00E+00	5.30E+01





# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 079 [ INDICATOR - NE @ 0.56 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
388828	9/8/2015 - 9/8/2015	MIXEDBLV	Nb-95	<3.51E+01	0.00E+00	3.51E+01
			I-131	<2.87E+01	0.00E+00	2.87E+01
			Cs-134	<3.75E+01	0.00E+00	3.75E+01
			Cs-137	<3.23E+01	0.00E+00	3.23E+01
			BaLa-140	<4.38E+01	0.00E+00	4.38E+01
			Be-7	1.92E+03	3.95E+02	3.65E+02
			K-40	2.99E+03	6.54E+02	4.58E+02
			392018	10/5/2015 - 10/5/2015	MIXEDBLV	Mn-54
Co-58	<2.70E+01	0.00E+00				2.70E+01
Fe-59	<5.75E+01	0.00E+00				5.75E+01
Co-60	<2.97E+01	0.00E+00				2.97E+01
Zn-65	<7.67E+01	0.00E+00				7.67E+01
Zr-95	<5.53E+01	0.00E+00				5.53E+01
Nb-95	<2.64E+01	0.00E+00				2.64E+01
I-131	<3.05E+01	0.00E+00				3.05E+01
Cs-134	<3.72E+01	0.00E+00				3.72E+01
Cs-137	<3.93E+01	0.00E+00				3.93E+01
BaLa-140	<2.84E+01	0.00E+00				2.84E+01
Be-7	2.98E+03	4.91E+02				3.17E+02
K-40	3.09E+03	6.83E+02				4.90E+02
394911	11/2/2015 - 11/2/2015	MIXEDBLV				Mn-54
			Co-58	<3.55E+01	0.00E+00	3.55E+01
			Fe-59	<6.21E+01	0.00E+00	6.21E+01
			Co-60	<4.45E+01	0.00E+00	4.45E+01
			Zn-65	<6.57E+01	0.00E+00	6.57E+01
			Zr-95	<5.72E+01	0.00E+00	5.72E+01
			Nb-95	<3.30E+01	0.00E+00	3.30E+01
			I-131	<2.94E+01	0.00E+00	2.94E+01
			Cs-134	<3.60E+01	0.00E+00	3.60E+01
			Cs-137	<3.81E+01	0.00E+00	3.81E+01
			BaLa-140	<4.81E+01	0.00E+00	4.81E+01
			Be-7	1.61E+03	3.89E+02	4.28E+02
			K-40	1.72E+03	4.50E+02	7.26E+01
			397247	12/7/2015 - 12/7/2015	MIXEDBLV	Mn-54
Co-58	<2.21E+01	0.00E+00				2.21E+01
Fe-59	<4.11E+01	0.00E+00				4.11E+01
Co-60	<2.24E+01	0.00E+00				2.24E+01
Zn-65	<5.15E+01	0.00E+00				5.15E+01
Zr-95	<3.10E+01	0.00E+00				3.10E+01
Nb-95	<1.62E+01	0.00E+00				1.62E+01
I-131	<1.97E+01	0.00E+00				1.97E+01
Cs-134	<2.78E+01	0.00E+00				2.78E+01
Cs-137	<2.40E+01	0.00E+00				2.40E+01
BaLa-140	<2.30E+01	0.00E+00				2.30E+01
Be-7	3.91E+03	5.15E+02				2.82E+02
K-40	3.39E+03	5.86E+02				2.30E+02

