



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**DUKE ENERGY CORPORATION
MCGUIRE NUCLEAR STATION
Units 1 and 2**

2015



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

BW	BiWeekly
C	Control
DEHNR	Department of Environmental Health and Natural Resources
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
MNS	McGuire Nuclear Station
mrem	millirem
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	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

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the McGuire 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, sampling deviations, unavailable samples, 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. Eleven hundred fifty-six samples were analyzed comprising 1,247 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 McGuire Nuclear Station is sufficient.

Concentrations observed in the environment in 2015 for station related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in surface water, drinking water, shoreline sediment and fish are higher than the activities reported for samples collected prior to the operation of the station. Measured concentrations were not higher than expected, and 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 $9.64E-2$ 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).¹ It is therefore concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.

¹NCRP (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).

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

McGuire Nuclear Station (MNS) is located geographically near the center of a highly industrialized region of the Carolinas. The land is predominantly rural non-farm with a small amount of land being used for farming. The McGuire site is in northwestern Mecklenburg County, North Carolina, 17 miles north-northwest of Charlotte, North Carolina. The site is bounded to the west by the Catawba River channel and to the north by 32,510 acre Lake Norman. Lake Norman is impounded by Duke Energy Corporation's Cowans Ford Dam Hydroelectric Station. The tailwater of Cowans Ford Dam is the upper limit of Mountain Island Reservoir. Mountain Island Dam is located 15 miles downstream from the site. Lookout Shoals Hydroelectric Station is at the upper reaches of Lake Norman. Marshall Steam Station is located on the western shore of Lake Norman, approximately 16 miles upstream from the site.

MNS consists of two pressurized water reactors. Each reactor unit is essentially a mirror image of the other joined by an auxiliary building housing both separate and common equipment. Each unit was designed to produce approximately 1200 gross Megawatts of electricity. Unit 1 achieved criticality August 8, 1981 and Unit 2 on May 8, 1983.

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 0.5 mile radius of MNS. Figure 2.1-2 comprises all sample locations within a ten mile radius of MNS.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at McGuire Nuclear Station since 1977, four years prior to operation of Unit 1 in 1981. 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 McGuire Nuclear Station. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 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 3.10.

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). 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

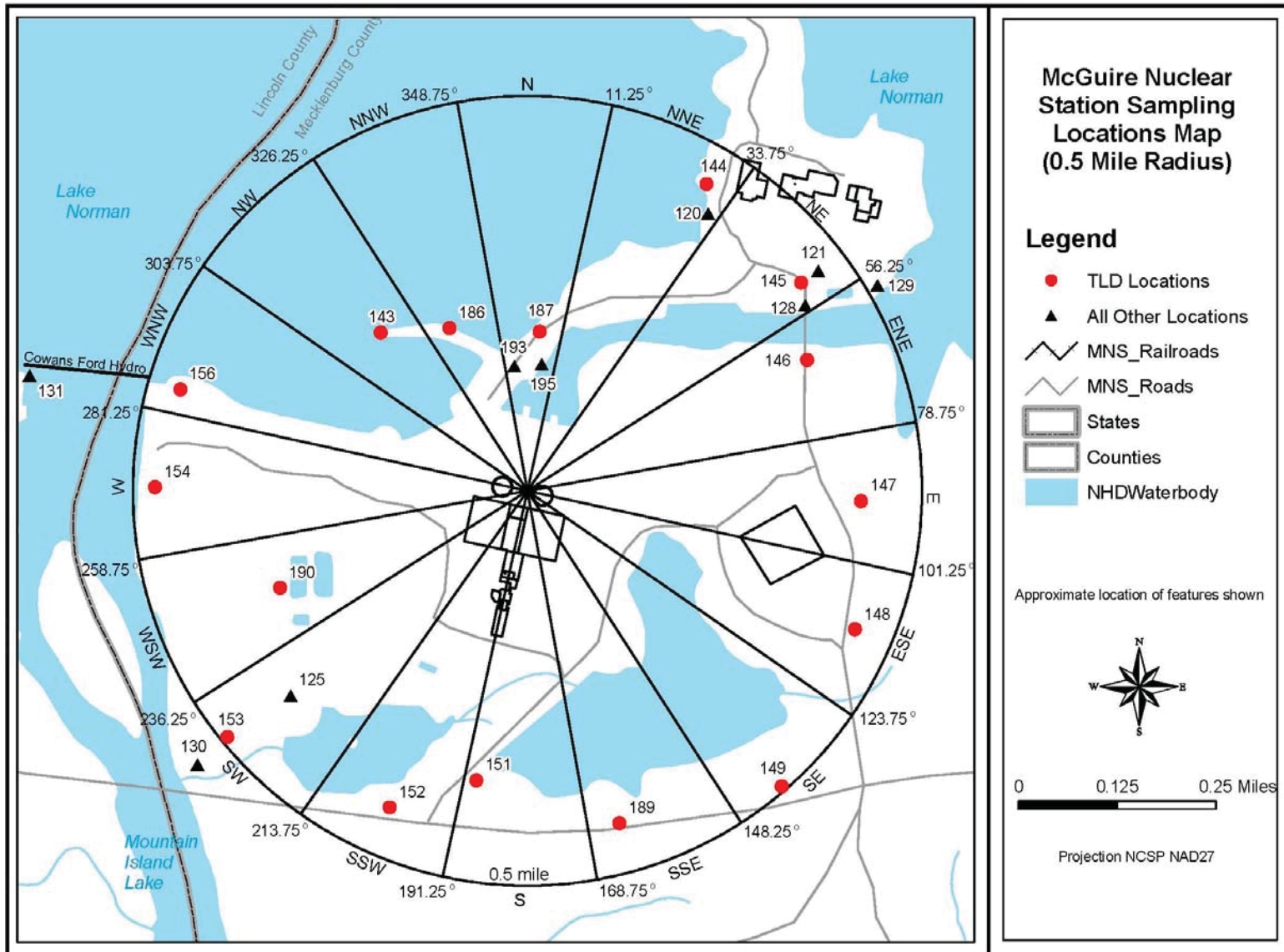


Figure 2.1-2

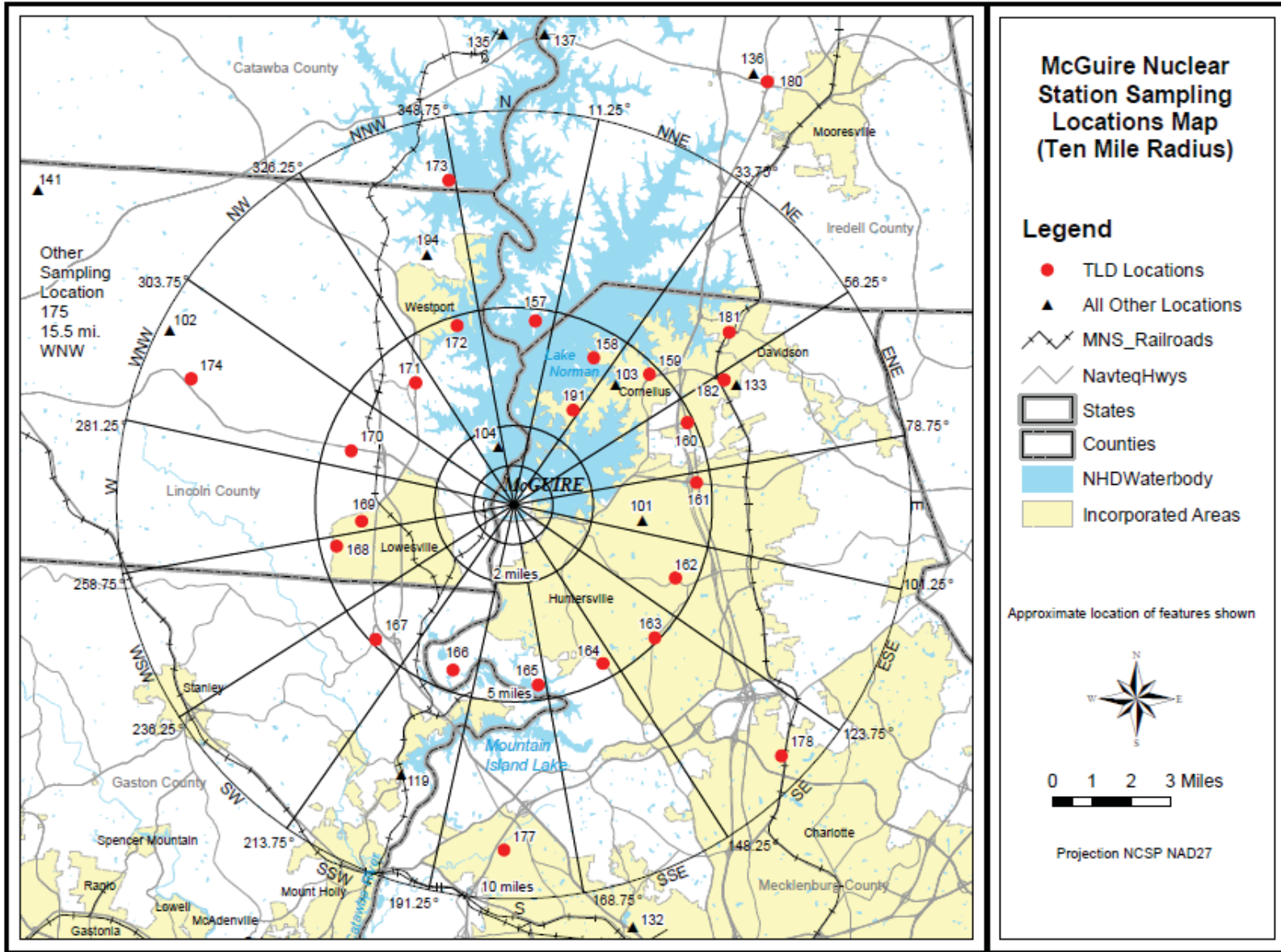


TABLE 2.1-A

**MCGUIRE 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. & Part.	Surface Water	Drinking Water	Shoreline Sediment	Food Products	Fish	Milk	Broad Leaf Veg.
101	I	North Mecklenburg Water Treatment Facility (3.31 mi E)			M					
102	C	Amity Church Road (9.89 mi WNW)	W							M (b)
103	I	Cottonwood Substation (4.20 mi NE)	W							
104	I	5 mile radius Gardens (1.52 mi NNW)					M (a)			
119	I	Mt. Holly Municipal Water Supply (7.40 mi SSW)			M					
120	I	Site Boundary (0.46 mi NNE)	W							M (b)
121	I	Site Boundary (0.47 mi NE)	W							
125	I	Site Boundary (0.38 mi SW)	W							M (b)
128	I	Discharge Canal Bridge (0.45 mi NE)		M						
129	I	Discharge Canal Entrance to Lake Norman (0.51 mi ENE)				SA		SA		
130	I	Hwy 73 Bridge Downstream (0.52 mi SW)				SA				
131	I	Cowans Ford Dam (0.64 mi WNW)		M						
132	I	Charlotte Municipal Water Supply (11.1 mi SSE)			M					
133	I	Cornelius (6.23 mi ENE)	W							
135	C	Plant Marshall Intake Canal (11.9 mi N)		M						
136	C	Mooresville Municipal Water Supply (12.7 mi NNE)			M					
137	C	Pinnacle Access Area (12.0 mi N)				SA		SA		
141	C	Lynch Dairy-Cows (14.8 mi WNW)							SM	
193	I	Site Boundary (0.19 mi N)								M (b)
194	I	East Lincoln County Water Supply (6.73 mi NNW)			M					
195	I	Fishing Access Road (0.19 mi N)	W							

(a) During Harvest Season

(b) When Available

* 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 2.1-B

**MCGUIRE 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
143	IR	SITE BOUNDARY	0.27	NW	164	OR	HAMBRIGHT & BEATTIES FORD ROAD	4.64	SSE
144	IR	SITE BOUNDARY	0.46	NNE	165	OR	ARTHER AUTEN ROAD	4.57	S
145	IR	SITE BOUNDARY	0.47	NE	166	OR	NECK ROAD REFUGE BOUNDARY	4.44	SSW
146	IR	SITE BOUNDARY	0.42	ENE	167	OR	LUCIA RIVERBEND HWY/OLD FIREHOUSE	4.87	SW
147	IR	SITE BOUNDARY	0.44	E	168	OR	OLD PLANK ROAD BRIDGE	4.60	WSW
148	IR	SITE BOUNDARY	0.46	ESE	169	OR	GLOVER LANE	4.03	W
149	IR	SITE BOUNDARY	0.50	SE	170	OR	LITTLE EGYPT ROAD	4.32	WNW
151	IR	SITE BOUNDARY	0.37	S	171	OR	TRIANGLE ACE HARDWARE	3.95	NW
152	IR	SITE BOUNDARY	0.44	SSW	172	OR	LAKESHORE S RD ISLAND VIEW COURT	4.69	NNW
153	IR	SITE BOUNDARY	0.47	SW	173	SI	KEISTLER STORE / GLENWOOD ROAD	8.39	NNW
154	IR	SITE BOUNDARY	0.45	W	174	SI	EAST LINCOLN JR. HIGH SCHOOL	8.85	WNW
156	IR	SITE BOUNDARY	0.44	WNW	175	C	BOGER CITY	15.5	WNW
189	IR	SITE BOUNDARY	0.43	SSE	177	SI	BELMARR RD / COULWOOD	8.77	S
190	IR	SITE BOUNDARY	0.37	WSW	178	SI	FLORIDA STEEL CORPORATION	9.36	SE
157	IR	THE POINTE (MOORESVILLE)	4.69	N	180	SI	MOORESVILLE WATER TREATMENT FACILITY	12.7	NNE
158	OR	BETHEL CHURCH RD	4.33	NNE	181	SI	OLD DAVIDSON WATER FACILITY	7.02	NE
159	OR	HENDERSON ROAD	4.77	NE	182	SI	CORNELIUS AIR SITE # 133	6.23	ENE
160	OR	ANCHORAGE MARINE SHOWROOM	4.89	ENE	186	SI	MCGUIRE FISHING ACCESS ROAD	0.24	NNW
161	OR	SAM FURR ROAD & HWY 21	4.70	E	187	SI	ENERGY EXPLORIUM / AIR SITE # 195	0.19	N
162	OR	RANSON ROAD	4.53	ESE	191	SI	PENINSULA DEV. / JOHN CONNOR ROAD	2.84	NNE
163	OR	MCCOY ROAD	4.94	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 ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)
H-3	20,000 ^{(a),(b)}	---	---	---	---
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	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) If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

(b) H-3 Reporting level not applicable to surface water

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	---	---	---	---
Air Particulate	Weekly	---	---	---	X	---
	Quarterly Composite	X	---	---	---	---
Direct Radiation	Quarterly	---	---	---	---	X
Surface Water	Monthly Composite	X	---	---	---	---
	Quarterly Composite	---	X	---	---	---
Drinking Water	Monthly Composite	X	---	(a)	X	---
	Quarterly Composite	---	X	---	---	---
Shoreline Sediment	Semiannually	X	---	---	---	---
Milk	Semimonthly	X	---	X	---	---
Fish	Semiannually	X	---	---	---	---
Broadleaf Vegetation	Monthly ^(b)	X	---	---	---	---
Food Products	Monthly ^(b)	X	---	---	---	---

(a) Low-level I-131 analysis will be performed if the dose calculated for the consumption of drinking water is > 1 mrem per year. An LLD of 1 pCi/liter will be required for this analysis.

(b) When Available

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

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2,000 ^(a)	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-Nb-95	15	---	---	---	---	---
I-131	1 ^(b)	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) If no drinking water pathway exists, a value of 3,000 pCi/liter may be used.

(b) If no drinking water pathway exists, the LLD of gamma isotopic analysis may be used.

3.0 INTERPRETATION OF RESULTS

Review of 2015 REMP analysis results was performed to detect and identify changes in environmental levels as a result of station operation. The radionuclides with Selected Licensee Commitments reporting levels that indicate consistent detectable activity have been historically trended from preoperation to present. Analyses from 1977 - 1978 have been excluded since these results were much higher than the other preoperational years due to outside influences such as weapons testing. The preoperational analyses from 1981 were combined with the operational analyses from the latter part of 1981 and averaged to give one concentration for each radionuclide for that year. Summary tables containing 2015 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. McGuire 2015 REMP results are located in Appendix E.

The highest annual mean concentration of applicable Selected Licensee Commitments radionuclides from the indicator locations for each media type was used for trending purposes. Trending was performed by comparing annual mean concentrations 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 attributable to MNS plant operation were well below the 100% action level. The highest value attributable to MNS plant operations during 2015 was 6.85% for drinking water tritium at the North Mecklenburg Water Treatment Facility (Location 101). Only Selected Licensee Commitments radionuclides were detected in 2015.

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. All negative values were replaced with a zero for calculational and graphical purposes to properly represent environmental conditions. 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 possible that the method the previous system used to estimate net activity may have been vulnerable to false-positive results.

This section includes tables and graphs containing the highest annual mean concentrations of any effluent related radionuclide detected since the change in analysis systems in 1987. Any zero concentrations used in tables or graphs represent activity measurements less than detectable levels. Only the specific radionuclides that represent the highest dose contributors or demonstrate consistent detectable activity are shown graphically.

Data presented in Sections 3.1 through 3.9 support the conclusion that there was no significant increase in radioactivity in the environment around McGuire Nuclear Station due to station operations in 2015. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2015 land use census data, shown in Section 3.10, indicates that no program changes are required as a result of the census.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

In 2015, 364 radioiodine and particulate samples were analyzed, 312 from six 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.

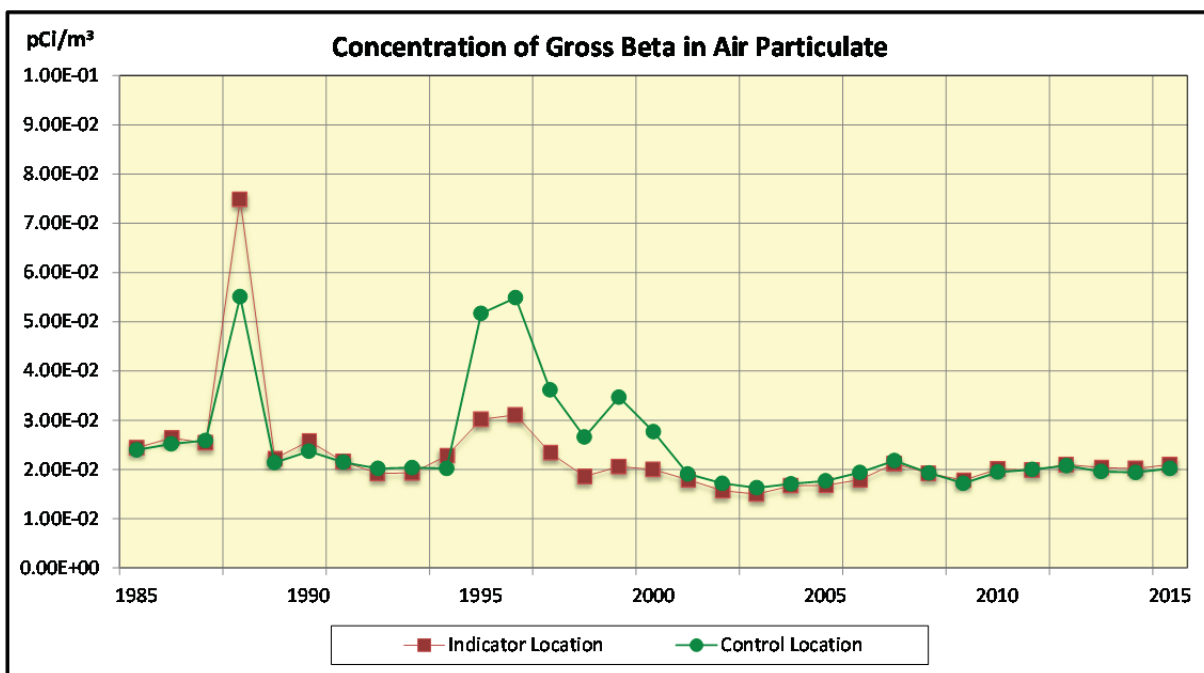
Gross beta analyses indicated $2.10\text{E-}2$ pCi/m³ at the location with the highest annual mean and $2.02\text{E-}2$ pCi/m³ at the control location. No gamma emitting radionuclide attributable to MNS plant operation has been detected in any air samples since 2004 when Co-58 was observed (NCR # 01552730).

Figure 3.1 shows gross beta highest annual mean indicator and control location concentrations since 1985. There is no reporting level for gross beta. Table 3.1-A shows indicator and control location highest annual means for Cs-137 and gross beta.

Table 3.1-B gives indicator location highest annual means and control means since 1979 for I-131. Preoperational and ten year averages are also shown. No I-131 activity due to MNS plant operation has been detected since 1989. Since no activity was detected in 2015, no reporting levels were approached.

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

Figure 3.1



There is no reporting level for Gross Beta in air particulate

Table 3.1-A Mean Concentrations of Radionuclides in Air Particulate

YEAR	Cs-137 Indicator (pCi/m ³)	Cs-137 Control (pCi/m ³)	Beta Indicator (pCi/m ³)	Beta Control (pCi/m ³)
1979*	4.40E-3	1.47E-3	Not Performed	Not Performed
1980*	6.70E-3	4.53E-3	Not Performed	Not Performed
1981*	6.16E-3	5.32E-3	Not Performed	Not Performed
1982*	3.82E-3	2.29E-3	Not Performed	Not Performed
1983*	2.93E-3	3.21E-3	Not Performed	Not Performed
1984	1.74E-3	8.29E-4	Not Performed	Not Performed
1985	1.86E-3	1.32E-3	2.44E-2	2.40E-2
1986	4.98E-3	3.03E-3	2.64E-2	2.52E-2
1987 ⁽¹⁾	1.07E-2	7.91E-3	2.54E-2	2.59E-2
1988	0.00E0	0.00E0	7.49E-2	5.51E-2
1989	0.00E0	0.00E0	2.22E-2	2.14E-2
1990	0.00E0	0.00E0	2.58E-2	2.37E-2
1991	0.00E0	0.00E0	2.16E-2	2.15E-2
1992	0.00E0	0.00E0	1.92E-2	2.02E-2
1993	0.00E0	0.00E0	1.93E-2	2.04E-2
1994	0.00E0	0.00E0	2.28E-2	2.02E-2
1995	0.00E0	0.00E0	3.02E-2	5.17E-2
1996	0.00E0	0.00E0	3.11E-2	5.49E-2
1997	0.00E0	0.00E0	2.34E-2	3.62E-2
1998	0.00E0	0.00E0	1.86E-2	2.66E-2
1999	0.00E0	0.00E0	2.06E-2	3.47E-2
2000	0.00E0	0.00E0	2.00E-2	2.77E-2
2001	0.00E0	0.00E0	1.79E-2	1.91E-2
2002	0.00E0	0.00E0	1.57E-2	1.72E-2
2003	0.00E0	0.00E0	1.50E-2	1.63E-2
2004	0.00E0	0.00E0	1.67E-2	1.71E-2
2005	0.00E0	0.00E0	1.68E-2	1.77E-2
2006	0.00E0	0.00E0	1.79E-2	1.94E-2
2007	0.00E0	0.00E0	2.12E-2	2.18E-2
2008	0.00E0	0.00E0	1.92E-2	1.93E-2
2009	0.00E0	0.00E0	1.79E-2	1.76E-2
2010	0.00E0	0.00E0	2.01E-2	1.95E-2
2011 ⁽²⁾	7.06E-3	0.00E0	1.99E-2	2.00E-2
2012	0.00E0	0.00E0	2.10E-2	2.08E-2
2013	0.00E0	0.00E0	2.04E-2	1.96E-2
2014 ⁽³⁾	0.00E0	0.00E0	2.02E-2	1.94E-2
Average (2005 – 2014)	Not Applicable	Not Applicable	1.95E-2	1.95E-2
2015	0.00E0	0.00E0	2.10E-2	2.02E-2

0.00E0 indicates no detectable measurements

* Radioiodine and Particulates analyzed together

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system change

Table 3.1-B Mean Concentrations of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
1979*	3.28E-3	1.04E-3
1980*	2.01E-3	1.10E-3
1981*	4.17E-3	6.27E-4
1982*	1.42E-3	2.48E-3
1983*	1.99E-3	2.01E-4
1984	3.17E-3	0.00E0
1985	3.15E-3	1.04E-3
1986	1.27E-2	6.10E-3
1987 ⁽¹⁾	1.07E-2	6.60E-3
1988	0.00E0	0.00E0
1989	2.18E-2	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	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 ⁽²⁾	6.00E-2	5.46E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽³⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

* Radioiodine and Particulate analyzed together.

(1) 1987 – Gamma spectroscopy system change

(2) 2011– Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system change

3.2 DRINKING WATER

In 2015, 65 drinking water samples were analyzed for gross beta and gamma emitting radionuclides. Fifty-two samples were from the four indicator locations and 13 from the control location. Tritium (H-3) analyses were performed on 20 composite samples, 16 at indicator locations and four at the control location.

No detectable gamma activity attributable to MNS plant operation was found in drinking water samples in 2015 and has not been detected since 1987. K-40 observed in some drinking water samples is a naturally occurring radionuclide. Gross beta analyses indicated 2.14 pCi/l at the location with the highest annual mean and 1.91 pCi/l at the control location. Tritium was detected in 13 of the 16 indicator composite samples taken in 2015. The 2015 highest mean indicator tritium concentration from location 101 was 919 pCi/liter, which is 4.6% of the 20,000 pCi/l tritium reporting level. Tritium was not detected in any of the four control location samples. The dose for consumption of water was less than one mrem per year, historically and for 2015; therefore low-level iodine analysis is not required.

Figure 3.2 shows tritium highest annual mean indicator and control location concentrations with comparisons to 20% of the reporting level. Table 3.2 gives indicator location highest annual means and control means since 1979 for tritium and gross beta. There is no reporting level for gross beta.

Drinking water Location 101 was added to the sampling program in 1999. Figure 3.2 shows an increase beginning in that year. There was an increase in tritium releases in 2006 due to silica removal from the spent fuel pools which resulted in additional water volume being released from the plant. An extreme drought during the second half of 2007 and much of 2008 affecting the Catawba River Basin resulted in less dilution volume available in Lake Norman.

Figure 3.2

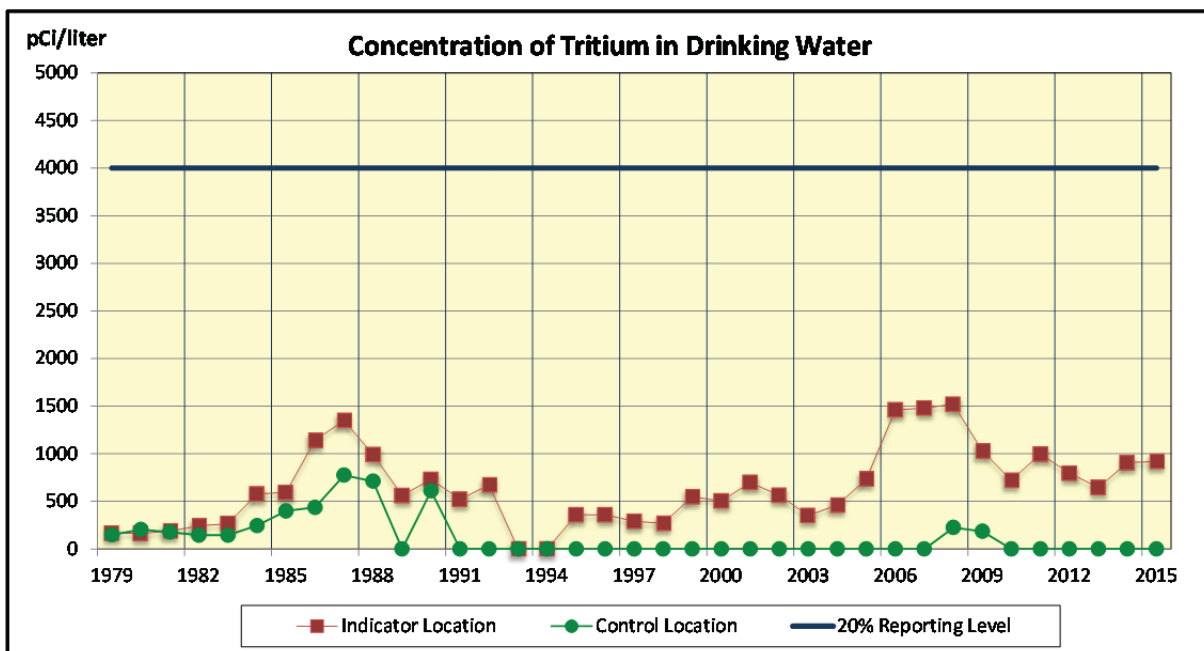


Table 3.2 Mean Concentrations of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1979	2.40E0	2.03E0	1.65E2	1.50E2
1980	2.34E0	1.87E0	1.63E2	2.05E2
1981	2.79E0	2.41E0	1.88E2	1.78E2
1982	2.62E0	2.43E0	2.43E2	1.45E2
1983	1.80E0	1.87E0	2.65E2	1.45E2
1984	2.78E0	1.81E0	5.77E2	2.45E2
1985	1.88E0	1.90E0	5.93E2	4.00E2
1986	2.13E0	2.15E0	1.14E3	4.37E2
1987	2.30E0	2.00E0	1.35E3	7.75E2
1988	2.00E0	2.00E0	9.92E2	7.11E2
1989	2.80E0	2.70E0	5.62E2	0.00E0
1990	3.70E0	4.30E0	7.32E2	6.11E2
1991	2.40E0	2.50E0	5.22E2	0.00E0
1992	2.00E0	1.70E0	6.73E2	0.00E0
1993	2.80E0	2.40E0	0.00E0	0.00E0
1994	2.47E0	2.90E0	0.00E0	0.00E0
1995	4.20E0	3.30E0	3.58E2	0.00E0
1996	2.75E0	2.11E0	3.60E2	0.00E0
1997	2.70E0	2.24E0	2.90E2	0.00E0
1998	2.75E0	2.33E0	2.68E2	0.00E0
1999	2.48E0	2.17E0	5.49E2	0.00E0
2000	2.66E0	1.99E0	5.04E2	0.00E0
2001	2.48E0	2.19E0	6.98E2	0.00E0
2002	2.47E0	2.08E0	5.64E2	0.00E0
2003	1.81E0	1.52E0	3.51E2	0.00E0
2004	1.68E0	1.29E0	4.61E2	0.00E0
2005	1.74E0	1.30E0	7.35E2	0.00E0
2006	1.75E0	1.80E0	1.46E3	0.00E0
2007	1.81E0	1.76E0	1.48E3	0.00E0
2008	2.40E0	1.87E0	1.52E3	2.26E2
2009	1.90E0	1.81E0	1.03E3	1.86E2
2010	1.85E0	1.74E0	7.20E2	0.00E0
2011	1.77E0	1.75E0	9.97E2	0.00E0
2012	1.74E0	1.66E0	7.95E2	0.00E0
2013	1.73E0	1.61E0	6.47E2	0.00E0
2014	2.18E0	1.95E0	9.07E2	0.00E0
2015	2.14E0	1.91E0	9.19E2	0.00E0

0.00E0 indicates no detectable measurements

3.3 SURFACE WATER

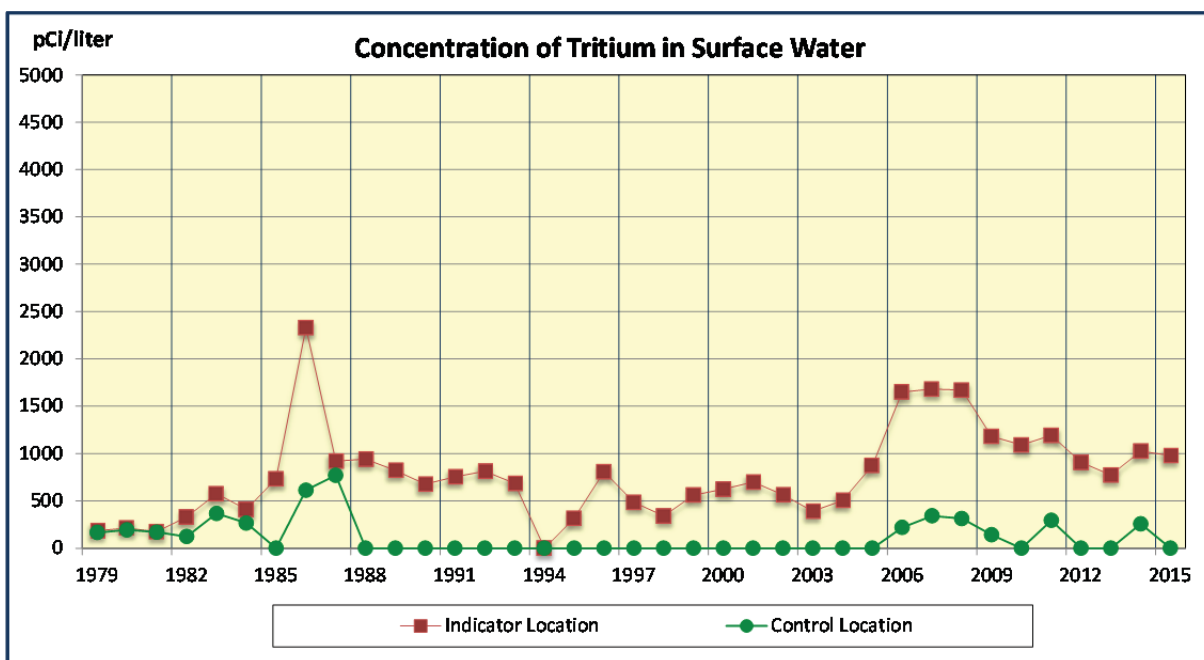
In 2015, 39 surface water samples were analyzed for gamma emitting radionuclides, 26 at the two indicator locations and 13 at the control location. Analyses for H-3 were performed on 12 samples, eight at indicator locations and four at the control location.

No detectable gamma activity attributable to MNS plant operation was found in surface water samples in 2015 and has not been detected since 1988. K-40 observed in some surface water samples is a naturally occurring radionuclide. Tritium was detected in all of the eight indicator composite samples taken in 2015. Tritium was not detected in any of the four control location composite samples in 2015.

Figure 3.3 shows tritium highest annual mean indicator and control location concentrations. Table 3.3 gives indicator and control location highest annual means since 1979 for tritium.

There was an increase in surface water tritium in 2006 due to silica removal from the spent fuel pools which resulted in additional water volume being released from the plant. An extreme drought during the second half of 2007 and much of 2008 affecting the Catawba River Basin resulted in less dilution volume available in Lake Norman.

Figure 3.3



There is no reporting level for tritium in surface water

Table 3.3 Mean Concentrations of Tritium in Surface Water

YEAR	H-3 Indicator (pCi/l)	H-3 Control (pCi/l)
1979	1.85E2	1.66E2
1980	2.13E2	1.93E2
1981	1.75E2	1.70E2
1982	3.30E2	1.23E2
1983	5.75E2	3.67E2
1984	4.10E2	2.65E2
1985	7.33E2	0.00E0
1986	2.33E3	6.13E2
1987	9.20E2	7.70E2
1988	9.40E2	0.00E0
1989	8.22E2	0.00E0
1990	6.77E2	0.00E0
1991	7.53E2	0.00E0
1992	8.13E2	0.00E0
1993	6.85E2	0.00E0
1994	0.00E0	0.00E0
1995	3.15E2	0.00E0
1996	8.08E2	0.00E0
1997	4.85E2	0.00E0
1998	3.40E2	0.00E0
1999	5.60E2	0.00E0
2000	6.22E2	0.00E0
2001	6.98E2	0.00E0
2002	5.65E2	0.00E0
2003	3.91E2	0.00E0
2004	5.04E2	0.00E0
2005	8.74E2	0.00E0
2006	1.65E3	2.19E2
2007	1.68E3	3.42E2
2008	1.67E3	3.13E2
2009	1.18E3	1.41E2
2010	1.09E3	0.00E0
2011	1.19E3	2.94E2
2012	9.06E2	0.00E0
2013	7.73E2	0.00E0
2014	1.03E3	2.57E2
2015	9.79E2	0.00E0

0.00E0 indicates no detectable measurements

3.4 MILK

In 2015, 26 milk samples from the control location were analyzed for low level I-131 and other gamma emitting radionuclides. 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 MNS plant operations identified in milk samples in 2015. Cs-137 is the only radionuclide, other than naturally occurring, reported in milk samples since 1990 (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 gives indicator location highest annual means and control means since 1979 for Cs-137. Since no Cs-137 was detected in 2015, no reporting levels were approached.

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

Table 3.4 Mean Concentrations of Cs-137 in Milk

YEAR	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
1979	2.48E1	6.04E0
1980	1.72E1	4.13E0
1981	2.04E1	4.15E0
1982	1.21E1	5.20E0
1983	2.01E1	2.82E0
1984	1.48E1	2.56E0
1985	1.42E1	2.72E0
1986	3.74E0	3.45E0
1987 ⁽¹⁾	5.20E0	8.60E0
1988	3.40E0	2.90E0
1989	6.00E0	5.60E0
1990	5.30E0	2.60E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	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	No Indicator Location	0.00E0
2003	No Indicator Location	0.00E0
2004	No Indicator Location	0.00E0
2005	No Indicator Location	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 ⁽²⁾	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

3.5 BROADLEAF VEGETATION

In 2015, 48 broadleaf vegetation samples were analyzed, 36 at the three indicator locations and twelve at the control location. There were no gamma emitting radionuclides attributable to MNS plant operation identified in any 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. No airborne Cs-137 has been released from the plant since 1998.

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.

Table 3.5 Mean Concentrations of Cs-137 in Broadleaf Vegetation

YEAR	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
1979	2.19E1	1.93E1
1980	2.30E1	1.92E1
1981	3.04E1	2.02E1
1982	2.46E1	1.22E1
1983	9.07E0	7.85E0
1984	1.02E1	1.05E1
1985	8.05E0	2.37E-2
1986	4.03E1	1.27E1
1987 ⁽¹⁾	2.20E1	1.70E1
1988	3.90E1	3.40E1
1989	9.60E1	0.00E0
1990	4.00E1	0.00E0
1991	3.30E1	0.00E0
1992	4.90E1	0.00E0
1993	1.60E1	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	2.69E1
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	2.98E1	0.00E0
2007	1.34E1	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011 ⁽²⁾	2.29E1	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽³⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system change

3.6 FOOD PRODUCTS

In 2015, 9 food products (crops) samples were analyzed from one indicator location. There is no control location for this media.

No detectable activity attributable to MNS station operation has been detected in this media since 1987. Table 3.6 shows Cs-137 indicator highest annual means with preoperational data. Since no activity was detected in 2015, no reporting levels were approached.

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

Table 3.6 Mean Concentrations of Cs-137 in Food Products

YEAR	Cs-137 Indicator (pCi/kg)
1979	2.19E1
1980	2.30E1
1981	3.04E1
1982	2.46E1
1983	9.07E0
1984	8.45E0
1985	7.99E0
1986	2.15E1
1987 ⁽¹⁾	2.90E1
1988	0.00E0
1989	0.00E0
1990	0.00E0
1991	0.00E0
1992	0.00E0
1993	0.00E0
1994	0.00E0
1995	0.00E0
1996	0.00E0
1997	0.00E0
1998	0.00E0
1999	0.00E0
2000	0.00E0
2001	0.00E0
2002	0.00E0
2003	0.00E0
2004	0.00E0
2005	0.00E0
2006	0.00E0
2007	0.00E0
2008	0.00E0
2009	0.00E0
2010	0.00E0
2011 ⁽²⁾	3.06E1
2012	0.00E0
2013	0.00E0
2014 ⁽³⁾	0.00E0
2015	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system change

3.7 FISH

In 2015, 12 fish samples were analyzed for gamma emitting radionuclides, six at the indicator location and six at the control location. There were no gamma emitting radionuclides attributable to MNS plant operation identified in any fish samples in 2015.

Figure 3.7 shows Cs-137 highest annual mean indicator and control location concentrations with comparisons to 5% of the reporting level. Table 3.7 gives indicator location highest annual means since 1980 for all radionuclides detected since the analysis change in 1988. All other radionuclides not shown in the table have demonstrated no detectable activity since 1986.

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

Figure 3.7

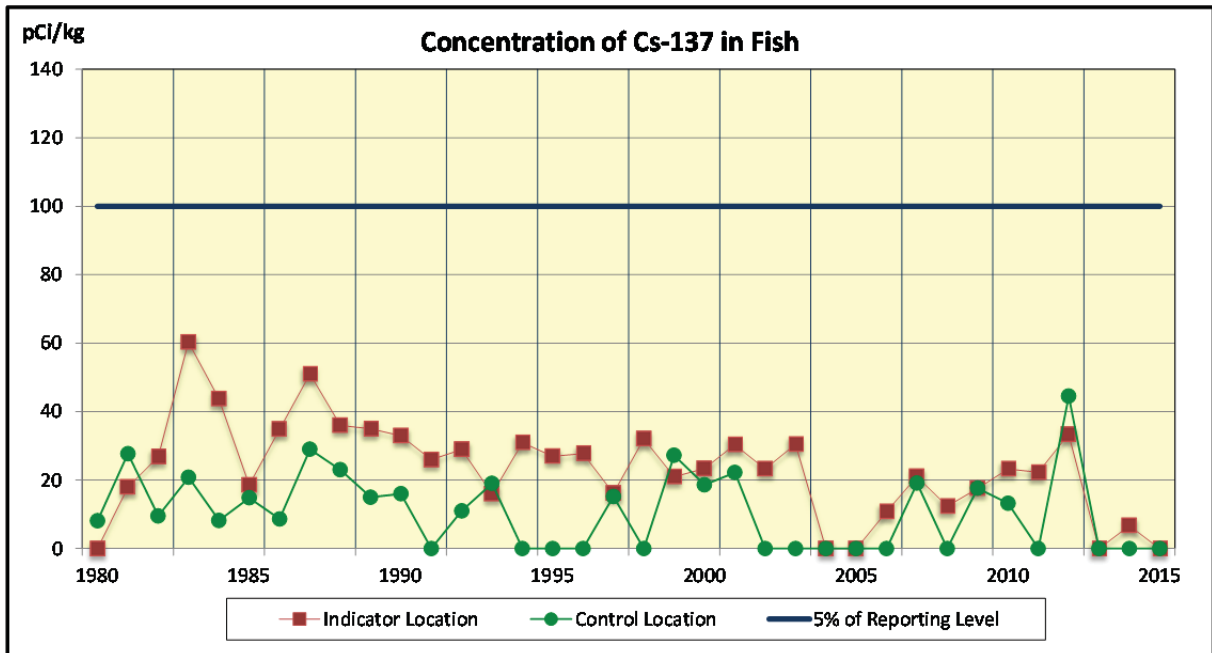


Table 3.7 Mean Concentrations of Radionuclides in Fish (pCi/kg)

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1980	-1.97E1	8.36E0	-2.25E1	-2.70E1	-4.13E0
1981	-2.71E0	-2.98E0	-2.65E0	-1.99E0	1.80E1
1982	-3.83E0	8.16E0	-4.34E-1	-8.22E-1	2.69E1
1983	-2.60E0	2.60E1	1.11E1	-1.32E0	6.03E1
1984	3.61E0	1.45E2	2.82E1	3.11E1	4.38E1
1985	2.53E-1	7.19E0	1.72E1	-1.56E0	1.86E1
1986	1.03E0	3.17E1	2.96E1	1.67E1	3.49E1
1987 ⁽¹⁾	0.00E0	2.71E2	1.25E2	2.60E1	5.10E1
1988	1.20E1	7.70E1	0.00E0	2.70E1	3.60E1
1989	9.00E1	4.05E2	2.99E2	1.10E1	3.50E1
1990	0.00E0	5.60E1	4.10E1	0.00E0	3.30E1
1991	6.20E0	1.40E1	6.50E1	5.90E0	2.60E1
1992	0.00E0	0.00E0	0.00E0	0.00E0	2.90E1
1993	0.00E0	8.20E1	1.30E1	0.00E0	1.60E1
1994	0.00E0	0.00E0	0.00E0	0.00E0	3.10E1
1995	0.00E0	0.00E0	0.00E0	0.00E0	2.70E1
1996	0.00E0	0.00E0	0.00E0	0.00E0	2.78E1
1997	0.00E0	0.00E0	0.00E0	0.00E0	1.62E1
1998	0.00E0	0.00E0	0.00E0	0.00E0	3.21E1
1999	0.00E0	3.53E1	0.00E0	0.00E0	2.10E1
2000	0.00E0	4.28E1	0.00E0	0.00E0	2.34E1
2001	0.00E0	1.32E1	0.00E0	0.00E0	3.04E1
2002	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2003	0.00E0	0.00E0	0.00E0	0.00E0	3.05E1
2004	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2005	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.08E1
2007	0.00E0	0.00E0	0.00E0	0.00E0	2.11E1
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.24E1
2009	0.00E0	0.00E0	0.00E0	0.00E0	1.76E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	2.23E1
2012	0.00E0	0.00E0	0.00E0	0.00E0	3.34E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	0.00E0	6.75E0
2015	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

3.8 SHORELINE SEDIMENT

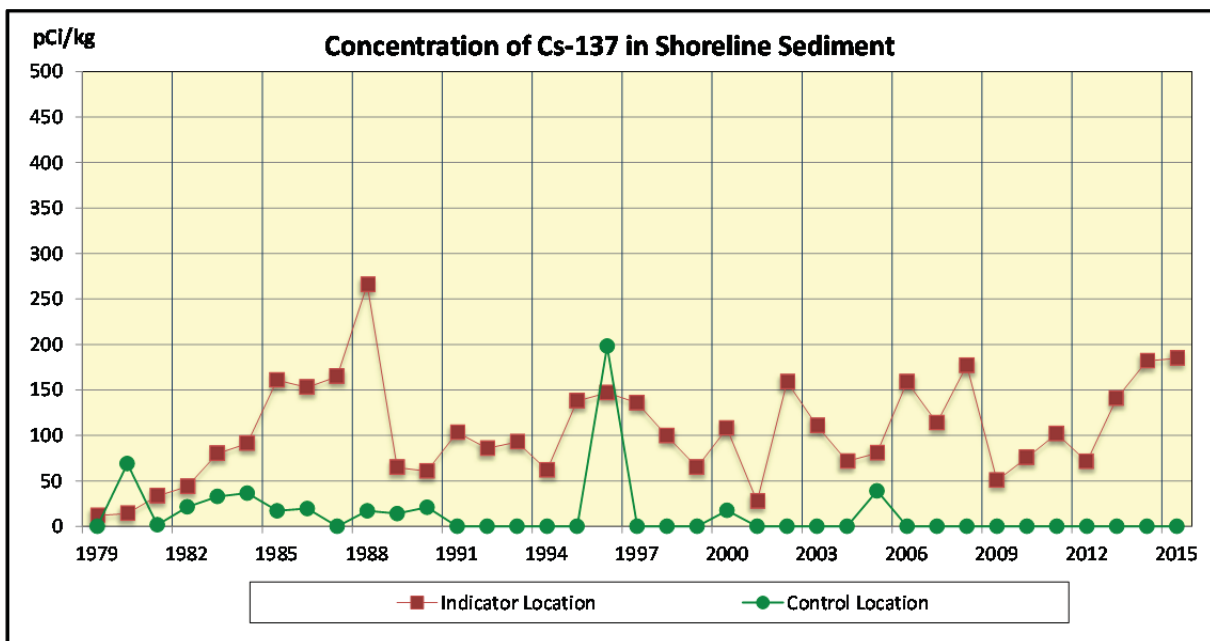
In 2015, six shoreline sediment samples were analyzed, four from two indicator locations and two at the control location.

Cs-137 activity was detected in two of the four indicator samples taken. The shoreline sediment location with the highest annual mean was location 130 with a mean concentration of 185 pCi/kg.

Figure 3.8 shows Cs-137 highest annual mean indicator and control location concentrations since 1979. Table 3.8 gives indicator location highest annual means since 1979 for all radionuclides detected since the analysis change in 1988. There is no reporting level for shoreline sediment.

