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# **ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

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

**2014**



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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
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 <sup>3</sup>	picocurie per cubic meter
PIP	Problem Investigation Program
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SLCs	Selected Licensee Commitments
SM	Semimonthly
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

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# 1.0 EXECUTIVE SUMMARY

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This Annual Radiological Environmental Operating Report describes the McGuire Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2014.

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-five samples were analyzed comprising 1,246 test results in order to compile data for the 2014 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 2014 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  $9.71\text{E-}2$  mrem for 2014. Background radiation dose in the United States is approximately 620 mrem per year (approximately half from naturally occurring sources such as radon and half from man-made sources such as medical processes).<sup>1</sup> It is therefore concluded that station operations has had no significant radiological impact on the health and safety of the public or the environment.

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

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## 2.0 INTRODUCTION

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### 2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

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

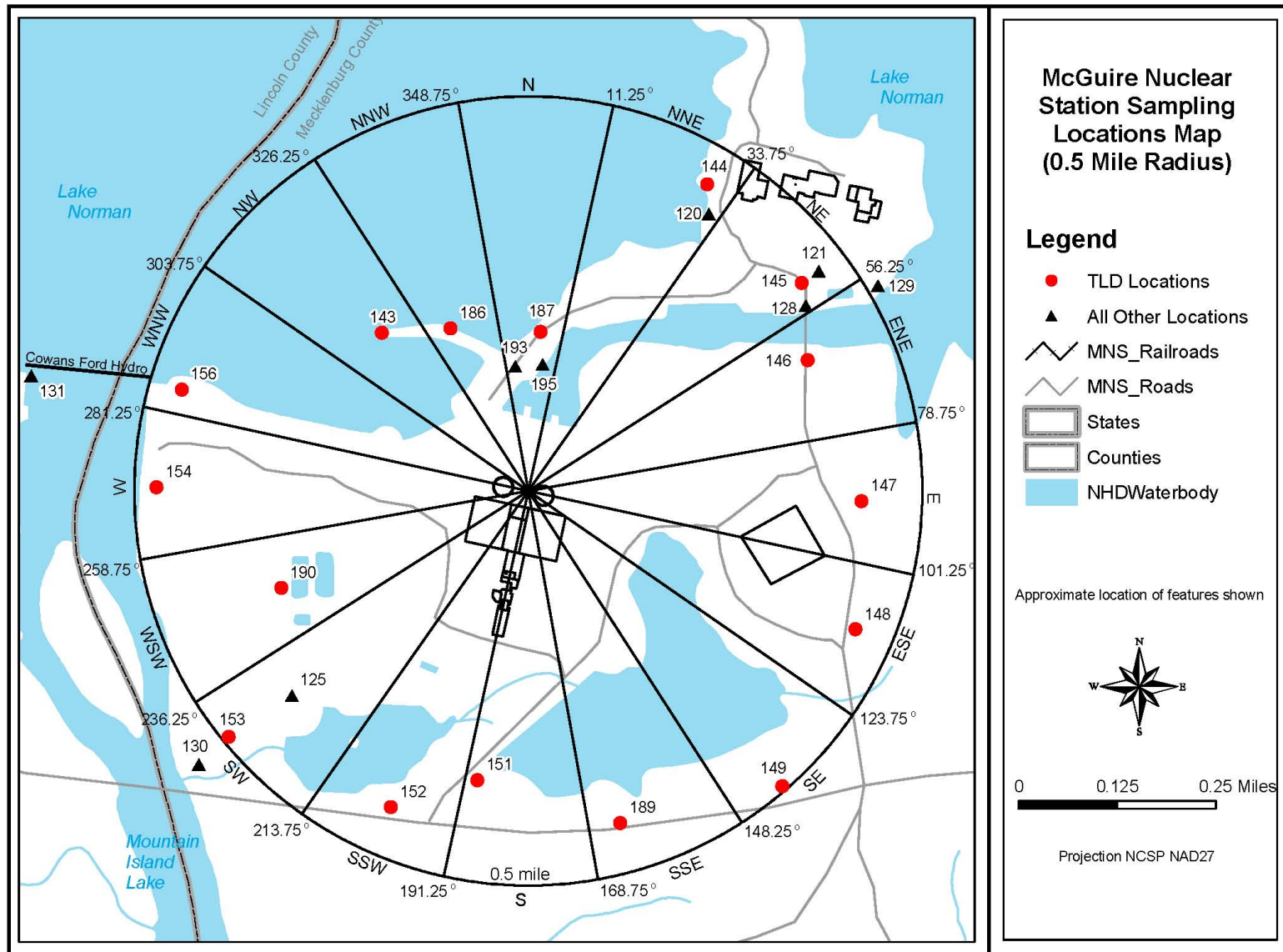
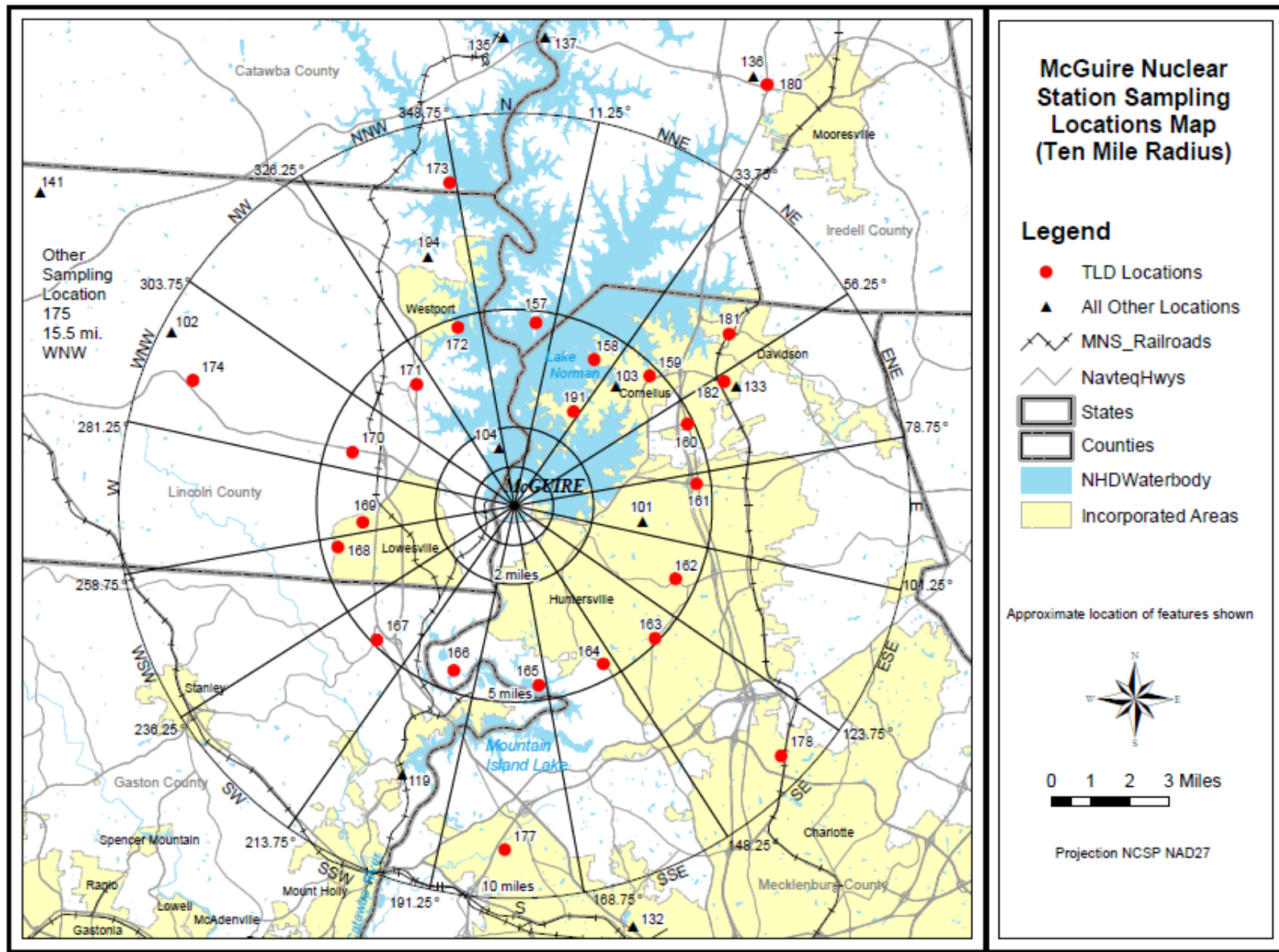


Figure 2.1-2



**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	Mooreville 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	
188	I	5 mile radius Gardens ( 2.79 mi NNE )					M (a)			
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	BELMARROW 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 <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)
H-3	20,000 <sup>(a),(b)</sup>	---	---	---	---
Mn-54	1,000	---	30,000	---	---
Fe-59	400	---	10,000	---	---
Co-58	1,000	---	30,000	---	---
Co-60	300	---	10,000	---	---
Zn-65	300	---	20,000	---	---
Zr-Nb-95	400	---	---	---	---
I-131	2	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 <sup>(b)</sup>	X	---	---	---	---
Food Products	Monthly <sup>(b)</sup>	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 <sup>3</sup> )	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2,000 <sup>(a)</sup>	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-Nb-95	15	---	---	---	---	---
I-131	1 <sup>(b)</sup>	0.07	---	1	60	---
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15	---	---	15	---	---

(a) 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.



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## 3.0 INTERPRETATION OF RESULTS

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Review of 2014 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 2014 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. McGuire 2014 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 2014 was 4.54% for drinking water tritium at the North Mecklenburg Water Treatment Facility (Location 101). Only Selected Licensee Commitments radionuclides were detected in 2014.

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 2014. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2014 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 2014, 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.