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
365142	1/5/2015 - 1/5/2015	MIXEDBLV	Mn-54	<2.98E+01	0.00E+00	2.98E+01
			Co-58	<3.21E+01	0.00E+00	3.21E+01
			Fe-59	<6.78E+01	0.00E+00	6.78E+01
			Co-60	<4.52E+01	0.00E+00	4.52E+01
			Zn-65	<9.97E+01	0.00E+00	9.97E+01
			Zr-95	<5.94E+01	0.00E+00	5.94E+01
			Nb-95	<3.62E+01	0.00E+00	3.62E+01
			I-131	<2.47E+01	0.00E+00	2.47E+01
			Cs-134	<4.51E+01	0.00E+00	4.51E+01
			Cs-137	<4.15E+01	0.00E+00	4.15E+01
			BaLa-140	<9.03E+00	0.00E+00	9.03E+00
			Be-7	1.14E+03	3.16E+02	3.63E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
365142	1/5/2015 - 1/5/2015		K-40	3.41E+03	7.28E+02	6.13E+02
367621	2/2/2015 - 2/2/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<3.14E+01	0.00E+00	3.14E+01
			Co-58	<2.62E+01	0.00E+00	2.62E+01
			Fe-59	<5.30E+01	0.00E+00	5.30E+01
			Co-60	<3.65E+01	0.00E+00	3.65E+01
			Zn-65	<5.54E+01	0.00E+00	5.54E+01
			Zr-95	<4.99E+01	0.00E+00	4.99E+01
			Nb-95	<2.65E+01	0.00E+00	2.65E+01
			I-131	<2.83E+01	0.00E+00	2.83E+01
			Cs-134	<2.46E+01	0.00E+00	2.46E+01
			Cs-137	<3.45E+01	0.00E+00	3.45E+01
			BaLa-140	<4.10E+01	0.00E+00	4.10E+01
			Be-7	2.69E+02	2.45E+02	3.91E+02
			K-40	4.19E+03	7.42E+02	3.03E+02
371616	3/2/2015 - 3/2/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<1.86E+01	0.00E+00	1.86E+01
			Co-58	<1.72E+01	0.00E+00	1.72E+01
			Fe-59	<3.95E+01	0.00E+00	3.95E+01
			Co-60	<1.41E+01	0.00E+00	1.41E+01
			Zn-65	<4.39E+01	0.00E+00	4.39E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<1.92E+01	0.00E+00	1.92E+01
			I-131	<2.26E+01	0.00E+00	2.26E+01
			Cs-134	<3.14E+01	0.00E+00	3.14E+01
			Cs-137	<2.48E+01	0.00E+00	2.48E+01
			BaLa-140	<3.11E+01	0.00E+00	3.11E+01
			Be-7	5.11E+02	1.88E+02	2.35E+02
			K-40	3.17E+03	5.86E+02	3.38E+02
375009	4/6/2015 - 4/6/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<1.67E+01	0.00E+00	1.67E+01
			Co-58	<1.85E+01	0.00E+00	1.85E+01
			Fe-59	<3.81E+01	0.00E+00	3.81E+01
			Co-60	<2.28E+01	0.00E+00	2.28E+01
			Zn-65	<3.70E+01	0.00E+00	3.70E+01
			Zr-95	<2.31E+01	0.00E+00	2.31E+01
			Nb-95	<1.30E+01	0.00E+00	1.30E+01
			I-131	<1.83E+01	0.00E+00	1.83E+01
			Cs-134	<2.27E+01	0.00E+00	2.27E+01
			Cs-137	<1.80E+01	0.00E+00	1.80E+01
			BaLa-140	<1.60E+01	0.00E+00	1.60E+01
			Be-7	5.77E+02	1.64E+02	1.68E+02
			K-40	3.84E+03	5.87E+02	4.40E+01
378130	5/4/2015 - 5/4/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.50E+01	0.00E+00	2.50E+01
			Co-58	<2.32E+01	0.00E+00	2.32E+01
			Fe-59	<4.62E+01	0.00E+00	4.62E+01
			Co-60	<2.33E+01	0.00E+00	2.33E+01
			Zn-65	<4.44E+01	0.00E+00	4.44E+01
			Zr-95	<3.85E+01	0.00E+00	3.85E+01
			Nb-95	<1.71E+01	0.00E+00	1.71E+01
			I-131	<2.23E+01	0.00E+00	2.23E+01
			Cs-134	<2.99E+01	0.00E+00	2.99E+01
			Cs-137	<2.66E+01	0.00E+00	2.66E+01
			BaLa-140	<2.93E+01	0.00E+00	2.93E+01
			Be-7	5.63E+02	2.00E+02	2.48E+02
			K-40	3.13E+03	5.78E+02	3.05E+02
380269	6/1/2015 - 6/1/2015		Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<1.79E+01	0.00E+00	1.79E+01
			Fe-59	<4.85E+01	0.00E+00	4.85E+01
			Co-60	<2.35E+01	0.00E+00	2.35E+01
			Zn-65	<5.04E+01	0.00E+00	5.04E+01
			Zr-95	<2.56E+01	0.00E+00	2.56E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
380269	6/1/2015 - 6/1/2015	MIXEDBLV	Nb-95	<1.72E+01	0.00E+00	1.72E+01
			I-131	<1.86E+01	0.00E+00	1.86E+01
			Cs-134	<1.85E+01	0.00E+00	1.85E+01
			Cs-137	<2.22E+01	0.00E+00	2.22E+01
			BaLa-140	<1.99E+01	0.00E+00	1.99E+01