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

Figure 3.8



There is no reporting level for Cs-137 in shoreline sediment

Table 3.8 Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1979	-1.07E1	2.25E1	-6.50E0	0.00E0	1.20E1
1980	1.06E1	-8.74E0	2.36E1	-3.53E0	1.44E1
1981	2.13E1	1.20E1	8.21E0	3.97E1	3.36E1
1982	5.38E1	1.66E1	-1.69E0	7.67E1	4.40E1
1983	4.40E0	3.43E1	2.12E1	7.65E1	8.02E1
1984	1.19E1	7.11E1	3.04E1	3.34E1	9.13E1
1985	4.77E0	1.46E1	9.20E0	2.02E1	1.61E2
1986	1.37E1	1.02E1	1.16E1	6.35E1	1.53E2
1987 ⁽¹⁾	0.00E0	1.06E2	2.10E1	4.20E1	1.65E2
1988	6.50E0	9.20E1	1.20E1	9.10E0	2.66E2
1989	2.90E1	3.80E1	2.90E1	5.30E1	6.50E1
1990	3.80E1	2.70E1	1.68E2	0.00E0	6.10E1
1991	2.80E1	5.30E1	1.31E2	0.00E0	1.03E2
1992	9.40E0	0.00E0	5.10E1	9.20E0	8.60E1
1993	0.00E0	2.20E1	8.60E1	0.00E0	9.30E1
1994	4.10E1	0.00E0	0.00E0	0.00E0	8.00E1
1995	1.70E1	0.00E0	2.30E1	0.00E0	1.38E2
1996	2.90E1	1.78E1	3.50E1	0.00E0	1.47E2
1997	0.00E0	0.00E0	1.11E2	3.10E1	1.36E2
1998	0.00E0	0.00E0	5.21E1	0.00E0	9.97E1
1999	0.00E0	2.47E1	8.49E1	0.00E0	6.51E1
2000	0.00E0	3.04E1	0.00E0	0.00E0	1.08E2
2001	0.00E0	0.00E0	0.00E0	0.00E0	2.77E1
2002	2.24E1	0.00E0	0.00E0	0.00E0	1.59E2
2003	0.00E0	0.00E0	0.00E0	0.00E0	1.11E2
2004	0.00E0	0.00E0	0.00E0	0.00E0	7.17E1
2005	0.00E0	0.00E0	0.00E0	0.00E0	8.08E1
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.59E2
2007	0.00E0	0.00E0	0.00E0	0.00E0	1.14E2
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.77E2
2009	0.00E0	0.00E0	0.00E0	0.00E0	5.08E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	7.58E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	1.02E2
2012	0.00E0	0.00E0	0.00E0	0.00E0	7.13E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	1.41E2
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	0.00E0	1.82E2
2015	0.00E0	0.00E0	0.00E0	0.00E0	1.85E2

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

3.9 DIRECT GAMMA RADIATION

3.9.1 ENVIRONMENTAL TLD

McGuire is licensed with an exclusion area boundary defined by UFSAR Section 2.1.2.1 as a 2500 foot 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" are within a 0.5 mile radius from station center and all are used as indicators. Due to close proximity with McGuire, and most being within the exclusion area boundary, 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 0.5 mile "inner ring" but within a 5 mile radius of station center. All outer ring TLD locations are used as indicators. A subset of TLD locations are designated as "special interest". The nearest "special interest" locations are within the Owner Control Area approximately 0.2 miles from station center. They are located near public access areas for fishing and the Energy Explorium. The remaining "special interest" locations are within a 3 to 13 mile radius from station center. The one "control" location is greater than 15 miles from station center. This location was chosen to reduce the probability of influence from McGuire operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

In 2015, 163 total TLDs were analyzed, 159 at indicator locations and 4 at the control location. 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 95.8 mrem at indicator location 180, 12.7 miles NNE of station center. Figure 3.9 and Table 3.9 show TLD inner ring, outer ring, and control location annual averages in mrem per year. Data is provided from 1979 to show preoperational values. As shown in the graph, doses measured by environmental TLDs show little or no change since the current TLD system was implemented. 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 location. Comparing data from the 2015 McGuire Annual Radiological Effluent Release Report (ARERR), dose to a member of the public resulting from gaseous effluent releases at McGuire is a small fraction of measured TLD dose. Therefore, it can be concluded that gaseous effluents from McGuire 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 3.9-B summarizes the data.

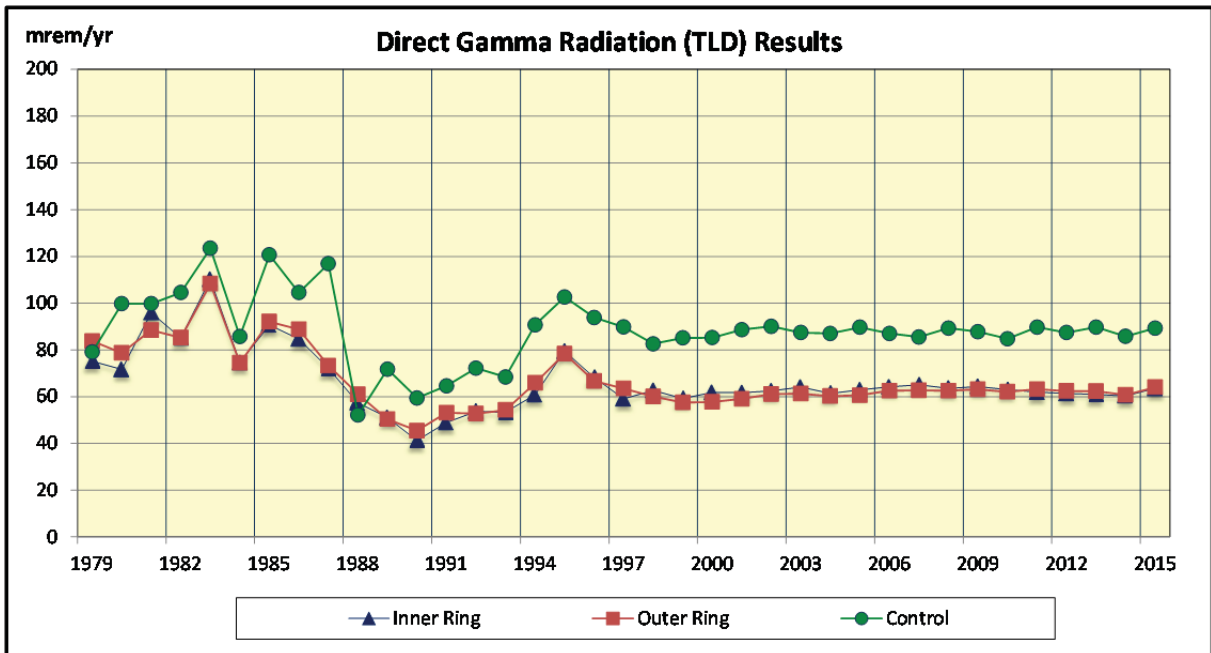
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 5.7.

3.9.2 ISFSI

The McGuire ISFSI began operation in 2000. It is located approximately 0.15 miles west of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI is situated at a lower elevation compared to other structures in the protected area. Exposure from direct radiation north of the ISFSI is shielded by the berm on the south boundary of Lake Norman. Exposure from direct radiation at the exclusion area boundary west of the ISFSI is shielded by the decrease in elevation at the ISFSI to the river bank below Cowan's Ford Dam. These geographic features lessen the potential dose to a member of the public in accessible areas within the exclusion area boundary. The ISFSI employs the multiple vertical storage designs. Irradiated fuel assemblies are confined, protected, and shielded by reinforced concrete modules. All designs used are completely passive and designed to provide radiation shielding and safe confinement for a range of accident conditions and natural events. They each use a passive natural circulation ventilation system to remove decay heat from the modules. 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.

Environmental TLD results described in 3.9.1 above are reviewed quarterly to identify trends and demonstrate compliance with dose and dose rate limits at the 2500 foot exclusion area boundary. Additional TLD locations not associated with REMP are presently located on the McGuire protected area fence near the ISFSI and on the ISFSI boundary. These are used to demonstrate compliance with occupational exposure controls and augment REMP TLD results. Doses measured by environmental TLDs show little or no change since the ISFSI began operation.

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9-A Direct Gamma Radiation (TLD) Results

YEAR	Inner Ring Average (mrem/yr)	Outer Ring Average (mrem/yr)	Control (mrem/yr)
1979	7.51E1	8.38E1	7.90E1
1980	7.16E1 [†]	7.88E1 [†]	9.98E1 [†]
1981	9.60E1	8.84E1	9.98E1
1982	8.50E1	8.52E1	1.05E2
1983	1.10E2	1.08E2	1.24E2
1984	7.46E1	7.44E1	8.57E1
1985	9.06E1	9.21E1	1.21E2
1986	8.46E1	8.88E1	1.05E2
1987	7.20E1	7.32E1	1.17E2
1988	5.73E1	6.10E1	5.21E1
1989	5.10E1	5.04E1	7.17E1
1990	4.12E1	4.54E1	5.94E1
1991	4.88E1	5.31E1	6.46E1
1992	5.37E1	5.27E1	7.22E1
1993	5.33E1	5.42E1	6.84E1
1994	6.08E1	6.58E1	9.07E1
1995	7.94E1	7.84E1	1.03E2
1996	6.82E1	6.67E1	9.39E1
1997	5.91E1	6.35E1	8.98E1
1998	6.26E1	6.00E1	8.26E1
1999	5.92E1	5.75E1	8.51E1
2000	6.18E1	5.77E1	8.52E1
2001	6.16E1	5.91E1	8.86E1
2002	6.24E1	6.11E1	9.01E1
2003	6.41E1	6.13E1	8.74E1
2004	6.14E1	6.02E1	8.70E1
2005	6.29E1	6.06E1	8.97E1
2006	6.41E1	6.25E1	8.70E1
2007	6.50E1	6.27E1	8.55E1
2008	6.36E1	6.25E1	8.93E1
2009	6.43E1	6.31E1	8.78E1
2010	6.30E1	6.20E1	8.47E1
2011	6.18E1	6.32E1	8.97E1
2012	6.13E1	6.24E1	8.74E1
2013	6.09E1	6.23E1	8.97E1
2014	6.03E1	6.08E1	8.57E1
2015	6.35E1	6.40E1	8.93E1

[†] Values are based on two quarters due to change in TLD locations.

Table 3.9-B Direct Gamma Radiation (TLD) McGuire 2015 Investigation Level

McGuire 2015 MDD _Q : 6	McGuire 2015 MDD _A : 11
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Quarterly (mrem)										Annual(mrem)		
Location	B _Q	M _Q Q1	M _Q Q2	M _Q Q3	M _Q Q4	L _Q Q1	L _Q Q2	L _Q Q3	L _Q Q4	B _A	M _A *	L _A
143	15.9	18.9	16.2	15.9	17.4	ND	ND	ND	ND	65.0	68.4	ND
144	14.3	17.5	14.2	12.6	13.8	ND	ND	ND	ND	57.5	58.0	ND
145	14.5	16.7	12.3	12.6	14.3	ND	ND	ND	ND	58.5	55.9	ND
146	13.6	18.0	12.0	14.2	12.6	ND	ND	ND	ND	54.9	56.7	ND
147	14.4	15.3	14.2	13.2	13.2	ND	ND	ND	ND	57.7	55.9	ND
148	12.6	14.6	11.5	15.8	13.5	ND	ND	ND	ND	51.2	55.4	ND
149	12.1	13.8	12.9	9.7	10.9	ND	ND	ND	ND	48.7	47.3	ND
151	14.6	16.0	12.5	11.6	13.1	ND	ND	ND	ND	59.2	53.2	ND
152	14.1	16.2	14.5	14.5	15.0	ND	ND	ND	ND	56.9	60.2	ND
153	18.7	23.7	21.6	17.2	20.0	ND	ND	ND	ND	75.0	82.4	ND
154	20.7	---	19.9	17.7	19.7	ND	ND	ND	ND	82.8	76.3	ND
156	16.3	---	14.7	13.5	16.5	ND	ND	ND	ND	68.3	59.7	ND
157-P	14.8	---	14.0	14.1	14.6	ND	ND	ND	ND	60.3	56.9	ND
158	14.2	17.8	13.4	12.4	14.0	ND	ND	ND	ND	57.8	57.5	ND
159	20.7	22.9	16.9	15.5	14.0	ND	ND	ND	ND	86.0	69.3	ND
160	16.1	19.3	16.2	14.7	15.8	ND	ND	ND	ND	65.4	65.9	ND
161	15.3	20.0	12.9	14.4	14.3	ND	ND	ND	ND	62.1	61.7	ND
162	11.4	14.3	11.8	9.1	12.2	ND	ND	ND	ND	45.8	47.3	ND
163-P	10.9	13.1	12.4	10.0	10.5	ND	ND	ND	ND	44.4	46.0	ND
164	10.9	14.2	11.8	9.4	12.9	ND	ND	ND	ND	43.7	48.3	ND
165	18.3	22.6	17.1	18.1	18.4	ND	ND	ND	ND	74.5	76.3	ND
166-P	17.1	18.8	15.5	---	16.8	ND	ND	ND	ND	68.4	68.1	ND
167	18.3	22.7	18.4	17.8	19.0	ND	ND	ND	ND	73.2	77.9	ND
168-P	15.3	20.8	16.9	15.4	17.5	ND	ND	ND	ND	59.9	70.6	ND
169	13.7	16.0	12.4	12.5	14.0	ND	ND	ND	ND	55.4	54.8	ND
170	20.2	23.3	16.7	19.0	22.5	ND	ND	ND	ND	80.5	81.5	ND
171	15.9	21.1	16.3	15.3	16.4	ND	ND	ND	ND	63.9	69.2	ND
172	15.2	17.4	14.0	14.2	14.0	ND	ND	ND	ND	62.9	59.5	ND
173	23.6	24.6	21.9	23.9	23.0	ND	ND	ND	ND	94.4	93.5	ND
174	21.4	24.9	22.6	20.8	21.7	ND	ND	ND	ND	87.5	90.0	ND
175	21.9	24.5	19.0	21.9	23.8	ND	ND	ND	ND	87.6	89.2	ND
177	13.3	18.8	12.5	11.3	14.8	ND	ND	ND	ND	53.2	57.5	ND
178-P	14.1	16.5	13.8	11.0	16.2	ND	ND	ND	ND	56.5	57.6	ND
180	25.5	28.8	22.3	22.4	22.2	ND	ND	ND	ND	102.0	95.8	ND
181-P	15.7	17.4	16.1	15.0	17.1	ND	ND	ND	ND	63.7	65.6	ND
182	15.6	---	18.1	15.5	16.5	ND	ND	ND	ND	62.3	66.8	ND
186	16.5	20.6	18.4	14.9	16.8	ND	ND	ND	ND	66.6	70.8	ND
187	16.6	21.7	14.7	14.6	21.2	ND	ND	ND	ND	68.0	72.2	ND
189	15.2	18.9	13.2	14.4	14.4	ND	ND	ND	ND	60.5	61.0	ND
190	19.5	19.7	16.3	18.6	23.4	ND	ND	ND	ND	78.0	78.0	ND

* M_A determined by normalizing available quarterly data to 4 full quarters
 ' --- ' indicates no data resulting from missing TLD, erroneous TLD reading, or omitted after investigation ^(note).

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 3.9-B definition of terms

- MDD_Q = minimum differential dose, quarterly, 3 times 90th percentile s_Q determined from analysis in mrem
- MDD_A = minimum differential dose, annual, 3 times 90th 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)
- 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

3.10 LAND USE CENSUS

The land use census was conducted 6/8– 6/9/2015 as required by SLC 16.11.14. Table 3.10 summarizes census results. A map indicating identified locations is shown in Figure 3.10.

During the 2015 census, no new residences (nearer to the plant), no new irrigated gardens (superior to existing gardens) or milk locations were identified. A nearer non-irrigated garden was identified in the NNE sector at 1.40 miles by the census. The nearest residence is located in the East sector at 0.48 miles. No environmental program changes were required as a result of the 2015 land use census.

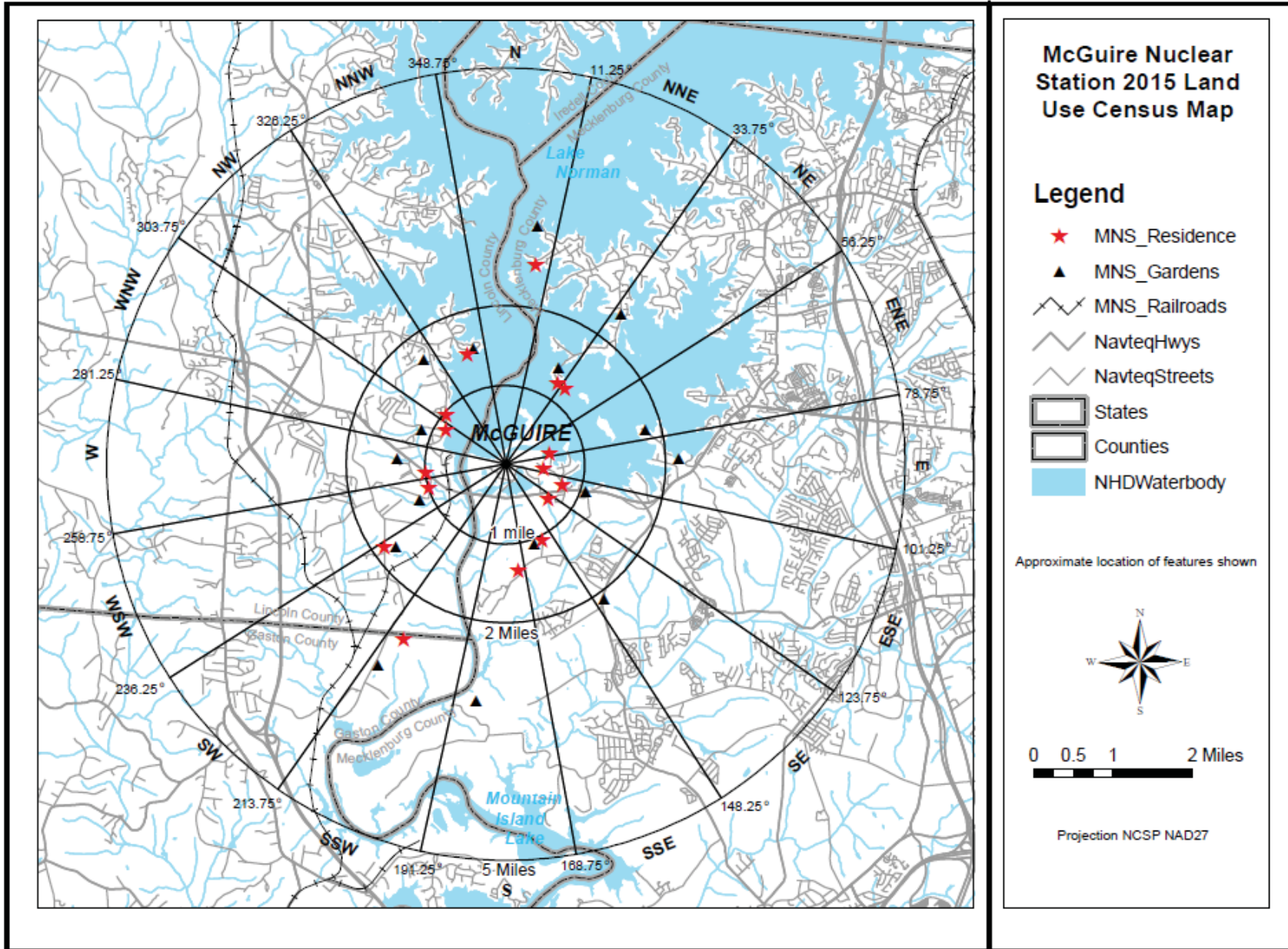
Table 3.10 McGuire 2015 Land Use Census Results

Sector		Distance (Miles)	Sector		Distance (Miles)
N	Nearest Residence	2.53	S	Nearest Residence	1.35
	Nearest Garden (Irr.)	3.03		Nearest Garden	3.14
	Nearest Milk Animal	-		Nearest Milk Animal	-
NNE	Nearest Residence	1.23	SSW	Nearest Residence	2.56
	Nearest Garden	1.40		Nearest Garden	2.94
	Nearest Milk Animal	-		Nearest Milk Animal	-
NE	Nearest Residence	1.21	SW	Nearest Residence	1.85
	Nearest Garden	2.38		Nearest Garden	1.88
	Nearest Milk Animal	-		Nearest Milk Animal	-
ENE	Nearest Residence	0.56	WSW	Nearest Residence	1.01
	Nearest Garden	1.98		Nearest Garden	1.10
	Nearest Milk Animal	-		Nearest Milk Animal	-
E	Nearest Residence	0.48	W	Nearest Residence	1.15
	Nearest Garden	2.11		Nearest Garden	1.23
	Nearest Milk Animal	-		Nearest Milk Animal	-
ESE	Nearest Residence	0.65	WNW	Nearest Residence	0.88
	Nearest Garden	1.06		Nearest Garden	1.15
	Nearest Milk Animal	-		Nearest Milk Animal	-
SE	Nearest Residence	0.67	NW	Nearest Residence	0.95
	Nearest Garden	2.10		Nearest Garden	1.68
	Nearest Milk Animal	-		Nearest Milk Animal	-
SSE	Nearest Residence	1.06	NNW	Nearest Residence	1.48
	Nearest Garden	1.06		Nearest Garden (Irr.)	1.52
	Nearest Milk Animal	-		Nearest Milk Animal	-

“-“ indicates no occurrences within the 5 mile radius

“(Irr.)” indicates irrigated garden

Figure 3.10



4.0 EVALUATION OF DOSE

4.1 DOSE FROM ENVIRONMENTAL MEASUREMENTS

Annual doses to maximum exposed individuals were estimated based on measured concentrations of radionuclides in 2015 MNS 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 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. Where applicable, average background concentration at the corresponding control location was subtracted. Regulatory Guide 1.109 consumption rates for the maximum exposed individual were used in the calculations. When the guide listed “NO DATA” as the dose factor for a given radionuclide and organ, a dose factor of zero was assumed.

Maximum dose estimates (Highest Annual Mean Concentration) based on drinking water, fish, and shoreline sediment sample results are reported in Table 4.1-A. The individual critical population and pathway dose calculations are reported in Table 4.1-B.

REMP-based dose estimates are not reported for airborne radioiodine, airborne particulate, food crops, milk or vegetation sample types because no radionuclides attributable to MNS station operations were detected. Naturally occurring K-40 and Be-7 were detected in some samples but were not included in any REMP-based dose estimates. Dose estimates are not reported for surface water because sampled surface water is not considered to be a potable drinking water source although surface water tritium concentrations are used in calculating doses from fish. Exposure estimates based upon REMP TLD results are discussed in Section 3.9.

The maximum environmental organ dose estimate for any single sample type (excluding TLD results) collected during 2015 was 9.51E-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 from 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, inhalation, milk and vegetation pathways.

4.3 COMPARISON OF DOSES

The environmental and effluent dose estimates 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. This indicates that effluent program dose estimates are both valid and reasonably conservative.

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 McGuire 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 cannot be easily measured in the environment and therefore, environmental and effluent doses from C-14 cannot be compared directly.

In calculations based on liquid release pathways, drinking water consumption was the predominant dose pathway based on environmental and effluent data. The maximum total organ dose based on 2015 environmental sample results was 9.64E-2 mrem to the child total body. The maximum total organ dose of 1.63E-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 maximum organ dose for gaseous effluent estimates was 3.21E0 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 MNS are being maintained well within regulatory limits and are described in the Annual Radiological Effluent Release Report (ARERR).

TABLE 4.1-A

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

LIQUID RELEASE PATHWAY

Organ	Environmental or Effluent Data	Critical Age ⁽¹⁾	Critical Pathway ⁽²⁾	Location	Maximum Dose ⁽³⁾ (mrem)
Skin	Environmental	Teen	Shoreline Sediment	130 (0.52 mi SW)	4.86E-04
Skin	Effluent	Teen	Shoreline Sediment	Discharge Pt.	2.29E-03
Bone	Environmental	-	-	-	0.00E+00
Bone	Effluent	Child	Fresh Water Fish	Discharge Pt.	1.43E-02
Liver	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.63E-02
Liver	Effluent	Child	Drinking Water	3.31 mi E	1.63E-01
T. Body	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.64E-02
T. Body	Effluent	Child	Drinking Water	3.31 mi E	1.59E-01
Thyroid	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.63E-02
Thyroid	Effluent	Child	Drinking Water	3.31 mi E	1.57E-01
Kidney	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.63E-02
Kidney	Effluent	Child	Drinking Water	3.31 mi E	1.59E-01
Lung	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.63E-02
Lung	Effluent	Child	Drinking Water	3.31 mi E	1.58E-01
GI-LLI	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.63E-02
GI-LLI	Effluent	Child	Drinking Water	3.31 mi E	1.60E-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**

Organ	Environmental or Effluent Data	Critical Age ⁽¹⁾	Critical Pathway ⁽²⁾	Location	Maximum Dose ⁽³⁾ (mrem)
Skin	Environmental	-	-	-	0.00E+00
Skin	Effluent	All	Ground Plane	1.0 mi. NNE	2.64E-04
Bone	Environmental	-	-	-	0.00E+00
Bone	Effluent	Child	Vegetation	1.0 mi. NNE	3.21E+00
Liver	Environmental	-	-	-	0.00E+00
Liver	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-01
T. Body	Environmental	-	-	-	0.00E+00
T. Body	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-01
Thyroid	Environmental	-	-	-	0.00E+00
Thyroid	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-01
Kidney	Environmental	-	-	-	0.00E+00
Kidney	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-01
Lung	Environmental	-	-	-	0.00E+00
Lung	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-01
GI-LLI	Environmental	-	-	-	0.00E+00
GI-LLI	Effluent	Child	Vegetation	1.0 mi. NNE	8.82E-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 McGuire Nuclear Station*

Age	Sample Medium	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Skin
Infant	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	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-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	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	0.00E+00
Child	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	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-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	0.00E+00	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03	0.00E+00
	<u>Shoreline Sediment</u>	0.00E+00	0.00E+00	8.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.02E-04
<u>TOTAL</u>	0.00E+00	9.63E-02	9.64E-02	9.63E-02	9.63E-02	9.63E-02	9.63E-02	1.02E-04	
Teen	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	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-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	0.00E+00	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03	0.00E+00
	<u>Shoreline Sediment</u>	0.00E+00	0.00E+00	4.16E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-04
<u>TOTAL</u>	0.00E+00	5.12E-02	5.16E-02	5.12E-02	5.12E-02	5.12E-02	5.12E-02	4.86E-04	
Adult	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	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-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	0.00E+00	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03	0.00E+00
	<u>Shoreline Sediment</u>	0.00E+00	0.00E+00	7.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.70E-05
<u>TOTAL</u>	0.00E+00	7.23E-02	7.24E-02	7.23E-02	7.23E-02	7.23E-02	7.23E-02	8.70E-05	

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

McGuire 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	101	919	0.00E+00	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02
Dose Commitment (mrem) =										0.00E+00	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02

McGuire 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	101	919	0.00E+00	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-02
Dose Commitment (mrem) =										0.00E+00	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-02	9.51E-02

McGuire 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 = 979 pCi/l x 0.9 = 881 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	Fish	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI
								Location	(pCi/kg)							
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	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	128	881	0.00E+00	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03
Dose Commitment (mrem) =										0.00E+00	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03	1.23E-03

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

Shoreline Recreation = 14 hr (in one year)
 Shore Width Factor = 0.3 (lake shore - location 129)
 Shore Width Factor = 0.2 (river shoreline - location 130)
 Sediment Surface Mass = 40 kg/m²

Child Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m²) x Shore Width Factor x Sediment Surface Mass (kg/m²) x Sediment Concentration (pCi/kg)

Radionuclide	<u>External Dose Factor Standing on Contaminated Ground</u>		Indicator Location	Highest Annual Net Mean Concentration (pCi/kg)	<u>Dose</u>	
	(mrem/hr per pCi/m ²)				(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	130	185	8.70E-05	1.02E-04
Dose Commitment (mrem) =					8.70E-05	1.02E-04

McGuire 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	101	919	0.00E+00	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
Dose Commitment (mrem)=										0.00E+00	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02

McGuire 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 = 979 pCi/l x 0.9 = 881 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	0.00	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
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
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	128	881	0.00E+00	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03
Dose Commitment (mrem) =										0.00E+00	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03	1.49E-03

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

Shoreline Recreation = 67 hr (in one year)
 Shore Width Factor = 0.3 (lake shore - location 129)
 Shore Width Factor = 0.2 (river shoreline - location 130)
 Sediment Surface Mass = 40 kg/m²

Teen Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m²) x Shore Width Factor x Sediment Surface Mass (kg/m²) x Sediment Concentration (pCi/kg)

Radionuclide	External Dose Factor Standing on Contaminated Ground		Indicator Location	Sediment (pCi/kg)	Highest Annual Net Mean Concentration		Dose	
	(mrem/hr per pCi/m ²) 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	130	185	4.16E-04	4.86E-04		
Dose Commitment (mrem) =					4.16E-04	4.86E-04		

McGuire 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	101	919	0.00E+00	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-02
Dose Commitment (mrem) =										0.00E+00	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-02	7.04E-02

McGuire 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 = 979 pCi/l x 0.9 = 881 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	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	128	881	0.00E+00	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03
Dose Commitment (mrem) =										0.00E+00	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03	1.94E-03

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

Shoreline Recreation = 12 hr (in one year)
 Shore Width Factor = 0.3 (lake shore - location 129)
 Shore Width Factor = 0.2 (river shoreline - location 130)
 Sediment Surface Mass = 40 kg/m²

Adult Dose from Shoreline Sediment Pathway (mrem) = Shoreline Recreation (hr) x External Dose Factor (mrem/hr per pCi/m²) x Shore Width Factor x Sediment Surface Mass (kg/m²) x Sediment Concentration (pCi/kg)

Radionuclide	<u>External Dose Factor Standing on Contaminated Ground</u> (mrem/hr per pCi/m ²)		<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	130	185	7.46E-05	8.70E-05
Dose Commitment (mrem) =					7.46E-05	8.70E-05

5.0 QUALITY ASSURANCE

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 in any supported 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 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

EnRad Laboratories routinely participates with the North Carolina Department of Health and Human Services in an intercomparison program. EnRad Laboratories sends McGuire Nuclear Plant Radiological Environmental Monitoring Program air, drinking water, surface water, milk, fish, food products, and shoreline sediment samples to the North Carolina Department of Health and Human Services, Division of Public Health 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	
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	1.31E+02	1.27E+02	1.03	Agreement
Beta in Water	Q153ABW1	Cs-137	3	pCi/L	1.29E+02	1.27E+02	1.02	Agreement
			3	pCi/L	1.28E+02	1.27E+02	1.01	Agreement
			3	pCi/L	3.24E+02	3.26E+02	0.99	Agreement
	Q153ABW2	Cs-137	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
HDT in Soil	Fe-55	2 nd	Bq/Kg	330	205	Sens. Eval.	Agreement
MAPEP-15-MaS32							Agreement
(2Q 2015)		4 th	Bq/kg	557	555	389 - 722	Agreement
MAPEP-15-MaS33	Sr-90	2 nd	Bq/Kg	601.00	653	457 - 849	Agreement
(4Q 2015)		4 th	Bq/kg	403	425	298 - 553	Agreement
Gamma in Soil	Am-241	2 nd	Bq/Kg	97.0	68.0	68 - 126	Agreement
		4 th	Bq/Kg	61.7	49.5	34.7 - 64.4	Warning
	Co-57	2 nd	Bq/Kg	0.369	---	False Pos Test	Agreement
		4 th	Bq/Kg	1240.0	1180	826 - 1534	Agreement
MAPEP-15-MaS32	Cs-134	2 nd	Bq/Kg	639	678	475 - 881	Agreement
(2Q 2015)		4 th	Bq/Kg	933	1010	707 - 1313	Agreement
	Cs-137	2 nd	Bq/Kg	-0.279	---	False Pos Test	Agreement
		4 th	Bq/Kg	861.00	809	566 - 1052	Agreement
	Mn-54	2 nd	Bq/Kg	1280	1198	839 - 1557	Agreement
MAPEP-15-MaS33		4 th	Bq/Kg	1450	1340	938 - 1742	Agreement
(4Q 2015)	Zn-65	2 nd	Bq/Kg	1190.0	1064	745 - 1383	Agreement
		4 th	Bq/Kg	761.0	662	463 - 861	Agreement
	Co-60	2 nd	Bq/Kg	852	817	572 - 1062	Agreement
		4 th	Bq/Kg	2.45	1.30	Sens. Eval.	Agreement
	K-40	2 nd	Bq/Kg	684	622	435 - 809	Agreement
		4 th	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 th	pCi/L	302	284	1.06	Agreement
		1 st	pCi/L	140	139	1.01	Agreement
EZA 4Q 2014 E11060		2 nd	pCi/L	1.24E-01	Not Pres.	---	Agreement
		3 rd	pCi/L	205	199	1.03	Agreement
		4 th	pCi/L	127	112	1.14	Agreement
		Cr-51	4 th	pCi/L	543	526	1.03
1 st	pCi/L		395	366	1.08	Agreement	
2 nd	pCi/L		347	293	1.18	Agreement	
3 rd	pCi/L		542	502	1.08	Agreement	
EZA 1Q 2015 E11177	Cs-134	4 th	pCi/L	260	244	1.07	Agreement
		4 th	pCi/L	190	213	0.89	Agreement
		1 st	pCi/L	112	126	0.89	Agreement
		2 nd	pCi/L	163	173	0.94	Agreement
EZA 2Q 2015 E11219	Cs-137	3 rd	pCi/L	175	198	0.89	Agreement
		4 th	pCi/L	125	139	0.90	Agreement
		4 th	pCi/L	258	257	1.01	Agreement
		1 st	pCi/L	169	167	1.01	Agreement
EZA 3Q 2015 E11313	Co-58	2 nd	pCi/L	134	133	1.01	Agreement
		3 rd	pCi/L	240	238	1.01	Agreement
		4 th	pCi/L	112	99.5	1.13	Agreement
		4 th	pCi/L	173	168	1.03	Agreement
EZA 4Q 2015 E11415	Fe-59	1 st	pCi/L	178	180	0.99	Agreement
		2 nd	pCi/L	72.1	72.6	0.99	Agreement
		3 rd	pCi/L	245	246	1.00	Agreement
		4 th	pCi/L	97.3	95.6	1.02	Agreement
EZA 3Q 2015 E11313	Mn-54	4 th	pCi/L	306	292	1.05	Agreement
		1 st	pCi/L	166	159	1.05	Agreement
		2 nd	pCi/L	117	107	1.10	Agreement
		3 rd	pCi/L	288	271	1.06	Agreement
EZA 4Q 2015 E11415	Zn-65	4 th	pCi/L	141	126	1.12	Agreement
		4 th	pCi/L	251	226	1.11	Agreement
		1 st	pCi/L	214	195	1.10	Agreement
		2 nd	pCi/L	176	161	1.09	Agreement
EZA 4Q 2015 E11415	Co-60	3 rd	pCi/L	231	211	1.10	Agreement
		4 th	pCi/L	111	93.4	1.19	Agreement
		4 th	pCi/L	420	384	1.09	Agreement
		1 st	pCi/L	325	299	1.09	Agreement
EZA 4Q 2015 E11415	Co-60	2 nd	pCi/L	285	264	1.08	Agreement
		3 rd	pCi/L	375	330	1.14	Agreement
		4 th	pCi/L	243	215	1.13	Agreement
		4 th	pCi/L	324	304	1.06	Agreement
EZA 4Q 2015 E11415	Co-60	1 st	pCi/L	323	328	0.98	Agreement
		2 nd	pCi/L	210	205	1.03	Agreement
		3 rd	pCi/L	311	308	1.01	Agreement
		4 th	pCi/L	192	185	1.04	Agreement

TABLE 5.0-E (Cont.)

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

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at McGuire Nuclear Station was 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.

This appendix describes the environmental sampling frequencies and analysis procedures by media type.

I. CHANGE OF SAMPLING PROCEDURES

There were no changes to the sampling procedure during 2015.

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 seven 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 and air particulate. A weekly gross beta analysis was performed on each filter. The continuous composite samples were collected from the locations listed below.

Location 102 = Amity Church Road (9.89 mi. WNW)(Control)

Location 103 = Cottonwood (4.20 mi. NE)

Location 120 = Site Boundary (0.46 mi. NNE)

Location 121 = Site Boundary (0.47 mi. NE)

Location 125 = Site Boundary (0.38 mi. SW)

Location 133 = Cornelius (6.23 mi. ENE)

Location 195 = Fishing Access Road (0.19 mi. N)

A.2 DRINKING WATER

Monthly composite samples were collected. A gross beta and gamma analysis was performed on monthly composites. Tritium analysis was performed on the quarterly composites. The composites were collected monthly from the locations listed below.

Location 101 = North Mecklenburg Water Treatment Facility (3.31 mi E)

Location 119 = Mt. Holly Municipal Water Supply (7.40 mi. SSW)

Location 132 = Charlotte Municipal Water Supply (11.1 mi. SSE)

Location 136 = Mooresville Municipal Water Supply (12.7 mi. NNE) (Control)

Location 194 = East Lincoln County Water Supply (6.73 mi. NNW)

A.3 SURFACE WATER

Monthly composite samples were collected. A 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 128 = Discharge Canal Bridge (0.45 mi. NE)
Location 131 = Cowans Ford Dam (0.64 mi. WNW)
Location 135 = Plant Marshall Intake Canal (11.9 mi. N) (Control)

A.4 MILK

Biweekly grab samples were collected at one location. 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 141 = Lynch Dairy - Cows (14.8 mi. WNW) (Control)

A.5 BROADLEAF VEGETATION

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

Location 102 = Amity Church Road (9.89 mi. WNW) (Control)
Location 120 = Site Boundary (0.46 mi. NNE)
Location 125 = Site Boundary (0.38 mi. SW)
Location 193 = Site Boundary (0.19 mi. N)

A.6 FOOD PRODUCTS

Samples were collected monthly when available during the harvest season and a gamma analysis was performed on each. The samples were collected at the location listed below.

Location 104 = 5 mile radius Gardens (1.52 mi NNW)

A.7 FISH

Semiannual samples were collected and a gamma analysis was performed on the edible portions of each sample. Boney fish (i.e. Sunfish) were prepared whole minus the head and tail portions. The samples were collected from the locations listed below.

Location 129 = Discharge Canal Entrance to Lake Norman (0.51 mi. ENE)
Location 137 = Pinnacle Access Area (12.0 mi. N) (Control)

A.8 SHORELINE SEDIMENT

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

- Location 129 = Discharge Canal Entrance to Lake Norman (0.51 mi. ENE)
- Location 130 = Highway 73 Bridge Downstream (0.52 mi. SW)
- Location 137 = Pinnacle Access Area (12.0 mi. N) (Control)

A.9 DIRECT GAMMA RADIATION (TLD)

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-one locations. A gamma exposure rate was determined for each TLD. TLD locations are listed in Table 2.1-B. The TLDs were placed as indicated below.

- * An inner ring of 14 TLDs at the site boundary, one in each available meteorological sector. The site boundary locations in the N and NNW sectors are over water; however, two special interest TLD's were placed in these sectors inside the site boundary in March, 1991.
- * 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.

A.10 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 nearest location from the site boundary in each of the sixteen meteorological sectors, the following:

- * The Nearest Residence
- * The Nearest Garden greater than 50 square meters or 500 square feet
- * The Nearest Milk-giving Animal (cow, goat, etc.)

The census was conducted during the growing season on 6/8 - 6/9/2015. Results are shown in Table 3.10. No changes were made to the sampling procedures during 2015 as a result of the 2015 census.

In the environmental program, the air deposition parameters (D/Q) are used to determine air, broadleaf vegetation and milk sampling locations. McGuire's sectors with the three highest values did not change in 2015.

V. GLOBAL POSITIONING SYSTEM (GPS) ANALYSIS

The McGuire site centerline used for GPS measurements was referenced from the McGuire Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1, Site Location. Waypoint coordinates used for MNS GPS measurements were latitude 35°-25'-59"N and longitude 80°-56'-55"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

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

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2015

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Air Particulate (pCi/m ³)	Gross Beta 364	See Table 2.2-C	1.97E-2 (312/312) 2.92E-3 – 3.80E-2	195 (0.19 mi N)	2.10E-2 (52/52) 2.92E-3 – 3.77E-2	102 (9.89 mi WNW) 2.02E-2 (52/52) 4.83E-3 – 3.83E-2	0
	Gamma 28	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Radioiodine (pCi/m ³)	Gamma 364	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 65	4	2.01 (49/52) 0.98 – 3.23	119 (7.40 mi SSW)	2.14 (12/13) 1.61 – 2.52	136 (12.7 mi NNE) 1.91 (12/13) 0.87 – 2.99	0
	Gamma 65	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 20	2000	678 (13/16) 208 - 1370	101 (3.31 mi E)	919 (4/4) 730 – 1370	All less than LLD	0
Surface Water (pCi/l)	Gamma 39	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 12	2000	774 (8/8) 300 - 1430	128 (0.45 mi NE)	979 (4/4) 727 - 1430	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

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

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2015

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Broadleaf Vegetation (pCi/kg, wet)	Gamma 48	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 9	See Table 2.2-C	All less than LLD	----	----	No Control Location	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 6 Cs-137	See Table 2.2-C	185 (2/4) 155 – 215	130 (0.52 mi SW)	185 (2/2) 155 – 215	All less than LLD	0
TLD (mR per quarter) ⁽⁴⁾	TLD Readout 163 ⁽⁵⁾	----	17.5 (159/159) 9.56 – 30.3	180 (12.7 mi NNE)	25.2 (4/4) 23.4 – 30.3	175 (15.5 mi WNW) 23.5 (4/4) 20.1 – 25.8	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 Analytical Procedures Section/Gamma Spectrometry 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. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days). TLD data indicated in section 3.9 (Direct Gamma Radiation) are reported in mrem /yr ($n * 0.95$).
5. Missing samples are discussed in Appendices C and D

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

MCGUIRE NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

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

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 99.9% availability in 2015.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
125	4/13/15 – 4/20/15	CN	32.9 hours downtime due construction in the area.	NCR # 01903426
125	10/19/15 – 10/26/15	PI	8.96 hours downtime due to indeterminate issue.	NCR # 01969236

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) 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 drinking and surface water samplers operated for a total of 99.9% availability in 2015.

Drinking Water

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
194	1/5/15 – 2/2/15	PI	Power was interrupted to sampling equipment for 14.0 hours during the composite period due to municipal water supply power generator problems.	NCR # 01960301

Surface Water

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
135	1/5/15 – 2/2/15	PI	Power interrupted for 3.65 hours due to repair work on power supply line.	NCR # 01900362
135	8/17/15 – 9/14/15	PS	168 hours of downtime due to pump being out of service. Drought conditions caused low lake level which prohibited the operation of the backup sampler.	NCR # 01959994
135	9/14/15 – 10/12/15	PS	528 hours of downtime due to pump being out of service.	NCR # 01965258

C.2 UNAVAILABLE ANALYSES

Food Products / Crops

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
104	4/6/15	SU	Seasonally unavailable.	NCR # 01903354
104	5/4/15	SU	Seasonally unavailable.	NCR # 01903573
104	6/1/15	SU	Seasonally unavailable.	NCR # 01929415

TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
143	6/17/15 – 9/16/15	OT	TLD was collected, but found on ground in unusable condition.	NCR # 01956371

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.