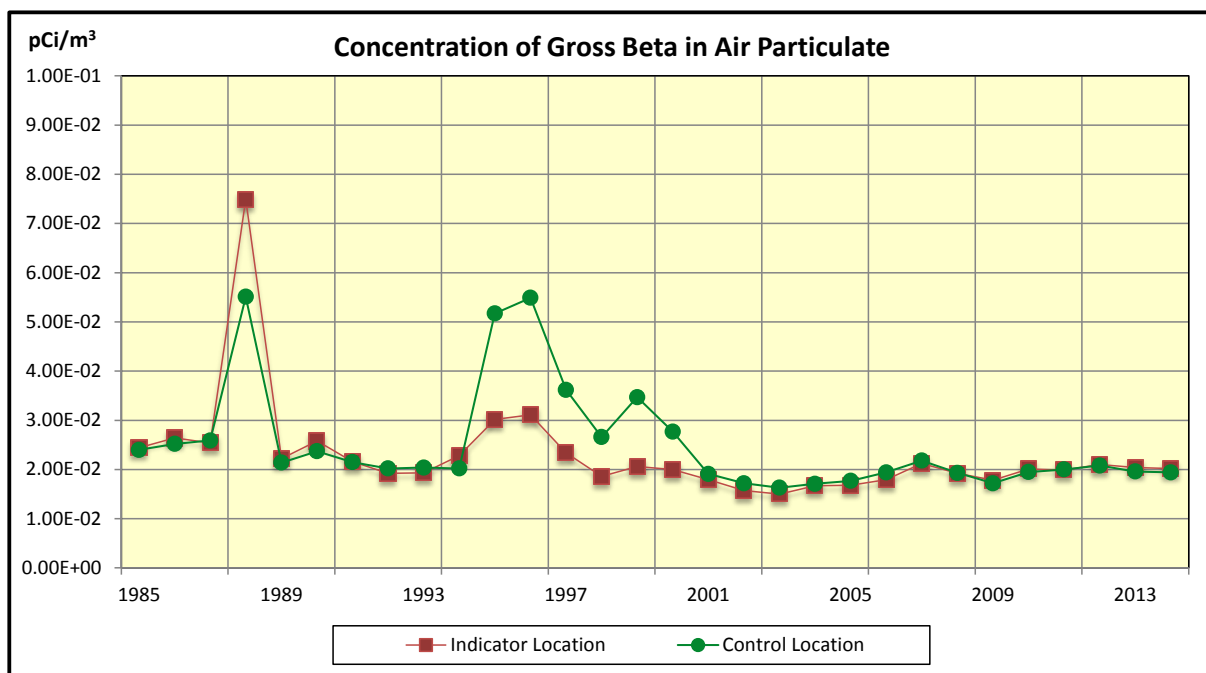
Gross beta analyses indicated  $2.02\text{E-}2$  pCi/m<sup>3</sup> at the location with the highest annual mean and  $1.94\text{E-}2$  pCi/m<sup>3</sup> at the control location. No gamma emitting radionuclide attributable to MNS plant operation has been detected in any air samples since 2004 when Co-58 was observed (G-04-00134).

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 2014, 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**

<b>YEAR</b>	<b>Cs-137 Indicator (pCi/m<sup>3</sup>)</b>	<b>Cs-137 Control (pCi/m<sup>3</sup>)</b>	<b>Beta Indicator (pCi/m<sup>3</sup>)</b>	<b>Beta Control (pCi/m<sup>3</sup>)</b>
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 <sup>(1)</sup>	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	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
<b>Average (2004 – 2013)</b>	Not Applicable	Not Applicable	1.91E-2	1.93E-2
2014 <sup>(2)</sup>	0.00E0	0.00E0	2.02E-2	1.94E-2

0.00E0 indicates no detectable measurements

\* Radioiodine and Particulates analyzed together

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

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

<b>Year</b>	<b>Indicator Location (pCi/m<sup>3</sup>)</b>	<b>Control Location (pCi/m<sup>3</sup>)</b>
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 <sup>(1)</sup>	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	6.00E-2	5.46E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 <sup>(2)</sup>	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

\* Radioiodine and Particulate analyzed together.

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

## 3.2 DRINKING WATER

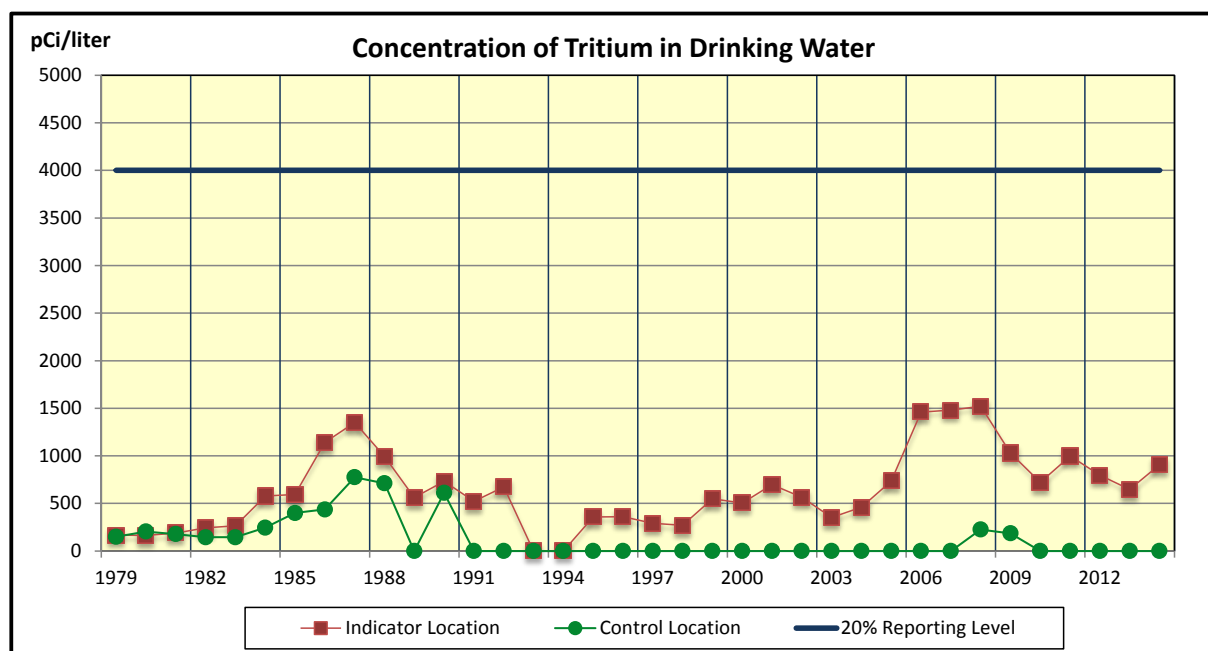
In 2014, 65 drinking water samples were analyzed for gross beta and gamma emitting radionuclides. Fifty-two samples were from the four indicator locations and 13 from the control location. Tritium (H-3) analyses were performed on 20 composite samples, 16 at indicator locations and four at the control location.

No detectable gamma activity attributable to MNS plant operation was found in drinking water samples in 2014 and has not been detected since 1987. K-40 observed in some drinking water samples is a naturally occurring radionuclide. Gross beta analyses indicated 2.18 pCi/l at the location with the highest annual mean and 1.95 pCi/l at the control location. Tritium was detected in 13 of the 16 indicator composite samples taken in 2014. The 2014 highest mean indicator tritium concentration from location 101 was 907 pCi/liter, which is 4.54% 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 2014; 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

0.00E0 indicates no detectable measurements

### 3.3 SURFACE WATER

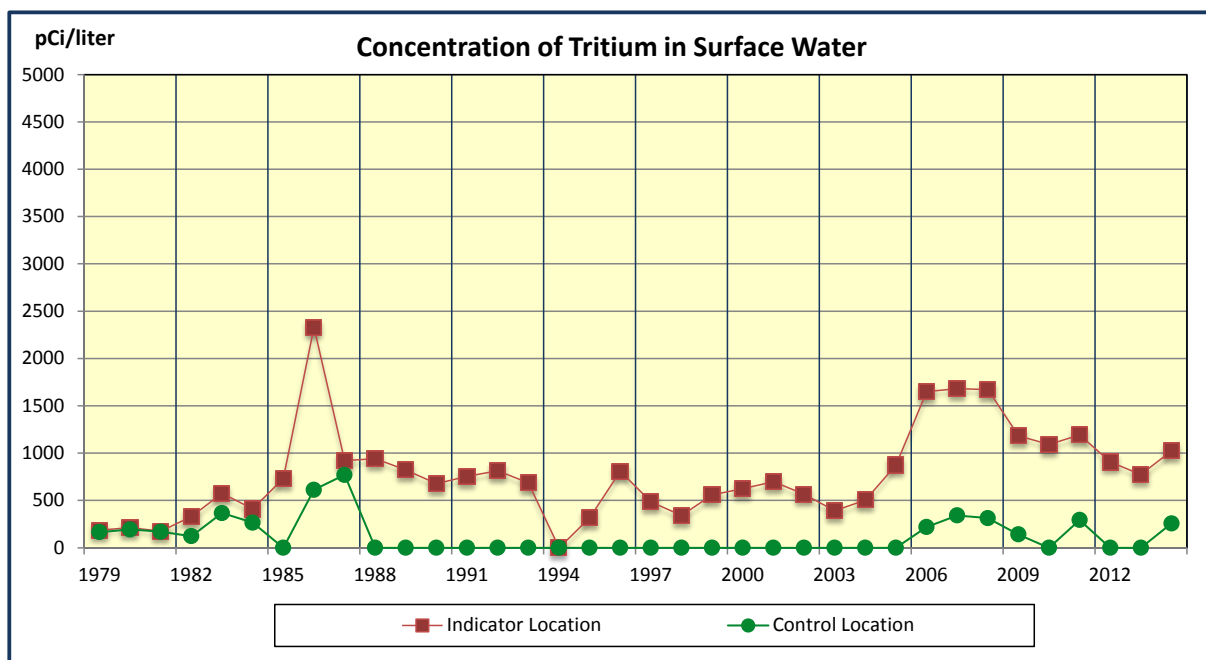
In 2014, 39 surface water samples were analyzed for gamma emitting radionuclides, 26 at the two indicator locations and 13 at the control location. Analyses for H-3 were performed on 12 samples, eight at indicator locations and four at the control location.

No detectable gamma activity attributable to MNS plant operation was found in surface water samples in 2014 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 2014. Tritium was detected in one of the four control location composite samples in 2014.

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

0.00E0 indicates no detectable measurements



### 3.4 MILK

In 2014, 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 2014 and none were identified by the 2014 land use census.

There were no gamma emitting radionuclides due to MNS plant operations identified in milk samples in 2014. 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 2014, 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 <sup>(1)</sup>	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	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0

**Table 3.4 continued**

YEAR	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
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	0.00E0	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 <sup>(2)</sup>	0.00E0	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 2014, 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 2014.