			Be-7	<2.18E+02	0.00E+00	2.18E+02
			K-40	3.88E+03	6.00E+02	4.53E+01
382231	7/6/2015 - 7/6/2015	MIXEDBLV	Mn-54	<3.68E+01	0.00E+00	3.68E+01
			Co-58	<2.71E+01	0.00E+00	2.71E+01
			Fe-59	<6.20E+01	0.00E+00	6.20E+01
			Co-60	<3.31E+01	0.00E+00	3.31E+01
			Zn-65	<4.07E+01	0.00E+00	4.07E+01
			Zr-95	<4.94E+01	0.00E+00	4.94E+01
			Nb-95	<2.75E+01	0.00E+00	2.75E+01
			I-131	<2.52E+01	0.00E+00	2.52E+01
			Cs-134	<2.91E+01	0.00E+00	2.91E+01
			Cs-137	<2.91E+01	0.00E+00	2.91E+01
			BaLa-140	<3.92E+01	0.00E+00	3.92E+01
			Be-7	9.36E+02	2.73E+02	3.02E+02
			K-40	6.83E+03	1.09E+03	7.45E+02
384724	8/3/2015 - 8/3/2015	MIXEDBLV	Mn-54	<2.18E+01	0.00E+00	2.18E+01
			Co-58	<1.92E+01	0.00E+00	1.92E+01
			Fe-59	<4.93E+01	0.00E+00	4.93E+01
			Co-60	<1.57E+01	0.00E+00	1.57E+01
			Zn-65	<5.12E+01	0.00E+00	5.12E+01
			Zr-95	<3.75E+01	0.00E+00	3.75E+01
			Nb-95	<1.85E+01	0.00E+00	1.85E+01
			I-131	<2.24E+01	0.00E+00	2.24E+01
			Cs-134	<1.95E+01	0.00E+00	1.95E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<1.61E+01	0.00E+00	1.61E+01
			Be-7	1.31E+03	2.43E+02	1.65E+02
			K-40	5.12E+03	7.42E+02	3.34E+02
388829	9/8/2015 - 9/8/2015	MIXEDBLV	Mn-54	<1.52E+01	0.00E+00	1.52E+01
			Co-58	<1.92E+01	0.00E+00	1.92E+01
			Fe-59	<5.29E+01	0.00E+00	5.29E+01
			Co-60	<3.19E+01	0.00E+00	3.19E+01
			Zn-65	<3.54E+01	0.00E+00	3.54E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<2.23E+01	0.00E+00	2.23E+01
			I-131	<2.07E+01	0.00E+00	2.07E+01
			Cs-134	<2.85E+01	0.00E+00	2.85E+01
			Cs-137	<2.76E+01	0.00E+00	2.76E+01
			BaLa-140	<5.91E+00	0.00E+00	5.91E+00
			Be-7	1.31E+03	2.60E+02	2.33E+02
			K-40	4.79E+03	7.16E+02	3.33E+02
392019	10/5/2015 - 10/5/2015	MIXEDBLV	Mn-54	<1.75E+01	0.00E+00	1.75E+01
			Co-58	<2.44E+01	0.00E+00	2.44E+01
			Fe-59	<4.05E+01	0.00E+00	4.05E+01
			Co-60	<2.55E+01	0.00E+00	2.55E+01
			Zn-65	<5.24E+01	0.00E+00	5.24E+01
			Zr-95	<3.81E+01	0.00E+00	3.81E+01
			Nb-95	<2.02E+01	0.00E+00	2.02E+01
			I-131	<2.21E+01	0.00E+00	2.21E+01
			Cs-134	<2.14E+01	0.00E+00	2.14E+01
			Cs-137	<2.92E+01	0.00E+00	2.92E+01
			BaLa-140	<3.58E+01	0.00E+00	3.58E+01
			Be-7	1.48E+03	3.01E+02	2.56E+02
			K-40	1.87E+03	4.99E+02	4.78E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 081 [ CONTROL - SE @ 9.33 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
394912	11/2/2015 - 11/2/2015		Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<1.79E+01	0.00E+00	1.79E+01
			Fe-59	<4.09E+01	0.00E+00	4.09E+01
			Co-60	<2.11E+01	0.00E+00	2.11E+01
			Zn-65	<5.10E+01	0.00E+00	5.10E+01
			Zr-95	<2.91E+01	0.00E+00	2.91E+01
			Nb-95	<2.08E+01	0.00E+00	2.08E+01
			I-131	<1.58E+01	0.00E+00	1.58E+01
			Cs-134	<3.21E+01	0.00E+00	3.21E+01
			Cs-137	<2.27E+01	0.00E+00	2.27E+01
			BaLa-140	<2.43E+01	0.00E+00	2.43E+01
			Be-7	2.71E+03	3.99E+02	2.71E+02
			K-40	3.48E+03	6.06E+02	3.73E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
397248	12/7/2015 - 12/7/2015		Mn-54	<2.27E+01	0.00E+00	2.27E+01
			Co-58	<2.69E+01	0.00E+00	2.69E+01
			Fe-59	<5.38E+01	0.00E+00	5.38E+01
			Co-60	<2.48E+01	0.00E+00	2.48E+01
			Zn-65	<5.23E+01	0.00E+00	5.23E+01
			Zr-95	<3.92E+01	0.00E+00	3.92E+01
			Nb-95	<2.69E+01	0.00E+00	2.69E+01
			I-131	<1.98E+01	0.00E+00	1.98E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	<2.62E+01	0.00E+00	2.62E+01
			BaLa-140	<2.75E+01	0.00E+00	2.75E+01
			Be-7	1.98E+03	3.44E+02	2.66E+02
			K-40	4.04E+03	6.62E+02	3.15E+02