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364917	12/29/2014 - 1/5/2015	Beta	1.93E-02	2.73E-03	2.84E-03
365106	1/5/2015 - 1/12/2015	Beta	2.50E-02	3.09E-03	3.10E-03
365340	1/12/2015 - 1/19/2015	Beta	1.72E-02	2.61E-03	2.77E-03
366685	1/19/2015 - 1/26/2015	Beta	1.60E-02	2.55E-03	2.74E-03
367099	1/26/2015 - 2/2/2015	Beta	1.60E-02	2.48E-03	2.59E-03
367585	2/2/2015 - 2/9/2015	Beta	2.09E-02	2.89E-03	3.03E-03
369013	2/9/2015 - 2/16/2015	Beta	2.10E-02	2.68E-03	2.51E-03
369726	2/16/2015 - 2/23/2015	Beta	3.15E-02	3.33E-03	3.01E-03
370640	2/23/2015 - 3/2/2015	Beta	2.85E-02	3.08E-03	2.65E-03
371580	3/2/2015 - 3/9/2015	Beta	2.00E-02	2.64E-03	2.48E-03
371953	3/9/2015 - 3/16/2015	Beta	1.80E-02	2.74E-03	2.98E-03
372437	3/16/2015 - 3/23/2015	Beta	1.82E-02	2.64E-03	2.72E-03
373882	3/23/2015 - 3/30/2015	Beta	1.74E-02	2.66E-03	2.90E-03
373889	12/29/2014 - 3/30/2015	Cs-134	<4.39E-04	0.00E+00	4.39E-04
		Cs-137	<4.02E-04	0.00E+00	4.02E-04
		Be-7	1.55E-01	2.32E-02	1.12E-02
		K-40	<1.44E-02	0.00E+00	1.44E-02
374591	3/30/2015 - 4/6/2015	Beta	1.65E-02	2.48E-03	2.47E-03
374975	4/6/2015 - 4/13/2015	Beta	1.63E-02	2.64E-03	2.94E-03
375662	4/13/2015 - 4/20/2015	Beta	8.13E-03	2.24E-03	3.03E-03
376868	4/20/2015 - 4/27/2015	Beta	1.27E-02	2.48E-03	3.05E-03
377525	4/27/2015 - 5/4/2015	Beta	1.31E-02	2.35E-03	2.64E-03
378096	5/4/2015 - 5/11/2015	Beta	2.17E-02	2.80E-03	2.72E-03
378501	5/11/2015 - 5/18/2015	Beta	1.96E-02	2.77E-03	2.92E-03
378990	5/18/2015 - 5/26/2015	Beta	2.15E-02	2.58E-03	2.39E-03
379491	5/26/2015 - 6/1/2015	Beta	1.51E-02	2.80E-03	3.25E-03
380227	6/1/2015 - 6/8/2015	Beta	1.22E-02	2.39E-03	2.86E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
380515	6/8/2015 - 6/15/2015	Beta	1.91E-02	2.80E-03	3.06E-03
380840	6/15/2015 - 6/22/2015	Beta	1.92E-02	2.72E-03	2.88E-03
381292	6/22/2015 - 6/29/2015	Beta	2.36E-02	2.96E-03	2.84E-03
381299	3/30/2015 - 6/29/2015	Cs-134	<4.51E-04	0.00E+00	4.51E-04
		Cs-137	<4.60E-04	0.00E+00	4.60E-04
		Be-7	1.29E-01	2.12E-02	1.24E-02
		K-40	<1.34E-02	0.00E+00	1.34E-02
381633	6/29/2015 - 7/6/2015	Beta	1.73E-02	2.64E-03	2.85E-03
382198	7/6/2015 - 7/13/2015	Beta	2.56E-02	3.03E-03	2.88E-03
382626	7/13/2015 - 7/20/2015	Beta	1.51E-02	2.50E-03	2.77E-03
383551	7/20/2015 - 7/27/2015	Beta	2.42E-02	2.94E-03	2.76E-03
384127	7/27/2015 - 8/3/2015	Beta	2.53E-02	2.94E-03	2.64E-03
384691	8/3/2015 - 8/10/2015	Beta	2.38E-02	2.93E-03	2.88E-03
385446	8/10/2015 - 8/17/2015	Beta	2.50E-02	3.01E-03	2.88E-03
385960	8/17/2015 - 8/24/2015	Beta	1.76E-02	2.74E-03	3.05E-03
386859	8/24/2015 - 8/31/2015	Beta	2.79E-02	3.05E-03	2.62E-03
387444	8/31/2015 - 9/8/2015	Beta	3.51E-02	3.12E-03	2.46E-03
388795	9/8/2015 - 9/14/2015	Beta	1.82E-02	2.81E-03	2.88E-03
389440	9/14/2015 - 9/21/2015	Beta	2.83E-02	3.15E-03	2.89E-03
390045	9/21/2015 - 9/28/2015	Beta	1.22E-02	2.31E-03	2.66E-03
390672	6/29/2015 - 9/28/2015	Cs-134	<7.37E-04	0.00E+00	7.37E-04
		Cs-137	<3.03E-04	0.00E+00	3.03E-04
		Be-7	1.37E-01	2.41E-02	1.68E-02
		K-40	1.07E-02	5.63E-03	1.94E-03
390665	9/28/2015 - 10/5/2015	Beta	4.83E-03	1.84E-03	2.63E-03
391985	10/5/2015 - 10/12/2015	Beta	2.06E-02	2.76E-03	2.74E-03
392262	10/12/2015 - 10/19/2015	Beta	2.01E-02	2.79E-03	2.85E-03
393465	10/19/2015 - 10/26/2015	Beta	3.64E-02	3.45E-03	2.80E-03
393864	10/26/2015 - 11/2/2015	Beta	2.12E-02	2.88E-03	3.03E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
394878	11/2/2015 - 11/9/2015	Beta	1.41E-02	2.42E-03	2.72E-03
395335	11/9/2015 - 11/16/2015	Beta	1.91E-02	2.71E-03	2.75E-03
395664	11/16/2015 - 11/23/2015	Beta	2.45E-02	2.99E-03	2.87E-03
396158	11/23/2015 - 11/30/2015	Beta	1.87E-02	2.70E-03	2.83E-03
396674	11/30/2015 - 12/7/2015	Beta	2.51E-02	3.00E-03	2.88E-03
397212	12/7/2015 - 12/14/2015	Beta	3.83E-02	3.45E-03	2.55E-03
397929	12/14/2015 - 12/21/2015	Beta	1.76E-02	2.64E-03	2.78E-03
398319	12/21/2015 - 12/28/2015	Beta	1.03E-02	2.23E-03	2.76E-03
398701	9/28/2015 - 12/28/2015	Cs-134	<6.89E-04	0.00E+00	6.89E-04
		Cs-137	<6.88E-04	0.00E+00	6.88E-04
		Be-7	1.24E-01	2.20E-02	1.23E-02
		K-40	1.08E-02	5.65E-03	1.95E-03

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364918	12/29/2014 - 1/5/2015	Beta	2.42E-02	2.92E-03	2.80E-03
365107	1/5/2015 - 1/12/2015	Beta	2.39E-02	3.02E-03	3.06E-03
365341	1/12/2015 - 1/19/2015	Beta	1.79E-02	2.64E-03	2.76E-03
366686	1/19/2015 - 1/26/2015	Beta	1.50E-02	2.46E-03	2.67E-03
367100	1/26/2015 - 2/2/2015	Beta	1.56E-02	2.44E-03	2.56E-03
367586	2/2/2015 - 2/9/2015	Beta	2.09E-02	2.85E-03	2.97E-03
369014	2/9/2015 - 2/16/2015	Beta	1.77E-02	2.54E-03	2.54E-03
369727	2/16/2015 - 2/23/2015	Beta	3.10E-02	3.29E-03	2.99E-03
370641	2/23/2015 - 3/2/2015	Beta	2.12E-02	2.73E-03	2.62E-03
371581	3/2/2015 - 3/9/2015	Beta	1.60E-02	2.46E-03	2.52E-03
371954	3/9/2015 - 3/16/2015	Beta	1.35E-02	2.47E-03	2.90E-03
372438	3/16/2015 - 3/23/2015	Beta	1.69E-02	2.57E-03	2.72E-03
373883	3/23/2015 - 3/30/2015	Beta	2.09E-02	2.80E-03	2.87E-03
373890	12/29/2014 - 3/30/2015	Cs-134	<5.82E-04	0.00E+00	5.82E-04
		Cs-137	<5.39E-04	0.00E+00	5.39E-04
		Be-7	1.45E-01	2.28E-02	1.21E-02
		K-40	<1.03E-02	0.00E+00	1.03E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
374592	3/30/2015 - 4/6/2015	Beta	1.61E-02	2.48E-03	2.50E-03
374976	4/6/2015 - 4/13/2015	Beta	1.58E-02	2.61E-03	2.94E-03
375663	4/13/2015 - 4/20/2015	Beta	8.26E-03	2.25E-03	3.03E-03
376869	4/20/2015 - 4/27/2015	Beta	1.05E-02	2.35E-03	3.02E-03
377526	4/27/2015 - 5/4/2015	Beta	1.27E-02	2.35E-03	2.66E-03
378097	5/4/2015 - 5/11/2015	Beta	1.81E-02	2.64E-03	2.73E-03
378502	5/11/2015 - 5/18/2015	Beta	2.21E-02	2.88E-03	2.92E-03
378991	5/18/2015 - 5/26/2015	Beta	2.03E-02	2.51E-03	2.37E-03
379492	5/26/2015 - 6/1/2015	Beta	1.05E-02	2.56E-03	3.28E-03
380228	6/1/2015 - 6/8/2015	Beta	1.16E-02	2.37E-03	2.87E-03
380516	6/8/2015 - 6/15/2015	Beta	1.70E-02	2.70E-03	3.06E-03
380841	6/15/2015 - 6/22/2015	Beta	1.93E-02	2.70E-03	2.83E-03
381293	6/22/2015 - 6/29/2015	Beta	2.10E-02	2.87E-03	2.89E-03
381300	3/30/2015 - 6/29/2015	Cs-134	<3.54E-04	0.00E+00	3.54E-04
		Cs-137	<2.80E-04	0.00E+00	2.80E-04
		Be-7	1.47E-01	2.26E-02	1.15E-02
		K-40	<1.28E-02	0.00E+00	1.28E-02
381634	6/29/2015 - 7/6/2015	Beta	1.53E-02	2.53E-03	2.84E-03
382199	7/6/2015 - 7/13/2015	Beta	2.67E-02	3.09E-03	2.89E-03
382627	7/13/2015 - 7/20/2015	Beta	1.90E-02	2.68E-03	2.75E-03
383552	7/20/2015 - 7/27/2015	Beta	2.26E-02	2.88E-03	2.78E-03
384128	7/27/2015 - 8/3/2015	Beta	2.44E-02	2.89E-03	2.62E-03
384692	8/3/2015 - 8/10/2015	Beta	2.51E-02	3.04E-03	2.96E-03
385447	8/10/2015 - 8/17/2015	Beta	2.31E-02	2.91E-03	2.85E-03
385961	8/17/2015 - 8/24/2015	Beta	1.77E-02	2.76E-03	3.08E-03
386860	8/24/2015 - 8/31/2015	Beta	2.98E-02	3.13E-03	2.61E-03
387445	8/31/2015 - 9/8/2015	Beta	3.29E-02	3.04E-03	2.46E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
388796	9/8/2015 - 9/14/2015	Beta	1.61E-02	2.78E-03	3.00E-03
389441	9/14/2015 - 9/21/2015	Beta	2.84E-02	3.18E-03	2.92E-03
390046	9/21/2015 - 9/28/2015	Beta	1.08E-02	2.19E-03	2.59E-03
390673	6/29/2015 - 9/28/2015	Cs-134	<8.32E-04	0.00E+00	8.32E-04
		Cs-137	<3.83E-04	0.00E+00	3.83E-04
		Be-7	1.44E-01	2.38E-02	1.22E-02
		K-40	<1.40E-02	0.00E+00	1.40E-02
390666	9/28/2015 - 10/5/2015	Beta	5.18E-03	1.86E-03	2.63E-03
391986	10/5/2015 - 10/12/2015	Beta	1.89E-02	2.64E-03	2.69E-03
392263	10/12/2015 - 10/19/2015	Beta	2.29E-02	2.96E-03	2.91E-03
393466	10/19/2015 - 10/26/2015	Beta	3.79E-02	3.50E-03	2.79E-03
393865	10/26/2015 - 11/2/2015	Beta	2.17E-02	2.90E-03	3.02E-03
394879	11/2/2015 - 11/9/2015	Beta	1.74E-02	2.57E-03	2.69E-03
395336	11/9/2015 - 11/16/2015	Beta	1.79E-02	2.67E-03	2.77E-03
395665	11/16/2015 - 11/23/2015	Beta	2.12E-02	2.85E-03	2.88E-03
396159	11/23/2015 - 11/30/2015	Beta	1.94E-02	2.72E-03	2.83E-03
396675	11/30/2015 - 12/7/2015	Beta	2.48E-02	2.97E-03	2.84E-03
397213	12/7/2015 - 12/14/2015	Beta	3.24E-02	3.25E-03	2.58E-03
397930	12/14/2015 - 12/21/2015	Beta	1.88E-02	2.69E-03	2.78E-03
398320	12/21/2015 - 12/28/2015	Beta	9.49E-03	2.19E-03	2.76E-03
398702	9/28/2015 - 12/28/2015	Cs-134	<3.60E-04	0.00E+00	3.60E-04
		Cs-137	<5.02E-04	0.00E+00	5.02E-04
		Be-7	1.09E-01	2.00E-02	1.32E-02
		K-40	<1.50E-02	0.00E+00	1.50E-02

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364919	12/29/2014 - 1/5/2015	Beta	2.34E-02	2.90E-03	2.81E-03
365108	1/5/2015 - 1/12/2015	Beta	2.52E-02	3.12E-03	3.13E-03
365342	1/12/2015 - 1/19/2015	Beta	1.86E-02	2.67E-03	2.76E-03
366687	1/19/2015 - 1/26/2015	Beta	1.56E-02	2.49E-03	2.67E-03
367101	1/26/2015 - 2/2/2015	Beta	1.71E-02	2.47E-03	2.50E-03



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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
367587	2/2/2015 - 2/9/2015	Beta	2.26E-02	2.95E-03	3.01E-03
369015	2/9/2015 - 2/16/2015	Beta	2.14E-02	2.73E-03	2.56E-03
369728	2/16/2015 - 2/23/2015	Beta	3.80E-02	3.57E-03	3.01E-03
370642	2/23/2015 - 3/2/2015	Beta	2.52E-02	2.87E-03	2.55E-03
371582	3/2/2015 - 3/9/2015	Beta	1.91E-02	2.65E-03	2.56E-03
371955	3/9/2015 - 3/16/2015	Beta	1.47E-02	2.54E-03	2.92E-03
372439	3/16/2015 - 3/23/2015	Beta	1.49E-02	2.52E-03	2.79E-03
373884	3/23/2015 - 3/30/2015	Beta	1.93E-02	2.64E-03	2.73E-03
373891	12/29/2014 - 3/30/2015	Cs-134	<3.45E-04	0.00E+00	3.45E-04
		Cs-137	<5.88E-04	0.00E+00	5.88E-04
		Be-7	1.50E-01	2.28E-02	1.19E-02
		K-40	<1.30E-02	0.00E+00	1.30E-02
374593	3/30/2015 - 4/6/2015	Beta	1.53E-02	2.44E-03	2.50E-03
374977	4/6/2015 - 4/13/2015	Beta	1.85E-02	2.76E-03	2.98E-03
375664	4/13/2015 - 4/20/2015	Beta	8.17E-03	2.25E-03	3.04E-03
376870	4/20/2015 - 4/27/2015	Beta	1.47E-02	2.53E-03	2.96E-03
377527	4/27/2015 - 5/4/2015	Beta	1.38E-02	2.44E-03	2.72E-03
378098	5/4/2015 - 5/11/2015	Beta	2.21E-02	2.83E-03	2.73E-03
378503	5/11/2015 - 5/18/2015	Beta	2.40E-02	2.97E-03	2.92E-03
378992	5/18/2015 - 5/26/2015	Beta	2.04E-02	2.49E-03	2.33E-03
379493	5/26/2015 - 6/1/2015	Beta	1.20E-02	2.70E-03	3.37E-03
380229	6/1/2015 - 6/8/2015	Beta	1.13E-02	2.35E-03	2.86E-03
380517	6/8/2015 - 6/15/2015	Beta	1.86E-02	2.78E-03	3.06E-03
380842	6/15/2015 - 6/22/2015	Beta	2.11E-02	2.77E-03	2.81E-03
381294	6/22/2015 - 6/29/2015	Beta	2.24E-02	2.96E-03	2.92E-03
381301	3/30/2015 - 6/29/2015	Cs-134	<4.38E-04	0.00E+00	4.38E-04
		Cs-137	<5.59E-04	0.00E+00	5.59E-04
		Be-7	1.69E-01	2.45E-02	1.04E-02
		K-40	1.29E-02	6.71E-03	6.78E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
381635	6/29/2015 - 7/6/2015	Beta	1.72E-02	2.63E-03	2.83E-03
382200	7/6/2015 - 7/13/2015	Beta	2.47E-02	3.00E-03	2.88E-03
382628	7/13/2015 - 7/20/2015	Beta	1.57E-02	2.46E-03	2.66E-03
383553	7/20/2015 - 7/27/2015	Beta	2.23E-02	2.94E-03	2.88E-03
384129	7/27/2015 - 8/3/2015	Beta	2.57E-02	2.95E-03	2.62E-03
384693	8/3/2015 - 8/10/2015	Beta	2.40E-02	2.99E-03	2.95E-03
385448	8/10/2015 - 8/17/2015	Beta	2.41E-02	2.91E-03	2.79E-03
385962	8/17/2015 - 8/24/2015	Beta	1.42E-02	2.63E-03	3.15E-03
386861	8/24/2015 - 8/31/2015	Beta	2.45E-02	2.90E-03	2.61E-03
387446	8/31/2015 - 9/8/2015	Beta	2.82E-02	2.86E-03	2.46E-03
388797	9/8/2015 - 9/14/2015	Beta	1.53E-02	2.60E-03	2.79E-03
389442	9/14/2015 - 9/21/2015	Beta	2.60E-02	3.12E-03	2.98E-03
390047	9/21/2015 - 9/28/2015	Beta	1.07E-02	2.21E-03	2.64E-03
390674	6/29/2015 - 9/28/2015	Cs-134	<5.63E-04	0.00E+00	5.63E-04
		Cs-137	<5.81E-04	0.00E+00	5.81E-04
		Be-7	1.47E-01	2.41E-02	1.21E-02
		K-40	<1.40E-02	0.00E+00	1.40E-02
390667	9/28/2015 - 10/5/2015	Beta	5.24E-03	1.85E-03	2.62E-03
391987	10/5/2015 - 10/12/2015	Beta	1.82E-02	2.60E-03	2.67E-03
392264	10/12/2015 - 10/19/2015	Beta	2.18E-02	2.96E-03	2.99E-03
393467	10/19/2015 - 10/26/2015	Beta	3.20E-02	3.27E-03	2.79E-03
393866	10/26/2015 - 11/2/2015	Beta	1.70E-02	2.68E-03	3.02E-03
394880	11/2/2015 - 11/9/2015	Beta	1.53E-02	2.44E-03	2.64E-03
395337	11/9/2015 - 11/16/2015	Beta	1.85E-02	2.73E-03	2.84E-03
395666	11/16/2015 - 11/23/2015	Beta	2.10E-02	2.83E-03	2.87E-03
396160	11/23/2015 - 11/30/2015	Beta	1.66E-02	2.59E-03	2.83E-03
396676	11/30/2015 - 12/7/2015	Beta	2.58E-02	2.97E-03	2.78E-03



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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397214	12/7/2015 - 12/14/2015	Beta	3.48E-02	3.38E-03	2.63E-03
397931	12/14/2015 - 12/21/2015	Beta	1.87E-02	2.69E-03	2.79E-03
398321	12/21/2015 - 12/28/2015	Beta	1.02E-02	2.23E-03	2.77E-03
398703	9/28/2015 - 12/28/2015	Cs-134	<1.44E-04	0.00E+00	1.44E-04
		Cs-137	<5.01E-04	0.00E+00	5.01E-04
		Be-7	1.28E-01	2.26E-02	1.04E-02
		K-40	<1.27E-02	0.00E+00	1.27E-02

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364920	12/29/2014 - 1/5/2015	Beta	2.20E-02	2.79E-03	2.75E-03
365109	1/5/2015 - 1/12/2015	Beta	2.23E-02	2.98E-03	3.12E-03
365343	1/12/2015 - 1/19/2015	Beta	1.69E-02	2.58E-03	2.76E-03
366688	1/19/2015 - 1/26/2015	Beta	1.65E-02	2.53E-03	2.67E-03
367102	1/26/2015 - 2/2/2015	Beta	1.37E-02	2.31E-03	2.51E-03
367588	2/2/2015 - 2/9/2015	Beta	2.16E-02	2.95E-03	3.07E-03
369016	2/9/2015 - 2/16/2015	Beta	1.82E-02	2.58E-03	2.56E-03
369729	2/16/2015 - 2/23/2015	Beta	3.34E-02	3.40E-03	3.01E-03
370643	2/23/2015 - 3/2/2015	Beta	2.36E-02	2.81E-03	2.57E-03
371583	3/2/2015 - 3/9/2015	Beta	1.91E-02	2.64E-03	2.55E-03
371956	3/9/2015 - 3/16/2015	Beta	1.50E-02	2.56E-03	2.92E-03
372440	3/16/2015 - 3/23/2015	Beta	1.48E-02	2.47E-03	2.72E-03
373885	3/23/2015 - 3/30/2015	Beta	1.91E-02	2.69E-03	2.82E-03
373892	12/29/2014 - 3/30/2015	Cs-134	<5.64E-04	0.00E+00	5.64E-04
		Cs-137	<5.57E-04	0.00E+00	5.57E-04
		Be-7	1.42E-01	2.18E-02	9.93E-03
		K-40	<1.21E-02	0.00E+00	1.21E-02
374594	3/30/2015 - 4/6/2015	Beta	1.65E-02	2.50E-03	2.50E-03
374978	4/6/2015 - 4/13/2015	Beta	1.93E-02	2.80E-03	2.97E-03
375665	4/13/2015 - 4/20/2015	Beta	8.60E-03	2.42E-03	3.29E-03
376871	4/20/2015 - 4/27/2015	Beta	1.42E-02	2.51E-03	2.97E-03
377528	4/27/2015 - 5/4/2015	Beta	1.40E-02	2.45E-03	2.71E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
378099	5/4/2015 - 5/11/2015	Beta	1.99E-02	2.73E-03	2.73E-03
378504	5/11/2015 - 5/18/2015	Beta	1.91E-02	2.75E-03	2.92E-03
378993	5/18/2015 - 5/26/2015	Beta	2.30E-02	2.60E-03	2.33E-03
379494	5/26/2015 - 6/1/2015	Beta	1.08E-02	2.63E-03	3.36E-03
380230	6/1/2015 - 6/8/2015	Beta	1.17E-02	2.37E-03	2.86E-03
380518	6/8/2015 - 6/15/2015	Beta	1.80E-02	2.75E-03	3.06E-03
380843	6/15/2015 - 6/22/2015	Beta	2.13E-02	2.78E-03	2.81E-03
381295	6/22/2015 - 6/29/2015	Beta	2.42E-02	3.04E-03	2.91E-03
381302	3/30/2015 - 6/29/2015	Cs-134	<5.66E-04	0.00E+00	5.66E-04
		Cs-137	<1.13E-04	0.00E+00	1.13E-04
		Be-7	1.34E-01	2.29E-02	1.49E-02
		K-40	<1.50E-02	0.00E+00	1.50E-02
381636	6/29/2015 - 7/6/2015	Beta	1.72E-02	2.63E-03	2.83E-03
382201	7/6/2015 - 7/13/2015	Beta	2.60E-02	3.06E-03	2.88E-03
382629	7/13/2015 - 7/20/2015	Beta	1.85E-02	2.60E-03	2.67E-03
383554	7/20/2015 - 7/27/2015	Beta	2.29E-02	2.96E-03	2.87E-03
384130	7/27/2015 - 8/3/2015	Beta	2.28E-02	2.82E-03	2.63E-03
384694	8/3/2015 - 8/10/2015	Beta	2.37E-02	2.98E-03	2.95E-03
385449	8/10/2015 - 8/17/2015	Beta	2.63E-02	3.01E-03	2.80E-03
385963	8/17/2015 - 8/24/2015	Beta	1.61E-02	2.72E-03	3.15E-03
386862	8/24/2015 - 8/31/2015	Beta	2.80E-02	3.00E-03	2.55E-03
387447	8/31/2015 - 9/8/2015	Beta	2.91E-02	2.90E-03	2.46E-03
388798	9/8/2015 - 9/14/2015	Beta	1.44E-02	2.60E-03	2.86E-03
389443	9/14/2015 - 9/21/2015	Beta	2.76E-02	3.18E-03	2.97E-03
390048	9/21/2015 - 9/28/2015	Beta	1.10E-02	2.23E-03	2.64E-03
390675	6/29/2015 - 9/28/2015	Cs-134	<4.85E-04	0.00E+00	4.85E-04
		Cs-137	<7.17E-04	0.00E+00	7.17E-04
		Be-7	1.41E-01	2.38E-02	1.33E-02
		K-40	<1.65E-02	0.00E+00	1.65E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
390668	9/28/2015 - 10/5/2015	Beta	2.92E-03	1.69E-03	2.62E-03
391988	10/5/2015 - 10/12/2015	Beta	1.88E-02	2.63E-03	2.68E-03
392265	10/12/2015 - 10/19/2015	Beta	2.33E-02	3.01E-03	2.98E-03
393468	10/19/2015 - 10/26/2015	Beta	3.23E-02	3.29E-03	2.79E-03
393867	10/26/2015 - 11/2/2015	Beta	1.98E-02	2.81E-03	3.02E-03
394881	11/2/2015 - 11/9/2015	Beta	1.77E-02	2.56E-03	2.65E-03
395338	11/9/2015 - 11/16/2015	Beta	1.82E-02	2.71E-03	2.82E-03
395667	11/16/2015 - 11/23/2015	Beta	2.31E-02	2.93E-03	2.88E-03
396161	11/23/2015 - 11/30/2015	Beta	1.91E-02	2.71E-03	2.83E-03
396677	11/30/2015 - 12/7/2015	Beta	2.74E-02	3.04E-03	2.79E-03
397215	12/7/2015 - 12/14/2015	Beta	3.76E-02	3.49E-03	2.63E-03
397932	12/14/2015 - 12/21/2015	Beta	2.13E-02	2.81E-03	2.79E-03
398322	12/21/2015 - 12/28/2015	Beta	9.47E-03	2.19E-03	2.76E-03
398704	9/28/2015 - 12/28/2015	Cs-134	<1.35E-04	0.00E+00	1.35E-04
		Cs-137	<4.71E-04	0.00E+00	4.71E-04
		Be-7	1.33E-01	2.06E-02	1.01E-02
		K-40	1.04E-02	5.43E-03	1.87E-03

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364921	12/29/2014 - 1/5/2015	Beta	2.09E-02	2.75E-03	2.75E-03
365110	1/5/2015 - 1/12/2015	Beta	2.70E-02	3.18E-03	3.11E-03
365344	1/12/2015 - 1/19/2015	Beta	1.79E-02	2.64E-03	2.76E-03
366689	1/19/2015 - 1/26/2015	Beta	1.66E-02	2.54E-03	2.67E-03
367103	1/26/2015 - 2/2/2015	Beta	1.41E-02	2.33E-03	2.51E-03
367589	2/2/2015 - 2/9/2015	Beta	2.08E-02	2.87E-03	2.99E-03
369017	2/9/2015 - 2/16/2015	Beta	2.06E-02	2.70E-03	2.56E-03
369730	2/16/2015 - 2/23/2015	Beta	3.22E-02	3.36E-03	3.01E-03
370644	2/23/2015 - 3/2/2015	Beta	2.68E-02	2.95E-03	2.57E-03
371584	3/2/2015 - 3/9/2015	Beta	1.79E-02	2.58E-03	2.55E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
371957	3/9/2015 - 3/16/2015	Beta	1.43E-02	2.57E-03	3.00E-03
372441	3/16/2015 - 3/23/2015	Beta	1.71E-02	2.58E-03	2.72E-03
373886	3/23/2015 - 3/30/2015	Beta	2.26E-02	2.84E-03	2.82E-03
373893	12/29/2014 - 3/30/2015	Cs-134	<6.36E-04	0.00E+00	6.36E-04
		Cs-137	<4.60E-04	0.00E+00	4.60E-04
		Be-7	1.57E-01	2.35E-02	9.46E-03
		K-40	<8.99E-03	0.00E+00	8.99E-03
374595	3/30/2015 - 4/6/2015	Beta	1.71E-02	2.54E-03	2.52E-03
374979	4/6/2015 - 4/13/2015	Beta	1.51E-02	2.58E-03	2.95E-03
375666	4/13/2015 - 4/20/2015	Beta	5.91E-03	2.11E-03	3.05E-03
376872	4/20/2015 - 4/27/2015	Beta	1.31E-02	2.46E-03	2.97E-03
377529	4/27/2015 - 5/4/2015	Beta	1.45E-02	2.48E-03	2.71E-03
378100	5/4/2015 - 5/11/2015	Beta	2.06E-02	2.76E-03	2.73E-03
378505	5/11/2015 - 5/18/2015	Beta	2.37E-02	2.95E-03	2.92E-03
378994	5/18/2015 - 5/26/2015	Beta	2.12E-02	2.57E-03	2.39E-03
379495	5/26/2015 - 6/1/2015	Beta	1.17E-02	2.68E-03	3.36E-03
380231	6/1/2015 - 6/8/2015	Beta	1.17E-02	2.36E-03	2.86E-03
380519	6/8/2015 - 6/15/2015	Beta	1.78E-02	2.74E-03	3.06E-03
380844	6/15/2015 - 6/22/2015	Beta	2.08E-02	2.75E-03	2.81E-03
381296	6/22/2015 - 6/29/2015	Beta	2.40E-02	3.02E-03	2.91E-03
381303	3/30/2015 - 6/29/2015	Cs-134	<6.92E-04	0.00E+00	6.92E-04
		Cs-137	<3.60E-04	0.00E+00	3.60E-04
		Be-7	1.49E-01	2.31E-02	1.22E-02
		K-40	<1.47E-02	0.00E+00	1.47E-02
381637	6/29/2015 - 7/6/2015	Beta	1.88E-02	2.70E-03	2.84E-03
382202	7/6/2015 - 7/13/2015	Beta	2.35E-02	2.95E-03	2.89E-03
382630	7/13/2015 - 7/20/2015	Beta	1.83E-02	2.59E-03	2.67E-03
383555	7/20/2015 - 7/27/2015	Beta	2.20E-02	2.92E-03	2.87E-03
384131	7/27/2015 - 8/3/2015	Beta	2.27E-02	2.82E-03	2.62E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
384695	8/3/2015 - 8/10/2015	Beta	2.12E-02	2.87E-03	2.96E-03
385450	8/10/2015 - 8/17/2015	Beta	2.03E-02	2.75E-03	2.79E-03
385964	8/17/2015 - 8/24/2015	Beta	1.41E-02	2.62E-03	3.15E-03
386863	8/24/2015 - 8/31/2015	Beta	2.63E-02	2.98E-03	2.61E-03
387448	8/31/2015 - 9/8/2015	Beta	3.16E-02	2.99E-03	2.46E-03
388799	9/8/2015 - 9/14/2015	Beta	1.51E-02	2.64E-03	2.87E-03
389444	9/14/2015 - 9/21/2015	Beta	3.01E-02	3.28E-03	2.96E-03
390049	9/21/2015 - 9/28/2015	Beta	1.19E-02	2.28E-03	2.65E-03
390676	6/29/2015 - 9/28/2015	Cs-134	<7.87E-04	0.00E+00	7.87E-04
		Cs-137	<5.82E-04	0.00E+00	5.82E-04
		Be-7	1.64E-01	2.56E-02	1.00E-02
		K-40	<1.53E-02	0.00E+00	1.53E-02
390669	9/28/2015 - 10/5/2015	Beta	4.10E-03	1.78E-03	2.63E-03
391989	10/5/2015 - 10/12/2015	Beta	1.76E-02	2.57E-03	2.67E-03
392266	10/12/2015 - 10/19/2015	Beta	2.29E-02	3.00E-03	2.97E-03
393469	10/19/2015 - 10/26/2015	Beta	3.61E-02	3.55E-03	2.95E-03
393868	10/26/2015 - 11/2/2015	Beta	2.19E-02	2.91E-03	3.02E-03
394882	11/2/2015 - 11/9/2015	Beta	1.68E-02	2.52E-03	2.65E-03
395339	11/9/2015 - 11/16/2015	Beta	2.16E-02	2.87E-03	2.82E-03
395668	11/16/2015 - 11/23/2015	Beta	2.21E-02	2.89E-03	2.88E-03
396162	11/23/2015 - 11/30/2015	Beta	2.18E-02	2.84E-03	2.83E-03
396678	11/30/2015 - 12/7/2015	Beta	2.85E-02	3.08E-03	2.79E-03
397216	12/7/2015 - 12/14/2015	Beta	3.72E-02	3.48E-03	2.63E-03
397933	12/14/2015 - 12/21/2015	Beta	1.88E-02	2.70E-03	2.78E-03
398323	12/21/2015 - 12/28/2015	Beta	1.06E-02	2.25E-03	2.76E-03
398705	9/28/2015 - 12/28/2015	Cs-134	<4.90E-04	0.00E+00	4.90E-04
		Cs-137	<4.98E-04	0.00E+00	4.98E-04
		Be-7	1.32E-01	2.28E-02	1.18E-02
		K-40	<1.45E-02	0.00E+00	1.45E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364922	12/29/2014 - 1/5/2015	Beta	1.84E-02	2.65E-03	2.80E-03
365111	1/5/2015 - 1/12/2015	Beta	2.44E-02	3.04E-03	3.07E-03
365345	1/12/2015 - 1/19/2015	Beta	1.71E-02	2.60E-03	2.77E-03
366690	1/19/2015 - 1/26/2015	Beta	1.49E-02	2.45E-03	2.67E-03
367104	1/26/2015 - 2/2/2015	Beta	1.40E-02	2.36E-03	2.56E-03
367590	2/2/2015 - 2/9/2015	Beta	1.76E-02	2.70E-03	2.98E-03
369018	2/9/2015 - 2/16/2015	Beta	1.77E-02	2.56E-03	2.55E-03
369731	2/16/2015 - 2/23/2015	Beta	3.19E-02	3.32E-03	2.97E-03
370645	2/23/2015 - 3/2/2015	Beta	2.23E-02	2.83E-03	2.69E-03
371585	3/2/2015 - 3/9/2015	Beta	1.94E-02	2.64E-03	2.52E-03
371958	3/9/2015 - 3/16/2015	Beta	1.71E-02	2.65E-03	2.91E-03
372442	3/16/2015 - 3/23/2015	Beta	1.40E-02	2.42E-03	2.72E-03
373887	3/23/2015 - 3/30/2015	Beta	1.68E-02	2.62E-03	2.87E-03
373894	12/29/2014 - 3/30/2015	Cs-134	<5.22E-04	0.00E+00	5.22E-04
		Cs-137	<3.56E-04	0.00E+00	3.56E-04
		Be-7	1.30E-01	2.28E-02	1.89E-02
		K-40	8.92E-03	5.01E-03	1.86E-03
374596	3/30/2015 - 4/6/2015	Beta	1.64E-02	2.49E-03	2.49E-03
374980	4/6/2015 - 4/13/2015	Beta	1.61E-02	2.62E-03	2.94E-03
375667	4/13/2015 - 4/20/2015	Beta	5.69E-03	2.09E-03	3.03E-03
376873	4/20/2015 - 4/27/2015	Beta	1.61E-02	2.63E-03	3.02E-03
377530	4/27/2015 - 5/4/2015	Beta	1.62E-02	2.53E-03	2.66E-03
378101	5/4/2015 - 5/11/2015	Beta	1.93E-02	2.70E-03	2.73E-03
378506	5/11/2015 - 5/18/2015	Beta	2.08E-02	2.82E-03	2.92E-03
378995	5/18/2015 - 5/26/2015	Beta	2.18E-02	2.58E-03	2.37E-03
379496	5/26/2015 - 6/1/2015	Beta	9.19E-03	2.48E-03	3.28E-03
380232	6/1/2015 - 6/8/2015	Beta	1.18E-02	2.38E-03	2.87E-03



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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
380520	6/8/2015 - 6/15/2015	Beta	1.71E-02	2.70E-03	3.06E-03
380845	6/15/2015 - 6/22/2015	Beta	1.58E-02	2.54E-03	2.83E-03
381297	6/22/2015 - 6/29/2015	Beta	1.91E-02	2.78E-03	2.89E-03
381304	3/30/2015 - 6/29/2015	Cs-134	<6.17E-04	0.00E+00	6.17E-04
		Cs-137	<4.46E-04	0.00E+00	4.46E-04
		Be-7	1.38E-01	2.15E-02	1.04E-02
		K-40	<1.54E-02	0.00E+00	1.54E-02
381638	6/29/2015 - 7/6/2015	Beta	1.82E-02	2.68E-03	2.84E-03
382203	7/6/2015 - 7/13/2015	Beta	2.19E-02	2.87E-03	2.89E-03
382631	7/13/2015 - 7/20/2015	Beta	1.76E-02	2.60E-03	2.73E-03
383556	7/20/2015 - 7/27/2015	Beta	2.04E-02	2.79E-03	2.80E-03
384132	7/27/2015 - 8/3/2015	Beta	2.20E-02	2.77E-03	2.62E-03
384696	8/3/2015 - 8/10/2015	Beta	2.12E-02	2.87E-03	2.96E-03
385451	8/10/2015 - 8/17/2015	Beta	1.43E-02	2.49E-03	2.85E-03
385965	8/17/2015 - 8/24/2015	Beta	1.37E-02	2.56E-03	3.08E-03
386864	8/24/2015 - 8/31/2015	Beta	2.51E-02	2.93E-03	2.61E-03
387449	8/31/2015 - 9/8/2015	Beta	2.74E-02	2.82E-03	2.46E-03
388800	9/8/2015 - 9/14/2015	Beta	1.42E-02	2.72E-03	3.08E-03
389445	9/14/2015 - 9/21/2015	Beta	2.76E-02	3.15E-03	2.92E-03
390050	9/21/2015 - 9/28/2015	Beta	1.30E-02	2.35E-03	2.66E-03
390677	6/29/2015 - 9/28/2015	Cs-134	<6.90E-04	0.00E+00	6.90E-04
		Cs-137	<4.97E-04	0.00E+00	4.97E-04
		Be-7	1.34E-01	2.32E-02	1.45E-02
		K-40	<1.02E-02	0.00E+00	1.02E-02
390670	9/28/2015 - 10/5/2015	Beta	4.41E-03	1.81E-03	2.63E-03
391990	10/5/2015 - 10/12/2015	Beta	1.91E-02	2.64E-03	2.68E-03
392267	10/12/2015 - 10/19/2015	Beta	2.03E-02	2.84E-03	2.92E-03
393470	10/19/2015 - 10/26/2015	Beta	2.85E-02	3.13E-03	2.79E-03
393869	10/26/2015 - 11/2/2015	Beta	1.89E-02	2.77E-03	3.02E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
394883	11/2/2015 - 11/9/2015	Beta	1.37E-02	2.39E-03	2.69E-03
395340	11/9/2015 - 11/16/2015	Beta	1.49E-02	2.51E-03	2.77E-03
395669	11/16/2015 - 11/23/2015	Beta	2.13E-02	2.85E-03	2.88E-03
396163	11/23/2015 - 11/30/2015	Beta	1.85E-02	2.68E-03	2.83E-03
396679	11/30/2015 - 12/7/2015	Beta	2.18E-02	2.83E-03	2.84E-03
397217	12/7/2015 - 12/14/2015	Beta	3.22E-02	3.24E-03	2.58E-03
397934	12/14/2015 - 12/21/2015	Beta	1.79E-02	2.65E-03	2.78E-03
398324	12/21/2015 - 12/28/2015	Beta	9.47E-03	2.19E-03	2.76E-03
398706	9/28/2015 - 12/28/2015	Cs-134	<5.26E-04	0.00E+00	5.26E-04
		Cs-137	<5.75E-04	0.00E+00	5.75E-04
		Be-7	1.24E-01	2.18E-02	1.45E-02
		K-40	<9.68E-03	0.00E+00	9.68E-03

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364923	12/29/2014 - 1/5/2015	Beta	2.37E-02	2.86E-03	2.74E-03
365112	1/5/2015 - 1/12/2015	Beta	2.79E-02	3.23E-03	3.13E-03
365346	1/12/2015 - 1/19/2015	Beta	1.75E-02	2.62E-03	2.76E-03
366691	1/19/2015 - 1/26/2015	Beta	1.62E-02	2.51E-03	2.67E-03
367105	1/26/2015 - 2/2/2015	Beta	1.51E-02	2.38E-03	2.50E-03
367591	2/2/2015 - 2/9/2015	Beta	2.57E-02	3.13E-03	3.08E-03
369019	2/9/2015 - 2/16/2015	Beta	2.07E-02	2.70E-03	2.56E-03
369732	2/16/2015 - 2/23/2015	Beta	3.47E-02	3.45E-03	3.01E-03
370646	2/23/2015 - 3/2/2015	Beta	2.80E-02	2.99E-03	2.56E-03
371586	3/2/2015 - 3/9/2015	Beta	1.92E-02	2.66E-03	2.56E-03
371959	3/9/2015 - 3/16/2015	Beta	1.61E-02	2.62E-03	2.92E-03
372443	3/16/2015 - 3/23/2015	Beta	1.54E-02	2.50E-03	2.72E-03
373888	3/23/2015 - 3/30/2015	Beta	1.95E-02	2.70E-03	2.79E-03
373895	12/29/2014 - 3/30/2015	Cs-134	<6.34E-04	0.00E+00	6.34E-04
		Cs-137	<4.12E-04	0.00E+00	4.12E-04
		Be-7	1.37E-01	2.21E-02	1.35E-02
		K-40	6.74E-03	4.89E-03	5.58E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
374597	3/30/2015 - 4/6/2015	Beta	1.80E-02	2.59E-03	2.52E-03
374981	4/6/2015 - 4/13/2015	Beta	2.12E-02	2.90E-03	2.98E-03
375668	4/13/2015 - 4/20/2015	Beta	8.95E-03	2.29E-03	3.04E-03
376874	4/20/2015 - 4/27/2015	Beta	1.45E-02	2.44E-03	2.82E-03
377531	4/27/2015 - 5/4/2015	Beta	1.46E-02	2.62E-03	2.94E-03
378102	5/4/2015 - 5/11/2015	Beta	2.13E-02	2.71E-03	2.60E-03
378507	5/11/2015 - 5/18/2015	Beta	2.27E-02	2.91E-03	2.92E-03
378996	5/18/2015 - 5/26/2015	Beta	1.98E-02	2.46E-03	2.33E-03
379497	5/26/2015 - 6/1/2015	Beta	1.03E-02	2.60E-03	3.37E-03
380233	6/1/2015 - 6/8/2015	Beta	1.06E-02	2.31E-03	2.86E-03
380521	6/8/2015 - 6/15/2015	Beta	1.81E-02	2.75E-03	3.06E-03
380846	6/15/2015 - 6/22/2015	Beta	2.13E-02	2.82E-03	2.88E-03
381298	6/22/2015 - 6/29/2015	Beta	2.34E-02	3.00E-03	2.92E-03
381305	3/30/2015 - 6/29/2015	Cs-134	<5.63E-04	0.00E+00	5.63E-04
		Cs-137	<4.97E-04	0.00E+00	4.97E-04
		Be-7	1.57E-01	2.45E-02	1.09E-02
		K-40	1.01E-02	5.87E-03	5.49E-03
381639	6/29/2015 - 7/6/2015	Beta	1.70E-02	2.62E-03	2.83E-03
382204	7/6/2015 - 7/13/2015	Beta	2.64E-02	3.07E-03	2.88E-03
382632	7/13/2015 - 7/20/2015	Beta	1.73E-02	2.50E-03	2.60E-03
383557	7/20/2015 - 7/27/2015	Beta	2.51E-02	3.06E-03	2.88E-03
384133	7/27/2015 - 8/3/2015	Beta	2.52E-02	2.92E-03	2.63E-03
384697	8/3/2015 - 8/10/2015	Beta	2.76E-02	3.15E-03	2.95E-03
385452	8/10/2015 - 8/17/2015	Beta	2.43E-02	2.93E-03	2.79E-03
385966	8/17/2015 - 8/24/2015	Beta	1.76E-02	2.80E-03	3.15E-03
386865	8/24/2015 - 8/31/2015	Beta	3.03E-02	3.15E-03	2.61E-03
387450	8/31/2015 - 9/8/2015	Beta	3.62E-02	3.16E-03	2.46E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
388801	9/8/2015 - 9/14/2015	Beta	1.86E-02	2.82E-03	2.85E-03
389446	9/14/2015 - 9/21/2015	Beta	2.97E-02	3.28E-03	2.98E-03
390051	9/21/2015 - 9/28/2015	Beta	1.19E-02	2.28E-03	2.64E-03
390678	6/29/2015 - 9/28/2015	Cs-134	<5.63E-04	0.00E+00	5.63E-04
		Cs-137	<4.94E-04	0.00E+00	4.94E-04
		Be-7	1.52E-01	2.48E-02	1.30E-02
		K-40	<1.30E-02	0.00E+00	1.30E-02
390671	9/28/2015 - 10/5/2015	Beta	2.92E-03	1.69E-03	2.62E-03
391991	10/5/2015 - 10/12/2015	Beta	2.17E-02	2.76E-03	2.67E-03
392268	10/12/2015 - 10/19/2015	Beta	2.67E-02	3.17E-03	2.99E-03
393471	10/19/2015 - 10/26/2015	Beta	3.22E-02	3.28E-03	2.79E-03
393870	10/26/2015 - 11/2/2015	Beta	2.17E-02	2.89E-03	3.02E-03
394884	11/2/2015 - 11/9/2015	Beta	1.52E-02	2.43E-03	2.64E-03
395341	11/9/2015 - 11/16/2015	Beta	1.96E-02	2.79E-03	2.83E-03
395670	11/16/2015 - 11/23/2015	Beta	2.51E-02	3.02E-03	2.88E-03
396164	11/23/2015 - 11/30/2015	Beta	2.15E-02	2.82E-03	2.83E-03
396680	11/30/2015 - 12/7/2015	Beta	2.53E-02	2.94E-03	2.78E-03
397218	12/7/2015 - 12/14/2015	Beta	3.77E-02	3.49E-03	2.63E-03
397935	12/14/2015 - 12/21/2015	Beta	1.96E-02	2.73E-03	2.79E-03
398325	12/21/2015 - 12/28/2015	Beta	1.18E-02	2.32E-03	2.77E-03
398707	9/28/2015 - 12/28/2015	Cs-134	<6.37E-04	0.00E+00	6.37E-04
		Cs-137	<4.49E-04	0.00E+00	4.49E-04
		Be-7	1.31E-01	2.35E-02	1.37E-02
		K-40	<1.33E-02	0.00E+00	1.33E-02

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
364924	12/29/2014 - 1/5/2015	I-131	<2.30E-02	0.00E+00	2.30E-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	<9.39E-02	0.00E+00	9.39E-02
		K-40	5.14E-01	2.32E-01	2.52E-01
365113	1/5/2015 - 1/12/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<9.48E-02	0.00E+00	9.48E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365113	1/5/2015 - 1/12/2015	K-40	5.60E-01	2.07E-01	4.90E-02
365347	1/12/2015 - 1/19/2015	I-131	<1.52E-02	0.00E+00	1.52E-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	<8.53E-02	0.00E+00	8.53E-02
		K-40	6.92E-01	2.29E-01	4.81E-02
366692	1/19/2015 - 1/26/2015	I-131	<9.57E-03	0.00E+00	9.57E-03
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.23E-02	0.00E+00	9.23E-02
		K-40	<3.36E-01	0.00E+00	3.36E-01
367106	1/26/2015 - 2/2/2015	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01
367592	2/2/2015 - 2/9/2015	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<8.38E-02	0.00E+00	8.38E-02
		K-40	5.65E-01	2.04E-01	1.68E-01
369020	2/9/2015 - 2/16/2015	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<9.34E-03	0.00E+00	9.34E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	4.85E-01	1.88E-01	4.69E-02
369733	2/16/2015 - 2/23/2015	I-131	<9.64E-03	0.00E+00	9.64E-03
		Cs-134	<7.72E-03	0.00E+00	7.72E-03
		Cs-137	<6.89E-03	0.00E+00	6.89E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	3.43E-01	1.25E-01	2.90E-02
370647	2/23/2015 - 3/2/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.38E-02	0.00E+00	9.38E-02
		K-40	6.10E-01	2.42E-01	2.34E-01
371587	3/2/2015 - 3/9/2015	I-131	<1.54E-02	0.00E+00	1.53E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	5.87E-01	2.26E-01	1.85E-01
371960	3/9/2015 - 3/16/2015	I-131	<7.47E-03	0.00E+00	7.47E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<6.53E-02	0.00E+00	6.53E-02
		K-40	<2.74E-01	0.00E+00	2.74E-01
372444	3/16/2015 - 3/23/2015	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.26E-02	0.00E+00	9.26E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372444	3/16/2015 - 3/23/2015	K-40	5.07E-01	2.21E-01	2.23E-01
373896	3/23/2015 - 3/30/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	4.72E-01	2.16E-01	2.28E-01
374598	3/30/2015 - 4/6/2015	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<9.62E-02	0.00E+00	9.62E-02
		K-40	5.79E-01	2.35E-01	2.26E-01
374982	4/6/2015 - 4/13/2015	I-131	<1.71E-02	0.00E+00	1.71E-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	<6.64E-02	0.00E+00	6.64E-02
		K-40	4.31E-01	2.13E-01	2.39E-01
375669	4/13/2015 - 4/20/2015	I-131	<7.97E-03	0.00E+00	7.97E-03
		Cs-134	<6.56E-03	0.00E+00	6.56E-03
		Cs-137	<6.70E-03	0.00E+00	6.70E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	4.35E-01	1.55E-01	1.34E-01
376875	4/20/2015 - 4/27/2015	I-131	<8.43E-03	0.00E+00	8.43E-03
		Cs-134	<9.40E-03	0.00E+00	9.40E-03
		Cs-137	<8.76E-03	0.00E+00	8.76E-03
		Be-7	<6.93E-02	0.00E+00	6.93E-02
		K-40	3.36E-01	1.33E-01	1.13E-01
377532	4/27/2015 - 5/4/2015	I-131	<1.45E-02	0.00E+00	1.45E-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	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.69E-01	2.23E-01	1.86E-01
378103	5/4/2015 - 5/11/2015	I-131	<1.46E-02	0.00E+00	1.46E-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	<9.33E-02	0.00E+00	9.33E-02
		K-40	3.15E-01	2.05E-01	2.74E-01
378508	5/11/2015 - 5/18/2015	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	2.53E-01	1.77E-01	2.35E-01
378997	5/18/2015 - 5/26/2015	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<8.26E-02	0.00E+00	8.26E-02
		K-40	<4.37E-01	0.00E+00	4.37E-01
379498	5/26/2015 - 6/1/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
379498	5/26/2015 - 6/1/2015	K-40	5.34E-01	2.66E-01	3.15E-01
380234	6/1/2015 - 6/8/2015	I-131	<3.87E-03	0.00E+00	3.87E-03
		Cs-134	<8.77E-03	0.00E+00	8.77E-03
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	<4.26E-02	0.00E+00	4.26E-02
		K-40	3.85E-01	1.44E-01	1.26E-01
380522	6/8/2015 - 6/15/2015	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<7.58E-03	0.00E+00	7.58E-03
		Cs-137	<7.13E-03	0.00E+00	7.13E-03
		Be-7	<6.91E-02	0.00E+00	6.91E-02
		K-40	4.70E-01	1.52E-01	1.04E-01
380847	6/15/2015 - 6/22/2015	I-131	<1.74E-02	0.00E+00	1.74E-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	<7.56E-02	0.00E+00	7.56E-02
		K-40	5.07E-01	2.10E-01	1.83E-01
381306	6/22/2015 - 6/29/2015	I-131	<8.43E-03	0.00E+00	8.43E-03
		Cs-134	<9.26E-03	0.00E+00	9.26E-03
		Cs-137	<5.90E-03	0.00E+00	5.90E-03
		Be-7	<4.82E-02	0.00E+00	4.82E-02
		K-40	3.51E-01	1.38E-01	1.20E-01
381640	6/29/2015 - 7/6/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<9.56E-03	0.00E+00	9.56E-03
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<9.31E-02	0.00E+00	9.31E-02
		K-40	7.10E-01	2.32E-01	4.81E-02
382205	7/6/2015 - 7/13/2015	I-131	<9.55E-03	0.00E+00	9.55E-03
		Cs-134	<8.29E-03	0.00E+00	8.29E-03
		Cs-137	<7.75E-03	0.00E+00	7.75E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	<3.14E-01	0.00E+00	3.14E-01
382633	7/13/2015 - 7/20/2015	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	7.32E-01	2.49E-01	1.78E-01
383558	7/20/2015 - 7/27/2015	I-131	<1.74E-02	0.00E+00	1.74E-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	<9.32E-02	0.00E+00	9.32E-02
		K-40	4.43E-01	2.23E-01	2.62E-01
384134	7/27/2015 - 8/3/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<4.61E-01	0.00E+00	4.61E-01
384698	8/3/2015 - 8/10/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384698	8/3/2015 - 8/10/2015	K-40	7.94E-01	2.43E-01	4.68E-02
385453	8/10/2015 - 8/17/2015	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<8.59E-02	0.00E+00	8.59E-02
		K-40	<4.25E-01	0.00E+00	4.25E-01
385967	8/17/2015 - 8/24/2015	I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<4.45E-03	0.00E+00	4.45E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<5.00E-02	0.00E+00	5.00E-02
		K-40	4.33E-01	1.46E-01	1.01E-01
386866	8/24/2015 - 8/31/2015	I-131	<7.38E-03	0.00E+00	7.38E-03
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	<5.43E-02	0.00E+00	5.43E-02
		K-40	3.34E-01	1.40E-01	1.41E-01
387451	8/31/2015 - 9/8/2015	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<2.09E-03	0.00E+00	2.09E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<6.70E-02	0.00E+00	6.70E-02
		K-40	3.75E-01	1.87E-01	2.13E-01
388802	9/8/2015 - 9/14/2015	I-131	<8.03E-03	0.00E+00	8.03E-03
		Cs-134	<6.55E-03	0.00E+00	6.55E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.93E-02	0.00E+00	7.93E-02
		K-40	4.18E-01	1.44E-01	3.15E-02
389447	9/14/2015 - 9/21/2015	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-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	4.70E-01	1.99E-01	1.61E-01
390052	9/21/2015 - 9/28/2015	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	4.14E-01	2.30E-01	2.95E-01
390679	9/28/2015 - 10/5/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<6.58E-02	0.00E+00	6.58E-02
		K-40	4.72E-01	2.17E-01	2.30E-01
391992	10/5/2015 - 10/12/2015	I-131	<9.21E-03	0.00E+00	9.21E-03
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	3.15E-01	1.45E-01	1.61E-01
392269	10/12/2015 - 10/19/2015	I-131	<1.44E-02	0.00E+00	1.44E-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	<1.13E-01	0.00E+00	1.13E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392269	10/12/2015 - 10/19/2015	K-40	7.21E-01	2.72E-01	2.77E-01
393472	10/19/2015 - 10/26/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<5.64E-01	0.00E+00	5.64E-01
393871	10/26/2015 - 11/2/2015	I-131	<1.53E-02	0.00E+00	1.53E-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	<1.12E-01	0.00E+00	1.12E-01
		K-40	3.79E-01	2.18E-01	2.80E-01
394885	11/2/2015 - 11/9/2015	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.56E-01	2.44E-01	2.70E-01
395342	11/9/2015 - 11/16/2015	I-131	<1.88E-02	0.00E+00	1.88E-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	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.34E-01	2.36E-01	2.54E-01
395671	11/16/2015 - 11/23/2015	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	8.19E-01	2.64E-01	1.85E-01
396165	11/23/2015 - 11/30/2015	I-131	<7.74E-03	0.00E+00	7.74E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<3.53E-02	0.00E+00	3.53E-02
		K-40	4.97E-01	1.49E-01	2.75E-02
396681	11/30/2015 - 12/7/2015	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<6.01E-03	0.00E+00	6.01E-03
		Cs-137	<7.47E-03	0.00E+00	7.47E-03
		Be-7	<8.27E-02	0.00E+00	8.27E-02
		K-40	5.47E-01	1.59E-01	2.85E-02
397219	12/7/2015 - 12/14/2015	I-131	<8.67E-03	0.00E+00	8.67E-03
		Cs-134	<9.00E-03	0.00E+00	9.00E-03
		Cs-137	<8.37E-03	0.00E+00	8.37E-03
		Be-7	<4.58E-02	0.00E+00	4.58E-02
		K-40	3.95E-01	1.42E-01	1.17E-01
397936	12/14/2015 - 12/21/2015	I-131	<1.36E-02	0.00E+00	1.36E-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	<7.66E-02	0.00E+00	7.66E-02
		K-40	4.09E-01	1.74E-01	4.82E-02
398326	12/21/2015 - 12/28/2015	I-131	<5.59E-03	0.00E+00	5.59E-03
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<7.12E-03	0.00E+00	7.12E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398326	12/21/2015 - 12/28/2015	K-40	3.52E-01	1.55E-01	1.80E-01