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 <sup>(1)</sup>	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

**Table 3.5 continued**

YEAR	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
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	2.29E1	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 <sup>(2)</sup>	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

### 3.6 FOOD PRODUCTS

In 2014, 10 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 2014, 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 <sup>(1)</sup>	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	3.06E1
2012	0.00E0
2013	0.00E0
2014 <sup>(2)</sup>	0.00E0

0.00E0 indicates no detectable measurements

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change

### 3.7 FISH

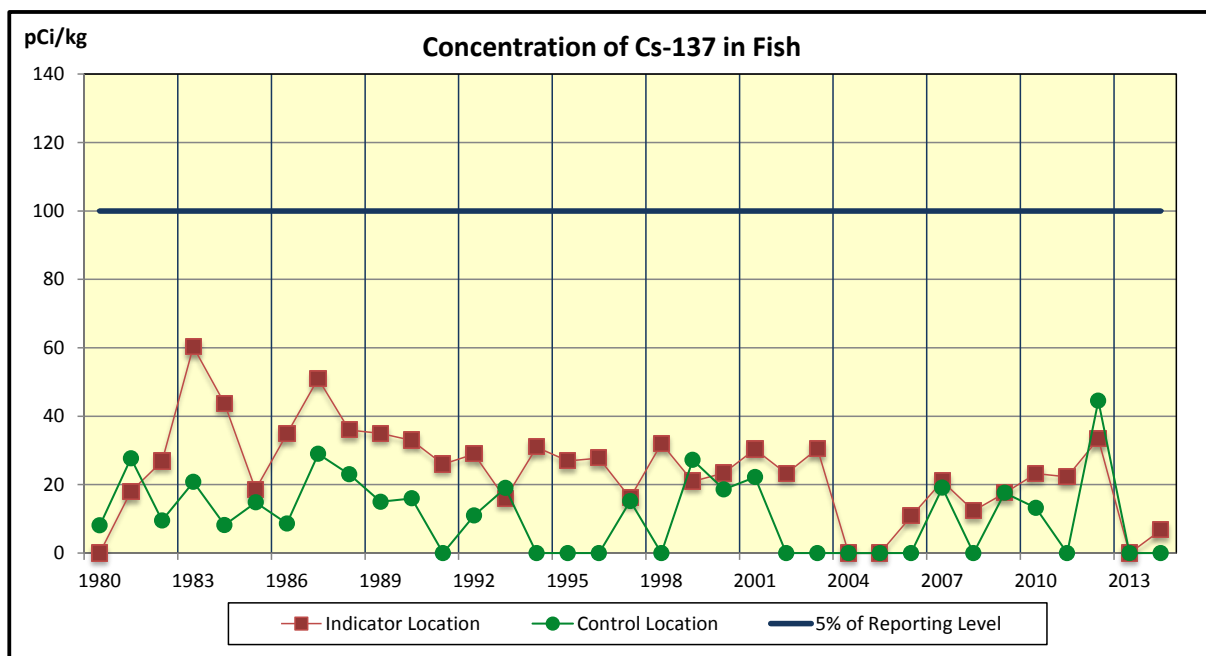
In 2014, 12 fish samples were analyzed for gamma emitting radionuclides, six at the indicator location and six at the control location.

Cs-137 activity was detected in 2014 in two of the six indicator samples. Cs-137 was not detected in any of the six control samples taken.

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 <sup>(1)</sup>	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 <sup>(2)</sup>	0.00E0	0.00E0	0.00E0	0.00E0	6.75E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system change



### 3.8 SHORELINE SEDIMENT

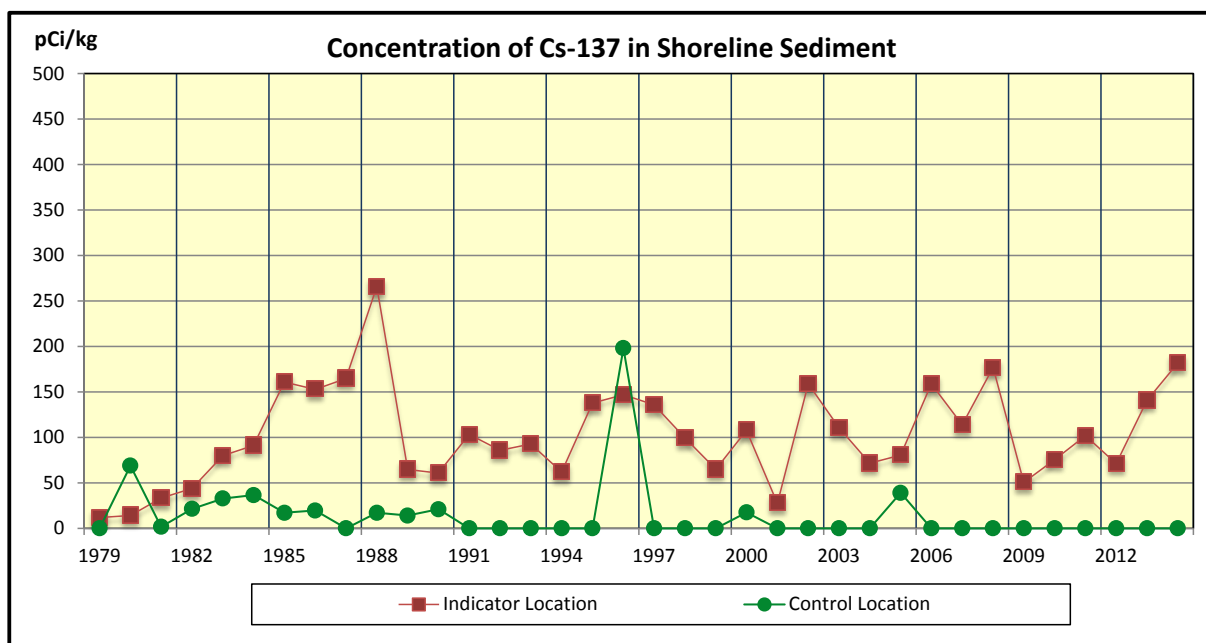
In 2014, six shoreline sediment samples were analyzed, four from two indicator locations and two at the control location.

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 182 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 <sup>(1)</sup>	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 <sup>(2)</sup>	0.00E0	0.00E0	0.00E0	0.00E0	1.82E2

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 2014, 161 total TLDs were analyzed, 157 at indicator locations and 4 at control locations. TLDs are collected and analyzed quarterly. Transit and laboratory background dose is determined and subtracted from gross field readings as required by ANSI N545-1975. The highest annual total dose was 98.7 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 2014 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 2014 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 2014, 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.

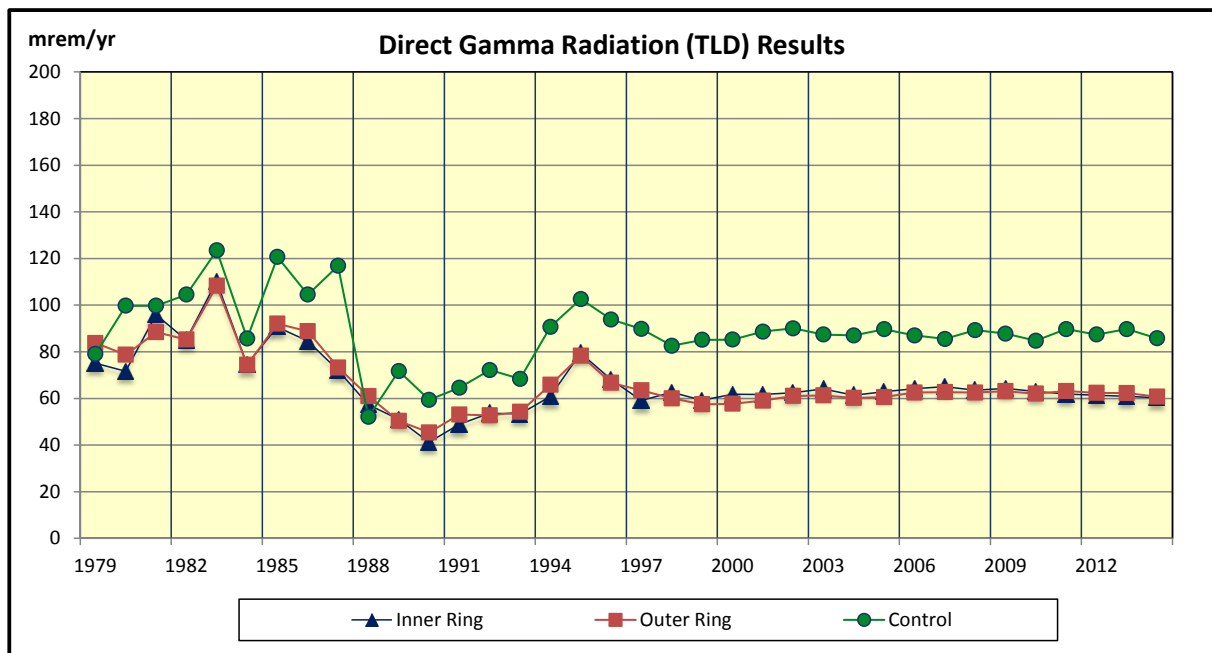
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 5.10.

### **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)*

*AREOR 2014, results converted from mR/yr to mrem/yr ( $n * 0.95$ )*

**Table 3.9-A Direct Gamma Radiation (TLD) Results<sup>(1)</sup>**

YEAR	Inner Ring Average (mrem/yr)	Outer Ring Average (mrem/yr)	Control (mrem/yr)
1979	7.51E1	8.38E1	7.90E1
1980	7.16E1 <sup>†</sup>	7.88E1 <sup>†</sup>	9.98E1 <sup>†</sup>
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

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

(1) 2014 AREOR, tabular results converted from mR/yr to mrem/yr (n \* 0.95)