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
365143	1/5/2015 - 1/5/2015		Mn-54	<2.90E+01	0.00E+00	2.90E+01
			Co-58	<2.39E+01	0.00E+00	2.39E+01
			Fe-59	<6.85E+01	0.00E+00	6.85E+01
			Co-60	<3.88E+01	0.00E+00	3.88E+01
			Zn-65	<6.08E+01	0.00E+00	6.08E+01
			Zr-95	<3.62E+01	0.00E+00	3.62E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<3.01E+01	0.00E+00	3.01E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<3.30E+01	0.00E+00	3.30E+01
			BaLa-140	<3.74E+01	0.00E+00	3.74E+01
			Be-7	5.30E+03	7.02E+02	4.65E+02
			K-40	2.66E+03	5.90E+02	4.35E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
367622	2/2/2015 - 2/2/2015		Mn-54	<5.17E+00	0.00E+00	5.17E+00
			Co-58	<6.01E+00	0.00E+00	6.01E+00
			Fe-59	<1.36E+01	0.00E+00	1.36E+01
			Co-60	<4.61E+00	0.00E+00	4.61E+00
			Zn-65	<1.19E+01	0.00E+00	1.19E+01
			Zr-95	<1.13E+01	0.00E+00	1.13E+01
			Nb-95	<9.81E+00	0.00E+00	9.81E+00
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<6.06E+00	0.00E+00	6.06E+00
			Cs-137	<5.30E+00	0.00E+00	5.30E+00
			BaLa-140	<2.03E+01	0.00E+00	2.03E+01
			Be-7	4.67E+03	4.30E+02	1.01E+02
			K-40	2.94E+03	2.79E+02	7.80E+01