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364925	12/29/2014 - 1/5/2015	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<9.24E-02	0.00E+00	9.24E-02
		K-40	5.78E-01	2.07E-01	4.74E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365114	1/5/2015 - 1/12/2015	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	<5.27E-01	0.00E+00	5.27E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365348	1/12/2015 - 1/19/2015	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	4.37E-02	5.67E-02	9.21E-02
		K-40	5.12E-01	2.16E-01	2.02E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366693	1/19/2015 - 1/26/2015	I-131	<9.34E-03	0.00E+00	9.34E-03
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<9.41E-02	0.00E+00	9.41E-02
		K-40	6.38E-01	2.12E-01	1.61E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367107	1/26/2015 - 2/2/2015	I-131	<5.40E-03	0.00E+00	5.40E-03
		Cs-134	<3.72E-03	0.00E+00	3.72E-03
		Cs-137	<2.86E-03	0.00E+00	2.86E-03
		Be-7	<2.12E-02	0.00E+00	2.12E-02
		K-40	3.16E-01	8.86E-02	5.50E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367593	2/2/2015 - 2/9/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	1.82E-01	1.67E-01	2.48E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369021	2/9/2015 - 2/16/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<9.29E-02	0.00E+00	9.29E-02
		K-40	6.49E-01	2.20E-01	4.76E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369734	2/16/2015 - 2/23/2015	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<9.28E-03	0.00E+00	9.28E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<6.72E-01	0.00E+00	6.72E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
370648	2/23/2015 - 3/2/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.77E-01	2.06E-01	4.74E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
371588	3/2/2015 - 3/9/2015	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
371588	3/2/2015 - 3/9/2015	Be-7	<8.62E-02	0.00E+00	8.62E-02
		K-40	5.94E-01	2.29E-01	1.89E-01
371961	3/9/2015 - 3/16/2015	I-131	<7.37E-03	0.00E+00	7.37E-03
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<8.13E-03	0.00E+00	8.13E-03
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.46E-01	1.38E-01	1.28E-01
372445	3/16/2015 - 3/23/2015	I-131	<1.58E-02	0.00E+00	1.58E-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	<1.12E-01	0.00E+00	1.12E-01
		K-40	6.37E-01	2.19E-01	4.80E-02
373897	3/23/2015 - 3/30/2015	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<8.45E-02	0.00E+00	8.45E-02
		K-40	5.41E-01	2.17E-01	1.89E-01
374599	3/30/2015 - 4/6/2015	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	6.78E-01	2.76E-01	3.06E-01
374983	4/6/2015 - 4/13/2015	I-131	<1.32E-02	0.00E+00	1.32E-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	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.32E-01	2.17E-01	1.92E-01
375670	4/13/2015 - 4/20/2015	I-131	<6.84E-03	0.00E+00	6.84E-03
		Cs-134	<7.21E-03	0.00E+00	7.21E-03
		Cs-137	<9.94E-03	0.00E+00	9.94E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	3.07E-01	1.15E-01	2.77E-02
376876	4/20/2015 - 4/27/2015	I-131	<6.53E-03	0.00E+00	6.53E-03
		Cs-134	<7.12E-03	0.00E+00	7.12E-03
		Cs-137	<4.33E-03	0.00E+00	4.33E-03
		Be-7	<4.58E-02	0.00E+00	4.58E-02
		K-40	3.95E-01	1.39E-01	1.04E-01
377533	4/27/2015 - 5/4/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<9.35E-02	0.00E+00	9.35E-02
		K-40	5.72E-01	2.08E-01	4.84E-02
378104	5/4/2015 - 5/11/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<9.60E-03	0.00E+00	9.60E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.59E-01	2.24E-01	4.83E-02
378509	5/11/2015 - 5/18/2015	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
378509	5/11/2015 - 5/18/2015	Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.59E-01	2.21E-01	2.50E-01
378998	5/18/2015 - 5/26/2015	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<8.29E-03	0.00E+00	8.29E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<9.89E-02	0.00E+00	9.89E-02
		K-40	5.04E-01	2.16E-01	2.35E-01
379499	5/26/2015 - 6/1/2015	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	7.93E-01	2.84E-01	2.23E-01
380235	6/1/2015 - 6/8/2015	I-131	<7.41E-03	0.00E+00	7.41E-03
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<8.04E-03	0.00E+00	8.04E-03
		Be-7	<3.95E-02	0.00E+00	3.95E-02
		K-40	3.38E-01	1.27E-01	3.05E-02
380523	6/8/2015 - 6/15/2015	I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<7.02E-02	0.00E+00	7.02E-02
		K-40	4.20E-01	1.65E-01	1.71E-01
380848	6/15/2015 - 6/22/2015	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	7.35E-01	2.49E-01	1.92E-01
381307	6/22/2015 - 6/29/2015	I-131	<9.94E-03	0.00E+00	9.94E-03
		Cs-134	<8.67E-03	0.00E+00	8.67E-03
		Cs-137	<8.73E-03	0.00E+00	8.73E-03
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	3.93E-01	1.34E-01	2.88E-02
381641	6/29/2015 - 7/6/2015	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.87E-01	2.55E-01	3.27E-01
382206	7/6/2015 - 7/13/2015	I-131	<7.28E-03	0.00E+00	7.28E-03
		Cs-134	<3.67E-03	0.00E+00	3.67E-03
		Cs-137	<4.57E-03	0.00E+00	4.57E-03
		Be-7	<6.29E-02	0.00E+00	6.29E-02
		K-40	<2.80E-01	0.00E+00	2.80E-01
382634	7/13/2015 - 7/20/2015	I-131	<1.78E-02	0.00E+00	1.78E-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	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.11E-01	1.94E-01	4.77E-02
383559	7/20/2015 - 7/27/2015	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
383559	7/20/2015 - 7/27/2015	Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	8.60E-01	2.58E-01	4.85E-02
384135	7/27/2015 - 8/3/2015	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.94E-02	0.00E+00	9.94E-02
		K-40	6.15E-01	2.33E-01	1.99E-01
384699	8/3/2015 - 8/10/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	<4.61E-01	0.00E+00	4.61E-01
385454	8/10/2015 - 8/17/2015	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	3.24E-01	1.94E-01	2.43E-01
385968	8/17/2015 - 8/24/2015	I-131	<6.94E-03	0.00E+00	6.94E-03
		Cs-134	<4.67E-03	0.00E+00	4.67E-03
		Cs-137	<5.80E-03	0.00E+00	5.80E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.31E-01	1.40E-01	1.42E-01
386867	8/24/2015 - 8/31/2015	I-131	<5.70E-03	0.00E+00	5.70E-03
		Cs-134	<6.59E-03	0.00E+00	6.59E-03
		Cs-137	<5.80E-03	0.00E+00	5.80E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.81E-01	1.41E-01	1.11E-01
387452	8/31/2015 - 9/8/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	2.72E-01	1.43E-01	1.36E-01
388803	9/8/2015 - 9/14/2015	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<9.52E-03	0.00E+00	9.52E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	4.48E-01	1.78E-01	1.66E-01
389448	9/14/2015 - 9/21/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	6.63E-01	2.25E-01	4.86E-02
390053	9/21/2015 - 9/28/2015	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<6.38E-03	0.00E+00	6.38E-03
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	5.53E-01	2.24E-01	2.11E-01
390680	9/28/2015 - 10/5/2015	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
390680	9/28/2015 - 10/5/2015	Be-7	<9.26E-02	0.00E+00	9.26E-02
		K-40	5.48E-01	2.67E-01	3.36E-01
391993	10/5/2015 - 10/12/2015	I-131	<5.47E-03	0.00E+00	5.47E-03
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.45E-02	0.00E+00	6.45E-02
		K-40	2.73E-01	1.22E-01	1.19E-01
392270	10/12/2015 - 10/19/2015	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<8.68E-02	0.00E+00	8.68E-02
		K-40	6.20E-01	2.51E-01	2.52E-01
393473	10/19/2015 - 10/26/2015	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	7.15E-01	2.44E-01	1.70E-01
393872	10/26/2015 - 11/2/2015	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	<4.83E-01	0.00E+00	4.83E-01
394886	11/2/2015 - 11/9/2015	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	6.07E-01	2.51E-01	2.68E-01
395343	11/9/2015 - 11/16/2015	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	4.01E-01	2.08E-01	2.39E-01
395672	11/16/2015 - 11/23/2015	I-131	<1.84E-02	0.00E+00	1.84E-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	<8.52E-02	0.00E+00	8.52E-02
		K-40	7.11E-01	2.32E-01	4.82E-02
396166	11/23/2015 - 11/30/2015	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<1.79E-03	0.00E+00	1.79E-03
		Be-7	<4.53E-02	0.00E+00	4.53E-02
		K-40	5.34E-01	1.71E-01	1.23E-01
396682	11/30/2015 - 12/7/2015	I-131	<7.22E-03	0.00E+00	7.22E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<6.60E-03	0.00E+00	6.60E-03
		Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	<2.60E-01	0.00E+00	2.60E-01
397220	12/7/2015 - 12/14/2015	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<7.08E-03	0.00E+00	7.08E-03
		Cs-137	<9.48E-03	0.00E+00	9.48E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397220	12/7/2015 - 12/14/2015	Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	4.87E-01	1.54E-01	3.07E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397937	12/14/2015 - 12/21/2015	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	6.47E-01	2.34E-01	1.72E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398327	12/21/2015 - 12/28/2015	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	<2.86E-02	0.00E+00	2.86E-02
		K-40	3.37E-01	1.31E-01	1.06E-01

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364926	12/29/2014 - 1/5/2015	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<8.49E-02	0.00E+00	8.49E-02
		K-40	5.99E-01	2.27E-01	1.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365115	1/5/2015 - 1/12/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	6.57E-01	2.26E-01	4.95E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365349	1/12/2015 - 1/19/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366694	1/19/2015 - 1/26/2015	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<9.40E-02	0.00E+00	9.40E-02
		K-40	<3.42E-01	0.00E+00	3.42E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367108	1/26/2015 - 2/2/2015	I-131	<8.67E-03	0.00E+00	8.67E-03
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	2.41E-01	1.49E-01	1.89E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367594	2/2/2015 - 2/9/2015	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	4.64E-01	2.32E-01	2.76E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369022	2/9/2015 - 2/16/2015	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.54E-01	2.39E-01	1.93E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369735	2/16/2015 - 2/23/2015	I-131	<8.98E-03	0.00E+00	8.98E-03
		Cs-134	<8.53E-03	0.00E+00	8.53E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369735	2/16/2015 - 2/23/2015	Cs-137	<8.57E-03	0.00E+00	8.57E-03
		Be-7	<5.16E-02	0.00E+00	5.16E-02
		K-40	3.88E-01	1.40E-01	1.04E-01
370649	2/23/2015 - 3/2/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	5.46E-01	2.31E-01	2.41E-01
371589	3/2/2015 - 3/9/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<5.08E-01	0.00E+00	5.08E-01
371962	3/9/2015 - 3/16/2015	I-131	<6.18E-03	0.00E+00	6.18E-03
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	4.92E-01	1.49E-01	2.78E-02
372446	3/16/2015 - 3/23/2015	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<8.70E-02	0.00E+00	8.70E-02
		K-40	7.26E-01	2.37E-01	4.92E-02
373898	3/23/2015 - 3/30/2015	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<4.69E-01	0.00E+00	4.69E-01
374600	3/30/2015 - 4/6/2015	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.99E-01	2.31E-01	4.86E-02
374984	4/6/2015 - 4/13/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<7.79E-02	0.00E+00	7.79E-02
		K-40	6.07E-01	2.58E-01	2.83E-01
375671	4/13/2015 - 4/20/2015	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<8.95E-03	0.00E+00	8.95E-03
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	<6.38E-02	0.00E+00	6.38E-02
		K-40	<2.87E-01	0.00E+00	2.87E-01
376877	4/20/2015 - 4/27/2015	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<7.75E-03	0.00E+00	7.75E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	3.99E-01	1.61E-01	1.70E-01
377534	4/27/2015 - 5/4/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
377534	4/27/2015 - 5/4/2015	Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	4.62E-01	2.22E-01	2.44E-01
378105	5/4/2015 - 5/11/2015	I-131	<1.15E-02	0.00E+00	1.15E-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	<7.67E-02	0.00E+00	7.67E-02
		K-40	4.18E-01	1.90E-01	1.67E-01
378510	5/11/2015 - 5/18/2015	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.93E-02	0.00E+00	9.93E-02
		K-40	3.59E-01	2.21E-01	2.95E-01
378999	5/18/2015 - 5/26/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<8.62E-02	0.00E+00	8.62E-02
		K-40	4.22E-01	1.63E-01	4.09E-02
379500	5/26/2015 - 6/1/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
380236	6/1/2015 - 6/8/2015	I-131	<6.75E-03	0.00E+00	6.75E-03
		Cs-134	<6.31E-03	0.00E+00	6.31E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	3.69E-01	1.28E-01	2.78E-02
380524	6/8/2015 - 6/15/2015	I-131	<8.23E-03	0.00E+00	8.23E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<8.79E-03	0.00E+00	8.79E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	3.86E-01	1.56E-01	1.67E-01
380849	6/15/2015 - 6/22/2015	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<8.21E-02	0.00E+00	8.21E-02
		K-40	4.75E-01	1.84E-01	4.60E-02
381308	6/22/2015 - 6/29/2015	I-131	<7.50E-03	0.00E+00	7.50E-03
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<8.84E-03	0.00E+00	8.84E-03
		Be-7	<5.63E-02	0.00E+00	5.63E-02
		K-40	4.10E-01	1.47E-01	1.14E-01
381642	6/29/2015 - 7/6/2015	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<9.24E-02	0.00E+00	9.24E-02
		K-40	5.19E-01	2.10E-01	1.70E-01
382207	7/6/2015 - 7/13/2015	I-131	<5.90E-03	0.00E+00	5.90E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
382207	7/6/2015 - 7/13/2015	Cs-137	<5.59E-03	0.00E+00	5.59E-03
		Be-7	<5.82E-02	0.00E+00	5.82E-02
		K-40	3.88E-01	1.63E-01	1.86E-01
382635	7/13/2015 - 7/20/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<9.81E-03	0.00E+00	9.81E-03
		Be-7	<6.38E-02	0.00E+00	6.38E-02
		K-40	7.33E-01	2.32E-01	4.62E-02
383560	7/20/2015 - 7/27/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<9.69E-02	0.00E+00	9.69E-02
		K-40	<4.74E-01	0.00E+00	4.74E-01
384136	7/27/2015 - 8/3/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.94E-02	0.00E+00	9.94E-02
		K-40	5.65E-01	2.05E-01	4.78E-02
384700	8/3/2015 - 8/10/2015	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<9.54E-03	0.00E+00	9.54E-03
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<5.24E-02	0.00E+00	5.24E-02
		K-40	3.95E-01	2.27E-01	2.94E-01
385455	8/10/2015 - 8/17/2015	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	6.11E-01	2.33E-01	2.10E-01
385969	8/17/2015 - 8/24/2015	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<5.31E-03	0.00E+00	5.31E-03
		Cs-137	<9.72E-03	0.00E+00	9.72E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	4.71E-01	1.57E-01	1.18E-01
386868	8/24/2015 - 8/31/2015	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<5.56E-03	0.00E+00	5.56E-03
		Be-7	<6.96E-02	0.00E+00	6.96E-02
		K-40	3.90E-01	1.31E-01	2.78E-02
387453	8/31/2015 - 9/8/2015	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<8.13E-02	0.00E+00	8.13E-02
		K-40	<4.61E-01	0.00E+00	4.61E-01
388804	9/8/2015 - 9/14/2015	I-131	<8.25E-03	0.00E+00	8.25E-03
		Cs-134	<9.33E-03	0.00E+00	9.33E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<5.13E-02	0.00E+00	5.13E-02
		K-40	2.56E-01	1.33E-01	1.53E-01
389449	9/14/2015 - 9/21/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
389449	9/14/2015 - 9/21/2015	Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<9.64E-02	0.00E+00	9.64E-02
		K-40	<5.46E-01	0.00E+00	5.46E-01
390054	9/21/2015 - 9/28/2015	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<9.23E-02	0.00E+00	9.23E-02
		K-40	6.28E-01	2.27E-01	1.57E-01
390681	9/28/2015 - 10/5/2015	I-131	<1.95E-02	0.00E+00	1.95E-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	<9.20E-02	0.00E+00	9.20E-02
		K-40	6.03E-01	2.25E-01	1.74E-01
391994	10/5/2015 - 10/12/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<4.83E-03	0.00E+00	4.83E-03
		Cs-137	<9.11E-03	0.00E+00	9.11E-03
		Be-7	<6.97E-02	0.00E+00	6.97E-02
		K-40	3.25E-01	1.45E-01	1.58E-01
392271	10/12/2015 - 10/19/2015	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.38E-01	2.60E-01	2.66E-01
393474	10/19/2015 - 10/26/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	6.06E-01	2.27E-01	1.78E-01
393873	10/26/2015 - 11/2/2015	I-131	<1.33E-02	0.00E+00	1.33E-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	<9.23E-02	0.00E+00	9.23E-02
		K-40	8.28E-01	2.51E-01	4.78E-02
394887	11/2/2015 - 11/9/2015	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	5.83E-01	2.06E-01	4.65E-02
395344	11/9/2015 - 11/16/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.56E-01	2.50E-01	3.23E-01
395673	11/16/2015 - 11/23/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	5.04E-01	2.08E-01	1.71E-01
396167	11/23/2015 - 11/30/2015	I-131	<8.20E-03	0.00E+00	8.20E-03
		Cs-134	<6.84E-03	0.00E+00	6.84E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396167	11/23/2015 - 11/30/2015	Cs-137	<7.24E-03	0.00E+00	7.24E-03
		Be-7	<7.50E-02	0.00E+00	7.50E-02
		K-40	4.16E-01	1.57E-01	1.56E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396683	11/30/2015 - 12/7/2015	I-131	<8.33E-03	0.00E+00	8.33E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<7.54E-03	0.00E+00	7.54E-03
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	3.84E-01	1.28E-01	2.67E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397221	12/7/2015 - 12/14/2015	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<7.08E-03	0.00E+00	7.08E-03
		Cs-137	<7.50E-03	0.00E+00	7.50E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	2.49E-01	1.21E-01	1.26E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397938	12/14/2015 - 12/21/2015	I-131	<1.35E-02	0.00E+00	1.35E-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	<8.56E-02	0.00E+00	8.56E-02
		K-40	4.93E-01	2.44E-01	2.97E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398328	12/21/2015 - 12/28/2015	I-131	<9.81E-03	0.00E+00	9.81E-03
		Cs-134	<5.75E-03	0.00E+00	5.75E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	3.47E-01	1.28E-01	3.03E-02

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364927	12/29/2014 - 1/5/2015	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	4.88E-01	2.00E-01	1.63E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365116	1/5/2015 - 1/12/2015	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<9.52E-02	0.00E+00	9.52E-02
		K-40	6.42E-01	2.37E-01	1.80E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365350	1/12/2015 - 1/19/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<9.98E-02	0.00E+00	9.98E-02
		K-40	7.45E-01	2.38E-01	4.81E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366695	1/19/2015 - 1/26/2015	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<5.91E-01	0.00E+00	5.91E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367109	1/26/2015 - 2/2/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<6.93E-03	0.00E+00	6.93E-03
		Be-7	<4.44E-02	0.00E+00	4.44E-02
		K-40	4.66E-01	1.48E-01	2.94E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367595	2/2/2015 - 2/9/2015	I-131	<1.90E-02	0.00E+00	1.90E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367595	2/2/2015 - 2/9/2015	Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<8.82E-02	0.00E+00	8.82E-02
		K-40	5.73E-01	2.49E-01	2.69E-01
369023	2/9/2015 - 2/16/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<9.34E-02	0.00E+00	9.34E-02
		K-40	5.68E-01	2.22E-01	1.85E-01
369736	2/16/2015 - 2/23/2015	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.23E-03	0.00E+00	7.23E-03
		Cs-137	<5.92E-03	0.00E+00	5.92E-03
		Be-7	<6.79E-02	0.00E+00	6.79E-02
		K-40	4.83E-01	1.57E-01	1.11E-01
370650	2/23/2015 - 3/2/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<8.30E-02	0.00E+00	8.30E-02
		K-40	4.36E-01	2.23E-01	2.71E-01
371590	3/2/2015 - 3/9/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	1.98E-01	2.26E-01	3.64E-01
371963	3/9/2015 - 3/16/2015	I-131	<8.91E-03	0.00E+00	8.91E-03
		Cs-134	<8.95E-03	0.00E+00	8.95E-03
		Cs-137	<8.03E-03	0.00E+00	8.03E-03
		Be-7	<6.73E-02	0.00E+00	6.73E-02
		K-40	4.50E-01	1.67E-01	1.60E-01
372447	3/16/2015 - 3/23/2015	I-131	<1.50E-02	0.00E+00	1.50E-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	<6.56E-02	0.00E+00	6.57E-02
		K-40	4.43E-01	1.81E-01	4.80E-02
373899	3/23/2015 - 3/30/2015	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<7.43E-02	0.00E+00	7.43E-02
		K-40	<5.12E-01	0.00E+00	5.12E-01
374601	3/30/2015 - 4/6/2015	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.11E-01	2.59E-01	3.26E-01
374985	4/6/2015 - 4/13/2015	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<7.77E-02	0.00E+00	7.77E-02
		K-40	4.86E-01	2.15E-01	2.11E-01
375672	4/13/2015 - 4/20/2015	I-131	<8.04E-03	0.00E+00	8.04E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375672	4/13/2015 - 4/20/2015	Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<7.31E-03	0.00E+00	7.31E-03
		Be-7	<6.81E-02	0.00E+00	6.81E-02
		K-40	3.42E-01	1.40E-01	1.23E-01
376878	4/20/2015 - 4/27/2015	I-131	<8.06E-03	0.00E+00	8.06E-03
		Cs-134	<5.86E-03	0.00E+00	5.86E-03
		Cs-137	<7.30E-03	0.00E+00	7.30E-03
		Be-7	<5.07E-02	0.00E+00	5.07E-02
		K-40	3.14E-01	1.28E-01	1.16E-01
377535	4/27/2015 - 5/4/2015	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<8.72E-02	0.00E+00	8.72E-02
		K-40	7.28E-01	2.38E-01	4.93E-02
378106	5/4/2015 - 5/11/2015	I-131	<7.79E-03	0.00E+00	7.79E-03
		Cs-134	<5.19E-03	0.00E+00	5.19E-03
		Cs-137	<7.85E-03	0.00E+00	7.85E-03
		Be-7	<3.60E-02	0.00E+00	3.60E-02
		K-40	2.62E-01	1.37E-01	1.69E-01
378511	5/11/2015 - 5/18/2015	I-131	<1.57E-02	0.00E+00	1.57E-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	<1.23E-01	0.00E+00	1.23E-01
		K-40	6.01E-01	2.12E-01	4.79E-02
379000	5/18/2015 - 5/26/2015	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<7.35E-02	0.00E+00	7.35E-02
		K-40	5.32E-01	1.97E-01	1.54E-01
379501	5/26/2015 - 6/1/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	7.49E-01	2.80E-01	2.25E-01
380237	6/1/2015 - 6/8/2015	I-131	<6.28E-03	0.00E+00	6.28E-03
		Cs-134	<6.03E-03	0.00E+00	6.03E-03
		Cs-137	<6.72E-03	0.00E+00	6.72E-03
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	2.92E-01	1.31E-01	1.35E-01
380525	6/8/2015 - 6/15/2015	I-131	<7.77E-03	0.00E+00	7.77E-03
		Cs-134	<5.85E-03	0.00E+00	5.85E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<4.16E-02	0.00E+00	4.16E-02
		K-40	2.74E-01	1.29E-01	1.40E-01
380850	6/15/2015 - 6/22/2015	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<5.04E-02	0.00E+00	5.04E-02
		K-40	4.65E-01	2.13E-01	2.27E-01
381309	6/22/2015 - 6/29/2015	Nuclide	Activity	2 Sigma Error	LLD
		I-131	<5.73E-03	0.00E+00	5.73E-03



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
381309	6/22/2015 - 6/29/2015	Cs-134	<7.93E-03	0.00E+00	7.93E-03
		Cs-137	<9.33E-03	0.00E+00	9.33E-03
		Be-7	<8.00E-02	0.00E+00	8.00E-02
		K-40	4.24E-01	1.51E-01	1.22E-01
381643	6/29/2015 - 7/6/2015	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.20E-01	2.09E-01	1.67E-01
382208	7/6/2015 - 7/13/2015	I-131	<7.70E-03	0.00E+00	7.70E-03
		Cs-134	<5.15E-03	0.00E+00	5.15E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	<2.70E-01	0.00E+00	2.70E-01
382636	7/13/2015 - 7/20/2015	I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	5.49E-01	2.14E-01	1.78E-01
383561	7/20/2015 - 7/27/2015	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
384137	7/27/2015 - 8/3/2015	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<9.25E-02	0.00E+00	9.25E-02
		K-40	4.24E-01	1.77E-01	4.78E-02
384701	8/3/2015 - 8/10/2015	I-131	<1.96E-02	0.00E+00	1.96E-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	<8.57E-02	0.00E+00	8.57E-02
		K-40	5.67E-01	2.06E-01	4.80E-02
385456	8/10/2015 - 8/17/2015	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<9.09E-02	0.00E+00	9.09E-02
		K-40	3.42E-01	2.39E-01	3.45E-01
385970	8/17/2015 - 8/24/2015	I-131	<7.53E-03	0.00E+00	7.53E-03
		Cs-134	<6.60E-03	0.00E+00	6.60E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	4.49E-01	1.59E-01	1.24E-01
386869	8/24/2015 - 8/31/2015	I-131	<8.29E-03	0.00E+00	8.29E-03
		Cs-134	<6.29E-03	0.00E+00	6.29E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<4.46E-02	0.00E+00	4.46E-02
		K-40	2.86E-01	1.26E-01	1.17E-01
387454	8/31/2015 - 9/8/2015	Nuclide	Activity	2 Sigma Error	LLD
		I-131	<1.44E-02	0.00E+00	1.44E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
387454	8/31/2015 - 9/8/2015	Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<6.68E-02	0.00E+00	6.68E-02
		K-40	3.53E-01	1.88E-01	2.28E-01
388805	9/8/2015 - 9/14/2015	I-131	<9.63E-03	0.00E+00	9.63E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	3.44E-01	1.56E-01	1.71E-01
389450	9/14/2015 - 9/21/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<8.31E-03	0.00E+00	8.31E-03
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	7.29E-01	2.55E-01	1.96E-01
390055	9/21/2015 - 9/28/2015	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<6.52E-03	0.00E+00	6.52E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	5.57E-01	2.32E-01	2.31E-01
390682	9/28/2015 - 10/5/2015	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.45E-02	0.00E+00	8.45E-02
		K-40	3.37E-01	2.12E-01	2.83E-01
391995	10/5/2015 - 10/12/2015	I-131	<9.63E-03	0.00E+00	9.63E-03
		Cs-134	<4.41E-03	0.00E+00	4.41E-03
		Cs-137	<1.59E-03	0.00E+00	1.59E-03
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	3.43E-01	1.52E-01	1.78E-01
392272	10/12/2015 - 10/19/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<7.94E-02	0.00E+00	7.94E-02
		K-40	7.41E-01	2.42E-01	5.02E-02
393475	10/19/2015 - 10/26/2015	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<9.28E-02	0.00E+00	9.28E-02
		K-40	3.70E-01	1.94E-01	2.18E-01
393874	10/26/2015 - 11/2/2015	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	5.12E-01	1.95E-01	4.78E-02
394888	11/2/2015 - 11/9/2015	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<9.10E-02	0.00E+00	9.10E-02
		K-40	5.16E-01	1.93E-01	4.66E-02
395345	11/9/2015 - 11/16/2015	Nuclide	Activity	2 Sigma Error	LLD
		I-131	<1.46E-02	0.00E+00	1.46E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395345	11/9/2015 - 11/16/2015	Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	8.22E-01	2.54E-01	4.95E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395674	11/16/2015 - 11/23/2015	I-131	<1.65E-02	0.00E+00	1.65E-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	<1.00E-01	0.00E+00	1.00E-01
		K-40	4.20E-01	2.46E-01	3.31E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396168	11/23/2015 - 11/30/2015	I-131	<7.31E-03	0.00E+00	7.31E-03
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<5.60E-03	0.00E+00	5.60E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	3.74E-01	1.29E-01	2.81E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396684	11/30/2015 - 12/7/2015	I-131	<8.11E-03	0.00E+00	8.11E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<8.45E-03	0.00E+00	8.45E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	3.36E-01	1.40E-01	1.34E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397222	12/7/2015 - 12/14/2015	I-131	<9.35E-03	0.00E+00	9.35E-03
		Cs-134	<9.36E-03	0.00E+00	9.36E-03
		Cs-137	<7.51E-03	0.00E+00	7.51E-03
		Be-7	<4.13E-02	0.00E+00	4.13E-02
		K-40	5.10E-01	1.78E-01	1.58E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397939	12/14/2015 - 12/21/2015	I-131	<1.53E-02	0.00E+00	1.53E-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	<9.34E-02	0.00E+00	9.34E-02
		K-40	4.99E-01	1.93E-01	4.83E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398329	12/21/2015 - 12/28/2015	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<7.93E-03	0.00E+00	7.93E-03
		Be-7	<5.07E-02	0.00E+00	5.07E-02
		K-40	3.27E-01	1.28E-01	1.00E-01

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364928	12/29/2014 - 1/5/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<9.78E-02	0.00E+00	9.78E-02
		K-40	6.54E-01	2.19E-01	4.66E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365117	1/5/2015 - 1/12/2015	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<7.81E-02	0.00E+00	7.81E-02
		K-40	4.72E-01	1.89E-01	4.92E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365351	1/12/2015 - 1/19/2015	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	5.50E-01	2.03E-01	4.80E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366696	1/19/2015 - 1/26/2015	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01
367110	1/26/2015 - 2/2/2015	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<3.58E-03	0.00E+00	3.58E-03
		Cs-137	<8.55E-03	0.00E+00	8.55E-03
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	3.61E-01	1.39E-01	1.28E-01
367596	2/2/2015 - 2/9/2015	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	6.81E-01	2.28E-01	4.86E-02
369024	2/9/2015 - 2/16/2015	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<9.53E-03	0.00E+00	9.53E-03
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.33E-01	2.37E-01	2.04E-01
369737	2/16/2015 - 2/23/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<9.33E-03	0.00E+00	9.33E-03
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<6.48E-01	0.00E+00	6.48E-01
370651	2/23/2015 - 3/2/2015	I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<7.45E-02	0.00E+00	7.45E-02
		K-40	4.51E-01	1.95E-01	1.71E-01
371591	3/2/2015 - 3/9/2015	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<8.70E-02	0.00E+00	8.70E-02
		K-40	8.89E-01	2.65E-01	4.92E-02
371964	3/9/2015 - 3/16/2015	I-131	<7.04E-03	0.00E+00	7.04E-03
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<5.99E-03	0.00E+00	5.99E-03
		Be-7	<6.11E-02	0.00E+00	6.11E-02
		K-40	2.93E-01	1.37E-01	1.52E-01
372448	3/16/2015 - 3/23/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.61E-02	0.00E+00	7.61E-02
		K-40	6.72E-01	2.25E-01	4.79E-02
373900	3/23/2015 - 3/30/2015	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	6.17E-01	2.45E-01	2.48E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
374602	3/30/2015 - 4/6/2015	I-131	<2.10E-02	0.00E+00	2.10E-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	<8.03E-02	0.00E+00	8.03E-02
		K-40	<5.02E-01	0.00E+00	5.02E-01
374986	4/6/2015 - 4/13/2015	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	5.52E-01	2.39E-01	2.56E-01
375673	4/13/2015 - 4/20/2015	I-131	<8.61E-03	0.00E+00	8.61E-03
		Cs-134	<7.34E-03	0.00E+00	7.34E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	<8.09E-02	0.00E+00	8.09E-02
		K-40	<3.46E-01	0.00E+00	3.46E-01
376879	4/20/2015 - 4/27/2015	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<9.30E-03	0.00E+00	9.30E-03
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<9.10E-02	0.00E+00	9.10E-02
		K-40	<4.64E-01	0.00E+00	4.64E-01
377536	4/27/2015 - 5/4/2015	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.83E-01	2.46E-01	2.57E-01
378107	5/4/2015 - 5/11/2015	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	<4.87E-01	0.00E+00	4.87E-01
378512	5/11/2015 - 5/18/2015	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	6.89E-01	2.28E-01	4.79E-02
379001	5/18/2015 - 5/26/2015	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.36E-03	0.00E+00	8.36E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<8.24E-02	0.00E+00	8.24E-02
		K-40	<4.38E-01	0.00E+00	4.38E-01
379502	5/26/2015 - 6/1/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.39E-01	2.80E-01	3.46E-01
380238	6/1/2015 - 6/8/2015	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.33E-01	2.13E-01	2.38E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
380526	6/8/2015 - 6/15/2015	I-131	<1.70E-02	0.00E+00	1.70E-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	<5.19E-02	0.00E+00	5.19E-02
		K-40	6.90E-01	2.28E-01	4.80E-02
380851	6/15/2015 - 6/22/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	6.98E-01	2.25E-01	4.61E-02
381310	6/22/2015 - 6/29/2015	I-131	<6.49E-03	0.00E+00	6.49E-03
		Cs-134	<6.29E-03	0.00E+00	6.29E-03
		Cs-137	<8.54E-03	0.00E+00	8.54E-03
		Be-7	<4.43E-02	0.00E+00	4.43E-02
		K-40	3.72E-01	1.31E-01	2.96E-02
381644	6/29/2015 - 7/6/2015	I-131	<1.73E-02	0.00E+00	1.73E-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	<9.27E-02	0.00E+00	9.27E-02
		K-40	5.66E-01	2.06E-01	4.79E-02
382209	7/6/2015 - 7/13/2015	I-131	<9.13E-03	0.00E+00	9.13E-03
		Cs-134	<5.13E-03	0.00E+00	5.13E-03
		Cs-137	<6.37E-03	0.00E+00	6.37E-03
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	3.69E-01	1.34E-01	9.71E-02
382637	7/13/2015 - 7/20/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<9.04E-02	0.00E+00	9.04E-02
		K-40	4.98E-01	2.05E-01	1.76E-01
383562	7/20/2015 - 7/27/2015	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.54E-01	2.21E-01	2.44E-01
384138	7/27/2015 - 8/3/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	5.34E-01	2.14E-01	1.77E-01
384702	8/3/2015 - 8/10/2015	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<8.58E-02	0.00E+00	8.58E-02
		K-40	<5.08E-01	0.00E+00	5.08E-01
385457	8/10/2015 - 8/17/2015	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	4.41E-01	2.05E-01	2.15E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
385971	8/17/2015 - 8/24/2015	I-131	<8.03E-03	0.00E+00	8.03E-03
		Cs-134	<6.19E-03	0.00E+00	6.19E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	4.12E-01	1.55E-01	1.46E-01
386870	8/24/2015 - 8/31/2015	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	<4.19E-02	0.00E+00	4.19E-02
		K-40	3.56E-01	1.46E-01	1.48E-01
387455	8/31/2015 - 9/8/2015	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<7.46E-02	0.00E+00	7.46E-02
		K-40	<4.55E-01	0.00E+00	4.55E-01
388806	9/8/2015 - 9/14/2015	I-131	<4.50E-03	0.00E+00	4.50E-03
		Cs-134	<8.97E-03	0.00E+00	8.97E-03
		Cs-137	<6.53E-03	0.00E+00	6.53E-03
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	3.92E-01	1.41E-01	3.22E-02
389451	9/14/2015 - 9/21/2015	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.74E-01	2.44E-01	3.01E-01
390056	9/21/2015 - 9/28/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<9.45E-02	0.00E+00	9.45E-02
		K-40	4.85E-01	2.02E-01	1.66E-01
390683	9/28/2015 - 10/5/2015	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.48E-02	0.00E+00	8.48E-02
		K-40	5.74E-01	2.54E-01	2.92E-01
391996	10/5/2015 - 10/12/2015	I-131	<8.16E-03	0.00E+00	8.16E-03
		Cs-134	<5.68E-03	0.00E+00	5.68E-03
		Cs-137	<5.46E-03	0.00E+00	5.46E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	3.27E-01	1.36E-01	1.35E-01
392273	10/12/2015 - 10/19/2015	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<9.67E-02	0.00E+00	9.67E-02
		K-40	4.63E-01	1.89E-01	5.01E-02
393476	10/19/2015 - 10/26/2015	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.99E-02	0.00E+00	8.99E-02
		K-40	4.86E-01	1.95E-01	5.07E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
393875	10/26/2015 - 11/2/2015	I-131	<1.51E-02	0.00E+00	1.51E-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	<1.06E-01	0.00E+00	1.06E-01
		K-40	7.34E-01	2.45E-01	1.57E-01
394889	11/2/2015 - 11/9/2015	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<9.09E-02	0.00E+00	9.09E-02
		K-40	4.93E-01	2.15E-01	2.16E-01
395346	11/9/2015 - 11/16/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	4.84E-01	2.61E-01	3.41E-01
395675	11/16/2015 - 11/23/2015	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<7.64E-02	0.00E+00	7.64E-02
		K-40	5.16E-01	2.14E-01	1.89E-01
396169	11/23/2015 - 11/30/2015	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<9.68E-03	0.00E+00	9.68E-03
		Cs-137	<5.74E-03	0.00E+00	5.74E-03
		Be-7	<6.22E-02	0.00E+00	6.22E-02
		K-40	4.45E-01	1.70E-01	1.83E-01
396685	11/30/2015 - 12/7/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<8.31E-02	0.00E+00	8.31E-02
		K-40	5.54E-01	2.15E-01	1.73E-01
397223	12/7/2015 - 12/14/2015	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<5.94E-03	0.00E+00	5.94E-03
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	3.38E-01	1.43E-01	1.44E-01
397940	12/14/2015 - 12/21/2015	I-131	<1.68E-02	0.00E+00	1.68E-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	<1.19E-01	0.00E+00	1.19E-01
		K-40	6.41E-01	2.20E-01	4.83E-02
398330	12/21/2015 - 12/28/2015	I-131	<8.15E-03	0.00E+00	8.15E-03
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	2.32E-01	1.43E-01	1.91E-01
Sample Point 133 [INDICATOR - ENE @ 6.23 miles]					
364929	12/29/2014 - 1/5/2015	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	7.69E-01	2.41E-01	4.74E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365118	1/5/2015 - 1/12/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.07E-02	0.00E+00	1.08E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.29E-01	1.79E-01	4.85E-02
365352	1/12/2015 - 1/19/2015	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	4.79E-01	1.89E-01	4.81E-02
366697	1/19/2015 - 1/26/2015	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<9.21E-03	0.00E+00	9.21E-03
		Be-7	<9.00E-02	0.00E+00	9.00E-02
		K-40	3.81E-01	1.86E-01	2.18E-01
367111	1/26/2015 - 2/2/2015	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<5.36E-01	0.00E+00	5.36E-01
367597	2/2/2015 - 2/9/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	6.77E-01	2.27E-01	4.83E-02
369025	2/9/2015 - 2/16/2015	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	6.68E-01	2.41E-01	1.94E-01
369738	2/16/2015 - 2/23/2015	I-131	<8.60E-03	0.00E+00	8.60E-03
		Cs-134	<4.71E-03	0.00E+00	4.71E-03
		Cs-137	<8.28E-03	0.00E+00	8.28E-03
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	4.44E-01	1.42E-01	2.87E-02
370652	2/23/2015 - 3/2/2015	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.39E-01	2.02E-01	4.87E-02
371592	3/2/2015 - 3/9/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<9.67E-03	0.00E+00	9.67E-03
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	7.72E-01	2.44E-01	4.86E-02
371965	3/9/2015 - 3/16/2015	I-131	<1.42E-02	0.00E+00	1.42E-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	<8.49E-02	0.00E+00	8.49E-02
		K-40	6.61E-01	2.36E-01	1.73E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372449	3/16/2015 - 3/23/2015	I-131	<1.66E-02	0.00E+00	1.66E-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	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.89E-01	2.24E-01	1.76E-01
373901	3/23/2015 - 3/30/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<9.93E-02	0.00E+00	9.93E-02
		K-40	5.76E-01	2.06E-01	4.73E-02
374603	3/30/2015 - 4/6/2015	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	4.83E-01	1.90E-01	4.85E-02
374987	4/6/2015 - 4/13/2015	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.15E-01	2.14E-01	1.89E-01
375674	4/13/2015 - 4/20/2015	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<7.64E-02	0.00E+00	7.64E-02
		K-40	<5.24E-01	0.00E+00	5.24E-01
376880	4/20/2015 - 4/27/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<9.26E-02	0.00E+00	9.26E-02
		K-40	4.09E-01	1.88E-01	1.70E-01
377537	4/27/2015 - 5/4/2015	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<9.36E-02	0.00E+00	9.36E-02
		K-40	4.23E-01	2.07E-01	2.25E-01
378108	5/4/2015 - 5/11/2015	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<9.60E-03	0.00E+00	9.60E-03
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.58E-01	2.35E-01	2.38E-01
378513	5/11/2015 - 5/18/2015	I-131	<1.72E-02	0.00E+00	1.72E-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	<1.12E-01	0.00E+00	1.12E-01
		K-40	7.00E-01	2.65E-01	2.66E-01
379002	5/18/2015 - 5/26/2015	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<8.80E-02	0.00E+00	8.80E-02
		K-40	<4.00E-01	0.00E+00	4.00E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
379503	5/26/2015 - 6/1/2015	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	5.62E-01	2.21E-01	5.65E-02
380239	6/1/2015 - 6/8/2015	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	6.60E-01	2.24E-01	4.83E-02
380527	6/8/2015 - 6/15/2015	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<8.47E-02	0.00E+00	8.47E-02
		K-40	6.54E-01	2.22E-01	4.79E-02
380852	6/15/2015 - 6/22/2015	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<7.81E-03	0.00E+00	7.81E-03
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	<5.25E-01	0.00E+00	5.25E-01
381311	6/22/2015 - 6/29/2015	I-131	<9.74E-03	0.00E+00	9.74E-03
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	<2.43E-01	0.00E+00	2.43E-01
381645	6/29/2015 - 7/6/2015	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<9.28E-02	0.00E+00	9.28E-02
		K-40	6.20E-01	2.16E-01	4.80E-02
382210	7/6/2015 - 7/13/2015	I-131	<8.84E-03	0.00E+00	8.84E-03
		Cs-134	<4.64E-03	0.00E+00	4.64E-03
		Cs-137	<6.69E-03	0.00E+00	6.69E-03
		Be-7	<5.96E-02	0.00E+00	5.96E-02
		K-40	3.79E-01	1.46E-01	1.40E-01
382638	7/13/2015 - 7/20/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.75E-01	2.66E-01	3.61E-01
383563	7/20/2015 - 7/27/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<7.75E-02	0.00E+00	7.75E-02
		K-40	8.07E-01	2.69E-01	2.09E-01
384139	7/27/2015 - 8/3/2015	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	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.29E-01	2.17E-01	1.92E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384703	8/3/2015 - 8/10/2015	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.25E-02	0.00E+00	1.25E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<7.70E-02	0.00E+00	7.70E-02
		K-40	5.32E-01	2.35E-01	2.53E-01
385458	8/10/2015 - 8/17/2015	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.91E-01	1.90E-01	4.75E-02
385972	8/17/2015 - 8/24/2015	I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<5.89E-03	0.00E+00	5.89E-03
		Cs-137	<6.56E-03	0.00E+00	6.56E-03
		Be-7	<5.85E-02	0.00E+00	5.85E-02
		K-40	3.88E-01	1.55E-01	1.60E-01
386871	8/24/2015 - 8/31/2015	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	4.91E-01	2.04E-01	1.62E-01
387456	8/31/2015 - 9/8/2015	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<9.85E-02	0.00E+00	9.85E-02
		K-40	4.64E-01	1.88E-01	1.63E-01
388807	9/8/2015 - 9/14/2015	I-131	<1.79E-03	0.00E+00	1.79E-03
		Cs-134	<8.91E-03	0.00E+00	8.91E-03
		Cs-137	<8.86E-03	0.00E+00	8.86E-03
		Be-7	<8.26E-02	0.00E+00	8.26E-02
		K-40	4.32E-01	1.65E-01	1.38E-01
389452	9/14/2015 - 9/21/2015	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	7.71E-01	2.44E-01	4.86E-02
390057	9/21/2015 - 9/28/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<8.09E-03	0.00E+00	8.09E-03
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01
390684	9/28/2015 - 10/5/2015	I-131	<1.44E-02	0.00E+00	1.44E-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	<8.50E-02	0.00E+00	8.50E-02
		K-40	3.75E-01	1.84E-01	1.79E-01
391997	10/5/2015 - 10/12/2015	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.37E-03	0.00E+00	7.37E-03
		Cs-137	<4.77E-03	0.00E+00	4.77E-03
		Be-7	<7.34E-02	0.00E+00	7.34E-02
		K-40	<3.35E-01	0.00E+00	3.35E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392274	10/12/2015 - 10/19/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.80E-01	2.06E-01	1.74E-01
393477	10/19/2015 - 10/26/2015	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.29E-01	2.19E-01	2.02E-01
393876	10/26/2015 - 11/2/2015	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	6.00E-01	2.29E-01	1.94E-01
394890	11/2/2015 - 11/9/2015	I-131	<1.60E-02	0.00E+00	1.60E-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	<8.48E-02	0.00E+00	8.48E-02
		K-40	4.44E-01	1.94E-01	1.68E-01
395347	11/9/2015 - 11/16/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	6.49E-01	2.38E-01	1.88E-01
395676	11/16/2015 - 11/23/2015	I-131	<1.25E-02	0.00E+00	1.25E-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	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.07E-01	2.44E-01	2.91E-01
396170	11/23/2015 - 11/30/2015	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<5.50E-03	0.00E+00	5.50E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	3.41E-01	1.37E-01	1.31E-01
396686	11/30/2015 - 12/7/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.96E-01	2.22E-01	2.35E-01
397224	12/7/2015 - 12/14/2015	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<7.88E-03	0.00E+00	7.88E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	3.74E-01	1.36E-01	1.02E-01
397941	12/14/2015 - 12/21/2015	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	6.94E-01	2.30E-01	4.83E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398331	12/21/2015 - 12/28/2015	I-131	<6.87E-03	0.00E+00	6.87E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<8.52E-03	0.00E+00	8.52E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	4.37E-01	1.40E-01	2.82E-02