**Table 3.9-B Direct Gamma Radiation (TLD) McGuire 2014 Investigation Level**

McGuire 2014 MDD<sub>Q</sub>: 6

McGuire 2014 MDD<sub>A</sub>: 11

Quarterly (mrem)										Annual(mrem)		
Location	B <sub>Q</sub>	M <sub>Q</sub> Q1	M <sub>Q</sub> Q2	M <sub>Q</sub> Q3	M <sub>Q</sub> Q4	L <sub>Q</sub> Q1	L <sub>Q</sub> Q2	L <sub>Q</sub> Q3	L <sub>Q</sub> Q4	B <sub>A</sub>	M <sub>A</sub> *	L <sub>A</sub>
143	15.9	15.8	13.9	14.7	16.4	ND	ND	ND	ND	65.0	60.8	ND
144	14.3	16.7	15.7	13.9	14.7	ND	ND	ND	ND	57.5	61.0	ND
145	14.5	17.8	12.7	13.9	16.5	ND	ND	ND	ND	58.5	60.9	ND
146	13.6	14.0	11.3	12.7	14.3	ND	ND	ND	ND	54.9	52.3	ND
147	14.4	17.1	13.8	14.2	16.0	ND	ND	ND	ND	57.7	61.0	ND
148	12.6	13.7	10.7	12.7	13.1	ND	ND	ND	ND	51.2	50.3	ND
149	12.1	13.2	11.0	11.4	10.5	ND	ND	ND	ND	48.7	46.2	ND
151	14.6	15.2	11.5	14.3	14.1	ND	ND	ND	ND	59.2	55.0	ND
152	14.1	12.6	12.6	13.5	13.1	ND	ND	ND	ND	56.9	51.9	ND
153	18.7	18.4	15.8	17.3	19.7	ND	ND	ND	ND	75.0	71.2	ND
154	20.7	23.5	15.9	17.6	21.7	ND	ND	ND	ND	82.8	78.6	ND
156	16.3	17.1	17.2	13.9	18.9	ND	ND	ND	ND	68.3	67.1	ND
157-P	14.8	15.1	13.7	16.0	13.7	ND	ND	ND	ND	60.3	58.4	ND
157-S	17.2	14.7	14.0	14.3	14.7	ND	ND	ND	ND	61.9	57.7	ND
158	14.2	15.3	12.0	13.5	13.5	ND	ND	ND	ND	57.8	54.2	ND
159	20.7	22.9	---	---	14.8	ND	ND	ND	ND	86.0	75.4	ND
160	16.1	16.2	13.9	14.7	17.2	ND	ND	ND	ND	65.4	62.0	ND
161	15.3	16.2	12.8	15.7	14.2	ND	ND	ND	ND	62.1	58.8	ND
162	11.4	11.5	9.8	10.5	11.4	ND	ND	ND	ND	45.8	43.2	ND
163-P	10.9	13.9	9.9	9.7	10.5	ND	ND	ND	ND	44.4	44.0	ND
164	10.9	10.9	9.7	10.6	12.1	ND	ND	ND	ND	43.7	43.3	ND
165	18.3	20.1	16.3	16.8	19.3	ND	ND	ND	ND	74.5	72.6	ND
166-P	17.1	18.1	15.1	15.9	17.2	ND	ND	ND	ND	68.4	66.3	ND
166-S	17.0	17.8	14.3	16.1	18.7	ND	ND	ND	ND	70.9	66.9	ND
167	18.3	21.4	15.8	18.7	19.3	ND	ND	ND	ND	73.2	75.1	ND
168-P	15.3	17.0	13.7	14.9	17.4	ND	ND	ND	ND	59.9	63.0	ND
168-S	16.9	18.3	13.3	17.2	15.5	ND	ND	ND	ND	68.0	64.3	ND
169	13.7	13.9	13.3	12.4	13.6	ND	ND	ND	ND	55.4	53.2	ND
170	20.2	20.2	16.6	19.5	19.2	ND	ND	ND	ND	80.5	75.5	ND
171	15.9	17.9	14.6	16.1	---	ND	ND	ND	ND	63.9	64.7	ND
172	15.2	18.0	12.5	13.4	14.9	ND	ND	ND	ND	62.9	58.8	ND
173	23.6	23.8	23.9	22.2	19.5	ND	ND	ND	ND	94.4	89.4	ND
174	21.4	24.0	20.0	21.9	21.5	ND	ND	ND	ND	87.5	87.4	ND
175	21.9	21.2	20.8	21.9	21.9	ND	ND	ND	ND	87.6	85.9	ND
177	13.3	13.7	11.1	14.3	13.1	ND	ND	ND	ND	53.2	52.2	ND
178-P	14.1	15.9	11.1	15.3	14.2	ND	ND	ND	ND	56.5	56.4	ND
178-S	15.7	16.4	12.2	15.7	14.3	ND	ND	ND	ND	62.7	58.6	ND
180	25.5	25.2	21.3	24.7	27.6	ND	ND	ND	ND	102.0	98.7	ND
181-P	15.7	17.0	13.4	14.6	15.7	ND	ND	ND	ND	63.7	60.7	ND
181-S	15.9	19.6	13.3	14.4	14.7	ND	ND	ND	ND	65.6	62.0	ND
182	15.6	14.3	12.4	16.0	18.4	ND	ND	ND	ND	62.3	61.0	ND
186	16.5	16.2	14.2	17.2	15.4	ND	ND	ND	ND	66.6	63.0	ND
187	16.6	20.2	12.9	18.2	14.7	ND	ND	ND	ND	68.0	66.1	ND
189	15.2	14.9	13.4	14.1	14.2	ND	ND	ND	ND	60.5	56.5	ND
190	19.5	18.2	17.0	18.1	18.2	ND	ND	ND	ND	78.0	71.5	ND
191	15.9	16.7	14.3	14.2	15.3	ND	ND	ND	ND	63.1	60.4	ND

\* M<sub>A</sub> determined by normalizing available quarterly data to 4 full quarters



**Table 3.9-B definition of terms**

- $MDD_Q$  = minimum differential dose, quarterly, 3 times 90<sup>th</sup> percentile  $s_Q$  determined from analysis in mrem
- $MDD_A$  = minimum differential dose, annual, 3 times 90<sup>th</sup> percentile  $s_A$  determined from analysis in mrem
- $B_Q$  = Quarterly baseline (mrem)
- $M_Q$  = location's 91 day standard quarter normalized dose (mrem per standard quarter)
- $L_Q$  = 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 6/11– 6/12/2014 as required by SLC 16.11.14. Table 3.10 summarizes census results. A map indicating identified locations is shown in Figure 3.10.

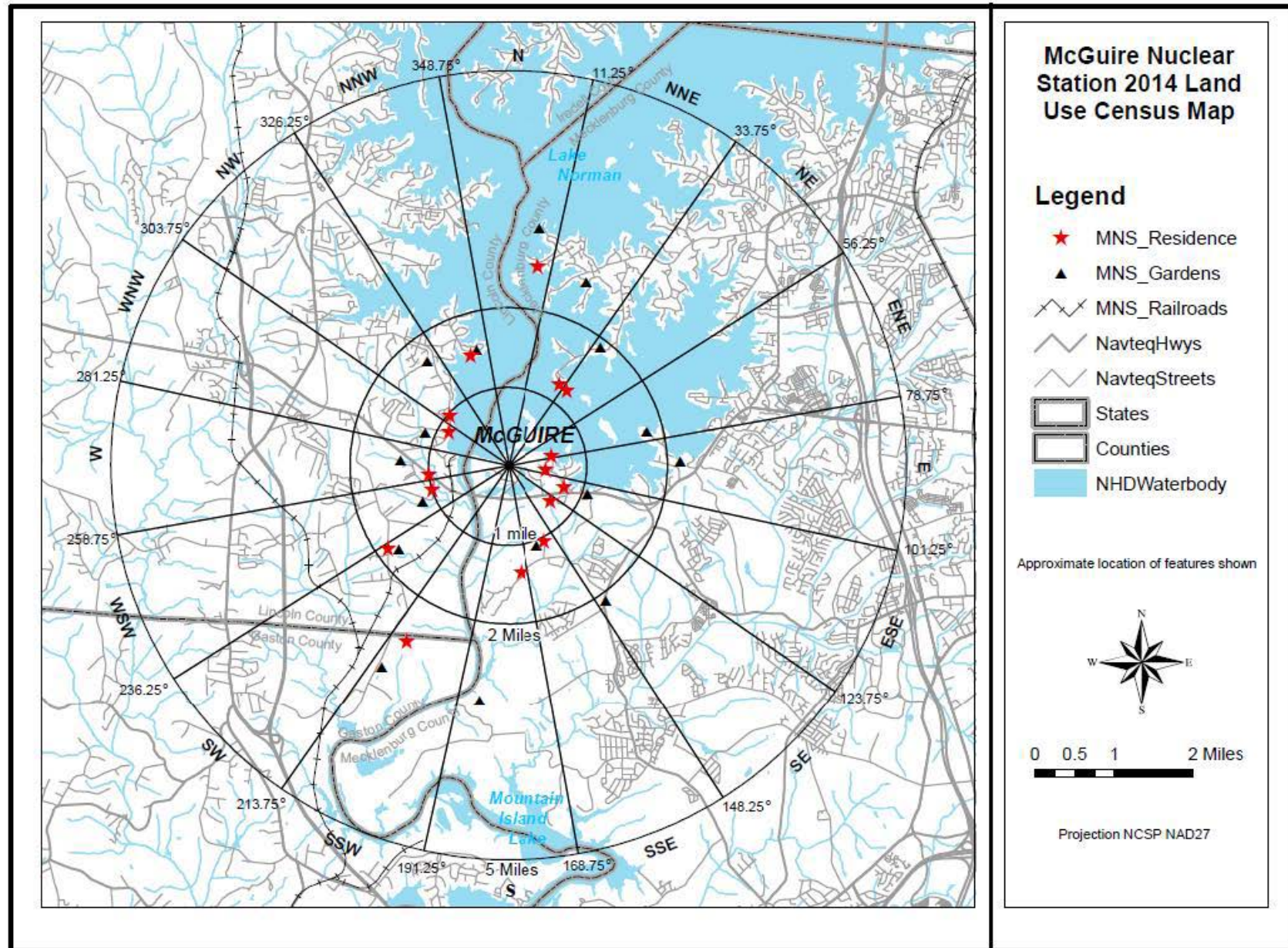
During the 2014 census, no new residences (nearer to the plant), irrigated gardens (superior to existing gardens) or milk locations were identified. The nearest residence is located in the East sector at 0.48 miles. No environmental program changes were required as a result of the 2014 land use census.