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
371617	3/2/2015 - 3/2/2015		Mn-54	<1.89E+01	0.00E+00	1.89E+01
			Co-58	<1.77E+01	0.00E+00	1.77E+01
			Fe-59	<4.32E+01	0.00E+00	4.32E+01
			Co-60	<1.71E+01	0.00E+00	1.71E+01
			Zn-65	<4.51E+01	0.00E+00	4.51E+01
			Zr-95	<4.10E+01	0.00E+00	4.10E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
371617	3/2/2015 - 3/2/2015	MIXEDBLV	Nb-95	<1.94E+01	0.00E+00	1.94E+01
			I-131	<2.25E+01	0.00E+00	2.25E+01
			Cs-134	<2.56E+01	0.00E+00	2.56E+01
			Cs-137	<2.21E+01	0.00E+00	2.21E+01
			BaLa-140	<2.68E+01	0.00E+00	2.68E+01
			Be-7	3.34E+03	4.68E+02	2.67E+02
			K-40	2.78E+03	5.42E+02	3.61E+02
			375010	4/6/2015 - 4/6/2015	MIXEDBLV	Mn-54
Co-58	<1.33E+01	0.00E+00				1.33E+01
Fe-59	<4.41E+01	0.00E+00				4.41E+01
Co-60	<1.94E+01	0.00E+00				1.94E+01
Zn-65	<3.97E+01	0.00E+00				3.97E+01
Zr-95	<3.84E+01	0.00E+00				3.84E+01
Nb-95	<2.02E+01	0.00E+00				2.02E+01
I-131	<2.14E+01	0.00E+00				2.14E+01
Cs-134	<1.97E+01	0.00E+00				1.97E+01
Cs-137	<1.78E+01	0.00E+00				1.78E+01
BaLa-140	<2.59E+01	0.00E+00				2.59E+01
Be-7	3.39E+03	4.41E+02				2.17E+02
K-40	2.75E+03	5.06E+02				3.11E+02
378131	5/4/2015 - 5/4/2015	MIXEDBLV				Mn-54
			Co-58	<1.81E+01	0.00E+00	1.81E+01
			Fe-59	<4.19E+01	0.00E+00	4.19E+01
			Co-60	<1.38E+01	0.00E+00	1.38E+01
			Zn-65	<4.28E+01	0.00E+00	4.28E+01
			Zr-95	<4.05E+01	0.00E+00	4.05E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<1.86E+01	0.00E+00	1.86E+01
			Cs-134	<2.80E+01	0.00E+00	2.80E+01
			Cs-137	<2.16E+01	0.00E+00	2.16E+01
			BaLa-140	<1.93E+01	0.00E+00	1.93E+01
			Be-7	4.72E+02	1.59E+02	1.72E+02
			K-40	3.29E+03	5.83E+02	2.81E+02
			380270	6/1/2015 - 6/1/2015	MIXEDBLV	Mn-54
Co-58	<2.10E+01	0.00E+00				2.10E+01
Fe-59	<3.65E+01	0.00E+00				3.65E+01
Co-60	<2.03E+01	0.00E+00				2.03E+01
Zn-65	<5.38E+01	0.00E+00				5.38E+01
Zr-95	<4.69E+01	0.00E+00				4.69E+01
Nb-95	<2.89E+01	0.00E+00				2.89E+01
I-131	<2.29E+01	0.00E+00				2.29E+01
Cs-134	<3.07E+01	0.00E+00				3.07E+01
Cs-137	<2.94E+01	0.00E+00				2.94E+01
BaLa-140	<2.06E+01	0.00E+00				2.06E+01
Be-7	8.58E+01	1.57E+02				2.66E+02
K-40	2.76E+03	5.59E+02				2.70E+02
382232	7/6/2015 - 7/6/2015	MIXEDBLV				Mn-54
			Co-58	<2.04E+01	0.00E+00	2.04E+01
			Fe-59	<4.06E+01	0.00E+00	4.06E+01
			Co-60	<2.16E+01	0.00E+00	2.16E+01
			Zn-65	<5.53E+01	0.00E+00	5.53E+01
			Zr-95	<3.92E+01	0.00E+00	3.92E+01
			Nb-95	<2.28E+01	0.00E+00	2.28E+01
			I-131	<1.87E+01	0.00E+00	1.87E+01
			Cs-134	<1.85E+01	0.00E+00	1.85E+01
			Cs-137	<2.75E+01	0.00E+00	2.75E+01
			BaLa-140	<2.78E+01	0.00E+00	2.78E+01
			Be-7	4.34E+02	1.81E+02	2.34E+02
			K-40	1.66E+03	4.42E+02	3.98E+02