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364930	12/29/2014 - 1/5/2015	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.49E-01	2.16E-01	1.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365119	1/5/2015 - 1/12/2015	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<8.74E-02	0.00E+00	8.74E-02
		K-40	3.97E-01	2.05E-01	2.31E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365353	1/12/2015 - 1/19/2015	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.28E-02	0.00E+00	9.28E-02
		K-40	5.66E-01	2.25E-01	1.98E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366698	1/19/2015 - 1/26/2015	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<9.70E-03	0.00E+00	9.70E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.81E-02	0.00E+00	5.81E-02
		K-40	<3.50E-01	0.00E+00	3.50E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367112	1/26/2015 - 2/2/2015	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<7.98E-03	0.00E+00	7.98E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<9.53E-02	0.00E+00	9.53E-02
		K-40	<3.31E-01	0.00E+00	3.31E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367598	2/2/2015 - 2/9/2015	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	6.09E-01	2.18E-01	5.00E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369026	2/9/2015 - 2/16/2015	I-131	<1.43E-02	0.00E+00	1.43E-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	<1.01E-01	0.00E+00	1.01E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369739	2/16/2015 - 2/23/2015	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	7.43E-01	2.93E-01	7.45E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
370653	2/23/2015 - 3/2/2015	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<9.02E-02	0.00E+00	9.02E-02
		K-40	<4.75E-01	0.00E+00	4.75E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
371593	3/2/2015 - 3/9/2015	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	6.76E-01	2.29E-01	4.95E-02
371966	3/9/2015 - 3/16/2015	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	4.97E-01	2.13E-01	1.99E-01
372450	3/16/2015 - 3/23/2015	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.73E-01	1.97E-01	1.50E-01
373902	3/23/2015 - 3/30/2015	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.61E-01	2.01E-01	4.61E-02
374604	3/30/2015 - 4/6/2015	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<8.02E-02	0.00E+00	8.02E-02
		K-40	6.67E-01	2.44E-01	2.00E-01
374988	4/6/2015 - 4/13/2015	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-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	<5.44E-01	0.00E+00	5.44E-01
375675	4/13/2015 - 4/20/2015	I-131	<1.25E-02	0.00E+00	1.25E-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	<8.55E-02	0.00E+00	8.55E-02
		K-40	6.53E-01	2.48E-01	2.28E-01
376881	4/20/2015 - 4/27/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<9.29E-02	0.00E+00	9.29E-02
		K-40	5.57E-01	1.96E-01	4.44E-02
377538	4/27/2015 - 5/4/2015	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	6.76E-01	2.54E-01	1.99E-01
378109	5/4/2015 - 5/11/2015	I-131	<1.52E-02	0.00E+00	1.53E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	3.73E-01	1.62E-01	4.60E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
378514	5/11/2015 - 5/18/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<9.24E-02	0.00E+00	9.24E-02
		K-40	<5.41E-01	0.00E+00	5.41E-01
379003	5/18/2015 - 5/26/2015	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<7.35E-02	0.00E+00	7.35E-02
		K-40	3.82E-01	1.68E-01	1.48E-01
379504	5/26/2015 - 6/1/2015	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.99E-01	2.32E-01	5.80E-02
380240	6/1/2015 - 6/8/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.69E-01	2.25E-01	1.96E-01
380528	6/8/2015 - 6/15/2015	I-131	<1.13E-02	0.00E+00	1.13E-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	<9.26E-02	0.00E+00	9.26E-02
		K-40	<5.14E-01	0.00E+00	5.14E-01
380853	6/15/2015 - 6/22/2015	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<9.90E-02	0.00E+00	9.90E-02
		K-40	6.50E-01	2.47E-01	2.32E-01
381312	6/22/2015 - 6/29/2015	I-131	<6.51E-03	0.00E+00	6.51E-03
		Cs-134	<6.88E-03	0.00E+00	6.88E-03
		Cs-137	<7.04E-03	0.00E+00	7.04E-03
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	4.18E-01	1.49E-01	1.14E-01
381646	6/29/2015 - 7/6/2015	I-131	<1.92E-02	0.00E+00	1.92E-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	<6.56E-02	0.00E+00	6.56E-02
		K-40	6.72E-01	2.25E-01	4.79E-02
382211	7/6/2015 - 7/13/2015	I-131	<6.63E-03	0.00E+00	6.63E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03
		Cs-137	<5.59E-03	0.00E+00	5.59E-03
		Be-7	<5.47E-02	0.00E+00	5.47E-02
		K-40	2.97E-01	1.40E-01	1.61E-01
382639	7/13/2015 - 7/20/2015	I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<8.96E-03	0.00E+00	8.96E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<8.80E-02	0.00E+00	8.80E-02
		K-40	5.65E-01	1.99E-01	4.51E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
383564	7/20/2015 - 7/27/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<8.88E-02	0.00E+00	8.88E-02
		K-40	6.31E-01	2.57E-01	2.62E-01
384140	7/27/2015 - 8/3/2015	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<9.26E-02	0.00E+00	9.26E-02
		K-40	5.99E-01	2.30E-01	1.97E-01
384704	8/3/2015 - 8/10/2015	I-131	<1.43E-02	0.00E+00	1.43E-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	<1.24E-01	0.00E+00	1.24E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
385459	8/10/2015 - 8/17/2015	I-131	<9.12E-03	0.00E+00	9.12E-03
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<8.31E-02	0.00E+00	8.31E-02
		K-40	7.38E-01	2.49E-01	1.88E-01
385973	8/17/2015 - 8/24/2015	I-131	<8.79E-03	0.00E+00	8.79E-03
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	3.77E-01	1.63E-01	1.88E-01
386872	8/24/2015 - 8/31/2015	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<9.32E-02	0.00E+00	9.32E-02
		K-40	6.28E-01	2.32E-01	1.79E-01
387457	8/31/2015 - 9/8/2015	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<6.69E-02	0.00E+00	6.69E-02
		K-40	7.45E-01	2.33E-01	1.54E-01
388808	9/8/2015 - 9/14/2015	I-131	<9.65E-03	0.00E+00	9.65E-03
		Cs-134	<6.06E-03	0.00E+00	6.06E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<5.85E-02	0.00E+00	5.85E-02
		K-40	3.55E-01	1.57E-01	1.68E-01
389453	9/14/2015 - 9/21/2015	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	5.48E-01	2.42E-01	2.59E-01
390058	9/21/2015 - 9/28/2015	I-131	<1.91E-02	0.00E+00	1.91E-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	<1.08E-01	0.00E+00	1.08E-01
		K-40	5.66E-01	2.68E-01	3.31E-01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
390685	9/28/2015 - 10/5/2015	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<9.22E-02	0.00E+00	9.22E-02
		K-40	4.74E-01	2.28E-01	2.62E-01
391998	10/5/2015 - 10/12/2015	I-131	<8.59E-03	0.00E+00	8.59E-03
		Cs-134	<8.11E-03	0.00E+00	8.11E-03
		Cs-137	<6.22E-03	0.00E+00	6.22E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	5.02E-01	1.58E-01	1.18E-01
392275	10/12/2015 - 10/19/2015	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	6.81E-01	2.55E-01	2.25E-01
393478	10/19/2015 - 10/26/2015	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.29E-02	0.00E+00	9.29E-02
		K-40	6.30E-01	2.40E-01	2.15E-01
393877	10/26/2015 - 11/2/2015	I-131	<1.51E-02	0.00E+00	1.51E-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	<9.25E-02	0.00E+00	9.25E-02
		K-40	5.29E-01	1.98E-01	4.78E-02
394891	11/2/2015 - 11/9/2015	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.34E-01	2.46E-01	2.42E-01
395348	11/9/2015 - 11/16/2015	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.52E-01	2.52E-01	3.29E-01
395677	11/16/2015 - 11/23/2015	I-131	<1.73E-02	0.00E+00	1.73E-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	<1.00E-01	0.00E+00	1.00E-01
		K-40	6.04E-01	2.13E-01	4.82E-02
396171	11/23/2015 - 11/30/2015	I-131	<7.34E-03	0.00E+00	7.34E-03
		Cs-134	<7.99E-03	0.00E+00	7.99E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	5.12E-01	1.58E-01	3.02E-02
396687	11/30/2015 - 12/7/2015	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	5.83E-01	2.06E-01	4.64E-02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	LLD
397225	12/7/2015 - 12/14/2015		I-131	<1.12E-02	0.00E+00	1.12E-02
			Cs-134	<7.77E-03	0.00E+00	7.77E-03
			Cs-137	<1.03E-02	0.00E+00	1.03E-02
			Be-7	<4.04E-02	0.00E+00	4.04E-02
			K-40	3.87E-01	1.45E-01	1.04E-01
397942	12/14/2015 - 12/21/2015		I-131	<1.16E-02	0.00E+00	1.16E-02
			Cs-134	<1.17E-02	0.00E+00	1.17E-02
			Cs-137	<1.33E-02	0.00E+00	1.33E-02
			Be-7	<7.68E-02	0.00E+00	7.68E-02
			K-40	3.11E-01	2.17E-01	3.04E-01
398332	12/21/2015 - 12/28/2015		I-131	<8.16E-03	0.00E+00	8.16E-03
			Cs-134	<7.69E-03	0.00E+00	7.69E-03
			Cs-137	<8.14E-03	0.00E+00	8.14E-03
			Be-7	<4.01E-02	0.00E+00	4.01E-02
			K-40	4.12E-01	1.52E-01	1.21E-01

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 104 [INDICATOR - NNW @ 1.52 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	LLD
365124	1/5/2015 - 1/5/2015	MIXEDCROPS	I-131	<1.18E+01	0.00E+00	1.18E+01
			Cs-134	<1.44E+01	0.00E+00	1.44E+01
			Cs-137	<1.42E+01	0.00E+00	1.42E+01
			Be-7	2.16E+02	1.91E+02	3.08E+02
			K-40	3.57E+03	4.91E+02	2.44E+02
367603	2/2/2015 - 2/2/2015	MIXEDCROPS	I-131	<5.41E+00	0.00E+00	5.41E+00
			Cs-134	<8.05E+00	0.00E+00	8.05E+00
			Cs-137	<9.92E+00	0.00E+00	9.92E+00
			Be-7	2.73E+02	7.75E+01	8.74E+01
			K-40	2.95E+03	3.71E+02	7.91E+01
371598	3/2/2015 - 3/2/2015	MIXEDCROPS	I-131	<7.40E+00	0.00E+00	7.40E+00
			Cs-134	<8.35E+00	0.00E+00	8.35E+00
			Cs-137	<6.99E+00	0.00E+00	6.99E+00
			Be-7	1.60E+02	5.97E+01	7.51E+01
			K-40	2.77E+03	3.44E+02	1.27E+02
382216	7/6/2015 - 7/6/2015	MIXEDCROPS	I-131	<6.06E+00	0.00E+00	6.06E+00
			Cs-134	<7.33E+00	0.00E+00	7.33E+00
			Cs-137	<7.62E+00	0.00E+00	7.62E+00
			Be-7	3.77E+01	3.30E+01	5.10E+01
			K-40	2.03E+03	2.71E+02	1.32E+02
384709	8/3/2015 - 8/3/2015	MIXEDCROPS	I-131	<6.17E+00	0.00E+00	6.17E+00
			Cs-134	<9.53E+00	0.00E+00	9.53E+00
			Cs-137	<8.57E+00	0.00E+00	8.57E+00
			Be-7	<7.28E+01	0.00E+00	7.28E+01
			K-40	3.29E+03	4.02E+02	1.69E+02
388813	9/8/2015 - 9/8/2015	MIXEDCROPS	I-131	<6.45E+00	0.00E+00	6.45E+00
			Cs-134	<7.46E+00	0.00E+00	7.46E+00
			Cs-137	<8.71E+00	0.00E+00	8.71E+00
			Be-7	<8.44E+01	0.00E+00	8.44E+01
			K-40	2.91E+03	3.64E+02	8.53E+01
392003	10/5/2015 - 10/5/2015	MIXEDCROPS	I-131	<7.60E+00	0.00E+00	7.60E+00
			Cs-134	<9.30E+00	0.00E+00	9.30E+00
			Cs-137	<7.73E+00	0.00E+00	7.73E+00
			Be-7	7.89E+01	5.76E+01	8.76E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 104 [INDICATOR - NNW @ 1.52 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	LLD
392003	10/5/2015 - 10/5/2015		K-40	2.19E+03	3.06E+02	8.78E+01
394896	11/2/2015 - 11/2/2015		I-131	<6.83E+00	0.00E+00	6.83E+00
			Cs-134	<7.82E+00	0.00E+00	7.82E+00
			Cs-137	<7.79E+00	0.00E+00	7.79E+00
			Be-7	1.76E+02	6.82E+01	8.97E+01
			K-40	2.50E+03	3.30E+02	1.04E+02
397230	12/7/2015 - 12/7/2015		I-131	<6.54E+00	0.00E+00	6.54E+00
			Cs-134	<9.54E+00	0.00E+00	9.54E+00
			Cs-137	<7.25E+00	0.00E+00	7.25E+00
			Be-7	2.24E+02	7.27E+01	9.14E+01
			K-40	3.68E+03	4.32E+02	1.66E+02

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364782	12/8/2014 - 1/5/2015	Beta	1.34E+00	8.14E-01	1.32E+00
		Mn-54	<2.72E+00	0.00E+00	2.72E+00
		Co-58	<3.25E+00	0.00E+00	3.25E+00
		Fe-59	<5.61E+00	0.00E+00	5.61E+00
		Co-60	<1.99E+00	0.00E+00	1.99E+00
		Zn-65	<5.14E+00	0.00E+00	5.14E+00
		Zr-95	<6.40E+00	0.00E+00	6.40E+00
		Nb-95	<3.70E+00	0.00E+00	3.70E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00
		BaLa-140	<5.13E+00	0.00E+00	5.13E+00
		Be-7	<2.17E+01	0.00E+00	2.17E+01
		K-40	2.22E+01	2.56E+01	4.14E+01
366879	1/5/2015 - 2/2/2015	Beta	1.75E+00	7.41E-01	1.15E+00
		Mn-54	<3.90E+00	0.00E+00	3.90E+00
		Co-58	<4.77E+00	0.00E+00	4.77E+00
		Fe-59	<8.51E+00	0.00E+00	8.51E+00
		Co-60	<4.29E+00	0.00E+00	4.29E+00
		Zn-65	<6.50E+00	0.00E+00	6.50E+00
		Zr-95	<5.84E+00	0.00E+00	5.84E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.10E+00	0.00E+00	4.10E+00
		Cs-137	<4.34E+00	0.00E+00	4.34E+00
		BaLa-140	<6.74E+00	0.00E+00	6.74E+00
		Be-7	<3.65E+01	0.00E+00	3.65E+01
		K-40	<4.57E+01	0.00E+00	4.57E+01
369980	2/2/2015 - 3/2/2015	Beta	1.20E+00	7.35E-01	1.18E+00
		Mn-54	<3.20E+00	0.00E+00	3.20E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<6.71E+00	0.00E+00	6.71E+00
		Co-60	<3.72E+00	0.00E+00	3.72E+00
		Zn-65	<8.28E+00	0.00E+00	8.28E+00
		Zr-95	<6.45E+00	0.00E+00	6.45E+00
		Nb-95	<3.18E+00	0.00E+00	3.18E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.75E+00	0.00E+00	3.75E+00
		Cs-137	<2.26E+00	0.00E+00	2.26E+00
		BaLa-140	<6.61E+00	0.00E+00	6.61E+00
		Be-7	<2.70E+01	0.00E+00	2.70E+01
		K-40	1.75E+01	2.51E+01	4.17E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372366	12/8/2014 - 3/2/2015	H3DW	7.65E+02	1.30E+02	1.89E+02
372745	3/2/2015 - 3/30/2015	Beta	1.77E+00	7.56E-01	1.17E+00
		Mn-54	<2.86E+00	0.00E+00	2.86E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<6.99E+00	0.00E+00	6.99E+00
		Co-60	<3.32E+00	0.00E+00	3.32E+00
		Zn-65	<7.40E+00	0.00E+00	7.40E+00
		Zr-95	<4.48E+00	0.00E+00	4.48E+00
		Nb-95	<4.41E+00	0.00E+00	4.41E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.25E+00	0.00E+00	4.25E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<8.83E+00	0.00E+00	8.83E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	3.58E+01	2.89E+01	4.24E+01
375838	3/30/2015 - 4/27/2015	Beta	2.17E+00	7.36E-01	1.10E+00
		Mn-54	<2.26E+00	0.00E+00	2.26E+00
		Co-58	<3.79E+00	0.00E+00	3.79E+00
		Fe-59	<8.38E+00	0.00E+00	8.38E+00
		Co-60	<3.94E+00	0.00E+00	3.94E+00
		Zn-65	<4.43E+00	0.00E+00	4.43E+00
		Zr-95	<8.64E+00	0.00E+00	8.64E+00
		Nb-95	<4.75E+00	0.00E+00	4.75E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<2.51E+00	0.00E+00	2.51E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<8.08E+00	0.00E+00	8.08E+00
		Be-7	<4.00E+01	0.00E+00	4.00E+01
		K-40	1.23E+01	3.18E+01	5.68E+01
378809	4/27/2015 - 5/26/2015	Beta	2.31E+00	8.51E-01	1.31E+00
		Mn-54	<4.07E+00	0.00E+00	4.07E+00
		Co-58	<4.29E+00	0.00E+00	4.29E+00
		Fe-59	<9.68E+00	0.00E+00	9.68E+00
		Co-60	<3.54E+00	0.00E+00	3.54E+00
		Zn-65	<5.60E+00	0.00E+00	5.60E+00
		Zr-95	<7.20E+00	0.00E+00	7.20E+00
		Nb-95	<3.26E+00	0.00E+00	3.26E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.30E+00	0.00E+00	4.30E+00
		Cs-137	<2.84E+00	0.00E+00	2.84E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<4.24E+01	0.00E+00	4.24E+01
		K-40	<5.43E+01	0.00E+00	5.43E+01
380246	3/2/2015 - 5/26/2015	H3DW	8.11E+02	1.36E+02	1.98E+02
380686	5/26/2015 - 6/22/2015	Beta	2.28E+00	7.71E-01	1.16E+00
		Mn-54	<4.16E+00	0.00E+00	4.16E+00
		Co-58	<4.95E+00	0.00E+00	4.95E+00
		Fe-59	<1.68E+00	0.00E+00	1.68E+00
		Co-60	<4.83E+00	0.00E+00	4.83E+00
		Zn-65	<8.32E+00	0.00E+00	8.32E+00
		Zr-95	<7.39E+00	0.00E+00	7.39E+00
		Nb-95	<5.08E+00	0.00E+00	5.08E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<4.21E+00	0.00E+00	4.21E+00
		Cs-137	<4.37E+00	0.00E+00	4.37E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<4.33E+01	0.00E+00	4.33E+01
		K-40	<6.01E+01	0.00E+00	6.01E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
382377	6/22/2015 - 7/20/2015	Beta	2.12E+00	7.83E-01	1.19E+00
		Mn-54	<4.13E+00	0.00E+00	4.13E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<6.06E+00	0.00E+00	6.06E+00
		Co-60	<4.09E+00	0.00E+00	4.09E+00
		Zn-65	<4.41E+00	0.00E+00	4.41E+00
		Zr-95	<5.70E+00	0.00E+00	5.70E+00
		Nb-95	<3.98E+00	0.00E+00	3.98E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.41E+00	0.00E+00	3.41E+00
		Cs-137	<2.47E+00	0.00E+00	2.47E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<3.13E+01	0.00E+00	3.13E+01
		K-40	<5.87E+01	0.00E+00	5.87E+01
		384912	7/20/2015 - 8/17/2015	Beta	1.15E+00
Mn-54	<3.05E+00			0.00E+00	3.05E+00
Co-58	<3.62E+00			0.00E+00	3.62E+00
Fe-59	<7.33E+00			0.00E+00	7.33E+00
Co-60	<2.91E+00			0.00E+00	2.91E+00
Zn-65	<6.90E+00			0.00E+00	6.90E+00
Zr-95	<9.43E+00			0.00E+00	9.43E+00
Nb-95	<4.29E+00			0.00E+00	4.29E+00
I-131	<1.18E+01			0.00E+00	1.18E+01
Cs-134	<4.86E+00			0.00E+00	4.86E+00
Cs-137	<3.39E+00			0.00E+00	3.39E+00
BaLa-140	<8.93E+00			0.00E+00	8.93E+00
Be-7	<4.00E+01			0.00E+00	4.00E+01
K-40	3.91E+01			3.09E+01	4.38E+01
388117	5/26/2015 - 8/17/2015			Nuclide	Activity
		H3DW	7.30E+02	1.32E+02	1.88E+02
388170	8/17/2015 - 9/14/2015	Beta	1.50E+00	7.59E-01	1.20E+00
		Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<3.16E+00	0.00E+00	3.16E+00
		Fe-59	<9.05E+00	0.00E+00	9.05E+00
		Co-60	<4.64E+00	0.00E+00	4.64E+00
		Zn-65	<7.05E+00	0.00E+00	7.05E+00
		Zr-95	<7.01E+00	0.00E+00	7.01E+00
		Nb-95	<4.08E+00	0.00E+00	4.08E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.68E+00	0.00E+00	3.68E+00
		Cs-137	<4.04E+00	0.00E+00	4.04E+00
		BaLa-140	<9.61E+00	0.00E+00	9.61E+00
		Be-7	<3.54E+01	0.00E+00	3.54E+01
		K-40	4.09E+01	3.70E+01	5.74E+01
		391252	9/14/2015 - 10/12/2015	Beta	<2.0E-01
Mn-54	<2.48E+00			0.00E+00	2.48E+00
Co-58	<3.33E+00			0.00E+00	3.33E+00
Fe-59	<8.36E+00			0.00E+00	8.36E+00
Co-60	<3.58E+00			0.00E+00	3.58E+00
Zn-65	<6.59E+00			0.00E+00	6.59E+00
Zr-95	<6.48E+00			0.00E+00	6.48E+00
Nb-95	<4.75E+00			0.00E+00	4.75E+00
I-131	<1.12E+01			0.00E+00	1.12E+01
Cs-134	<3.65E+00			0.00E+00	3.65E+00
Cs-137	<2.58E+00			0.00E+00	2.58E+00
BaLa-140	<7.63E+00			0.00E+00	7.63E+00
Be-7	<2.86E+01			0.00E+00	2.86E+01
K-40	<6.89E+01			0.00E+00	6.89E+01
394435	10/12/2015 - 11/9/2015			Nuclide	Activity
		Beta	1.78E+00	7.36E-01	1.13E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
394435	10/12/2015 - 11/9/2015	Mn-54	<3.30E+00	0.00E+00	3.30E+00
		Co-58	<3.64E+00	0.00E+00	3.64E+00
		Fe-59	<7.68E+00	0.00E+00	7.68E+00
		Co-60	<3.94E+00	0.00E+00	3.94E+00
		Zn-65	<4.76E+00	0.00E+00	4.76E+00
		Zr-95	<7.37E+00	0.00E+00	7.37E+00
		Nb-95	<4.63E+00	0.00E+00	4.63E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.02E+00	0.00E+00	4.02E+00
		Cs-137	<3.92E+00	0.00E+00	3.92E+00
		BaLa-140	<7.97E+00	0.00E+00	7.97E+00
		Be-7	<3.24E+01	0.00E+00	3.24E+01
		K-40	2.64E+01	3.15E+01	5.09E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396351	11/9/2015 - 12/7/2015	Beta	1.86E+00	7.54E-01	1.16E+00
		Mn-54	<2.98E+00	0.00E+00	2.98E+00
		Co-58	<3.77E+00	0.00E+00	3.77E+00
		Fe-59	<8.96E+00	0.00E+00	8.96E+00
		Co-60	<2.25E+00	0.00E+00	2.25E+00
		Zn-65	<8.43E+00	0.00E+00	8.43E+00
		Zr-95	<7.75E+00	0.00E+00	7.75E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.56E+00	0.00E+00	3.56E+00
		Cs-137	<3.84E+00	0.00E+00	3.84E+00
		BaLa-140	<1.16E+01	0.00E+00	1.16E+01
		Be-7	<3.54E+01	0.00E+00	3.54E+01
		K-40	<6.50E+01	0.00E+00	6.50E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397092	8/17/2015 - 12/7/2015	H3DW	1.37E+03	1.46E+02	1.93E+02

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364783	12/8/2014 - 1/5/2015	Beta	1.61E+00	8.23E-01	1.31E+00
		Mn-54	<2.76E+00	0.00E+00	2.76E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00
		Fe-59	<5.83E+00	0.00E+00	5.83E+00
		Co-60	<3.27E+00	0.00E+00	3.27E+00
		Zn-65	<6.03E+00	0.00E+00	6.03E+00
		Zr-95	<5.51E+00	0.00E+00	5.51E+00
		Nb-95	<3.81E+00	0.00E+00	3.81E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<3.37E+00	0.00E+00	3.37E+00
		Cs-137	<2.44E+00	0.00E+00	2.44E+00
		BaLa-140	<4.85E+00	0.00E+00	4.85E+00
		Be-7	<2.30E+01	0.00E+00	2.30E+01
		K-40	<4.93E+01	0.00E+00	4.93E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366880	1/5/2015 - 2/2/2015	Beta	2.05E+00	7.55E-01	1.14E+00
		Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<3.62E+00	0.00E+00	3.62E+00
		Fe-59	<6.63E+00	0.00E+00	6.63E+00
		Co-60	<2.80E+00	0.00E+00	2.80E+00
		Zn-65	<6.58E+00	0.00E+00	6.58E+00
		Zr-95	<5.85E+00	0.00E+00	5.85E+00
		Nb-95	<3.41E+00	0.00E+00	3.41E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.30E+00	0.00E+00	3.30E+00
		Cs-137	<2.98E+00	0.00E+00	2.98E+00
		BaLa-140	<6.33E+00	0.00E+00	6.33E+00
		Be-7	<2.63E+01	0.00E+00	2.63E+01
		K-40	2.09E+02	4.27E+01	3.98E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369981	2/2/2015 - 3/2/2015	Beta	1.97E+00	7.65E-01	1.18E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369981	2/2/2015 - 3/2/2015	Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<2.84E+00	0.00E+00	2.84E+00
		Fe-59	<8.85E+00	0.00E+00	8.85E+00
		Co-60	<5.10E+00	0.00E+00	5.10E+00
		Zn-65	<7.74E+00	0.00E+00	7.74E+00
		Zr-95	<5.04E+00	0.00E+00	5.04E+00
		Nb-95	<4.42E+00	0.00E+00	4.42E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.21E+00	0.00E+00	4.21E+00
		Cs-137	<3.86E+00	0.00E+00	3.86E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	<5.54E+01	0.00E+00	5.54E+01
		372367	12/8/2014 - 3/2/2015	H3DW	4.70E+02
372746	3/2/2015 - 3/30/2015	Beta	1.92E+00	7.57E-01	1.16E+00
		Mn-54	<2.88E+00	0.00E+00	2.88E+00
		Co-58	<4.19E+00	0.00E+00	4.19E+00
		Fe-59	<6.76E+00	0.00E+00	6.76E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<9.37E+00	0.00E+00	9.37E+00
		Zr-95	<7.03E+00	0.00E+00	7.03E+00
		Nb-95	<5.13E+00	0.00E+00	5.13E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.48E+00	0.00E+00	3.48E+00
		Cs-137	<3.27E+00	0.00E+00	3.27E+00
		BaLa-140	<6.32E+00	0.00E+00	6.32E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	6.23E+01	3.51E+01	4.21E+01
375839	3/30/2015 - 4/27/2015	Beta	2.36E+00	7.42E-01	1.09E+00
		Mn-54	<4.65E+00	0.00E+00	4.65E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00
		Fe-59	<8.21E+00	0.00E+00	8.21E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<8.32E+00	0.00E+00	8.32E+00
		Zr-95	<6.12E+00	0.00E+00	6.12E+00
		Nb-95	<5.11E+00	0.00E+00	5.11E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.20E+00	0.00E+00	4.20E+00
		Cs-137	<4.51E+00	0.00E+00	4.51E+00
		BaLa-140	<9.16E+00	0.00E+00	9.16E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	<6.78E+01	0.00E+00	6.78E+01
378810	4/27/2015 - 5/26/2015	Beta	2.51E+00	8.53E-01	1.30E+00
		Mn-54	<3.57E+00	0.00E+00	3.57E+00
		Co-58	<3.96E+00	0.00E+00	3.96E+00
		Fe-59	<8.03E+00	0.00E+00	8.03E+00
		Co-60	<4.09E+00	0.00E+00	4.09E+00
		Zn-65	<8.20E+00	0.00E+00	8.20E+00
		Zr-95	<8.67E+00	0.00E+00	8.67E+00
		Nb-95	<5.48E+00	0.00E+00	5.48E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.96E+00	0.00E+00	3.96E+00
		Cs-137	<4.45E+00	0.00E+00	4.45E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<3.83E+01	0.00E+00	3.83E+01
		K-40	5.96E+01	3.52E+01	4.24E+01
380247	3/2/2015 - 5/26/2015	H3DW	5.41E+02	1.32E+02	2.02E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
380687	5/26/2015 - 6/22/2015	Beta	1.94E+00	7.54E-01	1.15E+00
		Mn-54	<1.18E+00	0.00E+00	1.18E+00
		Co-58	<1.35E+00	0.00E+00	1.35E+00
		Fe-59	<2.85E+00	0.00E+00	2.85E+00
		Co-60	<1.07E+00	0.00E+00	1.07E+00
		Zn-65	<2.57E+00	0.00E+00	2.57E+00
		Zr-95	<2.54E+00	0.00E+00	2.54E+00
		Nb-95	<1.84E+00	0.00E+00	1.84E+00
		I-131	<4.90E+00	0.00E+00	4.90E+00
		Cs-134	<1.48E+00	0.00E+00	1.48E+00
		Cs-137	<1.39E+00	0.00E+00	1.39E+00
		BaLa-140	<3.33E+00	0.00E+00	3.33E+00
		Be-7	<1.39E+01	0.00E+00	1.39E+01
		K-40	4.00E+01	1.37E+01	1.73E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
382378	6/22/2015 - 7/20/2015	Beta	2.18E+00	7.81E-01	1.18E+00
		Mn-54	<3.22E+00	0.00E+00	3.22E+00
		Co-58	<2.52E+00	0.00E+00	2.52E+00
		Fe-59	<9.61E+00	0.00E+00	9.61E+00
		Co-60	<3.04E+00	0.00E+00	3.04E+00
		Zn-65	<1.05E+01	0.00E+00	1.05E+01
		Zr-95	<6.31E+00	0.00E+00	6.31E+00
		Nb-95	<3.26E+00	0.00E+00	3.26E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.58E+00	0.00E+00	3.58E+00
		Cs-137	<3.37E+00	0.00E+00	3.37E+00
		BaLa-140	<6.41E+00	0.00E+00	6.41E+00
		Be-7	<3.73E+01	0.00E+00	3.73E+01
		K-40	2.17E+01	3.39E+01	5.73E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384913	7/20/2015 - 8/17/2015	Beta	2.41E+00	8.02E-01	1.21E+00
		Mn-54	<3.18E+00	0.00E+00	3.18E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<7.89E+00	0.00E+00	7.89E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<7.42E+00	0.00E+00	7.42E+00
		Zr-95	<4.90E+00	0.00E+00	4.90E+00
		Nb-95	<3.53E+00	0.00E+00	3.53E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.13E+00	0.00E+00	4.13E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<4.99E+00	0.00E+00	4.99E+00
		Be-7	<3.34E+01	0.00E+00	3.34E+01
		K-40	<5.06E+01	0.00E+00	5.06E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
388118	5/26/2015 - 8/17/2015	H3DW	2.89E+02	1.20E+02	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
388171	8/17/2015 - 9/14/2015	Beta	2.52E+00	8.02E-01	1.19E+00
		Mn-54	<3.27E+00	0.00E+00	3.27E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<6.61E+00	0.00E+00	6.61E+00
		Co-60	<2.10E+00	0.00E+00	2.10E+00
		Zn-65	<6.21E+00	0.00E+00	6.21E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<3.44E+00	0.00E+00	3.44E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<3.17E+00	0.00E+00	3.17E+00
		BaLa-140	<7.98E+00	0.00E+00	7.98E+00
		Be-7	<3.87E+01	0.00E+00	3.87E+01
		K-40	3.52E+01	2.41E+01	3.24E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
391253	9/14/2015 - 10/12/2015	Beta	<4.78E-01	0.00E+00	1.45E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	391253	Sample Dates:	9/14/2015 - 10/12/2015	Nuclide	Activity	2 Sigma Error	LLD
				Mn-54	<2.71E+00	0.00E+00	2.71E+00
				Co-58	<3.02E+00	0.00E+00	3.02E+00
				Fe-59	<5.68E+00	0.00E+00	5.68E+00
				Co-60	<3.14E+00	0.00E+00	3.14E+00
				Zn-65	<5.54E+00	0.00E+00	5.54E+00
				Zr-95	<5.18E+00	0.00E+00	5.18E+00
				Nb-95	<3.40E+00	0.00E+00	3.40E+00
				I-131	<1.15E+01	0.00E+00	1.15E+01
				Cs-134	<2.91E+00	0.00E+00	2.91E+00
				Cs-137	<3.19E+00	0.00E+00	3.19E+00
				BaLa-140	<8.14E+00	0.00E+00	8.14E+00
				Be-7	<3.01E+01	0.00E+00	3.01E+01
				K-40	5.67E+01	3.24E+01	4.60E+01

Sample ID:	394436	Sample Dates:	10/12/2015 - 11/9/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	2.19E+00	7.50E-01	1.12E+00
				Mn-54	<2.50E+00	0.00E+00	2.50E+00
				Co-58	<3.33E+00	0.00E+00	3.33E+00
				Fe-59	<6.24E+00	0.00E+00	6.24E+00
				Co-60	<3.03E+00	0.00E+00	3.03E+00
				Zn-65	<6.17E+00	0.00E+00	6.17E+00
				Zr-95	<5.90E+00	0.00E+00	5.90E+00
				Nb-95	<3.35E+00	0.00E+00	3.35E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<3.35E+00	0.00E+00	3.35E+00
				Cs-137	<3.10E+00	0.00E+00	3.10E+00
				BaLa-140	<6.47E+00	0.00E+00	6.47E+00
				Be-7	<2.72E+01	0.00E+00	2.72E+01
				K-40	7.15E+01	3.02E+01	3.43E+01

Sample ID:	396352	Sample Dates:	11/9/2015 - 12/7/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	2.00E+00	7.57E-01	1.15E+00
				Mn-54	<3.20E+00	0.00E+00	3.20E+00
				Co-58	<4.55E+00	0.00E+00	4.55E+00
				Fe-59	<8.41E+00	0.00E+00	8.41E+00
				Co-60	<4.00E+00	0.00E+00	4.00E+00
				Zn-65	<8.89E+00	0.00E+00	8.89E+00
				Zr-95	<5.82E+00	0.00E+00	5.82E+00
				Nb-95	<4.66E+00	0.00E+00	4.66E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<3.99E+00	0.00E+00	3.99E+00
				Cs-137	<2.88E+00	0.00E+00	2.88E+00
				BaLa-140	<6.03E+00	0.00E+00	6.03E+00
				Be-7	<3.93E+01	0.00E+00	3.93E+01
				K-40	<5.90E+01	0.00E+00	5.90E+01

Sample ID:	397093	Sample Dates:	8/17/2015 - 12/7/2015	Nuclide	Activity	2 Sigma Error	LLD
				H3DW	9.85E+02	1.40E+02	1.97E+02

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	364784	Sample Dates:	12/8/2014 - 1/5/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	9.84E-01	8.01E-01	1.32E+00
				Mn-54	<2.46E+00	0.00E+00	2.46E+00
				Co-58	<3.22E+00	0.00E+00	3.22E+00
				Fe-59	<6.24E+00	0.00E+00	6.24E+00
				Co-60	<2.19E+00	0.00E+00	2.19E+00
				Zn-65	<5.99E+00	0.00E+00	5.99E+00
				Zr-95	<5.65E+00	0.00E+00	5.65E+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	<3.02E+00	0.00E+00	3.02E+00
				Cs-137	<2.27E+00	0.00E+00	2.27E+00
				BaLa-140	<5.40E+00	0.00E+00	5.40E+00
				Be-7	<2.79E+01	0.00E+00	2.79E+01
				K-40	2.20E+02	4.26E+01	4.34E+01

Sample ID:	366881	Sample Dates:	1/5/2015 - 2/2/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	1.60E+00	7.35E-01	1.15E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366881	1/5/2015 - 2/2/2015	Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.15E+00	0.00E+00	3.15E+00
		Fe-59	<7.16E+00	0.00E+00	7.16E+00
		Co-60	<2.84E+00	0.00E+00	2.84E+00
		Zn-65	<5.56E+00	0.00E+00	5.56E+00
		Zr-95	<5.38E+00	0.00E+00	5.38E+00
		Nb-95	<3.99E+00	0.00E+00	3.99E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<4.20E+00	0.00E+00	4.20E+00
		Cs-137	<2.45E+00	0.00E+00	2.45E+00
		BaLa-140	<5.84E+00	0.00E+00	5.84E+00
		Be-7	<2.78E+01	0.00E+00	2.78E+01
		K-40	4.18E+01	3.86E+01	1.86E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369982	2/2/2015 - 3/2/2015	Beta	2.70E+00	8.04E-01	1.18E+00
		Mn-54	<4.00E+00	0.00E+00	4.00E+00
		Co-58	<2.82E+00	0.00E+00	2.82E+00
		Fe-59	<7.88E+00	0.00E+00	7.88E+00
		Co-60	<3.43E+00	0.00E+00	3.43E+00
		Zn-65	<5.65E+00	0.00E+00	5.65E+00
		Zr-95	<4.48E+00	0.00E+00	4.48E+00
		Nb-95	<5.11E+00	0.00E+00	5.11E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.11E+00	0.00E+00	4.11E+00
		Cs-137	<2.91E+00	0.00E+00	2.91E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<4.05E+01	0.00E+00	4.05E+01
		K-40	<5.70E+01	0.00E+00	5.70E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372368	12/8/2014 - 3/2/2015	H3DW	5.04E+02	1.24E+02	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372747	3/2/2015 - 3/30/2015	Beta	2.35E+00	7.85E-01	1.17E+00
		Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<3.92E+00	0.00E+00	3.92E+00
		Fe-59	<7.25E+00	0.00E+00	7.25E+00
		Co-60	<3.45E+00	0.00E+00	3.45E+00
		Zn-65	<5.20E+00	0.00E+00	5.20E+00
		Zr-95	<6.08E+00	0.00E+00	6.08E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.07E+00	0.00E+00	3.07E+00
		Cs-137	<3.44E+00	0.00E+00	3.44E+00
		BaLa-140	<8.45E+00	0.00E+00	8.45E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	2.87E+01	3.13E+01	4.99E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375840	3/30/2015 - 4/27/2015	Beta	2.43E+00	7.50E-01	1.10E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<6.89E+00	0.00E+00	6.89E+00
		Co-60	<3.54E+00	0.00E+00	3.54E+00
		Zn-65	<7.42E+00	0.00E+00	7.42E+00
		Zr-95	<6.32E+00	0.00E+00	6.32E+00
		Nb-95	<4.80E+00	0.00E+00	4.80E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.34E+00	0.00E+00	3.34E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<7.86E+00	0.00E+00	7.86E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	3.62E+01	2.31E+01	2.96E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
378811	4/27/2015 - 5/26/2015	Beta	2.20E+00	8.48E-01	1.31E+00
		Mn-54	<3.57E+00	0.00E+00	3.57E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
378811	4/27/2015 - 5/26/2015	Co-58	<3.37E+00	0.00E+00	3.37E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<4.80E+00	0.00E+00	4.80E+00
		Zn-65	<7.51E+00	0.00E+00	7.51E+00
		Zr-95	<7.02E+00	0.00E+00	7.02E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.68E+00	0.00E+00	3.68E+00
		Cs-137	<4.45E+00	0.00E+00	4.45E+00
		BaLa-140	<2.53E+00	0.00E+00	2.53E+00
		Be-7	<4.41E+01	0.00E+00	4.41E+01
		K-40	<6.13E+01	0.00E+00	6.13E+01
		380248	3/2/2015 - 5/26/2015	H3DW	6.57E+02
380688	5/26/2015 - 6/22/2015	Beta	1.75E+00	7.51E-01	1.16E+00
		Mn-54	<4.16E+00	0.00E+00	4.16E+00
		Co-58	<3.70E+00	0.00E+00	3.70E+00
		Fe-59	<8.16E+00	0.00E+00	8.16E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<8.43E+00	0.00E+00	8.43E+00
		Nb-95	<5.48E+00	0.00E+00	5.48E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<4.61E+00	0.00E+00	4.61E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<6.13E+00	0.00E+00	6.13E+00
		Be-7	<3.21E+01	0.00E+00	3.21E+01
K-40	6.65E+01	3.78E+01	4.75E+01		
382379	6/22/2015 - 7/20/2015	Beta	2.81E+00	8.14E-01	1.19E+00
		Mn-54	<4.07E+00	0.00E+00	4.07E+00
		Co-58	<4.49E+00	0.00E+00	4.49E+00
		Fe-59	<9.02E+00	0.00E+00	9.02E+00
		Co-60	<2.42E+00	0.00E+00	2.42E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<7.16E+00	0.00E+00	7.16E+00
		Nb-95	<4.50E+00	0.00E+00	4.50E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<4.29E+00	0.00E+00	4.29E+00
		Cs-137	<3.33E+00	0.00E+00	3.33E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.54E+01	0.00E+00	3.54E+01
K-40	3.11E+01	3.87E+01	6.31E+01		
384914	7/20/2015 - 8/17/2015	Beta	2.00E+00	7.87E-01	1.21E+00
		Mn-54	<2.37E+00	0.00E+00	2.37E+00
		Co-58	<3.62E+00	0.00E+00	3.62E+00
		Fe-59	<7.51E+00	0.00E+00	7.51E+00
		Co-60	<3.19E+00	0.00E+00	3.19E+00
		Zn-65	<5.35E+00	0.00E+00	5.35E+00
		Zr-95	<6.41E+00	0.00E+00	6.41E+00
		Nb-95	<5.23E+00	0.00E+00	5.23E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.34E+00	0.00E+00	3.34E+00
		Cs-137	<3.52E+00	0.00E+00	3.52E+00
		BaLa-140	<8.57E+00	0.00E+00	8.57E+00
		Be-7	<3.43E+01	0.00E+00	3.43E+01
K-40	7.37E+01	3.10E+01	3.06E+01		
388119	5/26/2015 - 8/17/2015	H3DW	3.92E+02	1.23E+02	1.90E+02
388172	8/17/2015 - 9/14/2015	Beta	1.96E+00	7.77E-01	1.20E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
388172	8/17/2015 - 9/14/2015	Mn-54	<2.76E+00	0.00E+00	2.76E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<5.47E+00	0.00E+00	5.47E+00
		Co-60	<1.92E+00	0.00E+00	1.92E+00
		Zn-65	<7.18E+00	0.00E+00	7.18E+00
		Zr-95	<4.08E+00	0.00E+00	4.08E+00
		Nb-95	<4.49E+00	0.00E+00	4.49E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<3.27E+00	0.00E+00	3.27E+00
		BaLa-140	<5.11E+00	0.00E+00	5.11E+00
		Be-7	<3.29E+01	0.00E+00	3.29E+01
		K-40	2.50E+01	2.34E+01	3.49E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
391254	9/14/2015 - 10/12/2015	Beta	<-1.8E-01	0.00E+00	1.46E+00
		Mn-54	<2.97E+00	0.00E+00	2.97E+00
		Co-58	<3.70E+00	0.00E+00	3.70E+00
		Fe-59	<7.91E+00	0.00E+00	7.91E+00
		Co-60	<3.44E+00	0.00E+00	3.44E+00
		Zn-65	<3.91E+00	0.00E+00	3.91E+00
		Zr-95	<5.61E+00	0.00E+00	5.61E+00
		Nb-95	<4.03E+00	0.00E+00	4.03E+00
		I-131	<1.17E+01	0.00E+00	1.17E+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	<9.11E+00	0.00E+00	9.11E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	<5.45E+01	0.00E+00	5.45E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
394437	10/12/2015 - 11/9/2015	Beta	2.01E+00	7.46E-01	1.13E+00
		Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<4.04E+00	0.00E+00	4.04E+00
		Fe-59	<7.69E+00	0.00E+00	7.69E+00
		Co-60	<3.53E+00	0.00E+00	3.53E+00
		Zn-65	<7.90E+00	0.00E+00	7.90E+00
		Zr-95	<6.73E+00	0.00E+00	6.73E+00
		Nb-95	<5.23E+00	0.00E+00	5.23E+00
		I-131	<9.73E+00	0.00E+00	9.73E+00
		Cs-134	<4.06E+00	0.00E+00	4.06E+00
		Cs-137	<2.84E+00	0.00E+00	2.84E+00
		BaLa-140	<9.44E+00	0.00E+00	9.44E+00
		Be-7	<3.78E+01	0.00E+00	3.78E+01
		K-40	4.66E+01	3.03E+01	3.72E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396353	11/9/2015 - 12/7/2015	Beta	2.11E+00	7.69E-01	1.16E+00
		Mn-54	<2.82E+00	0.00E+00	2.82E+00
		Co-58	<2.89E+00	0.00E+00	2.89E+00
		Fe-59	<6.25E+00	0.00E+00	6.25E+00
		Co-60	<3.36E+00	0.00E+00	3.36E+00
		Zn-65	<6.44E+00	0.00E+00	6.44E+00
		Zr-95	<5.53E+00	0.00E+00	5.53E+00
		Nb-95	<3.95E+00	0.00E+00	3.95E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.35E+00	0.00E+00	2.35E+00
		Cs-137	<3.19E+00	0.00E+00	3.19E+00
		BaLa-140	<8.09E+00	0.00E+00	8.09E+00
		Be-7	<2.55E+01	0.00E+00	2.55E+01
		K-40	2.78E+01	3.09E+01	4.99E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397094	8/17/2015 - 12/7/2015	H3DW	1.09E+03	1.43E+02	1.99E+02