**Table 3.10 McGuire 2014 Land Use Census Results**

<b>Sector</b>		<b>Distance (Miles)</b>	<b>Sector</b>		<b>Distance (Miles)</b>
<b>N</b>	Nearest Residence	2.53	<b>S</b>	Nearest Residence	1.35
	Nearest Garden (irrigated)	3.03		Nearest Garden	3.14
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>NNE</b>	Nearest Residence	1.23	<b>SSW</b>	Nearest Residence	2.56
	Nearest Garden	2.53		Nearest Garden	2.94
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>NE</b>	Nearest Residence	1.21	<b>SW</b>	Nearest Residence	1.85
	Nearest Garden	1.80		Nearest Garden	1.88
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>ENE</b>	Nearest Residence	0.56	<b>WSW</b>	Nearest Residence	1.01
	Nearest Garden	1.98		Nearest Garden	1.10
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>E</b>	Nearest Residence	0.48	<b>W</b>	Nearest Residence	1.15
	Nearest Garden	2.11		Nearest Garden	1.23
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>ESE</b>	Nearest Residence	0.65	<b>WNW</b>	Nearest Residence	0.88
	Nearest Garden	1.06		Nearest Garden	1.15
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>SE</b>	Nearest Residence	0.67	<b>NW</b>	Nearest Residence	0.95
	Nearest Garden	2.10		Nearest Garden	1.68
	Nearest Milk Animal	-		Nearest Milk Animal	-
<b>SSE</b>	Nearest Residence	1.06	<b>NNW</b>	Nearest Residence	1.48
	Nearest Garden	1.06		Nearest Garden (irrigated)	1.52
	Nearest Milk Animal	-		Nearest Milk Animal	-

“-“ indicates no occurrences within the 5 mile radius

Figure 3.10



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## 4.0 EVALUATION OF DOSE

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### 4.1 DOSE FROM ENVIRONMENTAL MEASUREMENTS

Annual doses to maximum exposed individuals were estimated based on measured concentrations of radionuclides in 2014 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 2014 was 9.39E-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 2014 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 2014 environmental sample results was 1.09E-1 mrem to the child liver. The maximum total organ dose of 1.54E-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 8.57E-1 mrem to the child bone. 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.



**TABLE 4.1-A**

**MCGUIRE NUCLEAR STATION  
2014 ENVIRONMENTAL AND EFFLUENT DOSE COMPARISON**

**LIQUID RELEASE PATHWAY**

<b>Organ</b>	<b>Environmental or Effluent Data</b>	<b>Critical Age <sup>(1)</sup></b>	<b>Critical Pathway <sup>(2)</sup></b>	<b>Location</b>	<b>Maximum Dose <sup>(3)</sup> (mrem)</b>
Skin	Environmental	Teen	Shoreline Sediment	130 (0.52 mi SW)	4.78E-04
Skin	Effluent	Teen	Shoreline Sediment	Discharge Pt.	3.89E-04
Bone	Environmental	Child	Fresh Water Fish	129 (0.51 mi ENE)	1.52E-02
Bone	Effluent	Child	Fresh Water Fish	Discharge Pt.	1.61E-02
Liver	Environmental	Child	Drinking Water	101 (3.31 mi E)	1.09E-01
Liver	Effluent	Child	Drinking Water	3.31 mi E	1.54E-01
T. Body	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.71E-02
T. Body	Effluent	Child	Drinking Water	3.31 mi E	1.51E-01
Thyroid	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.49E-02
Thyroid	Effluent	Child	Drinking Water	3.31 mi E	1.50E-01
Kidney	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.96E-02
Kidney	Effluent	Child	Drinking Water	3.31 mi E	1.51E-01
Lung	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.66E-02
Lung	Effluent	Child	Drinking Water	3.31 mi E	1.51E-01
GI-LLI	Environmental	Child	Drinking Water	101 (3.31 mi E)	9.50E-02
GI-LLI	Effluent	Child	Drinking Water	3.31 mi E	1.51E-01

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

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

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

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

<b>Organ</b>	<b>Environmental or Effluent Data</b>	<b>Critical Age <sup>(1)</sup></b>	<b>Critical Pathway <sup>(2)</sup></b>	<b>Location</b>	<b>Maximum Dose <sup>(3)</sup> (mrem)</b>
Skin	Environmental	-	-	-	0.00E+00
Skin	Effluent	All	Ground Plane	1.5 mi. NE	1.93E-05
Bone	Environmental	-	-	-	0.00E+00
Bone	Effluent	Child	Vegetation	1.5 mi. NE	8.57E-01
Liver	Environmental	-	-	-	0.00E+00
Liver	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-01
T. Body	Environmental	-	-	-	0.00E+00
T. Body	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-01
Thyroid	Environmental	-	-	-	0.00E+00
Thyroid	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-01
Kidney	Environmental	-	-	-	0.00E+00
Kidney	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-01
Lung	Environmental	-	-	-	0.00E+00
Lung	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-01
GI-LLI	Environmental	-	-	-	0.00E+00
GI-LLI	Effluent	Child	Vegetation	1.5 mi. NE	2.67E-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 2014 based on Environmental Measurements (mrem) for McGuire Nuclear Station*

Age	Sample Medium	Bone	Liver	T. Body	Thyroid	Kidney	Lung	GI-LLI	Skin
<b>Infant</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-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
	TOTAL	0.00E+00	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02	0.00E+00
<b>Child</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.52E-02	1.55E-02	3.12E-03	9.68E-04	5.72E-03	2.68E-03	1.06E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	8.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-05
	TOTAL	1.52E-02	1.09E-01	9.71E-02	9.49E-02	9.96E-02	9.66E-02	9.50E-02	9.99E-05
<b>Teen</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.21E-02	1.73E-02	6.78E-03	1.17E-03	6.65E-03	3.30E-03	1.40E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	4.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.78E-04
	TOTAL	1.21E-02	6.63E-02	5.62E-02	5.02E-02	5.57E-02	5.23E-02	5.04E-02	4.78E-04
<b>Adult</b>	Airborne	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Drinking Water	0.00E+00	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	0.00E+00
	Milk	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Broadleaf Vegetation	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Fish	1.13E-02	1.70E-02	1.16E-02	1.52E-03	6.77E-03	3.27E-03	1.82E-03	0.00E+00
	Shoreline Sediment	0.00E+00	0.00E+00	7.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.56E-05
	TOTAL	1.13E-02	8.65E-02	8.12E-02	7.10E-02	7.63E-02	7.28E-02	7.13E-02	8.56E-05

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



***McGuire Nuclear Station***  
***Dose from Drinking Water Pathway for 2014 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	907	0.00E+00	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02
Dose Commitment (mrem) =										0.00E+00	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02	9.22E-02

***McGuire Nuclear Station***  
***Dose from Drinking Water Pathway for 2014 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	907	0.00E+00	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02
Dose Commitment (mrem) =										0.00E+00	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02	9.39E-02

***McGuire Nuclear Station***  
***Dose from Fish Pathway for 2014 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 = 768 pCi/l x 0.9 = 691 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	129	6.75	1.52E-02	1.46E-02	2.15E-03	0.00E+00	4.75E-03	1.71E-03	9.13E-05
H-3	NO DATA	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	128	691	0.00E+00	9.68E-04	9.68E-04	9.68E-04	9.68E-04	9.68E-04	9.68E-04
Dose Commitment (mrem) =										1.52E-02	1.55E-02	3.12E-03	9.68E-04	5.72E-03	2.68E-03	1.06E-03

***McGuire Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2014 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/m<sup>2</sup>

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

Radionuclide	External Dose Factor Standing on Contaminated Ground		Indicator Location	Sediment (pCi/kg)	Highest Annual Net Mean Concentration		<u>Dose</u>
	(mrem/hr per pCi/m <sup>2</sup> ) T. Body	Skin			(mrem) T. Body	Skin	
Cs-134	1.20E-08	1.40E-08	ALL	0.00	0.00E+00	0.00E+00	
Cs-137	4.20E-09	4.90E-09	130	182	8.56E-05	9.99E-05	
Dose Commitment (mrem) =					8.56E-05	9.99E-05	

**McGuire Nuclear Station**  
**Dose from Drinking Water Pathway for 2014 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	907	0.00E+00	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02
Dose Commitment (mrem)=										0.00E+00	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02

***McGuire Nuclear Station***  
***Dose from Fish Pathway for 2014 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 = 768 pCi/l x 0.9 = 691 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	129	6.75	1.21E-02	1.61E-02	5.61E-03	0.00E+00	5.48E-03	2.13E-03	2.29E-04
H-3	NO DATA	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	1.06E-07	128	691	0.00E+00	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03
Dose Commitment (mrem) =										1.21E-02	1.73E-02	6.78E-03	1.17E-03	6.65E-03	3.30E-03	1.40E-03

***McGuire Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2014 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/m<sup>2</sup>

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

External Dose Factor Standing on Contaminated Ground			Highest Annual Net Mean Concentration		<u>Dose</u>	
Radionuclide	(mrem/hr per pCi/m <sup>2</sup> )		Indicator Location	Sediment (pCi/kg)	(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	182	4.10E-04	4.78E-04
Dose Commitment (mrem) =					4.10E-04	4.78E-04

***McGuire Nuclear Station***  
***Dose from Drinking Water Pathway for 2014 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	907	0.00E+00	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02
Dose Commitment (mrem) =										0.00E+00	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02



***McGuire Nuclear Station***  
***Dose from Fish Pathway for 2014 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 = 768 pCi/l x 0.9 = 691 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	129	6.75	1.13E-02	1.55E-02	1.01E-02	0.00E+00	5.24E-03	1.74E-03	2.99E-04
H-3	NO DATA	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	128	691	0.00E+00	1.52E-03	1.52E-03	1.52E-03	1.52E-03	1.52E-03	1.52E-03
Dose Commitment (mrem) =										1.13E-02	1.70E-02	1.16E-02	1.52E-03	6.77E-03	3.27E-03	1.82E-03

***McGuire Nuclear Station***  
***Dose from Shoreline Sediment Pathway for 2014 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/m<sup>2</sup>

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

Radionuclide	External Dose Factor Standing on Contaminated Ground		Highest Annual Net Mean Concentration		Dose	
	(mrem/hr per pCi/m <sup>2</sup> )		Indicator Location	Sediment (pCi/kg)	(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	182	7.34E-05	8.56E-05
Dose Commitment (mrem) =					7.34E-05	8.56E-05

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## **5.0 QUALITY ASSURANCE**

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### **5.1 SAMPLE COLLECTION**

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

### **5.2 SAMPLE ANALYSIS**

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is located in Huntersville, North Carolina, at Duke Energy's Environmental Center.

### **5.3 DOSIMETRY ANALYSIS**

The Radiation Dosimetry and Records group performed 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 gross beta in drinking water and tritium analyses.

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

In 2014 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. ERA reported results were evaluated based on 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.

A low-level Iodine-131 in water cross check was not performed during 2014, but was performed during 2013. A low-level Iodine-131 in milk cross check was performed during 2014. The preparation and analysis of both media (milk and water) for the low-level Iodine-131 analysis is accomplished using the EnRad procedure 54, Preparation of Samples for low-level I-131 Analysis. Low-level Iodine-131 sample preparation and testing for both media is a similar process. A low-level Iodine-131 cross check in water is scheduled for the second quarter 2015 cross check program. Low-level Iodine-131 analysis of water was not required during 2014 since the dose calculated for the consumption of the water was not greater than 1 mrem per year in any supported program (PIP G-15-00781 or CR # 744148).