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
384725	8/3/2015 - 8/3/2015	MIXEDBLV	Mn-54	<3.34E+01	0.00E+00	3.34E+01
			Co-58	<3.15E+01	0.00E+00	3.15E+01
			Fe-59	<5.44E+01	0.00E+00	5.44E+01
			Co-60	<2.72E+01	0.00E+00	2.72E+01
			Zn-65	<6.67E+01	0.00E+00	6.67E+01
			Zr-95	<6.69E+01	0.00E+00	6.69E+01
			Nb-95	<3.33E+01	0.00E+00	3.33E+01
			I-131	<3.01E+01	0.00E+00	3.01E+01
			Cs-134	<4.38E+01	0.00E+00	4.38E+01
			Cs-137	<3.65E+01	0.00E+00	3.65E+01
			BaLa-140	<2.76E+01	0.00E+00	2.76E+01
			Be-7	8.07E+02	3.02E+02	3.88E+02
			K-40	2.10E+03	5.70E+02	4.38E+02
			388830	9/8/2015 - 9/8/2015	MIXEDBLV	Mn-54
Co-58	<2.49E+01	0.00E+00				2.49E+01
Fe-59	<6.71E+01	0.00E+00				6.71E+01
Co-60	<4.29E+01	0.00E+00				4.29E+01
Zn-65	<7.47E+01	0.00E+00				7.47E+01
Zr-95	<6.76E+01	0.00E+00				6.76E+01
Nb-95	<2.84E+01	0.00E+00				2.84E+01
I-131	<3.02E+01	0.00E+00				3.02E+01
Cs-134	<3.56E+01	0.00E+00				3.56E+01
Cs-137	<3.19E+01	0.00E+00				3.19E+01
BaLa-140	<2.98E+01	0.00E+00				2.98E+01
Be-7	7.97E+02	2.98E+02				3.75E+02
K-40	2.93E+03	6.44E+02				8.26E+01
392020	10/5/2015 - 10/5/2015	MIXEDBLV				Mn-54
			Co-58	<2.84E+01	0.00E+00	2.84E+01
			Fe-59	<4.23E+01	0.00E+00	4.23E+01
			Co-60	<2.97E+01	0.00E+00	2.97E+01
			Zn-65	<5.67E+01	0.00E+00	5.67E+01
			Zr-95	<4.44E+01	0.00E+00	4.44E+01
			Nb-95	<2.51E+01	0.00E+00	2.51E+01
			I-131	<2.57E+01	0.00E+00	2.57E+01
			Cs-134	<3.17E+01	0.00E+00	3.17E+01
			Cs-137	<2.60E+01	0.00E+00	2.60E+01
			BaLa-140	<3.74E+01	0.00E+00	3.74E+01
			Be-7	3.59E+03	5.23E+02	2.73E+02
			K-40	2.35E+03	5.52E+02	3.71E+02
			394913	11/2/2015 - 11/2/2015	MIXEDBLV	Mn-54
Co-58	<3.10E+01	0.00E+00				3.10E+01
Fe-59	<6.07E+01	0.00E+00				6.07E+01
Co-60	<3.93E+01	0.00E+00				3.93E+01
Zn-65	<5.46E+01	0.00E+00				5.46E+01
Zr-95	<4.63E+01	0.00E+00				4.63E+01
Nb-95	<2.57E+01	0.00E+00				2.57E+01
I-131	<2.69E+01	0.00E+00				2.69E+01
Cs-134	<3.51E+01	0.00E+00				3.51E+01
Cs-137	<3.40E+01	0.00E+00				3.40E+01
BaLa-140	<2.47E+01	0.00E+00				2.47E+01
Be-7	2.45E+03	6.81E+02				2.36E+02
K-40	1.64E+03	5.15E+02				5.24E+02
397249	12/7/2015 - 12/7/2015	MIXEDBLV				Mn-54
			Co-58	<2.21E+01	0.00E+00	2.21E+01
			Fe-59	<4.51E+01	0.00E+00	4.51E+01
			Co-60	<2.88E+01	0.00E+00	2.88E+01
			Zn-65	<5.01E+01	0.00E+00	5.01E+01
			Zr-95	<4.03E+01	0.00E+00	4.03E+01
			Nb-95	<2.15E+01	0.00E+00	2.15E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01