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364785	12/8/2014 - 1/5/2015	Beta	1.14E+00	8.04E-01	1.31E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364785	12/8/2014 - 1/5/2015	Mn-54	<2.35E+00	0.00E+00	2.35E+00
		Co-58	<2.86E+00	0.00E+00	2.86E+00
		Fe-59	<5.47E+00	0.00E+00	5.47E+00
		Co-60	<2.72E+00	0.00E+00	2.72E+00
		Zn-65	<5.22E+00	0.00E+00	5.22E+00
		Zr-95	<5.08E+00	0.00E+00	5.08E+00
		Nb-95	<3.72E+00	0.00E+00	3.72E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<3.17E+00	0.00E+00	3.17E+00
		Cs-137	<2.59E+00	0.00E+00	2.59E+00
		BaLa-140	<6.55E+00	0.00E+00	6.55E+00
		Be-7	<2.67E+01	0.00E+00	2.67E+01
		K-40	5.51E+01	2.90E+01	4.02E+01
		366882	1/5/2015 - 2/2/2015	Beta	1.41E+00
Mn-54	<2.96E+00			0.00E+00	2.96E+00
Co-58	<4.56E+00			0.00E+00	4.56E+00
Fe-59	<4.78E+00			0.00E+00	4.78E+00
Co-60	<3.04E+00			0.00E+00	3.04E+00
Zn-65	<7.25E+00			0.00E+00	7.25E+00
Zr-95	<5.23E+00			0.00E+00	5.23E+00
Nb-95	<3.32E+00			0.00E+00	3.32E+00
I-131	<1.13E+01			0.00E+00	1.13E+01
Cs-134	<4.10E+00			0.00E+00	4.10E+00
Cs-137	<2.57E+00			0.00E+00	2.57E+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	<4.87E+01			0.00E+00	4.87E+01
369983	2/2/2015 - 3/2/2015	Beta	1.89E+00	7.65E-01	1.18E+00
		Mn-54	<2.22E+00	0.00E+00	2.22E+00
		Co-58	<3.24E+00	0.00E+00	3.24E+00
		Fe-59	<5.57E+00	0.00E+00	5.57E+00
		Co-60	<1.59E+00	0.00E+00	1.59E+00
		Zn-65	<4.99E+00	0.00E+00	4.99E+00
		Zr-95	<4.52E+00	0.00E+00	4.52E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<7.29E+00	0.00E+00	7.29E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	2.23E+01	2.86E+01	4.71E+01
372369	12/8/2014 - 3/2/2015	Nuclide	Activity	2 Sigma Error	LLD
		H3DW	<-4.9E+01	0.00E+00	1.87E+02
372748	3/2/2015 - 3/30/2015	Beta	1.95E+00	7.60E-01	1.17E+00
		Mn-54	<3.59E+00	0.00E+00	3.59E+00
		Co-58	<4.59E+00	0.00E+00	4.59E+00
		Fe-59	<8.83E+00	0.00E+00	8.83E+00
		Co-60	<4.53E+00	0.00E+00	4.53E+00
		Zn-65	<5.48E+00	0.00E+00	5.48E+00
		Zr-95	<6.58E+00	0.00E+00	6.58E+00
		Nb-95	<5.53E+00	0.00E+00	5.53E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.81E+00	0.00E+00	4.81E+00
		Cs-137	<4.51E+00	0.00E+00	4.51E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	4.53E+01	3.38E+01	4.73E+01
375841	3/30/2015 - 4/27/2015	Nuclide	Activity	2 Sigma Error	LLD
		Beta	2.08E+00	7.30E-01	1.10E+00
		Mn-54	<3.70E+00	0.00E+00	3.70E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375841	3/30/2015 - 4/27/2015	Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<6.58E+00	0.00E+00	6.58E+00
		Co-60	<2.31E+00	0.00E+00	2.31E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<7.93E+00	0.00E+00	7.93E+00
		Nb-95	<4.30E+00	0.00E+00	4.30E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.11E+00	0.00E+00	3.11E+00
		Cs-137	<3.76E+00	0.00E+00	3.76E+00
		BaLa-140	<1.17E+01	0.00E+00	1.17E+01
		Be-7	<3.49E+01	0.00E+00	3.49E+01
		K-40	<5.65E+01	0.00E+00	5.65E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
378812	4/27/2015 - 5/26/2015	Beta	2.58E+00	8.58E-01	1.30E+00
		Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.47E+00	0.00E+00	3.47E+00
		Fe-59	<7.58E+00	0.00E+00	7.58E+00
		Co-60	<4.53E+00	0.00E+00	4.53E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<6.62E+00	0.00E+00	6.62E+00
		Nb-95	<4.70E+00	0.00E+00	4.70E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<4.36E+00	0.00E+00	4.36E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.86E+01	0.00E+00	3.86E+01
		K-40	<5.77E+01	0.00E+00	5.77E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
380249	3/2/2015 - 5/26/2015	H3DW	<2.64E+01	0.00E+00	2.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
380689	5/26/2015 - 6/22/2015	Beta	2.31E+00	7.74E-01	1.16E+00
		Mn-54	<4.09E+00	0.00E+00	4.09E+00
		Co-58	<4.70E+00	0.00E+00	4.70E+00
		Fe-59	<4.67E+00	0.00E+00	4.67E+00
		Co-60	<5.19E+00	0.00E+00	5.19E+00
		Zn-65	<8.48E+00	0.00E+00	8.48E+00
		Zr-95	<5.75E+00	0.00E+00	5.75E+00
		Nb-95	<5.22E+00	0.00E+00	5.22E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.54E+00	0.00E+00	4.54E+00
		Cs-137	<4.34E+00	0.00E+00	4.34E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<3.17E+01	0.00E+00	3.17E+01
		K-40	<5.40E+01	0.00E+00	5.40E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
382380	6/22/2015 - 7/20/2015	Beta	1.94E+00	7.73E-01	1.19E+00
		Mn-54	<3.09E+00	0.00E+00	3.09E+00
		Co-58	<3.67E+00	0.00E+00	3.67E+00
		Fe-59	<7.42E+00	0.00E+00	7.42E+00
		Co-60	<4.47E+00	0.00E+00	4.47E+00
		Zn-65	<6.99E+00	0.00E+00	6.99E+00
		Zr-95	<4.96E+00	0.00E+00	4.96E+00
		Nb-95	<5.05E+00	0.00E+00	5.05E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.15E+00	0.00E+00	4.15E+00
		Cs-137	<4.46E+00	0.00E+00	4.46E+00
		BaLa-140	<9.05E+00	0.00E+00	9.05E+00
		Be-7	<3.78E+01	0.00E+00	3.78E+01
		K-40	<6.88E+01	0.00E+00	6.88E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384915	7/20/2015 - 8/17/2015	Beta	8.66E-01	7.36E-01	1.21E+00
		Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384915	7/20/2015 - 8/17/2015	Fe-59	<9.40E+00	0.00E+00	9.40E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<4.34E+00	0.00E+00	4.34E+00
		Zr-95	<5.02E+00	0.00E+00	5.02E+00
		Nb-95	<3.85E+00	0.00E+00	3.85E+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	<4.03E+00	0.00E+00	4.03E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<2.94E+01	0.00E+00	2.94E+01
		K-40	<6.78E+01	0.00E+00	6.78E+01
		388120	5/26/2015 - 8/17/2015	H3DW	<-3.6E+01
388173	8/17/2015 - 9/14/2015	Beta	1.62E+00	7.61E-01	1.19E+00
		Mn-54	<4.51E+00	0.00E+00	4.51E+00
		Co-58	<4.07E+00	0.00E+00	4.07E+00
		Fe-59	<9.66E+00	0.00E+00	9.66E+00
		Co-60	<4.28E+00	0.00E+00	4.28E+00
		Zn-65	<9.10E+00	0.00E+00	9.10E+00
		Zr-95	<6.57E+00	0.00E+00	6.57E+00
		Nb-95	<4.54E+00	0.00E+00	4.54E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.73E+00	0.00E+00	3.73E+00
		Cs-137	<4.13E+00	0.00E+00	4.13E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00
		Be-7	<3.57E+01	0.00E+00	3.57E+01
		K-40	7.60E+01	3.85E+01	4.76E+01
		391255	9/14/2015 - 10/12/2015	Beta	<-1.8E-02
Mn-54	<3.68E+00			0.00E+00	3.68E+00
Co-58	<3.29E+00			0.00E+00	3.29E+00
Fe-59	<6.10E+00			0.00E+00	6.10E+00
Co-60	<3.95E+00			0.00E+00	3.95E+00
Zn-65	<1.64E+00			0.00E+00	1.64E+00
Zr-95	<6.85E+00			0.00E+00	6.85E+00
Nb-95	<4.65E+00			0.00E+00	4.65E+00
I-131	<1.06E+01			0.00E+00	1.06E+01
Cs-134	<4.52E+00			0.00E+00	4.52E+00
Cs-137	<4.11E+00			0.00E+00	4.11E+00
BaLa-140	<1.15E+01			0.00E+00	1.15E+01
Be-7	<3.86E+01			0.00E+00	3.86E+01
K-40	<6.13E+01			0.00E+00	6.13E+01
394438	10/12/2015 - 11/9/2015			Beta	2.19E+00
		Mn-54	<2.91E+00	0.00E+00	2.91E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<8.31E+00	0.00E+00	8.31E+00
		Co-60	<8.83E-01	0.00E+00	8.83E-01
		Zn-65	<6.43E+00	0.00E+00	6.43E+00
		Zr-95	<5.68E+00	0.00E+00	5.68E+00
		Nb-95	<4.46E+00	0.00E+00	4.46E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.26E+00	0.00E+00	4.26E+00
		Cs-137	<3.53E+00	0.00E+00	3.53E+00
		BaLa-140	<9.38E+00	0.00E+00	9.38E+00
		Be-7	<3.64E+01	0.00E+00	3.64E+01
		K-40	<7.63E+01	0.00E+00	7.63E+01
		396354	11/9/2015 - 12/7/2015	Beta	2.99E+00
Mn-54	<3.29E+00			0.00E+00	3.29E+00
Co-58	<3.72E+00			0.00E+00	3.72E+00
Fe-59	<4.74E+00			0.00E+00	4.74E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396354	11/9/2015 - 12/7/2015	Co-60	<3.52E+00	0.00E+00	3.52E+00
		Zn-65	<5.23E+00	0.00E+00	5.23E+00
		Zr-95	<6.59E+00	0.00E+00	6.59E+00
		Nb-95	<3.83E+00	0.00E+00	3.83E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<2.78E+00	0.00E+00	2.78E+00
		Cs-137	<3.01E+00	0.00E+00	3.01E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<2.90E+01	0.00E+00	2.90E+01
		K-40	<4.27E+01	0.00E+00	4.27E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397095	8/17/2015 - 12/7/2015	H3DW	<6.43E+01	0.00E+00	1.94E+02

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
364786	12/8/2014 - 1/5/2015	Beta	1.29E+00	8.12E-01	1.32E+00
		Mn-54	<2.79E+00	0.00E+00	2.79E+00
		Co-58	<2.92E+00	0.00E+00	2.92E+00
		Fe-59	<5.66E+00	0.00E+00	5.66E+00
		Co-60	<1.83E+00	0.00E+00	1.83E+00
		Zn-65	<5.47E+00	0.00E+00	5.47E+00
		Zr-95	<4.73E+00	0.00E+00	4.73E+00
		Nb-95	<3.35E+00	0.00E+00	3.35E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.30E+00	0.00E+00	3.30E+00
		Cs-137	<2.80E+00	0.00E+00	2.80E+00
		BaLa-140	<8.59E+00	0.00E+00	8.59E+00
		Be-7	<2.47E+01	0.00E+00	2.47E+01
		K-40	<4.78E+01	0.00E+00	4.78E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
366883	1/5/2015 - 2/2/2015	Beta	1.30E+00	7.19E-01	1.15E+00
		Mn-54	<3.11E+00	0.00E+00	3.11E+00
		Co-58	<3.31E+00	0.00E+00	3.31E+00
		Fe-59	<8.70E+00	0.00E+00	8.70E+00
		Co-60	<1.84E+00	0.00E+00	1.84E+00
		Zn-65	<6.04E+00	0.00E+00	6.04E+00
		Zr-95	<7.21E+00	0.00E+00	7.21E+00
		Nb-95	<4.11E+00	0.00E+00	4.11E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.15E+00	0.00E+00	4.15E+00
		Cs-137	<3.51E+00	0.00E+00	3.51E+00
		BaLa-140	<1.10E+01	0.00E+00	1.10E+01
		Be-7	<2.76E+01	0.00E+00	2.76E+01
		K-40	4.13E+01	3.06E+01	4.41E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369984	2/2/2015 - 3/2/2015	Beta	1.63E+00	7.51E-01	1.18E+00
		Mn-54	<1.92E+00	0.00E+00	1.92E+00
		Co-58	<4.45E+00	0.00E+00	4.45E+00
		Fe-59	<5.03E+00	0.00E+00	5.03E+00
		Co-60	<4.18E+00	0.00E+00	4.18E+00
		Zn-65	<7.66E+00	0.00E+00	7.66E+00
		Zr-95	<5.70E+00	0.00E+00	5.70E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<9.80E+00	0.00E+00	9.80E+00
		Be-7	<3.21E+01	0.00E+00	3.21E+01
		K-40	3.40E+01	3.39E+01	5.31E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372370	12/8/2014 - 3/2/2015	H3DW	<-1.6E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
372749	3/2/2015 - 3/30/2015	Beta	2.67E+00	7.95E-01	1.17E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	372749	Sample Dates:	3/2/2015 - 3/30/2015	Nuclide	Activity	2 Sigma Error	LLD
				Mn-54	<4.08E+00	0.00E+00	4.08E+00
				Co-58	<3.93E+00	0.00E+00	3.93E+00
				Fe-59	<9.81E+00	0.00E+00	9.81E+00
				Co-60	<3.64E+00	0.00E+00	3.64E+00
				Zn-65	<9.26E+00	0.00E+00	9.26E+00
				Zr-95	<6.60E+00	0.00E+00	6.60E+00
				Nb-95	<4.80E+00	0.00E+00	4.80E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01
				Cs-134	<3.00E+00	0.00E+00	3.00E+00
				Cs-137	<3.46E+00	0.00E+00	3.46E+00
				BaLa-140	<1.04E+01	0.00E+00	1.04E+01
				Be-7	<3.28E+01	0.00E+00	3.28E+01
				K-40	2.88E+01	2.87E+01	4.40E+01

Sample ID:	375842	Sample Dates:	3/30/2015 - 4/27/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	2.16E+00	7.33E-01	1.09E+00
				Mn-54	<3.72E+00	0.00E+00	3.72E+00
				Co-58	<3.94E+00	0.00E+00	3.94E+00
				Fe-59	<7.57E+00	0.00E+00	7.57E+00
				Co-60	<3.62E+00	0.00E+00	3.62E+00
				Zn-65	<6.64E+00	0.00E+00	6.64E+00
				Zr-95	<7.54E+00	0.00E+00	7.54E+00
				Nb-95	<4.19E+00	0.00E+00	4.19E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<3.97E+00	0.00E+00	3.97E+00
				Cs-137	<3.32E+00	0.00E+00	3.32E+00
				BaLa-140	<6.75E+00	0.00E+00	6.75E+00
				Be-7	<2.77E+01	0.00E+00	2.77E+01
				K-40	4.82E+01	3.60E+01	5.26E+01

Sample ID:	378813	Sample Dates:	4/27/2015 - 5/26/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	1.94E+00	8.32E-01	1.30E+00
				Mn-54	<3.87E+00	0.00E+00	3.87E+00
				Co-58	<2.74E+00	0.00E+00	2.74E+00
				Fe-59	<7.10E+00	0.00E+00	7.10E+00
				Co-60	<3.91E+00	0.00E+00	3.91E+00
				Zn-65	<9.21E+00	0.00E+00	9.21E+00
				Zr-95	<7.32E+00	0.00E+00	7.32E+00
				Nb-95	<3.34E+00	0.00E+00	3.34E+00
				I-131	<1.14E+01	0.00E+00	1.14E+01
				Cs-134	<3.62E+00	0.00E+00	3.62E+00
				Cs-137	<3.47E+00	0.00E+00	3.47E+00
				BaLa-140	<7.04E+00	0.00E+00	7.04E+00
				Be-7	<3.11E+01	0.00E+00	3.11E+01
				K-40	3.15E+01	3.45E+01	5.51E+01

Sample ID:	380250	Sample Dates:	3/2/2015 - 5/26/2015	Nuclide	Activity	2 Sigma Error	LLD
				H3DW	<5.40E+01	0.00E+00	1.97E+02

Sample ID:	380690	Sample Dates:	5/26/2015 - 6/22/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	2.08E+00	7.68E-01	1.16E+00
				Mn-54	<1.26E+00	0.00E+00	1.26E+00
				Co-58	<1.53E+00	0.00E+00	1.53E+00
				Fe-59	<3.17E+00	0.00E+00	3.17E+00
				Co-60	<1.60E+00	0.00E+00	1.60E+00
				Zn-65	<2.92E+00	0.00E+00	2.92E+00
				Zr-95	<2.06E+00	0.00E+00	2.06E+00
				Nb-95	<1.50E+00	0.00E+00	1.50E+00
				I-131	<5.24E+00	0.00E+00	5.24E+00
				Cs-134	<1.53E+00	0.00E+00	1.53E+00
				Cs-137	<1.34E+00	0.00E+00	1.34E+00
				BaLa-140	<3.46E+00	0.00E+00	3.46E+00
				Be-7	<1.27E+01	0.00E+00	1.27E+01
				K-40	2.36E+01	1.38E+01	2.07E+01

Sample ID:	382381	Sample Dates:	6/22/2015 - 7/20/2015	Nuclide	Activity	2 Sigma Error	LLD
				Beta	2.55E+00	8.03E-01	1.19E+00
				Mn-54	<3.66E+00	0.00E+00	3.66E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
382381	6/22/2015 - 7/20/2015	Co-58	<4.49E+00	0.00E+00	4.49E+00
		Fe-59	<6.88E+00	0.00E+00	6.88E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<9.05E+00	0.00E+00	9.05E+00
		Zr-95	<7.56E+00	0.00E+00	7.56E+00
		Nb-95	<3.93E+00	0.00E+00	3.93E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.55E+00	0.00E+00	3.55E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<9.40E+00	0.00E+00	9.40E+00
		Be-7	<3.66E+01	0.00E+00	3.66E+01
		K-40	3.23E+01	2.82E+01	4.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
384916	7/20/2015 - 8/17/2015	Beta	1.20E+00	7.50E-01	1.21E+00
		Mn-54	<3.66E+00	0.00E+00	3.66E+00
		Co-58	<3.52E+00	0.00E+00	3.52E+00
		Fe-59	<5.93E+00	0.00E+00	5.93E+00
		Co-60	<4.30E+00	0.00E+00	4.30E+00
		Zn-65	<6.48E+00	0.00E+00	6.48E+00
		Zr-95	<5.72E+00	0.00E+00	5.72E+00
		Nb-95	<3.92E+00	0.00E+00	3.92E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.82E+00	0.00E+00	3.82E+00
		Cs-137	<3.55E+00	0.00E+00	3.55E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<4.21E+01	0.00E+00	4.21E+01
		K-40	<6.13E+01	0.00E+00	6.13E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
388121	5/26/2015 - 8/17/2015	H3DW	2.08E+02	1.16E+02	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
388174	8/17/2015 - 9/14/2015	Beta	3.23E+00	8.45E-01	1.20E+00
		Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<4.04E+00	0.00E+00	4.04E+00
		Fe-59	<5.93E+00	0.00E+00	5.93E+00
		Co-60	<3.53E+00	0.00E+00	3.53E+00
		Zn-65	<4.43E+00	0.00E+00	4.43E+00
		Zr-95	<5.72E+00	0.00E+00	5.72E+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	<5.27E+00	0.00E+00	5.27E+00
		Cs-137	<3.75E+00	0.00E+00	3.75E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	<6.55E+01	0.00E+00	6.55E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
391256	9/14/2015 - 10/12/2015	Beta	1.46E+00	9.03E-01	1.47E+00
		Mn-54	<2.42E+00	0.00E+00	2.42E+00
		Co-58	<3.36E+00	0.00E+00	3.36E+00
		Fe-59	<6.02E+00	0.00E+00	6.02E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<5.61E+00	0.00E+00	5.61E+00
		Zr-95	<5.96E+00	0.00E+00	5.96E+00
		Nb-95	<4.16E+00	0.00E+00	4.16E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.51E+00	0.00E+00	2.51E+00
		Cs-137	<2.47E+00	0.00E+00	2.47E+00
		BaLa-140	<7.92E+00	0.00E+00	7.92E+00
		Be-7	<2.59E+01	0.00E+00	2.59E+01
		K-40	<5.26E+01	0.00E+00	5.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
394439	10/12/2015 - 11/9/2015	Beta	2.47E+00	7.67E-01	1.13E+00
		Mn-54	<3.05E+00	0.00E+00	3.05E+00
		Co-58	<2.50E+00	0.00E+00	2.50E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	LLD
394439	10/12/2015 - 11/9/2015		Fe-59	<6.51E+00	0.00E+00	6.51E+00
			Co-60	<2.31E+00	0.00E+00	2.31E+00
			Zn-65	<4.97E+00	0.00E+00	4.97E+00
			Zr-95	<5.44E+00	0.00E+00	5.44E+00
			Nb-95	<3.53E+00	0.00E+00	3.53E+00
			I-131	<1.04E+01	0.00E+00	1.04E+01
			Cs-134	<3.56E+00	0.00E+00	3.56E+00
			Cs-137	<3.47E+00	0.00E+00	3.47E+00
			BaLa-140	<4.72E+00	0.00E+00	4.72E+00
			Be-7	<2.47E+01	0.00E+00	2.47E+01
			K-40	<5.61E+01	0.00E+00	5.61E+01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	LLD
396355	11/9/2015 - 12/7/2015		Beta	2.81E+00	7.96E-01	1.16E+00
			Mn-54	<3.17E+00	0.00E+00	3.17E+00
			Co-58	<4.24E+00	0.00E+00	4.24E+00
			Fe-59	<8.94E+00	0.00E+00	8.94E+00
			Co-60	<3.03E+00	0.00E+00	3.03E+00
			Zn-65	<8.97E+00	0.00E+00	8.97E+00
			Zr-95	<7.11E+00	0.00E+00	7.11E+00
			Nb-95	<4.20E+00	0.00E+00	4.20E+00
			I-131	<1.14E+01	0.00E+00	1.14E+01
			Cs-134	<5.23E+00	0.00E+00	5.23E+00
			Cs-137	<4.42E+00	0.00E+00	4.42E+00
			BaLa-140	<9.41E+00	0.00E+00	9.41E+00
			Be-7	<3.99E+01	0.00E+00	3.99E+01
			K-40	<6.73E+01	0.00E+00	6.73E+01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	LLD
397096	8/17/2015 - 12/7/2015		H3DW	<9.15E+01	0.00E+00	1.92E+02

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
374845	3/30/2015 - 3/30/2015		Mn-54	<1.47E+01	0.00E+00	1.47E+01
			Co-58	<8.43E+00	0.00E+00	8.43E+00
			Fe-59	<2.60E+01	0.00E+00	2.60E+01
			Co-60	<1.18E+01	0.00E+00	1.18E+01
			Zn-65	<2.32E+01	0.00E+00	2.32E+01
			Nb-95	<9.58E+00	0.00E+00	9.58E+00
			I-131	<1.32E+01	0.00E+00	1.32E+01
			Cs-134	<1.53E+01	0.00E+00	1.53E+01
			Cs-137	<1.36E+01	0.00E+00	1.36E+01
			Be-7	<6.04E+01	0.00E+00	6.04E+01
			K-40	2.77E+03	4.19E+02	1.18E+02
			Ag-110M	<8.58E+00	0.00E+00	8.58E+00
			Sb-122	<7.49E+01	0.00E+00	7.49E+01
			Sb-125	<1.97E+01	0.00E+00	1.97E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
374846	3/30/2015 - 3/30/2015		Mn-54	<2.38E+01	0.00E+00	2.38E+01
			Co-58	<1.52E+01	0.00E+00	1.52E+01
			Fe-59	<3.58E+01	0.00E+00	3.58E+01
			Co-60	<1.45E+01	0.00E+00	1.45E+01
			Zn-65	<5.52E+01	0.00E+00	5.52E+01
			Nb-95	<2.04E+01	0.00E+00	2.04E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	<1.85E+01	0.00E+00	1.85E+01
			Be-7	<1.36E+02	0.00E+00	1.36E+02
			K-40	2.66E+03	5.14E+02	2.13E+02
			Ag-110M	<1.42E+01	0.00E+00	1.42E+01
			Sb-122	<1.22E+02	0.00E+00	1.22E+02
			Sb-125	<2.52E+01	0.00E+00	2.52E+01

Sample ID:	Sample Dates:	BOTMFEDER	Nuclide	Activity	2 Sigma Error	LLD
374847	3/30/2015 - 3/30/2015		Mn-54	<1.21E+01	0.00E+00	1.21E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	374847	Sample Dates:	3/30/2015 - 3/30/2015	BOTMFEDER	Nuclide	Activity	2 Sigma Error	LLD
					Co-58	<1.75E+01	0.00E+00	1.75E+01
					Fe-59	<3.29E+01	0.00E+00	3.29E+01
					Co-60	<1.51E+01	0.00E+00	1.51E+01
					Zn-65	<3.44E+01	0.00E+00	3.44E+01
					Nb-95	<2.07E+01	0.00E+00	2.07E+01
					I-131	<2.06E+01	0.00E+00	2.06E+01
					Cs-134	<1.65E+01	0.00E+00	1.65E+01
					Cs-137	<1.88E+01	0.00E+00	1.88E+01
					Be-7	<1.12E+02	0.00E+00	1.12E+02
					K-40	3.03E+03	5.20E+02	1.99E+02
					Ag-110M	<1.63E+01	0.00E+00	1.63E+01
					Sb-122	<1.00E+02	0.00E+00	1.00E+02
					Sb-125	<3.52E+01	0.00E+00	3.52E+01

Sample ID:	391469	Sample Dates:	10/6/2015 - 10/6/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.87E+01	0.00E+00	1.87E+01
					Co-58	<2.06E+01	0.00E+00	2.06E+01
					Fe-59	<3.27E+01	0.00E+00	3.27E+01
					Co-60	<1.86E+01	0.00E+00	1.86E+01
					Zn-65	<4.24E+01	0.00E+00	4.24E+01
					Nb-95	<1.74E+01	0.00E+00	1.74E+01
					I-131	<1.94E+01	0.00E+00	1.94E+01
					Cs-134	<1.99E+01	0.00E+00	1.99E+01
					Cs-137	<2.43E+01	0.00E+00	2.43E+01
					Be-7	<1.46E+02	0.00E+00	1.46E+02
					K-40	3.75E+03	6.28E+02	3.72E+02
					Ag-110M	<1.62E+01	0.00E+00	1.62E+01
					Sb-122	<3.89E+01	0.00E+00	3.89E+01
					Sb-125	<4.87E+01	0.00E+00	4.87E+01

Sample ID:	391470	Sample Dates:	10/6/2015 - 10/6/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<8.52E+00	0.00E+00	8.52E+00
					Co-58	<1.25E+01	0.00E+00	1.25E+01
					Fe-59	<3.77E+01	0.00E+00	3.77E+01
					Co-60	<2.21E+01	0.00E+00	2.21E+01
					Zn-65	<4.15E+01	0.00E+00	4.15E+01
					Nb-95	<1.80E+01	0.00E+00	1.80E+01
					I-131	<1.72E+01	0.00E+00	1.72E+01
					Cs-134	<1.95E+01	0.00E+00	1.95E+01
					Cs-137	<1.86E+01	0.00E+00	1.86E+01
					Be-7	<1.17E+02	0.00E+00	1.17E+02
					K-40	2.85E+03	4.97E+02	4.59E+01
					Ag-110M	<1.41E+01	0.00E+00	1.41E+01
					Sb-122	<4.69E+01	0.00E+00	4.69E+01
					Sb-125	<3.03E+01	0.00E+00	3.03E+01

Sample ID:	391471	Sample Dates:	10/6/2015 - 10/6/2015	BOTMFEDER	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<9.98E+00	0.00E+00	9.98E+00
					Co-58	<1.00E+01	0.00E+00	1.00E+01
					Fe-59	<2.76E+01	0.00E+00	2.76E+01
					Co-60	<1.58E+01	0.00E+00	1.58E+01
					Zn-65	<3.27E+01	0.00E+00	3.27E+01
					Nb-95	<1.10E+01	0.00E+00	1.10E+01
					I-131	<8.35E+00	0.00E+00	8.35E+00
					Cs-134	<1.25E+01	0.00E+00	1.25E+01
					Cs-137	<2.03E+01	0.00E+00	2.03E+01
					Be-7	<7.86E+01	0.00E+00	7.86E+01
					K-40	3.06E+03	4.72E+02	3.56E+01
					Ag-110M	<1.21E+01	0.00E+00	1.21E+01
					Sb-122	<1.81E+01	0.00E+00	1.81E+01
					Sb-125	<2.99E+01	0.00E+00	2.99E+01

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	374848	Sample Dates:	3/31/2015 - 3/31/2015	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.69E+01	0.00E+00	1.69E+01
					Co-58	<2.13E+01	0.00E+00	2.13E+01
					Fe-59	<3.80E+01	0.00E+00	3.80E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
374848	3/31/2015 - 3/31/2015	FREESWIM	Co-60	<1.99E+01	0.00E+00	1.99E+01
			Zn-65	<4.91E+01	0.00E+00	4.91E+01
			Nb-95	<1.48E+01	0.00E+00	1.48E+01
			I-131	<2.78E+01	0.00E+00	2.78E+01
			Cs-134	<1.54E+01	0.00E+00	1.54E+01
			Cs-137	<1.85E+01	0.00E+00	1.85E+01
			Be-7	<1.36E+02	0.00E+00	1.36E+02
			K-40	3.42E+03	5.98E+02	2.90E+02
			Ag-110M	<1.67E+01	0.00E+00	1.67E+01
			Sb-122	<7.04E+01	0.00E+00	7.04E+01
			Sb-125	<3.31E+01	0.00E+00	3.31E+01
			374849	3/31/2015 - 3/31/2015	FREESWIM	Mn-54
Co-58	<1.93E+01	0.00E+00				1.93E+01
Fe-59	<1.02E+01	0.00E+00				1.02E+01
Co-60	<2.72E+01	0.00E+00				2.72E+01
Zn-65	<2.94E+01	0.00E+00				2.94E+01
Nb-95	<1.95E+01	0.00E+00				1.95E+01
I-131	<2.65E+01	0.00E+00				2.65E+01
Cs-134	<2.46E+01	0.00E+00				2.46E+01
Cs-137	<2.25E+01	0.00E+00				2.25E+01
Be-7	<1.63E+02	0.00E+00				1.63E+02
K-40	2.90E+03	5.80E+02				2.70E+02
Ag-110M	<2.03E+01	0.00E+00				2.03E+01
Sb-122	<1.08E+02	0.00E+00				1.08E+02
Sb-125	<4.92E+01	0.00E+00				4.92E+01
374850	3/31/2015 - 4/2/2015	BOTMFEEDER	Mn-54	<1.51E+01	0.00E+00	1.51E+01
			Co-58	<1.19E+01	0.00E+00	1.19E+01
			Fe-59	<2.42E+01	0.00E+00	2.42E+01
			Co-60	<1.67E+01	0.00E+00	1.67E+01
			Zn-65	<3.58E+01	0.00E+00	3.58E+01
			Nb-95	<1.69E+01	0.00E+00	1.69E+01
			I-131	<1.96E+01	0.00E+00	1.96E+01
			Cs-134	<1.68E+01	0.00E+00	1.68E+01
			Cs-137	<1.45E+01	0.00E+00	1.45E+01
			Be-7	<8.52E+01	0.00E+00	8.52E+01
			K-40	2.37E+03	4.38E+02	1.84E+02
			Ag-110M	<1.30E+01	0.00E+00	1.30E+01
			Sb-122	<9.30E+01	0.00E+00	9.30E+01
			Sb-125	<2.78E+01	0.00E+00	2.78E+01
391472	10/6/2015 - 10/6/2015	FREESWIM	Mn-54	<1.66E+01	0.00E+00	1.66E+01
			Co-58	<1.74E+01	0.00E+00	1.74E+01
			Fe-59	<3.62E+01	0.00E+00	3.62E+01
			Co-60	<1.64E+01	0.00E+00	1.64E+01
			Zn-65	<3.99E+01	0.00E+00	3.99E+01
			Nb-95	<1.44E+01	0.00E+00	1.44E+01
			I-131	<1.43E+01	0.00E+00	1.43E+01
			Cs-134	<1.41E+01	0.00E+00	1.41E+01
			Cs-137	<1.83E+01	0.00E+00	1.83E+01
			Be-7	<9.95E+01	0.00E+00	9.95E+01
			K-40	2.79E+03	4.87E+02	2.43E+02
			Ag-110M	<1.43E+01	0.00E+00	1.43E+01
			Sb-122	<2.59E+01	0.00E+00	2.59E+01
			Sb-125	<3.31E+01	0.00E+00	3.31E+01
391473	10/6/2015 - 10/6/2015	FREESWIM	Mn-54	<2.33E+01	0.00E+00	2.33E+01
			Co-58	<1.67E+01	0.00E+00	1.67E+01
			Fe-59	<4.28E+01	0.00E+00	4.28E+01
			Co-60	<2.42E+01	0.00E+00	2.42E+01
			Zn-65	<4.23E+01	0.00E+00	4.23E+01
			Nb-95	<2.53E+01	0.00E+00	2.53E+01
			I-131	<2.28E+01	0.00E+00	2.28E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	LLD
391473	10/6/2015 - 10/6/2015		Cs-134	<1.61E+01	0.00E+00	1.61E+01
			Cs-137	<1.10E+01	0.00E+00	1.10E+01
			Be-7	<1.63E+02	0.00E+00	1.63E+02
			K-40	3.08E+03	5.82E+02	6.10E+01
			Ag-110M	<1.44E+01	0.00E+00	1.44E+01
			Sb-122	<2.98E+01	0.00E+00	2.98E+01
			Sb-125	<3.31E+01	0.00E+00	3.31E+01

Sample ID:	Sample Dates:	BOTMFEDER	Nuclide	Activity	2 Sigma Error	LLD
391474	10/6/2015 - 10/6/2015		Mn-54	<1.73E+01	0.00E+00	1.73E+01
			Co-58	<1.39E+01	0.00E+00	1.39E+01
			Fe-59	<1.96E+01	0.00E+00	1.96E+01
			Co-60	<1.56E+01	0.00E+00	1.56E+01
			Zn-65	<4.66E+01	0.00E+00	4.66E+01
			Nb-95	<1.59E+01	0.00E+00	1.59E+01
			I-131	<1.23E+01	0.00E+00	1.23E+01
			Cs-134	<1.70E+01	0.00E+00	1.70E+01
			Cs-137	<1.34E+01	0.00E+00	1.34E+01
			Be-7	<1.03E+02	0.00E+00	1.03E+02
			K-40	2.72E+03	5.19E+02	3.52E+01
			Ag-110M	<1.31E+01	0.00E+00	1.31E+01
			Sb-122	<3.13E+01	0.00E+00	3.13E+01
			Sb-125	<3.24E+01	0.00E+00	3.24E+01

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365354	1/12/2015 - 1/12/2015	LLI-131	<6.36E-01	0.00E+00	6.36E-01
		I-131	<6.71E+00	0.00E+00	6.71E+00
		Cs-134	<7.00E+00	0.00E+00	7.00E+00
		Cs-137	<5.18E+00	0.00E+00	5.18E+00
		BaLa-140	<3.81E+00	0.00E+00	3.81E+00
		Be-7	<5.49E+01	0.00E+00	5.49E+01
		K-40	1.46E+03	2.06E+02	1.20E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367113	1/26/2015 - 1/26/2015	LLI-131	<6.36E-01	0.00E+00	6.36E-01
		I-131	<1.22E+01	0.00E+00	1.22E+01
		Cs-134	<1.12E+01	0.00E+00	1.12E+01
		Cs-137	<1.14E+01	0.00E+00	1.14E+01
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<6.10E+01	0.00E+00	6.10E+01
		K-40	1.39E+03	2.88E+02	1.33E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
369027	2/9/2015 - 2/9/2015	LLI-131	<6.38E-01	0.00E+00	6.38E-01
		I-131	<6.25E+00	0.00E+00	6.25E+00
		Cs-134	<8.30E+00	0.00E+00	8.30E+00
		Cs-137	<6.52E+00	0.00E+00	6.52E+00
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Be-7	<4.89E+01	0.00E+00	4.89E+01
		K-40	1.56E+03	2.41E+02	1.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
370654	2/23/2015 - 2/23/2015	LLI-131	<5.65E-01	0.00E+00	5.65E-01
		I-131	<5.02E+00	0.00E+00	5.02E+00
		Cs-134	<5.58E+00	0.00E+00	5.58E+00
		Cs-137	<4.44E+00	0.00E+00	4.44E+00
		BaLa-140	<3.94E+00	0.00E+00	3.94E+00
		Be-7	<4.07E+01	0.00E+00	4.07E+01
		K-40	1.42E+03	1.84E+02	6.48E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
371967	3/9/2015 - 3/9/2015	LLI-131	<5.95E-01	0.00E+00	5.95E-01
		I-131	<4.64E+00	0.00E+00	4.64E+00
		Cs-134	<5.58E+00	0.00E+00	5.58E+00
		Cs-137	<5.22E+00	0.00E+00	5.22E+00
		BaLa-140	<5.09E+00	0.00E+00	5.09E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
371967	3/9/2015 - 3/9/2015	Be-7	<3.74E+01	0.00E+00	3.74E+01
		K-40	1.52E+03	1.92E+02	6.39E+01
373903	3/23/2015 - 3/23/2015	LLI-131	<4.57E-01	0.00E+00	4.57E-01
		I-131	<6.75E+00	0.00E+00	6.75E+00
		Cs-134	<6.86E+00	0.00E+00	6.86E+00
		Cs-137	<7.71E+00	0.00E+00	7.71E+00
		BaLa-140	<8.53E+00	0.00E+00	8.53E+00
		Be-7	<6.75E+01	0.00E+00	6.75E+01
		K-40	1.41E+03	2.26E+02	9.57E+01
374994	4/6/2015 - 4/6/2015	LLI-131	<5.60E-01	0.00E+00	5.60E-01
		I-131	<7.35E+00	0.00E+00	7.35E+00
		Cs-134	<7.86E+00	0.00E+00	7.86E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<2.26E+00	0.00E+00	2.26E+00
		Be-7	<6.28E+01	0.00E+00	6.28E+01
		K-40	1.36E+03	2.21E+02	1.00E+02
376882	4/20/2015 - 4/20/2015	LLI-131	<5.36E-01	0.00E+00	5.36E-01
		I-131	<5.41E+00	0.00E+00	5.41E+00
		Cs-134	<6.37E+00	0.00E+00	6.37E+00
		Cs-137	<6.62E+00	0.00E+00	6.62E+00
		BaLa-140	<7.55E+00	0.00E+00	7.55E+00
		Be-7	<5.65E+01	0.00E+00	5.65E+01
		K-40	1.35E+03	2.28E+02	1.37E+02
378115	5/4/2015 - 5/4/2015	LLI-131	<5.21E-01	0.00E+00	5.21E-01
		I-131	<6.91E+00	0.00E+00	6.91E+00
		Cs-134	<7.27E+00	0.00E+00	7.27E+00
		Cs-137	<7.36E+00	0.00E+00	7.36E+00
		BaLa-140	<7.55E+00	0.00E+00	7.55E+00
		Be-7	<4.84E+01	0.00E+00	4.84E+01
		K-40	1.35E+03	2.33E+02	1.42E+02
379004	5/18/2015 - 5/18/2015	LLI-131	<6.42E-01	0.00E+00	6.42E-01
		I-131	<6.37E+00	0.00E+00	6.37E+00
		Cs-134	<8.41E+00	0.00E+00	8.41E+00
		Cs-137	<9.14E+00	0.00E+00	9.14E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<4.89E+01	0.00E+00	4.89E+01
		K-40	1.38E+03	2.27E+02	1.12E+02
380251	6/1/2015 - 6/1/2015	LLI-131	<6.25E-01	0.00E+00	6.25E-01
		I-131	<6.24E+00	0.00E+00	6.24E+00
		Cs-134	<7.38E+00	0.00E+00	7.38E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<5.83E+00	0.00E+00	5.83E+00
		Be-7	<5.80E+01	0.00E+00	5.80E+01
		K-40	1.40E+03	2.20E+02	1.72E+01
380854	6/15/2015 - 6/15/2015	LLI-131	<4.71E-01	0.00E+00	4.71E-01
		I-131	<6.10E+00	0.00E+00	6.10E+00
		Cs-134	<6.37E+00	0.00E+00	6.37E+00
		Cs-137	<7.44E+00	0.00E+00	7.44E+00
		BaLa-140	<5.73E+00	0.00E+00	5.73E+00
		Be-7	<5.14E+01	0.00E+00	5.14E+01
		K-40	1.44E+03	2.39E+02	1.47E+02
381647	6/29/2015 - 6/29/2015	LLI-131	<5.57E-01	0.00E+00	5.57E-01
		I-131	<5.92E+00	0.00E+00	5.92E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
381647	6/29/2015 - 6/29/2015	Cs-134	<6.41E+00	0.00E+00	6.41E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<7.26E+00	0.00E+00	7.26E+00
		Be-7	<4.37E+01	0.00E+00	4.37E+01
		K-40	1.44E+03	2.31E+02	1.02E+02
382640	7/13/2015 - 7/13/2015	LLI-131	<4.10E-01	0.00E+00	4.10E-01
		I-131	<6.51E+00	0.00E+00	6.51E+00
		Cs-134	<7.40E+00	0.00E+00	7.40E+00
		Cs-137	<7.36E+00	0.00E+00	7.36E+00
		BaLa-140	<9.58E+00	0.00E+00	9.58E+00
		Be-7	<6.01E+01	0.00E+00	6.01E+01
384141	7/27/2015 - 7/27/2015	LLI-131	<5.75E-01	0.00E+00	5.75E-01
		I-131	<6.37E+00	0.00E+00	6.37E+00
		Cs-134	<7.96E+00	0.00E+00	7.96E+00
		Cs-137	<8.51E+00	0.00E+00	8.51E+00
		BaLa-140	<7.26E+00	0.00E+00	7.26E+00
		Be-7	<6.01E+01	0.00E+00	6.01E+01
385460	8/10/2015 - 8/10/2015	LLI-131	<6.03E-01	0.00E+00	6.03E-01
		I-131	<6.17E+00	0.00E+00	6.17E+00
		Cs-134	<8.32E+00	0.00E+00	8.32E+00
		Cs-137	<7.78E+00	0.00E+00	7.78E+00
		BaLa-140	<5.98E+00	0.00E+00	5.98E+00
		Be-7	<5.61E+01	0.00E+00	5.61E+01
386873	8/24/2015 - 8/24/2015	LLI-131	<4.40E-01	0.00E+00	4.40E-01
		I-131	<6.20E+00	0.00E+00	6.20E+00
		Cs-134	<7.40E+00	0.00E+00	7.40E+00
		Cs-137	<6.96E+00	0.00E+00	6.96E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<6.75E+01	0.00E+00	6.75E+01
388814	9/8/2015 - 9/8/2015	LLI-131	<4.41E-01	0.00E+00	4.41E-01
		I-131	<6.78E+00	0.00E+00	6.78E+00
		Cs-134	<7.39E+00	0.00E+00	7.39E+00
		Cs-137	<8.08E+00	0.00E+00	8.08E+00
		BaLa-140	<7.12E+00	0.00E+00	7.12E+00
		Be-7	<5.32E+01	0.00E+00	5.32E+01
390059	9/21/2015 - 9/21/2015	LLI-131	<5.61E-01	0.00E+00	5.61E-01
		I-131	<6.74E+00	0.00E+00	6.74E+00
		Cs-134	<8.32E+00	0.00E+00	8.32E+00
		Cs-137	<6.08E+00	0.00E+00	6.08E+00
		BaLa-140	<5.86E+00	0.00E+00	5.86E+00
		Be-7	<5.14E+01	0.00E+00	5.14E+01
392004	10/5/2015 - 10/5/2015	LLI-131	<5.92E-01	0.00E+00	5.92E-01
		I-131	<5.54E+00	0.00E+00	5.54E+00
		Cs-134	<7.48E+00	0.00E+00	7.48E+00
		Cs-137	<3.45E+00	0.00E+00	3.45E+00
		BaLa-140	<2.23E+00	0.00E+00	2.23E+00
		Be-7	<5.44E+01	0.00E+00	5.44E+01
		K-40	1.65E+03	2.53E+02	1.17E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 141 [CONTROL - WNW @ 14.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
393479	10/19/2015 - 10/19/2015	LLI-131	<5.30E-01	0.00E+00	5.30E-01
		I-131	<6.12E+00	0.00E+00	6.12E+00
		Cs-134	<8.79E+00	0.00E+00	8.79E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<5.95E+00	0.00E+00	5.95E+00
		Be-7	<6.06E+01	0.00E+00	6.06E+01
		K-40	1.60E+03	2.49E+02	7.94E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
394897	11/2/2015 - 11/2/2015	LLI-131	<6.14E-01	0.00E+00	6.14E-01
		I-131	<6.12E+00	0.00E+00	6.12E+00
		Cs-134	<8.30E+00	0.00E+00	8.30E+00
		Cs-137	<6.52E+00	0.00E+00	6.52E+00
		BaLa-140	<8.21E+00	0.00E+00	8.21E+00
		Be-7	<3.29E+01	0.00E+00	3.29E+01
		K-40	1.37E+03	2.29E+02	1.38E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395678	11/16/2015 - 11/16/2015	LLI-131	<5.02E-01	0.00E+00	5.02E-01
		I-131	<7.55E+00	0.00E+00	7.55E+00
		Cs-134	<8.24E+00	0.00E+00	8.24E+00
		Cs-137	<9.39E+00	0.00E+00	9.39E+00
		BaLa-140	<9.17E+00	0.00E+00	9.17E+00
		Be-7	<5.68E+01	0.00E+00	5.68E+01
		K-40	1.30E+03	2.24E+02	1.05E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
396688	11/30/2015 - 11/30/2015	LLI-131	<5.48E-01	0.00E+00	5.48E-01
		I-131	<8.10E+00	0.00E+00	8.10E+00
		Cs-134	<6.51E+00	0.00E+00	6.51E+00
		Cs-137	<6.62E+00	0.00E+00	6.62E+00
		BaLa-140	<7.24E+00	0.00E+00	7.24E+00
		Be-7	<4.89E+01	0.00E+00	4.89E+01
		K-40	1.44E+03	2.28E+02	7.36E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397943	12/14/2015 - 12/14/2015	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<5.92E+00	0.00E+00	5.92E+00
		Cs-134	<3.90E+00	0.00E+00	3.90E+00
		Cs-137	<7.44E+00	0.00E+00	7.44E+00
		BaLa-140	<2.12E+00	0.00E+00	2.12E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.62E+03	2.46E+02	7.92E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
398715	12/28/2015 - 12/28/2015	LLI-131	<6.03E-01	0.00E+00	6.03E-01
		I-131	<5.65E+00	0.00E+00	5.65E+00
		Cs-134	<7.96E+00	0.00E+00	7.96E+00
		Cs-137	<7.04E+00	0.00E+00	7.04E+00
		BaLa-140	<7.27E+00	0.00E+00	7.27E+00
		Be-7	<6.01E+01	0.00E+00	6.01E+01
		K-40	1.69E+03	2.54E+02	9.07E+01