#### **5.5.1 DUKE ENERGY INTERCOMPARISON PROGRAM**

EnRad Laboratories participated in the Duke Energy Fleet Scientific Services (FSS) Intercomparison Program during 2014. Interlaboratory cross-check samples, including gamma in water (Marinelli beakers), low-level I-131 in milk, and tritium in water samples were analyzed during 2014. A summary of the EnRad Laboratory program results for 2014 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 2014. Cross-check samples including air filters, air cartridges, gross beta in water, various gamma samples in Marinelli beakers (soil, vegetation, and milk), and Iodine in milk samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2014 is documented in Table 5.0-B.

#### **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 2014 is documented in Table 5.0-C.

## **5.6 DUKE ENERGY AUDITS**

The McGuire Nuclear Station Radiological Environmental Monitoring Program was audited by the Quality Assurance Group in 2014. No environmental monitoring issues were identified.

## **5.7 U.S. NUCLEAR REGULATORY COMMISSION INSPECTIONS**

The McGuire Nuclear Station Radiological Environmental Monitoring Program was not audited by the NRC in 2014, but was audited by the NRC in 2013. No findings were noted in the 2013 audit report.

## **5.8 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM**

EnRad Laboratories routinely participates with the North Carolina Department of Environmental Health and Human Services, Environmental, Radiation Protection Section in an intercomparison program. EnRad Laboratories sends air, surface water, milk, crops, vegetation, sediment, and fish samples which have been collected to the North Carolina Department of Environmental Health and Human Services, Environmental, Radiation Protection Section.

## **5.9 TLD INTERCOMPARISON PROGRAM**

### **5.9.1 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 2014 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. Complete documentation of any evaluation will be available and provided to the NRC upon request.

### **5.9.2 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. A summary of the 2014 Internal Cross Check (Duke Energy) Result is documented in Table 5.0-D.

# TABLE 5.0-A

## DUKE ENERGY

### INTERLABORATORY COMPARISON PROGRAM

#### 2014 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. Seven water samples were analyzed for tritium and gamma emitters, while three milk samples were analyzed for low-level I-131. The below table lists results for specific analyses. Fifty-eight results were 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.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	FSS Value	EnRad/FSS Ratio	Evaluation
Milk LLI-131	Q143LIM1	I-131	3	pCi/L	3.04E+03	2.96E+03	1.03	Agreement
			3	pCi/L	3.06E+03	2.96E+03	1.03	Agreement
			3	pCi/L	3.07E+03	2.96E+03	1.04	Agreement
	Q143LIM2	I-131	3	pCi/L	1.25E+03	1.27E+03	0.98	Agreement
			3	pCi/L	1.25E+03	1.27E+03	0.98	Agreement
			3	pCi/L	1.24E+03	1.27E+03	0.97	Agreement
	Q143LIM3	I-131	3	pCi/L	4.64E+02	4.58E+02	1.01	Agreement
			3	pCi/L	4.70E+02	4.58E+02	1.03	Agreement
Tritium in Water	Q143TWR1	H-3	3	pCi/L	1.77E+03	1.85E+03	0.96	Agreement
			3	pCi/L	1.79E+03	1.85E+03	0.97	Agreement
			3	pCi/L	1.78E+03	1.85E+03	0.96	Agreement
	Q143TWR2	H-3	3	pCi/L	1.76E+05	1.81E+05	0.97	Agreement
			3	pCi/L	1.75E+05	1.81E+05	0.96	Agreement
Tritium in Water	Q141TWR1	H-3	1	pCi/L	1.10E+03	1.05E+03	1.05	Agreement
					1.14E+03	1.05E+03	1.09	Agreement
					1.11E+03	1.05E+03	1.06	Agreement
	Q141TWR2	H-3	1	pCi/L	7.04E+03	7.46E+03	0.94	Agreement
					7.03E+03	7.46E+03	0.94	Agreement
					7.16E+03	7.46E+03	0.96	Agreement
	Q141TWR3	H-3	1	pCi/L	3.13E+03	3.21E+03	0.98	Agreement
					3.11E+03	3.21E+03	0.97	Agreement
					3.13E+03	3.21E+03	0.98	Agreement

## TABLE 5.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	FSS Value	EnRad/FSS Ratio	Evaluation
Gamma in Water	Q143GWSL-1.0 L	Cr-51	3	pCi/L	1.71E+05	1.80E+05	0.95	Agreement
			3	pCi/L	1.70E+05	1.80E+05	0.95	Agreement
		Mn-54	3	pCi/L	6.34E+04	5.99E+04	1.06	Agreement
			3	pCi/L	6.35E+04	5.99E+04	1.06	Agreement
		Co-58	3	pCi/L	6.80E+04	6.89E+04	0.99	Agreement
			3	pCi/L	6.81E+04	6.89E+04	0.99	Agreement
		Fe-59	3	pCi/L	8.72E+04	8.38E+04	1.04	Agreement
			3	pCi/L	8.75E+04	8.38E+04	1.04	Agreement
		Co-60	3	pCi/L	1.27E+05	1.22E+05	1.04	Agreement
			3	pCi/L	1.26E+05	1.22E+05	1.03	Agreement
		Zn-65	3	pCi/L	3.52E+04	3.12E+04	1.13	Agreement
			3	pCi/L	3.53E+04	3.12E+04	1.13	Agreement
		Cs-134	3	pCi/L	5.97E+04	6.35E+04	0.91	Agreement
			3	pCi/L	5.95E+04	6.53E+04	0.91	Agreement
		Cs-137	3	pCi/L	8.01E+04	7.87E+04	1.02	Agreement
			3	pCi/L	7.98E+04	7.87E+04	1.01	Agreement
		Ce-141	3	pCi/L	7.13E+04	7.65E+04	0.93	Agreement
			3	pCi/L	7.24E+04	7.65E+04	0.95	Agreement
	Q143GWSL-3.5 L	Cr-51	3	pCi/L	1.76E+05	1.80E+05	0.98	Agreement
			3	pCi/L	1.73E+05	1.80E+05	0.96	Agreement
		Mn-54	3	pCi/L	6.32E+04	5.99E+04	1.06	Agreement
			3	pCi/L	6.31E+04	5.99E+04	1.05	Agreement
		Co-58	3	pCi/L	6.89E+04	6.89E+04	1.00	Agreement
			3	pCi/L	6.84E+04	6.89E+04	0.99	Agreement
		Fe-59	3	pCi/L	8.54E+04	8.38E+04	1.02	Agreement
			3	pCi/L	8.69E+04	8.38E+04	1.04	Agreement
		Co-60	3	pCi/L	1.28E+05	1.22E+05	1.05	Agreement
			3	pCi/L	1.27E+05	1.22E+05	1.04	Agreement
		Zn-65	3	pCi/L	3.42E+04	3.12E+04	1.10	Agreement
			3	pCi/L	3.45E+04	3.12E+04	1.11	Agreement
		Cs-134	3	pCi/L	6.39E+04	6.53E+04	0.98	Agreement
			3	pCi/L	6.17E+04	6.53E+04	0.95	Agreement
		Cs-137	3	pCi/L	8.11E+04	7.87E+04	1.03	Agreement
			3	pCi/L	8.08E+04	7.87E+04	1.03	Agreement
		Ce-141	3	pCi/L	7.39E+04	7.65E+04	0.97	Agreement
			3	pCi/L	7.36E+04	7.65E+04	0.96	Agreement



# TABLE 5.0-B

## ECKERT & ZIEGLER ANALYTICS

### CROSS CHECK PROGRAM

#### 2014 Cross Check Results for EnRad Laboratories

Cross check samples are received, prepared, and analyzed in all four quarters of 2014. 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). Fifty environmental results were reported, of which 49 (98%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E10901	Gross Beta	2	pCi	201	199	1.01	Agreement
Gamma in Soil	E10904	Ce-141	2	pCi/g	0.23	0.24	0.96	Agreement
		Cr-51	2	pCi/g	0.48	0.49	0.98	Agreement
		Cs-134	2	pCi/g	0.24	0.32	0.76	Non-Agreement*
		Cs-137	2	pCi/g	0.27	0.31	0.86	Agreement
		Co-58	2	pCi/g	0.18	0.22	0.83	Agreement
		Mn-54	2	pCi/g	0.29	0.3	0.96	Agreement
		Fe-59	2	pCi/g	0.2	0.2	1.01	Agreement
		Zn-65	2	pCi/g	0.49	0.49	1.00	Agreement
		Co-60	2	pCi/g	0.41	0.44	0.94	Agreement
I-131 in Milk	E10801	I-131	1	pCi/L	93.8	99.8	0.94	Agreement
Gross Beta in Water	E10905	Gross Beta	2	pCi/L	265	249	1.06	Agreement
I-131 Charcoal Cartridge	E10802	I-131	1	pCi	76.1	75.1	1.01	Agreement
Gamma in Vegetation (Coffee Grounds)	E10902	Ce-141	2	pCi/g	0.22	0.24	0.91	Agreement
		Cr-51	2	pCi/g	0.42	0.5	0.85	Agreement
		Cs-134	2	pCi/g	0.28	0.32	0.88	Agreement
		Cs-137	2	pCi/g	0.22	0.24	0.94	Agreement
		Co-58	2	pCi/g	0.21	0.22	0.96	Agreement
		Mn-54	2	pCi/g	0.28	0.3	0.92	Agreement
		Fe-59	2	pCi/g	0.19	0.2	0.95	Agreement
		Zn-65	2	pCi/g	0.44	0.49	0.89	Agreement
		Co-60	2	pCi/g	0.38	0.44	0.87	Agreement