# OCONEE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [ INDICATOR - NNE @ 2.58 miles ]

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Sample ID: 397249	Sample Dates: 12/7/2015 - 12/7/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Cs-134	<2.35E+01	0.00E+00	2.35E+01
			Cs-137	<1.91E+01	0.00E+00	1.91E+01
			BaLa-140	<2.56E+01	0.00E+00	2.56E+01
			Be-7	6.27E+03	7.53E+02	2.93E+02
			K-40	3.30E+03	6.22E+02	3.91E+02

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**APPENDIX F**

**ERRATA TO  
PREVIOUS REPORTS**



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# APPENDIX F

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## ERRATA TO THE 2015 AREOR

Oconee AREOR: 2014

During a 2016 NOS audit, it was identified that some samples processed by the EnRad laboratory using the APEX gamma counting geometry 025LMAR310 did not have the required a priori lower limit of detection (LLD) calculated prior to performing the analysis. An a posteriori LLD was calculated and all required lower limit of detections were satisfied (NCR # 02021801). The failure to calculate the a priori LLD prior to performing the analysis is an Analytical Deviation.

EnRad performed an extent of condition to assess which samples had been processed using the 025LMAR310 geometry. The APEX database was examined and Oconee indicator location 063 bottom feeder fish, Sample Manager ID # 359070, was determined to have been impacted (NCR # 02022545). Oconee indicator fish location 063 is located in the ESE sector at 0.80 miles (Lake Hartwell Hwy 183 Bridge). The impacted sample was assigned Sample Manager ID# 359070 for collection period 15OCT2014 – 22OCT2014. The APEX gamma analysis results and the a posteriori LLDs were reviewed and the analysis was determined valid.

The a posteriori LLD satisfied the requirements of Oconee Selected Licensee Commitments (SLC) 16.11 RADIOLOGICAL EFFLUENTS CONTROL, 16.11.6 Radiological Environmental Monitoring, Table 16.11.6-2 (Maximum Values for the Lower Limits of Detection (LLD)). While the a priori lower limits of detection (LLD) were not calculated prior to performing the analysis, all analytical results for this sample were valid. There were no collection discrepancies identified with this sample.