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375303	4/6/2015 - 4/6/2015	Mn-54	<1.38E+01	0.00E+00	1.38E+01
		Co-58	<1.04E+01	0.00E+00	1.04E+01
		Fe-59	<1.95E+01	0.00E+00	1.95E+01
		Co-60	<1.52E+01	0.00E+00	1.52E+01
		Zn-65	<2.22E+01	0.00E+00	2.22E+01
		Zr-95	<2.18E+01	0.00E+00	2.18E+01
		Nb-95	<1.28E+01	0.00E+00	1.28E+01
		I-131	<1.60E+01	0.00E+00	1.60E+01
		Cs-134	<1.86E+01	0.00E+00	1.86E+01
		Cs-137	<9.62E+00	0.00E+00	9.62E+00
		Be-7	<1.09E+02	0.00E+00	1.09E+02
		K-40	1.51E+03	2.89E+02	1.96E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375303	4/6/2015 - 4/6/2015	Co-57	<1.05E+01	0.00E+00	1.05E+01
		Mo-99	<3.62E+02	0.00E+00	3.62E+02
		Ag-110M	<7.58E+00	0.00E+00	7.58E+00
		Sb-122	<7.89E+01	0.00E+00	7.89E+01
		Sb-125	<3.04E+01	0.00E+00	3.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392073	10/5/2015 - 10/5/2015	Mn-54	<8.93E+00	0.00E+00	8.93E+00
		Co-58	<1.43E+01	0.00E+00	1.43E+01
		Fe-59	<1.48E+01	0.00E+00	1.48E+01
		Co-60	<1.68E+01	0.00E+00	1.68E+01
		Zn-65	<5.70E+00	0.00E+00	5.70E+00
		Zr-95	<2.24E+01	0.00E+00	2.24E+01
		Nb-95	<1.81E+01	0.00E+00	1.81E+01
		I-131	<1.84E+01	0.00E+00	1.84E+01
		Cs-134	<1.47E+01	0.00E+00	1.47E+01
		Cs-137	<1.60E+01	0.00E+00	1.60E+01
		Be-7	1.87E+02	9.70E+01	1.32E+02
		K-40	1.17E+03	2.74E+02	2.03E+02
		Co-57	<1.12E+01	0.00E+00	1.12E+01
		Mo-99	<4.72E+02	0.00E+00	4.72E+02
		Ag-110M	<1.44E+01	0.00E+00	1.44E+01
		Sb-122	<5.12E+01	0.00E+00	5.12E+01
		Sb-125	<2.97E+01	0.00E+00	2.97E+01

Sample Point 130 [INDICATOR - SW @ 0.52 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375304	4/6/2015 - 4/6/2015	Mn-54	<1.33E+01	0.00E+00	1.33E+01
		Co-58	<9.98E+00	0.00E+00	9.98E+00
		Fe-59	<2.31E+01	0.00E+00	2.31E+01
		Co-60	<1.08E+01	0.00E+00	1.08E+01
		Zn-65	<2.29E+01	0.00E+00	2.29E+01
		Zr-95	<2.18E+01	0.00E+00	2.18E+01
		Nb-95	<1.41E+01	0.00E+00	1.41E+01
		I-131	<1.93E+01	0.00E+00	1.93E+01
		Cs-134	<1.75E+01	0.00E+00	1.75E+01
		Cs-137	1.55E+02	1.87E+01	1.49E+01
		Be-7	<9.89E+01	0.00E+00	9.89E+01
		K-40	1.41E+04	1.22E+03	1.76E+02
		Co-57	<8.99E+00	0.00E+00	8.99E+00
		Mo-99	<8.03E+02	0.00E+00	8.03E+02
		Ag-110M	<1.04E+01	0.00E+00	1.04E+01
		Sb-122	<1.41E+02	0.00E+00	1.41E+02
		Sb-125	<2.93E+01	0.00E+00	2.93E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392074	10/5/2015 - 10/5/2015	Mn-54	<1.43E+01	0.00E+00	1.43E+01
		Co-58	<1.19E+01	0.00E+00	1.19E+01
		Fe-59	<2.45E+01	0.00E+00	2.45E+01
		Co-60	<1.09E+01	0.00E+00	1.09E+01
		Zn-65	<2.79E+01	0.00E+00	2.79E+01
		Zr-95	<2.49E+01	0.00E+00	2.49E+01
		Nb-95	<1.50E+01	0.00E+00	1.50E+01
		I-131	<1.80E+01	0.00E+00	1.80E+01
		Cs-134	<2.05E+01	0.00E+00	2.05E+01
		Cs-137	2.15E+02	3.79E+01	1.70E+01
		Be-7	<9.30E+01	0.00E+00	9.30E+01
		K-40	1.48E+04	1.24E+03	1.14E+02
		Co-57	<1.05E+01	0.00E+00	1.05E+01
		Mo-99	<5.32E+02	0.00E+00	5.32E+02
		Ag-110M	<1.20E+01	0.00E+00	1.20E+01
		Sb-122	<7.93E+01	0.00E+00	7.93E+01
		Sb-125	<2.84E+01	0.00E+00	2.84E+01

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375305	4/6/2015 - 4/6/2015	Mn-54	<6.66E+00	0.00E+00	6.66E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
375305	4/6/2015 - 4/6/2015	Co-58	<5.85E+00	0.00E+00	5.85E+00
		Fe-59	<1.56E+01	0.00E+00	1.56E+01
		Co-60	<6.00E+00	0.00E+00	6.00E+00
		Zn-65	<1.54E+01	0.00E+00	1.54E+01
		Zr-95	<9.46E+00	0.00E+00	9.46E+00
		Nb-95	<5.69E+00	0.00E+00	5.69E+00
		I-131	<9.40E+00	0.00E+00	9.40E+00
		Cs-134	<8.09E+00	0.00E+00	8.09E+00
		Cs-137	<4.98E+00	0.00E+00	4.98E+00
		Be-7	5.14E+01	4.30E+01	6.97E+01
		K-40	1.72E+04	1.41E+03	6.89E+01
		Co-57	<4.62E+00	0.00E+00	4.62E+00
		Mo-99	<3.60E+02	0.00E+00	3.60E+02
		Ag-110M	<4.30E+00	0.00E+00	4.30E+00
		Sb-122	<5.96E+01	0.00E+00	5.96E+01
		Sb-125	<1.25E+01	0.00E+00	1.25E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392075	10/5/2015 - 10/5/2015	Mn-54	<1.88E+01	0.00E+00	1.88E+01
		Co-58	<2.12E+01	0.00E+00	2.12E+01
		Fe-59	<5.38E+01	0.00E+00	5.38E+01
		Co-60	<2.23E+01	0.00E+00	2.23E+01
		Zn-65	<6.49E+01	0.00E+00	6.49E+01
		Zr-95	<3.06E+01	0.00E+00	3.06E+01
		Nb-95	<2.44E+01	0.00E+00	2.44E+01
		I-131	<2.48E+01	0.00E+00	2.48E+01
		Cs-134	<2.76E+01	0.00E+00	2.76E+01
		Cs-137	<2.18E+01	0.00E+00	2.18E+01
		Be-7	<1.90E+02	0.00E+00	1.90E+02
		K-40	2.20E+04	2.09E+03	2.95E+02
		Co-57	<1.50E+01	0.00E+00	1.50E+01
		Mo-99	<8.80E+02	0.00E+00	8.80E+02
		Ag-110M	<1.94E+01	0.00E+00	1.94E+01
		Sb-122	<1.36E+02	0.00E+00	1.36E+02
		Sb-125	<4.36E+01	0.00E+00	4.36E+01

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365125	12/8/2014 - 1/5/2015	Mn-54	<3.74E+00	0.00E+00	3.74E+00
		Co-58	<4.35E+00	0.00E+00	4.35E+00
		Fe-59	<6.19E+00	0.00E+00	6.19E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<6.76E+00	0.00E+00	6.76E+00
		Nb-95	<5.47E+00	0.00E+00	5.47E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.96E+00	0.00E+00	3.96E+00
		Cs-137	<4.29E+00	0.00E+00	4.29E+00
		BaLa-140	<7.83E+00	0.00E+00	7.83E+00
		Be-7	<3.06E+01	0.00E+00	3.06E+01
		K-40	3.41E+01	2.54E+01	3.36E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367604	1/5/2015 - 2/2/2015	Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<4.08E+00	0.00E+00	4.08E+00
		Fe-59	<4.94E+00	0.00E+00	4.94E+00
		Co-60	<3.53E+00	0.00E+00	3.53E+00
		Zn-65	<7.01E+00	0.00E+00	7.01E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<4.75E+00	0.00E+00	4.75E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.57E+00	0.00E+00	3.57E+00
		Cs-137	<3.29E+00	0.00E+00	3.29E+00
		BaLa-140	<8.90E+00	0.00E+00	8.90E+00
		Be-7	<3.30E+01	0.00E+00	3.30E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367604	1/5/2015 - 2/2/2015	K-40	5.85E+01	3.22E+01	3.99E+01
371599	2/2/2015 - 3/2/2015	Mn-54	<2.97E+00	0.00E+00	2.97E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<6.96E+00	0.00E+00	6.96E+00
		Co-60	<3.11E+00	0.00E+00	3.11E+00
		Zn-65	<5.73E+00	0.00E+00	5.73E+00
		Zr-95	<7.44E+00	0.00E+00	7.44E+00
		Nb-95	<4.12E+00	0.00E+00	4.12E+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	<2.76E+00	0.00E+00	2.76E+00
		BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		Be-7	<2.96E+01	0.00E+00	2.96E+01
		K-40	<5.29E+01	0.00E+00	5.29E+01
372371	12/8/2014 - 3/2/2015	H3SW	7.27E+02	1.28E+02	1.88E+02
374605	3/2/2015 - 3/30/2015	Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00
		Fe-59	<8.81E+00	0.00E+00	8.81E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<1.03E+01	0.00E+00	1.03E+01
		Zr-95	<8.12E+00	0.00E+00	8.12E+00
		Nb-95	<5.51E+00	0.00E+00	5.51E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.18E+00	0.00E+00	3.18E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<3.08E+01	0.00E+00	3.08E+01
		K-40	<6.60E+01	0.00E+00	6.60E+01
377539	3/30/2015 - 4/27/2015	Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<9.90E+00	0.00E+00	9.90E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<9.35E+00	0.00E+00	9.35E+00
		Zr-95	<7.39E+00	0.00E+00	7.39E+00
		Nb-95	<5.09E+00	0.00E+00	5.09E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.99E+00	0.00E+00	4.99E+00
		Cs-137	<4.66E+00	0.00E+00	4.66E+00
		BaLa-140	<6.18E+00	0.00E+00	6.18E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	3.31E+01	3.01E+01	4.46E+01
379505	4/27/2015 - 5/26/2015	Mn-54	<4.25E+00	0.00E+00	4.25E+00
		Co-58	<3.54E+00	0.00E+00	3.54E+00
		Fe-59	<4.73E+00	0.00E+00	4.73E+00
		Co-60	<4.93E+00	0.00E+00	4.93E+00
		Zn-65	<7.24E+00	0.00E+00	7.24E+00
		Zr-95	<6.74E+00	0.00E+00	6.74E+00
		Nb-95	<4.78E+00	0.00E+00	4.78E+00
		I-131	<9.36E+00	0.00E+00	9.36E+00
		Cs-134	<4.72E+00	0.00E+00	4.72E+00
		Cs-137	<3.93E+00	0.00E+00	3.93E+00
		BaLa-140	<9.53E+00	0.00E+00	9.53E+00
		Be-7	<3.67E+01	0.00E+00	3.67E+01
		K-40	<6.13E+01	0.00E+00	6.13E+01
380252	3/2/2015 - 5/26/2015	H3SW	7.78E+02	1.37E+02	2.01E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
381313	5/26/2015 - 6/22/2015	Mn-54	<2.60E+00	0.00E+00	2.60E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<7.14E+00	0.00E+00	7.14E+00
		Co-60	<2.80E+00	0.00E+00	2.80E+00
		Zn-65	<5.60E+00	0.00E+00	5.60E+00
		Zr-95	<6.11E+00	0.00E+00	6.11E+00
		Nb-95	<4.37E+00	0.00E+00	4.37E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<4.21E+00	0.00E+00	4.21E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<9.56E+00	0.00E+00	9.56E+00
		Be-7	<3.12E+01	0.00E+00	3.12E+01
		K-40	<6.22E+01	0.00E+00	6.22E+01
		383565	6/22/2015 - 7/20/2015	Mn-54	<3.20E+00
Co-58	<4.43E+00			0.00E+00	4.43E+00
Fe-59	<7.99E+00			0.00E+00	7.99E+00
Co-60	<2.66E+00			0.00E+00	2.66E+00
Zn-65	<5.93E+00			0.00E+00	5.93E+00
Zr-95	<7.64E+00			0.00E+00	7.64E+00
Nb-95	<4.38E+00			0.00E+00	4.38E+00
I-131	<1.18E+01			0.00E+00	1.18E+01
Cs-134	<4.34E+00			0.00E+00	4.34E+00
Cs-137	<3.35E+00			0.00E+00	3.35E+00
BaLa-140	<7.01E+00			0.00E+00	7.01E+00
Be-7	<2.84E+01			0.00E+00	2.84E+01
K-40	2.50E+01			3.08E+01	5.01E+01
385974	7/20/2015 - 8/17/2015			Mn-54	<3.66E+00
		Co-58	<4.26E+00	0.00E+00	4.26E+00
		Fe-59	<7.65E+00	0.00E+00	7.65E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<6.48E+00	0.00E+00	6.48E+00
		Zr-95	<6.23E+00	0.00E+00	6.23E+00
		Nb-95	<4.73E+00	0.00E+00	4.73E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.82E+00	0.00E+00	3.82E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<9.28E+00	0.00E+00	9.28E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	2.93E+01	2.81E+01	4.19E+01
		388122	5/26/2015 - 8/17/2015	H3SW	9.80E+02
389454	8/17/2015 - 9/14/2015	Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.36E+00	0.00E+00	3.36E+00
		Fe-59	<6.59E+00	0.00E+00	6.59E+00
		Co-60	<3.18E+00	0.00E+00	3.18E+00
		Zn-65	<8.33E+00	0.00E+00	8.33E+00
		Zr-95	<6.80E+00	0.00E+00	6.80E+00
		Nb-95	<3.88E+00	0.00E+00	3.88E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.75E+00	0.00E+00	4.75E+00
		Cs-137	<2.84E+00	0.00E+00	2.84E+00
		BaLa-140	<4.40E+00	0.00E+00	4.40E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	5.38E+01	2.77E+01	3.30E+01
		392276	9/14/2015 - 10/12/2015	Mn-54	<3.14E+00
Co-58	<3.19E+00			0.00E+00	3.19E+00
Fe-59	<4.65E+00			0.00E+00	4.65E+00
Co-60	<3.46E+00			0.00E+00	3.46E+00
Zn-65	<8.87E+00			0.00E+00	8.87E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392276	9/14/2015 - 10/12/2015	Zr-95	<6.63E+00	0.00E+00	6.63E+00
		Nb-95	<4.19E+00	0.00E+00	4.19E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<4.20E+00	0.00E+00	4.20E+00
		BaLa-140	<2.39E+00	0.00E+00	2.39E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	<4.78E+01	0.00E+00	4.78E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395349	10/12/2015 - 11/9/2015	Mn-54	<2.46E+00	0.00E+00	2.46E+00
		Co-58	<3.76E+00	0.00E+00	3.76E+00
		Fe-59	<5.29E+00	0.00E+00	5.29E+00
		Co-60	<4.77E+00	0.00E+00	4.77E+00
		Zn-65	<5.58E+00	0.00E+00	5.58E+00
		Zr-95	<6.90E+00	0.00E+00	6.90E+00
		Nb-95	<2.76E+00	0.00E+00	2.76E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.48E+00	0.00E+00	3.48E+00
		Cs-137	<3.43E+00	0.00E+00	3.43E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.75E+01	0.00E+00	3.75E+01
		K-40	4.67E+01	2.39E+01	2.22E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397097	8/17/2015 - 12/7/2015	H3SW	1.43E+03	1.48E+02	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397231	11/9/2015 - 12/7/2015	Mn-54	<2.60E+00	0.00E+00	2.60E+00
		Co-58	<4.23E+00	0.00E+00	4.23E+00
		Fe-59	<9.49E+00	0.00E+00	9.49E+00
		Co-60	<4.60E+00	0.00E+00	4.60E+00
		Zn-65	<8.42E+00	0.00E+00	8.42E+00
		Zr-95	<6.66E+00	0.00E+00	6.66E+00
		Nb-95	<5.17E+00	0.00E+00	5.17E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.23E+00	0.00E+00	3.23E+00
		Cs-137	<4.26E+00	0.00E+00	4.26E+00
		BaLa-140	<6.37E+00	0.00E+00	6.37E+00
		Be-7	<4.84E+01	0.00E+00	4.84E+01
		K-40	3.77E+01	2.74E+01	3.49E+01

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365126	12/8/2014 - 1/5/2015	Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<2.54E+00	0.00E+00	2.54E+00
		Fe-59	<6.07E+00	0.00E+00	6.07E+00
		Co-60	<2.63E+00	0.00E+00	2.63E+00
		Zn-65	<5.97E+00	0.00E+00	5.97E+00
		Zr-95	<3.27E+00	0.00E+00	3.27E+00
		Nb-95	<3.50E+00	0.00E+00	3.50E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.95E+00	0.00E+00	2.95E+00
		Cs-137	<2.51E+00	0.00E+00	2.51E+00
		BaLa-140	<5.33E+00	0.00E+00	5.33E+00
		Be-7	<2.34E+01	0.00E+00	2.34E+01
		K-40	3.00E+01	2.22E+01	3.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367605	1/5/2015 - 2/2/2015	Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<9.15E+00	0.00E+00	9.15E+00
		Co-60	<3.83E+00	0.00E+00	3.83E+00
		Zn-65	<4.36E+00	0.00E+00	4.36E+00
		Zr-95	<7.06E+00	0.00E+00	7.06E+00
		Nb-95	<3.96E+00	0.00E+00	3.96E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.51E+00	0.00E+00	3.51E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367605	1/5/2015 - 2/2/2015	Cs-137	<3.34E+00	0.00E+00	3.34E+00
		BaLa-140	<5.27E+00	0.00E+00	5.27E+00
		Be-7	<2.89E+01	0.00E+00	2.89E+01
		K-40	4.31E+01	3.51E+01	5.30E+01
371600	2/2/2015 - 3/2/2015	Mn-54	<3.47E+00	0.00E+00	3.47E+00
		Co-58	<3.83E+00	0.00E+00	3.83E+00
		Fe-59	<8.41E+00	0.00E+00	8.41E+00
		Co-60	<3.52E+00	0.00E+00	3.52E+00
		Zn-65	<9.05E+00	0.00E+00	9.05E+00
		Zr-95	<4.48E+00	0.00E+00	4.48E+00
		Nb-95	<5.92E+00	0.00E+00	5.92E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.10E+00	0.00E+00	4.10E+00
		Cs-137	<2.87E+00	0.00E+00	2.87E+00
		BaLa-140	<6.48E+00	0.00E+00	6.48E+00
		Be-7	<3.04E+01	0.00E+00	3.04E+01
		K-40	<4.57E+01	0.00E+00	4.57E+01
372372	12/8/2014 - 3/2/2015	H3SW	4.73E+02	1.22E+02	1.88E+02
374606	3/2/2015 - 3/30/2015	Mn-54	<3.16E+00	0.00E+00	3.16E+00
		Co-58	<3.08E+00	0.00E+00	3.08E+00
		Fe-59	<6.59E+00	0.00E+00	6.59E+00
		Co-60	<3.32E+00	0.00E+00	3.32E+00
		Zn-65	<5.36E+00	0.00E+00	5.36E+00
		Zr-95	<4.09E+00	0.00E+00	4.09E+00
		Nb-95	<3.58E+00	0.00E+00	3.58E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.51E+00	0.00E+00	3.51E+00
		Cs-137	<2.60E+00	0.00E+00	2.60E+00
		BaLa-140	<7.74E+00	0.00E+00	7.74E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	4.92E+01	2.35E+01	2.71E+01
377540	3/30/2015 - 4/27/2015	Mn-54	<2.58E+00	0.00E+00	2.58E+00
		Co-58	<3.05E+00	0.00E+00	3.05E+00
		Fe-59	<6.00E+00	0.00E+00	6.00E+00
		Co-60	<2.77E+00	0.00E+00	2.77E+00
		Zn-65	<6.14E+00	0.00E+00	6.14E+00
		Zr-95	<6.32E+00	0.00E+00	6.32E+00
		Nb-95	<3.40E+00	0.00E+00	3.40E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.76E+00	0.00E+00	2.76E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<5.94E+00	0.00E+00	5.94E+00
		Be-7	<2.44E+01	0.00E+00	2.44E+01
		K-40	6.14E+01	2.65E+01	3.00E+01
379506	4/27/2015 - 5/26/2015	Mn-54	<2.80E+00	0.00E+00	2.80E+00
		Co-58	<3.29E+00	0.00E+00	3.29E+00
		Fe-59	<5.93E+00	0.00E+00	5.93E+00
		Co-60	<2.70E+00	0.00E+00	2.70E+00
		Zn-65	<5.54E+00	0.00E+00	5.54E+00
		Zr-95	<7.15E+00	0.00E+00	7.15E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.11E+00	0.00E+00	3.11E+00
		Cs-137	<3.86E+00	0.00E+00	3.86E+00
		BaLa-140	<8.26E+00	0.00E+00	8.26E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	1.91E+01	2.88E+01	4.84E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
380253	3/2/2015 - 5/26/2015	H3SW	5.88E+02	1.32E+02	2.00E+02
381314	5/26/2015 - 6/22/2015	Mn-54	<1.93E+00	0.00E+00	1.93E+00
		Co-58	<3.00E+00	0.00E+00	3.00E+00
		Fe-59	<8.17E+00	0.00E+00	8.17E+00
		Co-60	<3.36E+00	0.00E+00	3.36E+00
		Zn-65	<6.73E+00	0.00E+00	6.73E+00
		Zr-95	<6.09E+00	0.00E+00	6.09E+00
		Nb-95	<4.62E+00	0.00E+00	4.62E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<2.77E+00	0.00E+00	2.77E+00
		Cs-137	<4.17E+00	0.00E+00	4.17E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<3.01E+01	0.00E+00	3.01E+01
		K-40	2.96E+01	2.71E+01	4.05E+01
383566	6/22/2015 - 7/20/2015	Mn-54	<2.74E+00	0.00E+00	2.74E+00
		Co-58	<3.51E+00	0.00E+00	3.51E+00
		Fe-59	<6.75E+00	0.00E+00	6.75E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<6.34E+00	0.00E+00	6.34E+00
		Zr-95	<5.04E+00	0.00E+00	5.04E+00
		Nb-95	<3.57E+00	0.00E+00	3.57E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.81E+00	0.00E+00	3.81E+00
		Cs-137	<3.08E+00	0.00E+00	3.08E+00
		BaLa-140	<7.97E+00	0.00E+00	7.97E+00
		Be-7	<3.01E+01	0.00E+00	3.01E+01
		K-40	<5.74E+01	0.00E+00	5.74E+01
385975	7/20/2015 - 8/17/2015	Mn-54	<2.79E+00	0.00E+00	2.79E+00
		Co-58	<3.73E+00	0.00E+00	3.73E+00
		Fe-59	<7.04E+00	0.00E+00	7.04E+00
		Co-60	<3.90E+00	0.00E+00	3.90E+00
		Zn-65	<5.71E+00	0.00E+00	5.71E+00
		Zr-95	<6.25E+00	0.00E+00	6.25E+00
		Nb-95	<4.26E+00	0.00E+00	4.26E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<2.98E+00	0.00E+00	2.98E+00
		Cs-137	<3.18E+00	0.00E+00	3.18E+00
		BaLa-140	<5.98E+00	0.00E+00	5.98E+00
		Be-7	<2.39E+01	0.00E+00	2.39E+01
		K-40	3.72E+01	3.49E+01	5.51E+01
388123	5/26/2015 - 8/17/2015	H3SW	3.00E+02	1.20E+02	1.89E+02
389455	8/17/2015 - 9/14/2015	Mn-54	<3.54E+00	0.00E+00	3.54E+00
		Co-58	<3.32E+00	0.00E+00	3.32E+00
		Fe-59	<8.40E+00	0.00E+00	8.40E+00
		Co-60	<3.75E+00	0.00E+00	3.75E+00
		Zn-65	<7.41E+00	0.00E+00	7.41E+00
		Zr-95	<7.84E+00	0.00E+00	7.84E+00
		Nb-95	<5.11E+00	0.00E+00	5.11E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<1.52E+00	0.00E+00	1.52E+00
		BaLa-140	<9.21E+00	0.00E+00	9.21E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	4.15E+01	2.59E+01	3.04E+01
392277	9/14/2015 - 10/12/2015	Mn-54	<2.36E+00	0.00E+00	2.36E+00
		Co-58	<3.17E+00	0.00E+00	3.17E+00
		Fe-59	<5.26E+00	0.00E+00	5.26E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392277	9/14/2015 - 10/12/2015	Co-60	<2.54E+00	0.00E+00	2.54E+00
		Zn-65	<4.68E+00	0.00E+00	4.68E+00
		Zr-95	<5.28E+00	0.00E+00	5.28E+00
		Nb-95	<3.70E+00	0.00E+00	3.70E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.69E+00	0.00E+00	2.69E+00
		Cs-137	<3.10E+00	0.00E+00	3.10E+00
		BaLa-140	<6.06E+00	0.00E+00	6.06E+00
		Be-7	<2.72E+01	0.00E+00	2.72E+01
		K-40	5.05E+01	2.67E+01	3.66E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395350	10/12/2015 - 11/9/2015	Mn-54	<3.34E+00	0.00E+00	3.34E+00
		Co-58	<3.39E+00	0.00E+00	3.39E+00
		Fe-59	<7.67E+00	0.00E+00	7.67E+00
		Co-60	<4.14E+00	0.00E+00	4.14E+00
		Zn-65	<5.46E+00	0.00E+00	5.46E+00
		Zr-95	<5.72E+00	0.00E+00	5.72E+00
		Nb-95	<3.60E+00	0.00E+00	3.60E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<2.46E+00	0.00E+00	2.46E+00
		Cs-137	<3.48E+00	0.00E+00	3.48E+00
		BaLa-140	<8.03E+00	0.00E+00	8.03E+00
		Be-7	<2.26E+01	0.00E+00	2.26E+01
		K-40	<5.68E+01	0.00E+00	5.68E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397098	8/17/2015 - 12/7/2015	H3SW	9.13E+02	1.37E+02	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397232	11/9/2015 - 12/7/2015	Mn-54	<2.57E+00	0.00E+00	2.57E+00
		Co-58	<3.19E+00	0.00E+00	3.19E+00
		Fe-59	<5.73E+00	0.00E+00	5.73E+00
		Co-60	<1.80E+00	0.00E+00	1.80E+00
		Zn-65	<6.33E+00	0.00E+00	6.33E+00
		Zr-95	<8.00E+00	0.00E+00	8.00E+00
		Nb-95	<4.07E+00	0.00E+00	4.07E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.19E+00	0.00E+00	4.19E+00
		Cs-137	<3.86E+00	0.00E+00	3.86E+00
		BaLa-140	<6.07E+00	0.00E+00	6.07E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	<5.43E+01	0.00E+00	5.43E+01

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
365127	12/8/2014 - 1/5/2015	Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<3.10E+00	0.00E+00	3.10E+00
		Fe-59	<6.38E+00	0.00E+00	6.38E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<6.51E+00	0.00E+00	6.51E+00
		Zr-95	<5.03E+00	0.00E+00	5.03E+00
		Nb-95	<2.18E+00	0.00E+00	2.18E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.86E+00	0.00E+00	3.86E+00
		Cs-137	<2.57E+00	0.00E+00	2.57E+00
		BaLa-140	<7.46E+00	0.00E+00	7.46E+00
		Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	<4.81E+01	0.00E+00	4.81E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367606	1/5/2015 - 2/2/2015	Mn-54	<2.36E+00	0.00E+00	2.36E+00
		Co-58	<3.22E+00	0.00E+00	3.22E+00
		Fe-59	<6.55E+00	0.00E+00	6.55E+00
		Co-60	<3.15E+00	0.00E+00	3.15E+00
		Zn-65	<6.52E+00	0.00E+00	6.52E+00
		Zr-95	<4.30E+00	0.00E+00	4.30E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
367606	1/5/2015 - 2/2/2015	I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00
		BaLa-140	<8.87E+00	0.00E+00	8.87E+00
		Be-7	<2.86E+01	0.00E+00	2.86E+01
		K-40	2.73E+01	2.29E+01	3.36E+01
371601	2/2/2015 - 3/2/2015	Mn-54	<2.34E+00	0.00E+00	2.34E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<9.61E+00	0.00E+00	9.61E+00
		Co-60	<3.70E+00	0.00E+00	3.70E+00
		Zn-65	<5.18E+00	0.00E+00	5.18E+00
		Zr-95	<6.64E+00	0.00E+00	6.64E+00
		Nb-95	<3.99E+00	0.00E+00	3.99E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<3.29E+00	0.00E+00	3.29E+00
		BaLa-140	<7.50E+00	0.00E+00	7.50E+00
		Be-7	<3.91E+01	0.00E+00	3.91E+01
		K-40	<6.64E+01	0.00E+00	6.64E+01
		372373	12/8/2014 - 3/2/2015	H3SW	<-5.4E+01
374607	3/2/2015 - 3/30/2015	Mn-54	<2.87E+00	0.00E+00	2.87E+00
		Co-58	<3.48E+00	0.00E+00	3.48E+00
		Fe-59	<6.20E+00	0.00E+00	6.20E+00
		Co-60	<2.77E+00	0.00E+00	2.77E+00
		Zn-65	<5.36E+00	0.00E+00	5.36E+00
		Zr-95	<4.66E+00	0.00E+00	4.66E+00
		Nb-95	<3.71E+00	0.00E+00	3.71E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<2.84E+00	0.00E+00	2.84E+00
		Cs-137	<3.07E+00	0.00E+00	3.07E+00
		BaLa-140	<6.08E+00	0.00E+00	6.08E+00
		Be-7	<2.29E+01	0.00E+00	2.29E+01
		K-40	<4.50E+01	0.00E+00	4.50E+01
		377541	3/30/2015 - 4/27/2015	Mn-54	<3.08E+00
Co-58	<4.05E+00			0.00E+00	4.05E+00
Fe-59	<4.95E+00			0.00E+00	4.95E+00
Co-60	<3.32E+00			0.00E+00	3.32E+00
Zn-65	<6.88E+00			0.00E+00	6.88E+00
Zr-95	<4.54E+00			0.00E+00	4.54E+00
Nb-95	<4.09E+00			0.00E+00	4.09E+00
I-131	<1.04E+01			0.00E+00	1.04E+01
Cs-134	<2.36E+00			0.00E+00	2.36E+00
Cs-137	<2.87E+00			0.00E+00	2.87E+00
BaLa-140	<4.58E+00			0.00E+00	4.58E+00
Be-7	<2.50E+01			0.00E+00	2.50E+01
K-40	<5.37E+01			0.00E+00	5.37E+01
379507	4/27/2015 - 5/26/2015			Mn-54	<2.93E+00
		Co-58	<2.46E+00	0.00E+00	2.46E+00
		Fe-59	<5.24E+00	0.00E+00	5.24E+00
		Co-60	<2.99E+00	0.00E+00	2.99E+00
		Zn-65	<5.98E+00	0.00E+00	5.98E+00
		Zr-95	<5.75E+00	0.00E+00	5.75E+00
		Nb-95	<4.74E+00	0.00E+00	4.74E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.72E+00	0.00E+00	3.72E+00
		Cs-137	<2.99E+00	0.00E+00	2.99E+00
		BaLa-140	<8.17E+00	0.00E+00	8.17E+00
		Be-7	<3.14E+01	0.00E+00	3.14E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	LLD
379507	4/27/2015 - 5/26/2015	K-40	<5.82E+01	0.00E+00	5.82E+01
380254	3/2/2015 - 5/26/2015	H3SW	<6.51E+01	0.00E+00	2.00E+02
381315	5/26/2015 - 6/22/2015	Mn-54	<3.36E+00	0.00E+00	3.36E+00
		Co-58	<2.51E+00	0.00E+00	2.51E+00
		Fe-59	<5.96E+00	0.00E+00	5.96E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<7.39E+00	0.00E+00	7.39E+00
		Zr-95	<6.55E+00	0.00E+00	6.55E+00
		Nb-95	<4.87E+00	0.00E+00	4.87E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.54E+00	0.00E+00	3.54E+00
		Cs-137	<4.38E+00	0.00E+00	4.38E+00
		BaLa-140	<5.48E+00	0.00E+00	5.48E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	2.55E+01	1.71E+01	7.67E+00
383567	6/22/2015 - 7/20/2015	Mn-54	<3.43E+00	0.00E+00	3.43E+00
		Co-58	<3.07E+00	0.00E+00	3.07E+00
		Fe-59	<7.29E+00	0.00E+00	7.29E+00
		Co-60	<1.95E+00	0.00E+00	1.95E+00
		Zn-65	<5.24E+00	0.00E+00	5.24E+00
		Zr-95	<5.78E+00	0.00E+00	5.78E+00
		Nb-95	<3.42E+00	0.00E+00	3.42E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.12E+00	0.00E+00	4.12E+00
		Cs-137	<3.72E+00	0.00E+00	3.72E+00
		BaLa-140	<5.17E+00	0.00E+00	5.17E+00
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	3.99E+01	3.18E+01	4.68E+01
385976	7/20/2015 - 8/17/2015	Mn-54	<3.69E+00	0.00E+00	3.69E+00
		Co-58	<3.62E+00	0.00E+00	3.62E+00
		Fe-59	<9.59E+00	0.00E+00	9.59E+00
		Co-60	<2.28E+00	0.00E+00	2.28E+00
		Zn-65	<5.29E+00	0.00E+00	5.29E+00
		Zr-95	<6.42E+00	0.00E+00	6.42E+00
		Nb-95	<4.53E+00	0.00E+00	4.53E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.10E+00	0.00E+00	4.10E+00
		Cs-137	<4.56E+00	0.00E+00	4.56E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<3.64E+01	0.00E+00	3.64E+01
		K-40	1.23E+01	2.76E+01	4.89E+01
388124	5/26/2015 - 8/17/2015	H3SW	<1.18E+02	0.00E+00	1.90E+02
389456	8/17/2015 - 9/7/2015	Mn-54	<1.41E+00	0.00E+00	1.41E+00
		Co-58	<1.47E+00	0.00E+00	1.47E+00
		Fe-59	<3.38E+00	0.00E+00	3.38E+00
		Co-60	<1.32E+00	0.00E+00	1.32E+00
		Zn-65	<2.58E+00	0.00E+00	2.58E+00
		Zr-95	<2.95E+00	0.00E+00	2.95E+00
		Nb-95	<2.30E+00	0.00E+00	2.30E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.40E+00	0.00E+00	1.40E+00
		Cs-137	<1.49E+00	0.00E+00	1.49E+00
		BaLa-140	<6.41E+00	0.00E+00	6.41E+00
		Be-7	<1.63E+01	0.00E+00	1.63E+01
		K-40	4.49E+01	1.69E+01	2.31E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
392278	10/5/2015 - 10/12/2015	Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00
		Fe-59	<6.98E+00	0.00E+00	6.98E+00
		Co-60	<3.45E+00	0.00E+00	3.45E+00
		Zn-65	<7.63E+00	0.00E+00	7.63E+00
		Zr-95	<7.72E+00	0.00E+00	7.72E+00
		Nb-95	<4.01E+00	0.00E+00	4.01E+00
		I-131	<6.98E+00	0.00E+00	6.98E+00
		Cs-134	<3.46E+00	0.00E+00	3.46E+00
		Cs-137	<4.20E+00	0.00E+00	4.20E+00
		BaLa-140	<6.10E+00	0.00E+00	6.10E+00
		Be-7	<2.61E+01	0.00E+00	2.61E+01
		K-40	<6.78E+01	0.00E+00	6.78E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
395351	10/12/2015 - 11/9/2015	Mn-54	<4.16E+00	0.00E+00	4.16E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<9.37E+00	0.00E+00	9.37E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<6.34E+00	0.00E+00	6.34E+00
		Zr-95	<7.76E+00	0.00E+00	7.76E+00
		Nb-95	<3.83E+00	0.00E+00	3.83E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.20E+00	0.00E+00	4.20E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<3.22E+01	0.00E+00	3.22E+01
		K-40	<6.20E+01	0.00E+00	6.20E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397099	8/17/2015 - 12/7/2015	H3SW	<3.09E+01	0.00E+00	1.99E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	LLD
397233	11/9/2015 - 12/7/2015	Mn-54	<3.66E+00	0.00E+00	3.66E+00
		Co-58	<4.69E+00	0.00E+00	4.69E+00
		Fe-59	<7.67E+00	0.00E+00	7.67E+00
		Co-60	<4.93E+00	0.00E+00	4.93E+00
		Zn-65	<8.49E+00	0.00E+00	8.49E+00
		Zr-95	<7.94E+00	0.00E+00	7.94E+00
		Nb-95	<5.63E+00	0.00E+00	5.63E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.91E+00	0.00E+00	4.91E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<8.08E+00	0.00E+00	8.08E+00
		Be-7	<3.13E+01	0.00E+00	3.13E+01
		K-40	1.55E+01	3.23E+01	5.66E+01

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

Sample Point 143 [INDICATOR - NW @ 0.27 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371320	12/17/2014 - 3/18/2015	mR/Std Qtr	19.94

Sample ID:	Sample Dates:	Nuclide	Activity
379971	3/18/2015 - 6/17/2015	mR/Std Qtr	17.12

Sample ID:	Sample Dates:	Nuclide	Activity
396894	9/16/2015 - 12/16/2015	mR/Std Qtr	18.32

Sample Point 144 [INDICATOR - NNE @ 0.46 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371321	12/17/2014 - 3/18/2015	mR/Std Qtr	18.42

Sample ID:	Sample Dates:	Nuclide	Activity
379972	3/18/2015 - 6/17/2015	mR/Std Qtr	14.87

Sample ID:	Sample Dates:	Nuclide	Activity
387920	6/17/2015 - 9/16/2015	mR/Std Qtr	13.32



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 144 [INDICATOR - NNE @ 0.46 miles]

TLD RING TLD_INNER

Sample ID:	396895	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	14.51

Sample Point 145 [INDICATOR - NE @ 0.47 miles]

TLD RING TLD_INNER

Sample ID:	371322	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	17.60

Sample ID:	379973	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	12.94

Sample ID:	387921	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	13.27

Sample ID:	396896	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	14.99

Sample Point 146 [INDICATOR - ENE @ 0.42 miles]

TLD RING TLD_INNER

Sample ID:	371323	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	18.88

Sample ID:	379974	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	12.65

Sample ID:	387922	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	14.92

Sample ID:	396897	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	13.34

Sample Point 147 [INDICATOR - E @ 0.44 miles]

TLD RING TLD_INNER

Sample ID:	371324	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	16.06

Sample ID:	379975	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	14.86

Sample ID:	387923	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	13.93

Sample ID:	396898	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	13.89

Sample Point 148 [INDICATOR - ESE @ 0.46 miles]

TLD RING TLD_INNER

Sample ID:	371325	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	15.43

Sample ID:	379976	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	12.11

Sample ID:	387924	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	16.58

Sample ID:	396899	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	14.24

Sample Point 149 [INDICATOR - SE @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	371326	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	14.51

Sample ID:	379977	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	13.57

Sample ID:	387925	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	10.22

Sample ID:	396900	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	11.52

Sample Point 151 [INDICATOR - S @ 0.37 miles]

TLD RING TLD_INNER

Sample ID:	371327	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	16.81



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 151 [INDICATOR - S @ 0.37 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
379978	3/18/2015 - 6/17/2015	mR/Std Qtr	13.22
387926	6/17/2015 - 9/16/2015	mR/Std Qtr	12.18
396901	9/16/2015 - 12/16/2015	mR/Std Qtr	13.84

Sample Point 152 [INDICATOR - SSW @ 0.44 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
371328	12/17/2014 - 3/18/2015	mR/Std Qtr	16.96
379979	3/18/2015 - 6/17/2015	mR/Std Qtr	15.31
387927	6/17/2015 - 9/16/2015	mR/Std Qtr	15.27
396902	9/16/2015 - 12/16/2015	mR/Std Qtr	15.84

Sample Point 153 [INDICATOR - SW @ 0.47 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
371329	12/17/2014 - 3/18/2015	mR/Std Qtr	24.94
379980	3/18/2015 - 6/17/2015	mR/Std Qtr	22.70
387928	6/17/2015 - 9/16/2015	mR/Std Qtr	18.14
396903	9/16/2015 - 12/16/2015	mR/Std Qtr	21.03

Sample Point 154 [INDICATOR - W @ 0.45 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
371330	12/17/2014 - 3/18/2015	mR/Std Qtr	30.32
379981	3/18/2015 - 6/17/2015	mR/Std Qtr	20.90
387929	6/17/2015 - 9/16/2015	mR/Std Qtr	18.64
396904	9/16/2015 - 12/16/2015	mR/Std Qtr	20.68

Sample Point 156 [INDICATOR - WNW @ 0.44 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
371331	12/17/2014 - 3/18/2015	mR/Std Qtr	26.62
379982	3/18/2015 - 6/17/2015	mR/Std Qtr	15.52
387930	6/17/2015 - 9/16/2015	mR/Std Qtr	14.17
396905	9/16/2015 - 12/16/2015	mR/Std Qtr	17.42

Sample Point 157 [INDICATOR - N @ 4.69 miles]

TLD RING TLD_OUTER

Sample ID	Sample Dates	Nuclide	Activity
371332	12/17/2014 - 3/18/2015	mR/Std Qtr	24.18
379983	3/18/2015 - 6/17/2015	mR/Std Qtr	14.66
387931	6/17/2015 - 9/16/2015	mR/Std Qtr	14.80



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 157 [INDICATOR - N @ 4.69 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
396906	9/16/2015 - 12/16/2015	mR/Std Qtr	15.44

Sample Point 158 [INDICATOR - NNE @ 4.33 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371333	12/17/2014 - 3/18/2015	mR/Std Qtr	18.67
379984	3/18/2015 - 6/17/2015	mR/Std Qtr	14.07
387932	6/17/2015 - 9/16/2015	mR/Std Qtr	13.05
396907	9/16/2015 - 12/16/2015	mR/Std Qtr	14.70

Sample Point 159 [INDICATOR - NE @ 4.77 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371334	12/17/2014 - 3/18/2015	mR/Std Qtr	24.11
379985	3/18/2015 - 6/17/2015	mR/Std Qtr	17.77
387933	6/17/2015 - 9/16/2015	mR/Std Qtr	16.33
396908	9/16/2015 - 12/16/2015	mR/Std Qtr	14.69

Sample Point 160 [INDICATOR - ENE @ 4.89 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371335	12/17/2014 - 3/18/2015	mR/Std Qtr	20.26
379986	3/18/2015 - 6/17/2015	mR/Std Qtr	16.96
387934	6/17/2015 - 9/16/2015	mR/Std Qtr	15.50
396909	9/16/2015 - 12/16/2015	mR/Std Qtr	16.64

Sample Point 161 [INDICATOR - E @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371336	12/17/2014 - 3/18/2015	mR/Std Qtr	21.02
379987	3/18/2015 - 6/17/2015	mR/Std Qtr	13.60
387935	6/17/2015 - 9/16/2015	mR/Std Qtr	15.24
396910	9/16/2015 - 12/16/2015	mR/Std Qtr	15.10

Sample Point 162 [INDICATOR - ESE @ 4.53 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371337	12/17/2014 - 3/18/2015	mR/Std Qtr	14.97
379988	3/18/2015 - 6/17/2015	mR/Std Qtr	12.42
387936	6/17/2015 - 9/16/2015	mR/Std Qtr	9.56
396911	9/16/2015 - 12/16/2015	mR/Std Qtr	12.83

Sample Point 163 [INDICATOR - SE @ 4.94 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371338	12/17/2014 - 3/18/2015	mR/Std Qtr	13.84



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 163 [INDICATOR - SE @ 4.94 miles]

TLD RING TLD_OUTER

Sample ID:	379989	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	12.95
Sample ID:	387937	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	10.46
Sample ID:	396912	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	11.06

Sample Point 164 [INDICATOR - SSE @ 4.64 miles]

TLD RING TLD_OUTER

Sample ID:	371339	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	14.93
Sample ID:	379990	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	12.40
Sample ID:	387938	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	9.90
Sample ID:	396913	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	13.61

Sample Point 165 [INDICATOR - S @ 4.57 miles]

TLD RING TLD_OUTER

Sample ID:	371340	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	23.75
Sample ID:	379991	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	17.99
Sample ID:	387939	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	19.07
Sample ID:	396914	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	19.37

Sample Point 166 [INDICATOR - SSW @ 4.44 miles]

TLD RING TLD_OUTER

Sample ID:	371341	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	25.17
Sample ID:	379992	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	16.33
Sample ID:	387940	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	18.04
Sample ID:	396915	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	17.69

Sample Point 167 [INDICATOR - SW @ 4.87 miles]

TLD RING TLD_OUTER

Sample ID:	371342	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	23.87
Sample ID:	379993	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	19.41
Sample ID:	387941	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	18.71
Sample ID:	396916	Sample Dates:	9/16/2015 - 12/16/2015	Nuclide	Activity
				mR/Std Qtr	20.01

Sample Point 168 [INDICATOR - WSW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	371343	Sample Dates:	12/17/2014 - 3/18/2015	Nuclide	Activity
				mR/Std Qtr	21.86
Sample ID:	379994	Sample Dates:	3/18/2015 - 6/17/2015	Nuclide	Activity
				mR/Std Qtr	17.79
Sample ID:	387942	Sample Dates:	6/17/2015 - 9/16/2015	Nuclide	Activity
				mR/Std Qtr	16.18



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 168 [INDICATOR - WSW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
396917	9/16/2015 - 12/16/2015	mR/Std Qtr	18.38

Sample Point 169 [INDICATOR - W @ 4.03 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371344	12/17/2014 - 3/18/2015	mR/Std Qtr	16.77
379995	3/18/2015 - 6/17/2015	mR/Std Qtr	13.00
387943	6/17/2015 - 9/16/2015	mR/Std Qtr	13.20
396918	9/16/2015 - 12/16/2015	mR/Std Qtr	14.71

Sample Point 170 [INDICATOR - WNW @ 4.32 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371345	12/17/2014 - 3/18/2015	mR/Std Qtr	24.48
379996	3/18/2015 - 6/17/2015	mR/Std Qtr	17.61
387944	6/17/2015 - 9/16/2015	mR/Std Qtr	19.97
396919	9/16/2015 - 12/16/2015	mR/Std Qtr	23.74

Sample Point 171 [INDICATOR - NW @ 3.95 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371346	12/17/2014 - 3/18/2015	mR/Std Qtr	22.21
379997	3/18/2015 - 6/17/2015	mR/Std Qtr	17.24
387945	6/17/2015 - 9/16/2015	mR/Std Qtr	16.15
396920	9/16/2015 - 12/16/2015	mR/Std Qtr	17.31

Sample Point 172 [INDICATOR - NNW @ 4.69 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
371347	12/17/2014 - 3/18/2015	mR/Std Qtr	18.28
379998	3/18/2015 - 6/17/2015	mR/Std Qtr	14.68
387946	6/17/2015 - 9/16/2015	mR/Std Qtr	14.95
396921	9/16/2015 - 12/16/2015	mR/Std Qtr	14.67

Sample Point 173 [INDICATOR - NNW @ 8.39 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371348	12/17/2014 - 3/18/2015	mR/Std Qtr	25.85
379999	3/18/2015 - 6/17/2015	mR/Std Qtr	23.11
387947	6/17/2015 - 9/16/2015	mR/Std Qtr	25.24
396922	9/16/2015 - 12/16/2015	mR/Std Qtr	24.19