\* See PIP G-14-01710

## TABLE 5.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E10987	Ce-141	3	pCi	64.1	62.6	1.02	Agreement
		Cr-51	3	pCi	135	143	0.94	Agreement
		Cs-134	3	pCi	74.6	78.3	0.95	Agreement
		Cs-137	3	pCi	97.8	95.9	1.02	Agreement
		Co-58	3	pCi	71.7	71	1.01	Agreement
		Mn-54	3	pCi	69.5	70.4	0.99	Agreement
		Fe-59	3	pCi	86.8	78.4	1.11	Agreement
		Zn-65	3	pCi	37	36.2	1.02	Agreement
		Co-60	3	pCi	161	148	1.09	Agreement
Gamma in Milk	E10800	I-131	1	pCi/L	97.3	98.5	0.99	Agreement
		Ce-141	1	pCi/L	120	119	1.01	Agreement
		Cr-51	1	pCi/L	505	491	1.03	Agreement
		Cs-134	1	pCi/L	192	210	0.92	Agreement
		Cs-137	1	pCi/L	255	253	1.01	Agreement
		Co-58	1	pCi/L	274	268	1.02	Agreement
		Mn-54	1	pCi/L	314	297	1.06	Agreement
		Fe-59	1	pCi/L	232	219	1.06	Agreement
		Zn-65	1	pCi/L	318	323	0.99	Agreement
		Co-60	1	pCi/L	335	337	0.99	Agreement
Gamma in Soil	E11051	Ce-141	4	pCi/g	0.31	0.35	0.89	Agreement
		Cr-51	4	pCi/g	0.61	0.648	0.94	Agreement
		Cs-134	4	pCi/g	0.25	0.263	0.95	Agreement
		Cs-137	4	pCi/g	0.36	0.396	0.91	Agreement
		Co-58	4	pCi/g	0.19	0.208	0.91	Agreement
		Mn-54	4	pCi/g	0.35	0.36	0.97	Agreement
		Fe-59	4	pCi/g	0.27	0.279	0.97	Agreement
		Zn-65	4	pCi/g	0.46	0.474	0.97	Agreement
		Co-60	4	pCi/g	0.34	0.375	0.91	Agreement

# TABLE 5.0-C

## ENVIRONMENTAL RESOURCE ASSOCIATES (ERA) PROFICIENCY TESTING

### 2014 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 2014. 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-97	Ba-133	2	pCi/L	87.51	87.9	74.0 - 96.7	Agreement
		Cs-134	2	pCi/L	41.01	44.3	35.5 - 48.7	Agreement
		Cs-137	2	pCi/L	85.47	89.1	80.2 - 101	Agreement
		Co-60	2	pCi/L	62.75	64.2	57.8 - 73.1	Agreement
		Zn-65	2	pCi/L	249.8	235	212 - 275	Agreement
Gamma Emitters in Water	RAD-99	Ba-133	4	pCi/L	46.9	49.1	40.3 - 54.5	Agreement
		Cs-134	4	pCi/L	81.7	89.8	73.7 - 98.8	Agreement
		Cs-137	4	pCi/L	96.9	98.8	88.9 - 111	Agreement
		Co-60	4	pCi/L	91	92.1	82.9 - 104	Agreement
		Zn-65	4	pCi/L	335	310	279 - 362	Agreement
Tritium in Water	RAD-97	H-3	2	pCi/L	8680	8770	7610 - 9650	Agreement
	RAD-99	H-3	4	pCi/L	6290	6880	5940 - 7570	Agreement
Iodine-131 in Water	RAD-97	I-131	2	pCi/L	25.9	25.7	21.3 - 30.3	Agreement
	RAD-99	I-131	4	pCi/L	20.4	20.3	16.8 - 24.4	Agreement

# TABLE 5.0-D

## 2014 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 2014						2nd Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102403	93.2	90.40	3.12	<+/-15%	Pass	102196	18.07	18.66	-3.16	<+/-15%	Pass
103045	99.3	90.40	9.87	<+/-15%	Pass	102193	19.44	18.66	4.18	<+/-15%	Pass
103009	101.0	90.40	11.76	<+/-15%	Pass	102192	17.28	18.66	-7.40	<+/-15%	Pass
102243	90.3	90.40	-0.09	<+/-15%	Pass	102176	17.70	18.66	-5.14	<+/-15%	Pass
102858	97.9	90.40	8.33	<+/-15%	Pass	102175	18.66	18.66	0.00	<+/-15%	Pass
Average Bias (B)			6.60			Average Bias (B)			-2.30		
Standard Deviation (S)			4.93			Standard Deviation (S)			4.53		
Measure Performance  B +S			11.53	<15%	Pass	Measure Performance  B +S			6.83	<15%	Pass
3rd Quarter 2014						4th Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103705	70.04	69.7	0.49	<+/-15%	Pass	101241	84.63	77.7	8.92	<+/-15%	Pass
103704	69.36	69.7	-0.49	<+/-15%	Pass	103494	87.46	77.7	12.56	<+/-15%	Pass
103686	71.90	69.7	3.16	<+/-15%	Pass	103229	88.45	77.7	13.84	<+/-15%	Pass
103685	72.82	69.7	4.48	<+/-15%	Pass	103493	89.19	77.7	14.79	<+/-15%	Pass
103517	73.71	69.7	5.75	<+/-15%	Pass	103044	91.02	77.7	17.14	<+/-15%	**Fail
Average Bias (B)			2.68			Average Bias (B)			13.45		
Standard Deviation (S)			2.63			Standard Deviation (S)			3.04		
Measure Performance  B +S			5.31	<15%	Pass	Measure Performance  B +S			16.49	<15%	**Fail

\*\*Refer to PIP G-15-00554

# 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 2014						2nd Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
101221	30.14	32.7	-7.83	<+/-15%	Pass	103635	22.36	21.8	2.57	<+/-15%	Pass
102801	32.82	32.7	0.37	<+/-15%	Pass	102777	22.93	21.8	5.18	<+/-15%	Pass
100019	30.32	32.7	-7.28	<+/-15%	Pass	103181	22.78	21.8	4.50	<+/-15%	Pass
103173	32.14	32.7	-1.71	<+/-15%	Pass	103218	22.82	21.8	4.68	<+/-15%	Pass
100085	30.90	32.7	-5.50	<+/-15%	Pass	103657	22.29	21.8	2.25	<+/-15%	Pass
101024	30.92	32.7	-5.44	<+/-15%	Pass	102927	21.90	21.8	0.46	<+/-15%	Pass
100350	30.73	32.7	-6.02	<+/-15%	Pass	103396	21.54	21.8	-1.19	<+/-15%	Pass
102359	30.71	32.7	-6.09	<+/-15%	Pass	102723	22.84	21.8	4.77	<+/-15%	Pass
103174	30.26	32.7	-7.46	<+/-15%	Pass	103394	22.47	21.8	3.07	<+/-15%	Pass
101376	31.49	32.7	-3.70	<+/-15%	Pass	103058	22.36	21.8	2.57	<+/-15%	Pass
Average Bias (B)			-5.07			Average Bias (B)			2.89		
Standard Deviation (S)			2.65			Standard Deviation (S)			2.05		
Measure Performance  B +S			7.72	<15%	Pass	Measure Performance  B +S			4.93	<15%	Pass
3rd Quarter 2014						4th Quarter 2014					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
102737	47.05	43.6	7.91	<+/-15%	Pass	102768	57.48	54.5	5.47	<+/-15%	Pass
102750	46.06	43.6	5.64	<+/-15%	Pass	103263	55.38	54.5	1.61	<+/-15%	Pass
102773	48.32	43.6	10.83	<+/-15%	Pass	103453	56.30	54.5	3.30	<+/-15%	Pass
102824	45.81	43.6	5.07	<+/-15%	Pass	102746	54.25	54.5	-0.46	<+/-15%	Pass
102397	44.38	43.6	1.79	<+/-15%	Pass	103656	56.09	54.5	2.92	<+/-15%	Pass
102832	46.37	43.6	6.35	<+/-15%	Pass	102482	53.50	54.5	-1.83	<+/-15%	Pass
102725	47.00	43.6	7.80	<+/-15%	Pass	103446	54.71	54.5	0.39	<+/-15%	Pass
102481	45.21	43.6	3.69	<+/-15%	Pass	103339	53.55	54.5	-1.74	<+/-15%	Pass
102758	45.97	43.6	5.44	<+/-15%	Pass	103582	53.97	54.5	-0.97	<+/-15%	Pass
103120	46.87	43.6	7.50	<+/-15%	Pass	103288	55.43	54.5	1.71	<+/-15%	Pass
Average Bias (B)			6.20			Average Bias (B)			1.04		
Standard Deviation (S)			2.51			Standard Deviation (S)			2.40		
Measure Performance  B +S			8.71	<15%	Pass	Measure Performance  B +S			3.44	<15%	Pass

**APPENDIX A**

**ENVIRONMENTAL SAMPLING  
&  
ANALYSIS PROCEDURES**

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# APPENDIX A

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## ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at 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 2014.

### 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 Packard 2550 liquid scintillation system or Perkin-Elmer 2900TR 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**

REMP analytical results reporting with 2 Sigma error was initiated during 2014, replacing the 1 Sigma error reporting (PIP G-14-01981).

Low-level Iodine-131 (LLI-131) test components were modified to include only the LLI-131 component; all other components such as Beryllium-7 and Potassium-40 were removed (PIP G-14-02526).

Gamma spectroscopy milk Iodine-131 MDA requirement was removed from the "GAMMAMILK" analysis as the required low-level Iodine-131 (LLI-131) requirement is satisfied by the "GAMMALLI" LLI-131 preparation and testing procedure and gamma spectroscopy analysis (PIP G-14-02692).

The gamma spectroscopy system was replaced during 2014 (10JUL2014). Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (PIP G-15-00625).

### **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 6/11 - 6/12/2014. Results are shown in Table 3.10. No changes were made to the sampling procedures during 2014 as a result of the 2014 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 2014.