Sample Point 174 [INDICATOR - WNW @ 8.85 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371349	12/17/2014 - 3/18/2015	mR/Std Qtr	26.18



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 174 [INDICATOR - WNW @ 8.85 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
380000	3/18/2015 - 6/17/2015	mR/Std Qtr	23.79
387948	6/17/2015 - 9/16/2015	mR/Std Qtr	21.86
396923	9/16/2015 - 12/16/2015	mR/Std Qtr	22.78

Sample Point 175 [CONTROL - WNW @ 15.5 miles]

TLD RING TLD_CTRL

Sample ID	Sample Dates	Nuclide	Activity
371350	12/17/2014 - 3/18/2015	mR/Std Qtr	25.80
380001	3/18/2015 - 6/17/2015	mR/Std Qtr	20.05
387949	6/17/2015 - 9/16/2015	mR/Std Qtr	23.10
396924	9/16/2015 - 12/16/2015	mR/Std Qtr	25.04

Sample Point 177 [INDICATOR - S @ 8.77 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371351	12/17/2014 - 3/18/2015	mR/Std Qtr	19.82
380002	3/18/2015 - 6/17/2015	mR/Std Qtr	13.17
387950	6/17/2015 - 9/16/2015	mR/Std Qtr	11.86
396925	9/16/2015 - 12/16/2015	mR/Std Qtr	15.59

Sample Point 178 [INDICATOR - SE @ 9.36 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371352	12/17/2014 - 3/18/2015	mR/Std Qtr	17.43
380003	3/18/2015 - 6/17/2015	mR/Std Qtr	14.46
387951	6/17/2015 - 9/16/2015	mR/Std Qtr	11.63
396926	9/16/2015 - 12/16/2015	mR/Std Qtr	17.15

Sample Point 180 [INDICATOR - NNE @ 12.7 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371353	12/17/2014 - 3/18/2015	mR/Std Qtr	30.33
380004	3/18/2015 - 6/17/2015	mR/Std Qtr	23.49
387952	6/17/2015 - 9/16/2015	mR/Std Qtr	23.61
396927	9/16/2015 - 12/16/2015	mR/Std Qtr	23.37

Sample Point 181 [INDICATOR - NE @ 7.02 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
371354	12/17/2014 - 3/18/2015	mR/Std Qtr	18.26
380005	3/18/2015 - 6/17/2015	mR/Std Qtr	16.85
387953	6/17/2015 - 9/16/2015	mR/Std Qtr	15.84



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 181 [INDICATOR - NE @ 7.02 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
396928	9/16/2015 - 12/16/2015	mR/Std Qtr	17.99

Sample Point 182 [INDICATOR - ENE @ 6.23 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371355	12/17/2014 - 3/18/2015	mR/Std Qtr	24.07
380006	3/18/2015 - 6/17/2015	mR/Std Qtr	19.05
387954	6/17/2015 - 9/16/2015	mR/Std Qtr	16.26
396929	9/16/2015 - 12/16/2015	mR/Std Qtr	17.37

Sample Point 186 [INDICATOR - NNW @ 0.24 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371356	12/17/2014 - 3/18/2015	mR/Std Qtr	21.72
380007	3/18/2015 - 6/17/2015	mR/Std Qtr	19.44
387955	6/17/2015 - 9/16/2015	mR/Std Qtr	15.71
396930	9/16/2015 - 12/16/2015	mR/Std Qtr	17.72

Sample Point 187 [INDICATOR - N @ 0.19 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371357	12/17/2014 - 3/18/2015	mR/Std Qtr	22.75
380008	3/18/2015 - 6/17/2015	mR/Std Qtr	15.54
387956	6/17/2015 - 9/16/2015	mR/Std Qtr	15.41
396931	9/16/2015 - 12/16/2015	mR/Std Qtr	22.26

Sample Point 189 [INDICATOR - SSE @ 0.43 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371358	12/17/2014 - 3/18/2015	mR/Std Qtr	19.91
380009	3/18/2015 - 6/17/2015	mR/Std Qtr	13.93
387957	6/17/2015 - 9/16/2015	mR/Std Qtr	15.17
396932	9/16/2015 - 12/16/2015	mR/Std Qtr	15.17

Sample Point 190 [INDICATOR - WSW @ 0.37 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
371359	12/17/2014 - 3/18/2015	mR/Std Qtr	20.74
380010	3/18/2015 - 6/17/2015	mR/Std Qtr	17.24
387958	6/17/2015 - 9/16/2015	mR/Std Qtr	19.63
396933	9/16/2015 - 12/16/2015	mR/Std Qtr	24.64

Sample Point 191 [INDICATOR - NNE @ 2.84 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
371360	12/17/2014 - 3/18/2015	mR/Std Qtr	19.32



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

Sample Point 191 [INDICATOR - NNE @ 2.84 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
380011	3/18/2015 - 6/17/2015	mR/Std Qtr	18.76
387959	6/17/2015 - 9/16/2015	mR/Std Qtr	14.10
396934	9/16/2015 - 12/16/2015	mR/Std Qtr	16.14

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
365120	1/5/2015 - 1/5/2015	MIXEDBLV	Mn-54	<2.67E+01	0.00E+00	2.67E+01
			Co-58	<2.34E+01	0.00E+00	2.34E+01
			Fe-59	<6.44E+01	0.00E+00	6.44E+01
			Co-60	<3.28E+01	0.00E+00	3.28E+01
			Zn-65	<7.01E+01	0.00E+00	7.01E+01
			Zr-95	<4.24E+01	0.00E+00	4.24E+01
			Nb-95	<2.81E+01	0.00E+00	2.81E+01
			I-131	<2.67E+01	0.00E+00	2.67E+01
			Cs-134	<3.58E+01	0.00E+00	3.58E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<3.20E+01	0.00E+00	3.20E+01
			Be-7	1.05E+03	3.02E+02	3.76E+02
			K-40	2.74E+03	6.03E+02	5.35E+02
			367599	2/2/2015 - 2/2/2015	MIXEDBLV	Mn-54
Co-58	<4.85E+00	0.00E+00				4.85E+00
Fe-59	<1.09E+01	0.00E+00				1.09E+01
Co-60	<5.14E+00	0.00E+00				5.14E+00
Zn-65	<1.10E+01	0.00E+00				1.10E+01
Zr-95	<1.03E+01	0.00E+00				1.03E+01
Nb-95	<5.30E+00	0.00E+00				5.30E+00
I-131	<5.64E+00	0.00E+00				5.64E+00
Cs-134	<8.64E+00	0.00E+00				8.64E+00
Cs-137	<5.97E+00	0.00E+00				5.97E+00
BaLa-140	<5.19E+00	0.00E+00				5.19E+00
Be-7	1.17E+03	1.27E+02				5.12E+01
K-40	3.29E+03	3.12E+02				8.04E+01
371594	3/2/2015 - 3/2/2015	MIXEDBLV				Mn-54
			Co-58	<2.19E+01	0.00E+00	2.19E+01
			Fe-59	<2.97E+01	0.00E+00	2.97E+01
			Co-60	<2.10E+01	0.00E+00	2.10E+01
			Zn-65	<4.19E+01	0.00E+00	4.19E+01
			Zr-95	<3.79E+01	0.00E+00	3.79E+01
			Nb-95	<2.11E+01	0.00E+00	2.11E+01
			I-131	<1.61E+01	0.00E+00	1.61E+01
			Cs-134	<2.84E+01	0.00E+00	2.84E+01
			Cs-137	<1.86E+01	0.00E+00	1.86E+01
			BaLa-140	<1.50E+01	0.00E+00	1.50E+01
			Be-7	9.46E+02	2.24E+02	2.36E+02
			K-40	3.47E+03	5.61E+02	1.72E+02
			374989	4/6/2015 - 4/6/2015	MIXEDBLV	Mn-54
Co-58	<1.07E+01	0.00E+00				1.07E+01
Fe-59	<2.35E+01	0.00E+00				2.35E+01
Co-60	<1.21E+01	0.00E+00				1.21E+01
Zn-65	<2.58E+01	0.00E+00				2.58E+01
Zr-95	<2.07E+01	0.00E+00				2.07E+01
Nb-95	<1.12E+01	0.00E+00				1.12E+01
I-131	<1.37E+01	0.00E+00				1.37E+01
Cs-134	<1.79E+01	0.00E+00				1.79E+01
Cs-137	<1.21E+01	0.00E+00				1.21E+01
BaLa-140	<1.38E+01	0.00E+00				1.38E+01
Be-7	8.80E+02	1.53E+02				1.47E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
374989	4/6/2015 - 4/6/2015		K-40	3.39E+03	4.20E+02	1.25E+02
378110	5/4/2015 - 5/4/2015		Mn-54	<1.57E+01	0.00E+00	1.57E+01
			Co-58	<1.25E+01	0.00E+00	1.25E+01
			Fe-59	<2.38E+01	0.00E+00	2.38E+01
			Co-60	<1.37E+01	0.00E+00	1.37E+01
			Zn-65	<3.19E+01	0.00E+00	3.19E+01
			Zr-95	<2.44E+01	0.00E+00	2.44E+01
			Nb-95	<1.36E+01	0.00E+00	1.36E+01
			I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<2.05E+01	0.00E+00	2.05E+01
			Cs-137	<1.46E+01	0.00E+00	1.46E+01
			BaLa-140	<1.15E+01	0.00E+00	1.15E+01
			Be-7	6.65E+02	1.47E+02	1.50E+02
			K-40	4.09E+03	5.31E+02	1.09E+02
380241	6/1/2015 - 6/1/2015		Mn-54	<1.60E+01	0.00E+00	1.60E+01
			Co-58	<1.39E+01	0.00E+00	1.39E+01
			Fe-59	<3.61E+01	0.00E+00	3.61E+01
			Co-60	<1.80E+01	0.00E+00	1.80E+01
			Zn-65	<3.27E+01	0.00E+00	3.27E+01
			Zr-95	<2.40E+01	0.00E+00	2.40E+01
			Nb-95	<1.57E+01	0.00E+00	1.57E+01
			I-131	<1.35E+01	0.00E+00	1.35E+01
			Cs-134	<1.85E+01	0.00E+00	1.85E+01
			Cs-137	<1.19E+01	0.00E+00	1.19E+01
			BaLa-140	<1.89E+01	0.00E+00	1.89E+01
			Be-7	1.99E+02	1.02E+02	1.42E+02
			K-40	4.36E+03	5.88E+02	2.56E+02
382212	7/6/2015 - 7/6/2015		Mn-54	<1.63E+01	0.00E+00	1.63E+01
			Co-58	<1.46E+01	0.00E+00	1.46E+01
			Fe-59	<3.21E+01	0.00E+00	3.21E+01
			Co-60	<1.38E+01	0.00E+00	1.38E+01
			Zn-65	<3.62E+01	0.00E+00	3.62E+01
			Zr-95	<2.44E+01	0.00E+00	2.44E+01
			Nb-95	<1.67E+01	0.00E+00	1.67E+01
			I-131	<1.31E+01	0.00E+00	1.31E+01
			Cs-134	<1.83E+01	0.00E+00	1.83E+01
			Cs-137	<1.53E+01	0.00E+00	1.53E+01
			BaLa-140	<1.57E+01	0.00E+00	1.57E+01
			Be-7	1.15E+03	2.01E+02	1.63E+02
			K-40	3.40E+03	4.96E+02	2.08E+02
384705	8/3/2015 - 8/3/2015		Mn-54	<5.01E+00	0.00E+00	5.01E+00
			Co-58	<4.91E+00	0.00E+00	4.91E+00
			Fe-59	<1.30E+01	0.00E+00	1.30E+01
			Co-60	<4.33E+00	0.00E+00	4.33E+00
			Zn-65	<1.12E+01	0.00E+00	1.12E+01
			Zr-95	<1.06E+01	0.00E+00	1.06E+01
			Nb-95	<7.48E+00	0.00E+00	7.48E+00
			I-131	<4.04E+01	0.00E+00	4.04E+01
			Cs-134	<7.20E+00	0.00E+00	7.20E+00
			Cs-137	<4.40E+00	0.00E+00	4.40E+00
			BaLa-140	<1.62E+01	0.00E+00	1.62E+01
			Be-7	1.45E+03	1.48E+02	7.32E+01
			K-40	3.60E+03	3.23E+02	5.03E+01
388809	9/8/2015 - 9/8/2015		Mn-54	<1.61E+01	0.00E+00	1.61E+01
			Co-58	<1.93E+01	0.00E+00	1.93E+01
			Fe-59	<4.14E+01	0.00E+00	4.14E+01
			Co-60	<2.26E+01	0.00E+00	2.26E+01
			Zn-65	<3.93E+01	0.00E+00	3.93E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	388809	Sample Dates:	9/8/2015 - 9/8/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Zr-95	<3.33E+01	0.00E+00	3.33E+01
					Nb-95	<1.41E+01	0.00E+00	1.41E+01
					I-131	<1.42E+01	0.00E+00	1.42E+01
					Cs-134	<2.59E+01	0.00E+00	2.59E+01
					Cs-137	<1.99E+01	0.00E+00	1.99E+01
					BaLa-140	<1.53E+01	0.00E+00	1.53E+01
					Be-7	7.41E+02	1.76E+02	1.83E+02
					K-40	4.40E+03	6.09E+02	2.35E+02

Sample ID:	391999	Sample Dates:	10/5/2015 - 10/5/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<2.87E+01	0.00E+00	2.87E+01
					Co-58	<2.75E+01	0.00E+00	2.75E+01
					Fe-59	<5.10E+01	0.00E+00	5.10E+01
					Co-60	<3.48E+01	0.00E+00	3.48E+01
					Zn-65	<7.05E+01	0.00E+00	7.05E+01
					Zr-95	<4.43E+01	0.00E+00	4.43E+01
					Nb-95	<2.26E+01	0.00E+00	2.26E+01
					I-131	<2.04E+01	0.00E+00	2.04E+01
					Cs-134	<3.76E+01	0.00E+00	3.76E+01
					Cs-137	<2.69E+01	0.00E+00	2.69E+01
					BaLa-140	<2.86E+01	0.00E+00	2.86E+01
					Be-7	3.83E+03	5.44E+02	3.55E+02
					K-40	4.33E+03	7.33E+02	4.14E+02

Sample ID:	394892	Sample Dates:	11/2/2015 - 11/2/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.86E+01	0.00E+00	1.86E+01
					Co-58	<1.78E+01	0.00E+00	1.78E+01
					Fe-59	<2.85E+01	0.00E+00	2.85E+01
					Co-60	<1.76E+01	0.00E+00	1.76E+01
					Zn-65	<4.35E+01	0.00E+00	4.35E+01
					Zr-95	<3.00E+01	0.00E+00	3.00E+01
					Nb-95	<1.50E+01	0.00E+00	1.50E+01
					I-131	<1.30E+01	0.00E+00	1.30E+01
					Cs-134	<2.20E+01	0.00E+00	2.20E+01
					Cs-137	<1.66E+01	0.00E+00	1.66E+01
					BaLa-140	<1.41E+01	0.00E+00	1.41E+01
					Be-7	1.66E+03	2.64E+02	2.11E+02
					K-40	3.29E+03	5.07E+02	2.69E+02

Sample ID:	397226	Sample Dates:	12/7/2015 - 12/7/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<2.26E+01	0.00E+00	2.26E+01
					Co-58	<2.37E+01	0.00E+00	2.37E+01
					Fe-59	<3.32E+01	0.00E+00	3.32E+01
					Co-60	<3.41E+01	0.00E+00	3.41E+01
					Zn-65	<4.97E+01	0.00E+00	4.97E+01
					Zr-95	<3.87E+01	0.00E+00	3.87E+01
					Nb-95	<2.28E+01	0.00E+00	2.28E+01
					I-131	<1.50E+01	0.00E+00	1.50E+01
					Cs-134	<2.08E+01	0.00E+00	2.08E+01
					Cs-137	<2.05E+01	0.00E+00	2.05E+01
					BaLa-140	<2.52E+01	0.00E+00	2.52E+01
					Be-7	2.52E+03	3.85E+02	2.84E+02
					K-40	3.08E+03	5.62E+02	4.01E+02

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	365121	Sample Dates:	1/5/2015 - 1/5/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<3.54E+01	0.00E+00	3.54E+01
					Co-58	<2.99E+01	0.00E+00	2.99E+01
					Fe-59	<7.20E+01	0.00E+00	7.20E+01
					Co-60	<2.99E+01	0.00E+00	2.99E+01
					Zn-65	<1.03E+02	0.00E+00	1.03E+02
					Zr-95	<6.69E+01	0.00E+00	6.69E+01
					Nb-95	<2.89E+01	0.00E+00	2.89E+01
					I-131	<3.50E+01	0.00E+00	3.50E+01
					Cs-134	<3.37E+01	0.00E+00	3.37E+01
					Cs-137	<3.19E+01	0.00E+00	3.19E+01
					BaLa-140	<3.62E+01	0.00E+00	3.62E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
365121	1/5/2015 - 1/5/2015	MIXEDBLV	Be-7	6.84E+02	2.99E+02	4.27E+02
			K-40	4.70E+03	8.47E+02	5.61E+02
367600	2/2/2015 - 2/2/2015	MIXEDBLV	Mn-54	<2.16E+01	0.00E+00	2.16E+01
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<4.36E+01	0.00E+00	4.36E+01
			Co-60	<2.67E+01	0.00E+00	2.67E+01
			Zn-65	<5.48E+01	0.00E+00	5.48E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<1.96E+01	0.00E+00	1.96E+01
			Cs-134	<2.65E+01	0.00E+00	2.65E+01
			Cs-137	<1.66E+01	0.00E+00	1.66E+01
			BaLa-140	<2.19E+01	0.00E+00	2.19E+01
			Be-7	8.87E+02	2.18E+02	2.08E+02
			K-40	3.75E+03	6.61E+02	4.59E+02
371595	3/2/2015 - 3/2/2015	MIXEDBLV	Mn-54	<2.18E+01	0.00E+00	2.18E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01
			Fe-59	<4.27E+01	0.00E+00	4.27E+01
			Co-60	<2.78E+01	0.00E+00	2.78E+01
			Zn-65	<4.00E+01	0.00E+00	4.00E+01
			Zr-95	<2.70E+01	0.00E+00	2.70E+01
			Nb-95	<1.98E+01	0.00E+00	1.98E+01
			I-131	<1.72E+01	0.00E+00	1.72E+01
			Cs-134	<2.15E+01	0.00E+00	2.15E+01
			Cs-137	<1.53E+01	0.00E+00	1.53E+01
			BaLa-140	<2.35E+01	0.00E+00	2.35E+01
			Be-7	3.78E+02	1.81E+02	2.55E+02
			K-40	3.71E+03	6.04E+02	2.53E+02
374990	4/6/2015 - 4/6/2015	MIXEDBLV	Mn-54	<1.76E+01	0.00E+00	1.76E+01
			Co-58	<1.67E+01	0.00E+00	1.67E+01
			Fe-59	<3.64E+01	0.00E+00	3.64E+01
			Co-60	<1.92E+01	0.00E+00	1.92E+01
			Zn-65	<2.75E+01	0.00E+00	2.75E+01
			Zr-95	<3.16E+01	0.00E+00	3.16E+01
			Nb-95	<2.08E+01	0.00E+00	2.08E+01
			I-131	<1.44E+01	0.00E+00	1.44E+01
			Cs-134	<2.13E+01	0.00E+00	2.13E+01
			Cs-137	<2.24E+01	0.00E+00	2.24E+01
			BaLa-140	<1.44E+01	0.00E+00	1.44E+01
			Be-7	3.37E+02	1.33E+02	1.66E+02
			K-40	4.20E+03	6.22E+02	2.42E+02
378111	5/4/2015 - 5/4/2015	MIXEDBLV	Mn-54	<1.50E+01	0.00E+00	1.50E+01
			Co-58	<1.40E+01	0.00E+00	1.40E+01
			Fe-59	<3.18E+01	0.00E+00	3.18E+01
			Co-60	<1.93E+01	0.00E+00	1.93E+01
			Zn-65	<4.80E+01	0.00E+00	4.80E+01
			Zr-95	<2.28E+01	0.00E+00	2.28E+01
			Nb-95	<1.69E+01	0.00E+00	1.69E+01
			I-131	<1.55E+01	0.00E+00	1.55E+01
			Cs-134	<2.44E+01	0.00E+00	2.44E+01
			Cs-137	<1.90E+01	0.00E+00	1.90E+01
			BaLa-140	<1.60E+01	0.00E+00	1.60E+01
			Be-7	4.03E+02	1.54E+02	2.04E+02
			K-40	4.57E+03	6.25E+02	1.53E+02
380242	6/1/2015 - 6/1/2015	MIXEDBLV	Mn-54	<1.39E+01	0.00E+00	1.39E+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	<2.50E+01	0.00E+00	2.50E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
380242	6/1/2015 - 6/1/2015	MIXEDBLV	Zn-65	<4.52E+01	0.00E+00	4.52E+01
			Zr-95	<1.57E+01	0.00E+00	1.57E+01
			Nb-95	<1.41E+01	0.00E+00	1.41E+01
			I-131	<1.77E+01	0.00E+00	1.77E+01
			Cs-134	<1.93E+01	0.00E+00	1.93E+01
			Cs-137	<1.80E+01	0.00E+00	1.80E+01
			BaLa-140	<1.33E+01	0.00E+00	1.33E+01
			Be-7	2.75E+02	1.46E+02	2.11E+02
			K-40	3.87E+03	5.79E+02	2.47E+02
			382213	7/6/2015 - 7/6/2015	MIXEDBLV	Mn-54
Co-58	<1.86E+01	0.00E+00				1.86E+01
Fe-59	<3.44E+01	0.00E+00				3.44E+01
Co-60	<2.23E+01	0.00E+00				2.23E+01
Zn-65	<3.61E+01	0.00E+00				3.61E+01
Zr-95	<3.94E+01	0.00E+00				3.94E+01
Nb-95	<1.71E+01	0.00E+00				1.71E+01
I-131	<1.82E+01	0.00E+00				1.82E+01
Cs-134	<1.71E+01	0.00E+00				1.71E+01
Cs-137	<2.52E+01	0.00E+00				2.52E+01
BaLa-140	<1.84E+01	0.00E+00				1.84E+01
Be-7	8.32E+02	2.06E+02				2.19E+02
K-40	3.73E+03	5.77E+02				4.31E+01
384706	8/3/2015 - 8/3/2015	MIXEDBLV				Mn-54
			Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<5.35E+01	0.00E+00	5.35E+01
			Co-60	<1.27E+01	0.00E+00	1.27E+01
			Zn-65	<4.51E+01	0.00E+00	4.51E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.03E+01	0.00E+00	2.03E+01
			I-131	<1.94E+01	0.00E+00	1.94E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	<2.31E+01	0.00E+00	2.31E+01
			BaLa-140	<2.63E+01	0.00E+00	2.63E+01
			Be-7	1.04E+03	2.44E+02	2.54E+02
			K-40	3.61E+03	6.22E+02	4.01E+02
			388810	9/8/2015 - 9/8/2015	MIXEDBLV	Mn-54
Co-58	<1.87E+01	0.00E+00				1.87E+01
Fe-59	<5.69E+01	0.00E+00				5.69E+01
Co-60	<1.83E+01	0.00E+00				1.83E+01
Zn-65	<3.17E+01	0.00E+00				3.17E+01
Zr-95	<4.00E+01	0.00E+00				4.00E+01
Nb-95	<2.31E+01	0.00E+00				2.31E+01
I-131	<1.77E+01	0.00E+00				1.77E+01
Cs-134	<3.03E+01	0.00E+00				3.03E+01
Cs-137	<2.54E+01	0.00E+00				2.54E+01
BaLa-140	<2.98E+01	0.00E+00				2.98E+01
Be-7	8.14E+02	2.16E+02				2.19E+02
K-40	3.53E+03	6.28E+02				3.42E+02
392000	10/5/2015 - 10/5/2015	MIXEDBLV				Mn-54
			Co-58	<2.85E+01	0.00E+00	2.85E+01
			Fe-59	<5.49E+01	0.00E+00	5.49E+01
			Co-60	<2.94E+01	0.00E+00	2.94E+01
			Zn-65	<5.11E+01	0.00E+00	5.11E+01
			Zr-95	<4.76E+01	0.00E+00	4.76E+01
			Nb-95	<2.31E+01	0.00E+00	2.31E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<3.12E+01	0.00E+00	3.12E+01
			Cs-137	<2.70E+01	0.00E+00	2.70E+01
			BaLa-140	<7.68E+00	0.00E+00	7.68E+00
			Be-7	1.22E+03	2.69E+02	2.25E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
392000	10/5/2015 - 10/5/2015		K-40	3.23E+03	6.43E+02	4.33E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
394893	11/2/2015 - 11/2/2015		Mn-54	<1.84E+01	0.00E+00	1.84E+01
			Co-58	<1.57E+01	0.00E+00	1.57E+01
			Fe-59	<2.46E+01	0.00E+00	2.46E+01
			Co-60	<1.90E+01	0.00E+00	1.90E+01
			Zn-65	<3.06E+01	0.00E+00	3.06E+01
			Zr-95	<2.34E+01	0.00E+00	2.34E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<1.22E+01	0.00E+00	1.22E+01
			Cs-134	<1.64E+01	0.00E+00	1.64E+01
			Cs-137	<1.74E+01	0.00E+00	1.74E+01
			BaLa-140	<1.75E+01	0.00E+00	1.75E+01
			Be-7	8.43E+02	1.94E+02	2.06E+02
			K-40	2.54E+03	4.61E+02	3.32E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
397227	12/7/2015 - 12/7/2015		Mn-54	<1.65E+01	0.00E+00	1.65E+01
			Co-58	<2.36E+01	0.00E+00	2.36E+01
			Fe-59	<5.14E+01	0.00E+00	5.14E+01
			Co-60	<2.41E+01	0.00E+00	2.41E+01
			Zn-65	<4.57E+01	0.00E+00	4.57E+01
			Zr-95	<2.81E+01	0.00E+00	2.81E+01
			Nb-95	<1.83E+01	0.00E+00	1.83E+01
			I-131	<2.18E+01	0.00E+00	2.18E+01
			Cs-134	<2.31E+01	0.00E+00	2.31E+01
			Cs-137	<2.22E+01	0.00E+00	2.22E+01
			BaLa-140	<3.28E+01	0.00E+00	3.28E+01
			Be-7	6.13E+02	2.23E+02	2.88E+02
			K-40	2.98E+03	5.99E+02	4.49E+02

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
365122	1/5/2015 - 1/5/2015		Mn-54	<2.60E+01	0.00E+00	2.60E+01
			Co-58	<2.04E+01	0.00E+00	2.04E+01
			Fe-59	<4.88E+01	0.00E+00	4.88E+01
			Co-60	<2.85E+01	0.00E+00	2.85E+01
			Zn-65	<6.60E+01	0.00E+00	6.60E+01
			Zr-95	<3.91E+01	0.00E+00	3.91E+01
			Nb-95	<2.12E+01	0.00E+00	2.12E+01
			I-131	<2.44E+01	0.00E+00	2.44E+01
			Cs-134	<3.14E+01	0.00E+00	3.14E+01
			Cs-137	<2.45E+01	0.00E+00	2.45E+01
			BaLa-140	<1.59E+01	0.00E+00	1.59E+01
			Be-7	6.82E+02	1.90E+02	2.34E+02
			K-40	3.00E+03	5.05E+02	3.66E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
367601	2/2/2015 - 2/2/2015		Mn-54	<2.25E+01	0.00E+00	2.25E+01
			Co-58	<2.46E+01	0.00E+00	2.46E+01
			Fe-59	<5.84E+01	0.00E+00	5.84E+01
			Co-60	<2.02E+01	0.00E+00	2.02E+01
			Zn-65	<6.60E+01	0.00E+00	6.60E+01
			Zr-95	<3.84E+01	0.00E+00	3.84E+01
			Nb-95	<2.25E+01	0.00E+00	2.25E+01
			I-131	<2.62E+01	0.00E+00	2.62E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<2.31E+01	0.00E+00	2.31E+01
			BaLa-140	<2.00E+01	0.00E+00	2.00E+01
			Be-7	8.50E+02	2.50E+02	2.90E+02
			K-40	3.81E+03	7.08E+02	4.79E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
371596	3/2/2015 - 3/2/2015		Mn-54	<1.86E+01	0.00E+00	1.86E+01
			Co-58	<1.84E+01	0.00E+00	1.84E+01
			Fe-59	<3.93E+01	0.00E+00	3.93E+01
			Co-60	<2.72E+01	0.00E+00	2.72E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
371596	3/2/2015 - 3/2/2015	MIXEDBLV	Zn-65	<4.72E+01	0.00E+00	4.72E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<1.54E+01	0.00E+00	1.54E+01
			I-131	<1.51E+01	0.00E+00	1.51E+01
			Cs-134	<2.52E+01	0.00E+00	2.52E+01
			Cs-137	<1.90E+01	0.00E+00	1.90E+01
			BaLa-140	<2.45E+01	0.00E+00	2.45E+01
			Be-7	4.53E+02	1.80E+02	2.36E+02
			K-40	3.48E+03	5.96E+02	2.87E+02
			374991	4/6/2015 - 4/6/2015	MIXEDBLV	Mn-54
Co-58	<1.82E+01	0.00E+00				1.82E+01
Fe-59	<4.36E+01	0.00E+00				4.36E+01
Co-60	<2.19E+01	0.00E+00				2.19E+01
Zn-65	<4.62E+01	0.00E+00				4.62E+01
Zr-95	<2.80E+01	0.00E+00				2.80E+01
Nb-95	<1.57E+01	0.00E+00				1.57E+01
I-131	<2.18E+01	0.00E+00				2.18E+01
Cs-134	<2.15E+01	0.00E+00				2.15E+01
Cs-137	<1.46E+01	0.00E+00				1.46E+01
BaLa-140	<2.93E+01	0.00E+00				2.93E+01
Be-7	6.33E+02	1.97E+02				2.37E+02
K-40	3.18E+03	5.34E+02				1.82E+02
378112	5/4/2015 - 5/4/2015	MIXEDBLV				Mn-54
			Co-58	<1.54E+01	0.00E+00	1.54E+01
			Fe-59	<2.15E+01	0.00E+00	2.15E+01
			Co-60	<1.50E+01	0.00E+00	1.50E+01
			Zn-65	<2.61E+01	0.00E+00	2.61E+01
			Zr-95	<1.88E+01	0.00E+00	1.88E+01
			Nb-95	<1.26E+01	0.00E+00	1.26E+01
			I-131	<1.19E+01	0.00E+00	1.19E+01
			Cs-134	<1.98E+01	0.00E+00	1.98E+01
			Cs-137	<1.13E+01	0.00E+00	1.13E+01
			BaLa-140	<9.91E+00	0.00E+00	9.91E+00
			Be-7	7.38E+02	1.59E+02	1.54E+02
			K-40	2.89E+03	4.26E+02	1.33E+02
			380243	6/1/2015 - 6/1/2015	MIXEDBLV	Mn-54
Co-58	<1.55E+01	0.00E+00				1.55E+01
Fe-59	<3.73E+01	0.00E+00				3.73E+01
Co-60	<1.84E+01	0.00E+00				1.84E+01
Zn-65	<3.99E+01	0.00E+00				3.99E+01
Zr-95	<3.36E+01	0.00E+00				3.36E+01
Nb-95	<2.06E+01	0.00E+00				2.06E+01
I-131	<1.78E+01	0.00E+00				1.78E+01
Cs-134	<2.36E+01	0.00E+00				2.36E+01
Cs-137	<2.22E+01	0.00E+00				2.22E+01
BaLa-140	<2.54E+01	0.00E+00				2.54E+01
Be-7	3.69E+02	1.48E+02				1.92E+02
K-40	3.67E+03	6.14E+02				4.52E+02
382214	7/6/2015 - 7/6/2015	MIXEDBLV				Mn-54
			Co-58	<1.83E+01	0.00E+00	1.83E+01
			Fe-59	<4.49E+01	0.00E+00	4.49E+01
			Co-60	<2.33E+01	0.00E+00	2.33E+01
			Zn-65	<2.90E+01	0.00E+00	2.90E+01
			Zr-95	<3.30E+01	0.00E+00	3.30E+01
			Nb-95	<1.76E+01	0.00E+00	1.76E+01
			I-131	<1.55E+01	0.00E+00	1.55E+01
			Cs-134	<2.61E+01	0.00E+00	2.61E+01
			Cs-137	<2.32E+01	0.00E+00	2.32E+01
			BaLa-140	<1.82E+01	0.00E+00	1.82E+01
			Be-7	5.10E+02	1.88E+02	2.50E+02



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
382214	7/6/2015 - 7/6/2015		K-40	3.97E+03	6.12E+02	2.98E+02
384707	8/3/2015 - 8/3/2015		Mn-54	<1.69E+01	0.00E+00	1.69E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<4.22E+01	0.00E+00	4.22E+01
			Co-60	<2.61E+01	0.00E+00	2.61E+01
			Zn-65	<5.18E+01	0.00E+00	5.18E+01
			Zr-95	<4.21E+01	0.00E+00	4.21E+01
			Nb-95	<2.39E+01	0.00E+00	2.39E+01
			I-131	<1.73E+01	0.00E+00	1.73E+01
			Cs-134	<2.84E+01	0.00E+00	2.84E+01
			Cs-137	<1.73E+01	0.00E+00	1.73E+01
			BaLa-140	<1.93E+01	0.00E+00	1.93E+01
			Be-7	1.41E+03	2.58E+02	2.02E+02
			K-40	3.14E+03	5.23E+02	4.48E+01
388811	9/8/2015 - 9/8/2015		Mn-54	<2.82E+01	0.00E+00	2.82E+01
			Co-58	<2.01E+01	0.00E+00	2.01E+01
			Fe-59	<4.94E+01	0.00E+00	4.94E+01
			Co-60	<2.73E+01	0.00E+00	2.73E+01
			Zn-65	<6.27E+01	0.00E+00	6.27E+01
			Zr-95	<5.66E+01	0.00E+00	5.66E+01
			Nb-95	<2.46E+01	0.00E+00	2.46E+01
			I-131	<2.06E+01	0.00E+00	2.06E+01
			Cs-134	<4.10E+01	0.00E+00	4.10E+01
			Cs-137	<2.94E+01	0.00E+00	2.94E+01
			BaLa-140	<2.66E+01	0.00E+00	2.66E+01
			Be-7	1.11E+03	2.73E+02	2.72E+02
			K-40	3.57E+03	7.27E+02	6.21E+02
392001	10/5/2015 - 10/5/2015		Mn-54	<3.09E+01	0.00E+00	3.09E+01
			Co-58	<2.95E+01	0.00E+00	2.95E+01
			Fe-59	<5.97E+01	0.00E+00	5.97E+01
			Co-60	<3.27E+01	0.00E+00	3.27E+01
			Zn-65	<6.05E+01	0.00E+00	6.05E+01
			Zr-95	<3.83E+01	0.00E+00	3.83E+01
			Nb-95	<2.84E+01	0.00E+00	2.84E+01
			I-131	<2.61E+01	0.00E+00	2.61E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<3.28E+01	0.00E+00	3.28E+01
			BaLa-140	<2.17E+01	0.00E+00	2.17E+01
			Be-7	1.35E+03	3.06E+02	2.98E+02
			K-40	3.53E+03	6.74E+02	3.94E+02
394894	11/2/2015 - 11/2/2015		Mn-54	<1.52E+01	0.00E+00	1.52E+01
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<3.79E+01	0.00E+00	3.79E+01
			Co-60	<1.69E+01	0.00E+00	1.69E+01
			Zn-65	<3.84E+01	0.00E+00	3.84E+01
			Zr-95	<3.68E+01	0.00E+00	3.68E+01
			Nb-95	<1.76E+01	0.00E+00	1.76E+01
			I-131	<1.48E+01	0.00E+00	1.48E+01
			Cs-134	<2.65E+01	0.00E+00	2.65E+01
			Cs-137	<1.82E+01	0.00E+00	1.82E+01
			BaLa-140	<2.50E+01	0.00E+00	2.50E+01
			Be-7	1.03E+03	2.13E+02	1.79E+02
			K-40	1.93E+03	4.55E+02	4.52E+02
397228	12/7/2015 - 12/7/2015		Mn-54	<2.78E+01	0.00E+00	2.78E+01
			Co-58	<2.37E+01	0.00E+00	2.37E+01
			Fe-59	<6.48E+01	0.00E+00	6.48E+01
			Co-60	<2.50E+01	0.00E+00	2.50E+01
			Zn-65	<7.87E+01	0.00E+00	7.87E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	397228	Sample Dates:	12/7/2015 - 12/7/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Zr-95	<3.85E+01	0.00E+00	3.85E+01
					Nb-95	<2.40E+01	0.00E+00	2.40E+01
					I-131	<2.24E+01	0.00E+00	2.24E+01
					Cs-134	<2.99E+01	0.00E+00	2.99E+01
					Cs-137	<3.02E+01	0.00E+00	3.02E+01
					BaLa-140	<3.50E+01	0.00E+00	3.50E+01
					Be-7	1.40E+03	3.19E+02	3.16E+02
					K-40	4.91E+03	8.05E+02	3.67E+02

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	365123	Sample Dates:	1/5/2015 - 1/5/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<2.13E+01	0.00E+00	2.13E+01
					Co-58	<2.10E+01	0.00E+00	2.10E+01
					Fe-59	<4.51E+01	0.00E+00	4.51E+01
					Co-60	<2.94E+01	0.00E+00	2.94E+01
					Zn-65	<5.10E+01	0.00E+00	5.10E+01
					Zr-95	<3.44E+01	0.00E+00	3.44E+01
					Nb-95	<2.39E+01	0.00E+00	2.39E+01
					I-131	<2.00E+01	0.00E+00	2.00E+01
					Cs-134	<2.26E+01	0.00E+00	2.26E+01
					Cs-137	<2.92E+01	0.00E+00	2.92E+01
					BaLa-140	<3.48E+01	0.00E+00	3.48E+01
					Be-7	5.55E+02	2.39E+02	3.37E+02
					K-40	3.89E+03	1.00E+03	1.32E+03

Sample ID:	367602	Sample Dates:	2/2/2015 - 2/2/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.36E+01	0.00E+00	1.36E+01
					Co-58	<1.30E+01	0.00E+00	1.30E+01
					Fe-59	<2.95E+01	0.00E+00	2.95E+01
					Co-60	<1.15E+01	0.00E+00	1.15E+01
					Zn-65	<3.33E+01	0.00E+00	3.33E+01
					Zr-95	<1.86E+01	0.00E+00	1.86E+01
					Nb-95	<1.15E+01	0.00E+00	1.15E+01
					I-131	<1.12E+01	0.00E+00	1.12E+01
					Cs-134	<1.48E+01	0.00E+00	1.48E+01
					Cs-137	<1.42E+01	0.00E+00	1.42E+01
					BaLa-140	<1.36E+01	0.00E+00	1.36E+01
					Be-7	6.95E+02	1.42E+02	1.51E+02
					K-40	3.65E+03	4.65E+02	1.82E+02

Sample ID:	371597	Sample Dates:	3/2/2015 - 3/2/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.42E+01	0.00E+00	1.42E+01
					Co-58	<1.29E+01	0.00E+00	1.29E+01
					Fe-59	<2.48E+01	0.00E+00	2.48E+01
					Co-60	<1.82E+01	0.00E+00	1.82E+01
					Zn-65	<2.80E+01	0.00E+00	2.80E+01
					Zr-95	<2.42E+01	0.00E+00	2.42E+01
					Nb-95	<1.81E+01	0.00E+00	1.81E+01
					I-131	<1.19E+01	0.00E+00	1.19E+01
					Cs-134	<1.65E+01	0.00E+00	1.65E+01
					Cs-137	<1.32E+01	0.00E+00	1.32E+01
					BaLa-140	<3.87E+00	0.00E+00	3.87E+00
					Be-7	3.37E+02	1.40E+02	1.95E+02
					K-40	3.12E+03	4.78E+02	2.68E+02

Sample ID:	374992	Sample Dates:	4/6/2015 - 4/6/2015	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
					Mn-54	<1.01E+01	0.00E+00	1.01E+01
					Co-58	<1.25E+01	0.00E+00	1.25E+01
					Fe-59	<1.97E+01	0.00E+00	1.97E+01
					Co-60	<9.76E+00	0.00E+00	9.76E+00
					Zn-65	<2.58E+01	0.00E+00	2.58E+01
					Zr-95	<2.07E+01	0.00E+00	2.07E+01
					Nb-95	<1.04E+01	0.00E+00	1.04E+01
					I-131	<1.27E+01	0.00E+00	1.27E+01
					Cs-134	<1.46E+01	0.00E+00	1.46E+01
					Cs-137	<1.67E+01	0.00E+00	1.67E+01
					BaLa-140	<1.97E+01	0.00E+00	1.97E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
374992	4/6/2015 - 4/6/2015	MIXEDBLV	Be-7	2.97E+02	1.22E+02	1.68E+02
			K-40	3.11E+03	4.67E+02	2.70E+02
378113	5/4/2015 - 5/4/2015	MIXEDBLV	Mn-54	<1.40E+01	0.00E+00	1.40E+01
			Co-58	<1.33E+01	0.00E+00	1.33E+01
			Fe-59	<3.28E+01	0.00E+00	3.28E+01
			Co-60	<1.60E+01	0.00E+00	1.60E+01
			Zn-65	<3.70E+01	0.00E+00	3.70E+01
			Zr-95	<2.75E+01	0.00E+00	2.75E+01
			Nb-95	<1.48E+01	0.00E+00	1.48E+01
			I-131	<1.03E+01	0.00E+00	1.03E+01
			Cs-134	<1.51E+01	0.00E+00	1.51E+01
			Cs-137	<1.73E+01	0.00E+00	1.73E+01
			BaLa-140	<1.06E+01	0.00E+00	1.06E+01
			Be-7	1.04E+03	1.95E+02	1.76E+02
			K-40	4.89E+03	6.24E+02	1.78E+02
			380244	6/1/2015 - 6/1/2015	MIXEDBLV	Mn-54
Co-58	<1.64E+01	0.00E+00				1.64E+01
Fe-59	<4.25E+01	0.00E+00				4.25E+01
Co-60	<2.14E+01	0.00E+00				2.14E+01
Zn-65	<4.18E+01	0.00E+00				4.18E+01
Zr-95	<2.52E+01	0.00E+00				2.52E+01
Nb-95	<1.65E+01	0.00E+00				1.65E+01
I-131	<1.63E+01	0.00E+00				1.63E+01
Cs-134	<2.75E+01	0.00E+00				2.75E+01
Cs-137	<1.83E+01	0.00E+00				1.83E+01
BaLa-140	<2.53E+01	0.00E+00				2.53E+01
Be-7	7.47E+02	1.77E+02				1.62E+02
K-40	4.13E+03	6.32E+02				3.63E+02
382215	7/6/2015 - 7/6/2015	MIXEDBLV				Mn-54
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<4.00E+01	0.00E+00	4.00E+01
			Co-60	<1.88E+01	0.00E+00	1.88E+01
			Zn-65	<4.15E+01	0.00E+00	4.15E+01
			Zr-95	<2.92E+01	0.00E+00	2.92E+01
			Nb-95	<1.55E+01	0.00E+00	1.55E+01
			I-131	<1.66E+01	0.00E+00	1.66E+01
			Cs-134	<2.14E+01	0.00E+00	2.14E+01
			Cs-137	<2.03E+01	0.00E+00	2.03E+01
			BaLa-140	<1.33E+01	0.00E+00	1.33E+01
			Be-7	9.14E+02	2.08E+02	2.16E+02
			K-40	3.98E+03	5.99E+02	2.94E+02
			384708	8/3/2015 - 8/3/2015	MIXEDBLV	Mn-54
Co-58	<1.65E+01	0.00E+00				1.65E+01
Fe-59	<3.49E+01	0.00E+00				3.49E+01
Co-60	<1.16E+01	0.00E+00				1.16E+01
Zn-65	<3.26E+01	0.00E+00				3.26E+01
Zr-95	<2.44E+01	0.00E+00				2.44E+01
Nb-95	<1.22E+01	0.00E+00				1.22E+01
I-131	<1.38E+01	0.00E+00				1.38E+01
Cs-134	<2.05E+01	0.00E+00				2.05E+01
Cs-137	<1.32E+01	0.00E+00				1.32E+01
BaLa-140	<1.46E+01	0.00E+00				1.46E+01
Be-7	1.04E+03	1.73E+02				1.49E+02
K-40	3.63E+03	5.28E+02				2.14E+02
388812	9/8/2015 - 9/8/2015	MIXEDBLV				Mn-54
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<4.50E+01	0.00E+00	4.50E+01
			Co-60	<2.92E+01	0.00E+00	2.92E+01



MCGUIRE Radiological Environmental Monitoring Analysis Report - 2015 (Appendix E)

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

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	LLD
388812	9/8/2015 - 9/8/2015	MIXEDBLV	Zn-65	<5.31E+01	0.00E+00	5.31E+01
			Zr-95	<3.43E+01	0.00E+00	3.43E+01
			Nb-95	<2.69E+01	0.00E+00	2.69E+01
			I-131	<1.86E+01	0.00E+00	1.86E+01
			Cs-134	<3.17E+01	0.00E+00	3.17E+01
			Cs-137	<2.20E+01	0.00E+00	2.20E+01
			BaLa-140	<2.06E+01	0.00E+00	2.06E+01
			Be-7	9.60E+02	2.38E+02	2.58E+02
			K-40	4.66E+03	7.09E+02	3.38E+02
			392002	10/5/2015 - 10/5/2015	MIXEDBLV	Mn-54
Co-58	<1.70E+01	0.00E+00				1.70E+01
Fe-59	<4.08E+01	0.00E+00				4.08E+01
Co-60	<2.50E+01	0.00E+00				2.50E+01
Zn-65	<5.16E+01	0.00E+00				5.16E+01
Zr-95	<3.23E+01	0.00E+00				3.23E+01
Nb-95	<1.73E+01	0.00E+00				1.73E+01
I-131	<1.72E+01	0.00E+00				1.72E+01
Cs-134	<2.84E+01	0.00E+00				2.84E+01
Cs-137	<2.03E+01	0.00E+00				2.03E+01
BaLa-140	<1.92E+01	0.00E+00				1.92E+01
Be-7	1.53E+03	2.71E+02				2.20E+02
K-40	3.25E+03	5.51E+02				3.17E+02
394895	11/2/2015 - 11/2/2015	MIXEDBLV				Mn-54
			Co-58	<9.47E+00	0.00E+00	9.47E+00
			Fe-59	<2.97E+01	0.00E+00	2.97E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<2.44E+01	0.00E+00	2.44E+01
			Zr-95	<2.66E+01	0.00E+00	2.66E+01
			Nb-95	<1.13E+01	0.00E+00	1.13E+01
			I-131	<1.29E+01	0.00E+00	1.29E+01
			Cs-134	<1.92E+01	0.00E+00	1.92E+01
			Cs-137	<1.24E+01	0.00E+00	1.24E+01
			BaLa-140	<1.70E+01	0.00E+00	1.70E+01
			Be-7	1.09E+03	2.02E+02	1.81E+02
			K-40	3.05E+03	4.69E+02	2.44E+02
			397229	12/7/2015 - 12/7/2015	MIXEDBLV	Mn-54
Co-58	<1.75E+01	0.00E+00				1.75E+01
Fe-59	<4.38E+01	0.00E+00				4.38E+01
Co-60	<2.60E+01	0.00E+00				2.60E+01
Zn-65	<4.96E+01	0.00E+00				4.96E+01
Zr-95	<3.33E+01	0.00E+00				3.33E+01
Nb-95	<2.00E+01	0.00E+00				2.00E+01
I-131	<1.79E+01	0.00E+00				1.79E+01
Cs-134	<2.28E+01	0.00E+00				2.28E+01
Cs-137	<2.32E+01	0.00E+00				2.32E+01
BaLa-140	<2.46E+01	0.00E+00				2.46E+01
Be-7	6.52E+02	1.34E+02				1.77E+02
K-40	4.41E+03	6.60E+02				2.53E+02



APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

APPENDIX F

ERRATA TO THE 2015 AREOR

There are no errata to be appended to the 2015 AREOR.