### **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**

**2014**

# MCGUIRE NUCLEAR STATION RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

McGuire Nuclear Station  
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370  
Calendar Year 2014

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2) (3)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2) (3)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range <sup>(2) (3)</sup>		
Air Particulate (pCi/m <sup>3</sup> )	Gross Beta 364	See Table 2.2-C	1.97E-2 (312/312) 9.48E-3 – 3.56E-2	195 (0.19 mi N)	2.02E-2 (52/52) 1.18E-2 – 3.25E-2	1.94E-2 (52/52) 8.32E-3 – 2.98E-2	0
	Gamma 28	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Radioiodine (pCi/m <sup>3</sup> )	Gamma 364	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 65	4	1.84 (47/52) 0.74 – 7.51	119 (7.40 mi SSW)	2.18 (11/13) 0.74 – 7.51	1.95 (13/13) 1.02 – 3.34	0
	Gamma 65	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 20	2000	642 (13/16) 254 - 1050	101 (3.31 mi E)	907 (4/4) 793 – 1050	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	732 (8/8) 392 - 1280	128 (0.45 mi NE)	1025 (4/4) 827 - 1280	257 (1/4) 257 – 257	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 2014

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2) (3)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2) (3)</sup>	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range <sup>(2) (3)</sup>		
Broadleaf Vegetation (pCi/kg, wet)	Gamma 48	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 10	See Table 2.2-C	All less than LLD	----	----	No Control Location	0
Fish (pCi/kg, wet)	Gamma 12 Cs-137	See Table 2.2-C	6.75 (2/6) 2.90 – 10.6	129 (0.51 mi ENE)	6.75 (2/6) 2.90 – 10.6	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 6 Cs-137	See Table 2.2-C	182 (2/4) 155 – 208	130 (0.52 mi SW)	182 (2/2) 155 – 208	All less than LLD	0
TLD (mR per quarter) <sup>(4)</sup>	TLD Readout 161 <sup>(5)</sup>	----	16.5 (157/157) 10.3 – 29.0	180 (12.7 mi NNE)	26.0 (4/4) 22.4 – 29.0	22.6 (4/4) 21.9 – 23.1	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	Sample 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 Radioiodine/Air Particulate

Location	Scheduled Collection Dates	Actual Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
125	1/6 – 1/13/2014	1/6 – 1/13/2014	PI	Power interruption to sampling equipment of 16.4 hours due to planned maintenance. A work request was not necessary as a result of this event.	G-14-00076

### C.2 UNAVAILABLE ANALYSES

#### Crops/Food Products

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
104	4/7/2014	SU	Seasonally unavailable, no crops produced.	G-14-00773
104	5/5/2014	SU	Seasonally unavailable, no crops produced.	G-14-01016

#### TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
159	3/19/2014 – 6/18/2014	VN	TLD missing. 3rd quarter TLD placed.	G-14-01426
159	6/18/2014 – 9/17/2014	VN	TLD missing. 4 <sup>th</sup> quarter TLD placed.	G-14-02150

# **APPENDIX D**

## **ANALYTICAL DEVIATIONS**

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# APPENDIX D

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## MCGUIRE NUCLEAR STATION ANALYTICAL DEVIATIONS & UNAVAILABLE ANALYSES

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

### D.1 ANALYTICAL DEVIATIONS

There were no analytical deviations during 2014.

### D.2 ANALYTICAL UNAVAILABLE ANALYSES

#### TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action Identity
171	9/17/2014 – 12/17/2014	OT	TLD was collected but not reported due to a laboratory error during read out which caused the TLD to not be processed. The laboratory procedure was updated and enhanced to prevent recurrence.	G-15-00458

# **APPENDIX E**

## **RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM RESULTS**

### **2014**

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2014.

# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	280685	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.57E-02	1.32E-03	2.90E-03
Sample ID:	280858	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.31E-03	2.86E-03
Sample ID:	281217	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.34E-03	3.01E-03
Sample ID:	281538	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.99E-02	1.41E-03	2.87E-03
Sample ID:	282161	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.06E-02	1.48E-03	3.11E-03
Sample ID:	282973	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.33E-03	2.98E-03
Sample ID:	283420	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.55E-02	1.59E-03	3.16E-03
Sample ID:	284587	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.85E-02	1.43E-03	3.12E-03
Sample ID:	285148	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.63E-02	1.59E-03	3.12E-03
Sample ID:	285753	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.56E-02	1.43E-03	3.53E-03
Sample ID:	286257	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.75E-02	1.37E-03	2.96E-03
Sample ID:	287142	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	8.38E-03	1.22E-03	3.37E-03
Sample ID:	288393	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.46E-02	1.32E-03	3.06E-03
Sample ID:	289030	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.88E-04	0.00E+00	1.88E-04
				Cs-137	<1.73E-04	0.00E+00	1.73E-04
				Be-7	1.39E-01	3.46E-03	2.92E-03
				K-40	1.93E-02	1.59E-03	2.26E-03
Sample ID:	289117	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.95E-02	1.38E-03	2.71E-03
Sample ID:	289503	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.36E-03	3.11E-03
Sample ID:	289913	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.92E-02	1.45E-03	3.18E-03
Sample ID:	291518	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.26E-02	1.49E-03	2.96E-03
Sample ID:	292812	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.53E-02	1.27E-03	2.76E-03
Sample ID:	293074	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.39E-02	1.59E-03	3.30E-03
Sample ID:	294705	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.04E-02	1.45E-03	3.00E-03
Sample ID:	295214	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.22E-02	1.33E-03	2.44E-03
Sample ID:	295475	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.66E-02	1.72E-03	3.35E-03
Sample ID:	295990	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	1.41E-03	3.14E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	296235	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.51E-02	1.36E-03	3.18E-03
Sample ID:	296756	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.44E-02	1.51E-03	2.81E-03
Sample ID:	296983	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.72E-02	1.34E-03	2.83E-03
Sample ID:	297294	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.40E-03	0.00E+00	1.40E-03
				Cs-137	<1.31E-03	0.00E+00	1.31E-03
				Be-7	1.49E-01	4.49E-02	3.62E-02
				K-40	2.94E-02	1.88E-02	7.97E-03
Sample ID:	297380	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	2.73E-03	2.92E-03
Sample ID:	297668	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.13E-02	2.85E-03	2.94E-03
Sample ID:	298204	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	2.90E-03	3.36E-03
Sample ID:	350496	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	2.68E-03	2.92E-03
Sample ID:	350967	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.77E-02	2.68E-03	2.88E-03
Sample ID:	351188	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.90E-02	3.17E-03	2.92E-03
Sample ID:	351594	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.10E-02	2.87E-03	3.01E-03
Sample ID:	353408	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.16E-02	2.90E-03	3.02E-03
Sample ID:	354028	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.04E-02	2.69E-03	2.88E-03
Sample ID:	354425	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	8.32E-03	2.47E-03	3.37E-03
Sample ID:	354746	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.22E-02	2.42E-03	2.95E-03
Sample ID:	355121	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.98E-02	3.17E-03	2.92E-03
Sample ID:	355610	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.22E-02	2.46E-03	3.04E-03
Sample ID:	355617	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<8.08E-04	0.00E+00	8.08E-04
				Cs-137	<8.89E-04	0.00E+00	8.89E-04
				Be-7	1.27E-01	2.41E-02	1.67E-02
				K-40	8.72E-03	8.37E-03	1.26E-02
Sample ID:	356471	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.81E-02	3.18E-03	3.05E-03
Sample ID:	357021	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E-02	3.27E-03	3.92E-03
Sample ID:	358029	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.34E-02	2.53E-03	3.07E-03
Sample ID:	358639	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.80E-02	2.75E-03	3.08E-03
Sample ID:	359298	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.35E-02	3.19E-03	3.61E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	360008	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.12E-02	2.84E-03	2.90E-03
Sample ID:	360693	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.26E-02	3.08E-03	3.41E-03
Sample ID:	361557	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.46E-02	3.13E-03	3.32E-03
Sample ID:	361937	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	2.74E-03	3.30E-03
Sample ID:	362761	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.01E-02	2.88E-03	3.17E-03
Sample ID:	363504	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.16E-02	2.87E-03	2.95E-03
Sample ID:	363953	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.73E-02	3.15E-03	3.06E-03
Sample ID:	364480	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.58E-02	2.53E-03	2.76E-03
Sample ID:	364487	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<8.62E-04	0.00E+00	8.62E-04
				Cs-137	<7.35E-04	0.00E+00	7.35E-04
				Be-7	1.33E-01	2.32E-02	1.10E-02
				K-40	9.55E-03	6.93E-03	8.32E-03

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	280624	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.81E-02	1.36E-03	2.86E-03
Sample ID:	280797	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.85E-02	1.39E-03	2.90E-03
Sample ID:	281156	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.44E-02	1.30E-03	3.01E-03
Sample ID:	281477	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	1.39E-03	2.88E-03
Sample ID:	282100	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.00E-02	1.45E-03	3.07E-03
Sample ID:	282912	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.50E-02	1.32E-03	3.02E-03
Sample ID:	283359	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.36E-02	1.54E-03	3.16E-03
Sample ID:	284526	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.77E-02	1.40E-03	3.12E-03
Sample ID:	285087	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.17E-02	1.47E-03	3.07E-03
Sample ID:	285692	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.49E-02	1.41E-03	3.50E-03
Sample ID:	286196	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.68E-02	1.38E-03	3.03E-03
Sample ID:	287081	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.17E-02	1.31E-03	3.37E-03
Sample ID:	288332	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.53E-02	1.32E-03	3.01E-03
Sample ID:	289031	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.98E-04	0.00E+00	2.98E-04
				Cs-137	<2.33E-04	0.00E+00	2.33E-04
				Be-7	1.45E-01	4.88E-03	4.38E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	289031	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	2.37E-02	2.14E-03	2.71E-03
Sample ID:	289056	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.84E-02	1.36E-03	2.75E-03
Sample ID:	289442	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.72E-02	1.40E-03	3.13E-03
Sample ID:	289852	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.80E-02	1.42E-03	3.18E-03
Sample ID:	291457	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.83E-02	1.38E-03	2.93E-03
Sample ID:	292751	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.30E-03	2.78E-03
Sample ID:	293013	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.50E-02	1.61E-03	3.31E-03
Sample ID:	294644	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.16E-02	1.47E-03	3.00E-03
Sample ID:	295153	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.19E-02	1.32E-03	2.41E-03
Sample ID:	295414	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.25E-02	1.64E-03	3.38E-03
Sample ID:	295929	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.57E-02	1.37E-03	3.15E-03
Sample ID:	296174	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.57E-02	1.37E-03	3.19E-03
Sample ID:	296695	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.52E-02	1.51E-03	2.77E-03
Sample ID:	296922	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.82E-02	1.38E-03	2.87E-03
Sample ID:	297295	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.40E-03	0.00E+00	1.40E-03
				Cs-137	<1.65E-03	0.00E+00	1.65E-03
				Be-7	1.68E-01	5.01E-02	4.58E-02
				K-40	<4.68E-02	0.00E+00	4.68E-02
Sample ID:	297319	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.80E-02	2.70E-03	2.92E-03
Sample ID:	297607	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.05E-02	2.82E-03	2.94E-03
Sample ID:	298143	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.51E-02	2.71E-03	3.33E-03
Sample ID:	350497	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	2.76E-03	2.95E-03
Sample ID:	350968	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E-02	2.71E-03	2.87E-03
Sample ID:	351189	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.46E-02	2.99E-03	2.92E-03
Sample ID:	351595	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.14E-02	2.87E-03	2.99E-03
Sample ID:	353409	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.33E-02	2.98E-03	3.04E-03
Sample ID:	354029	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.93E-02	2.63E-03	2.87E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	354426	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.33E-02	2.75E-03	3.39E-03
Sample ID:	354747	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.22E-02	2.39E-03	2.92E-03
Sample ID:	355123	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.20E-02	3.33E-03	3.01E-03
Sample ID:	355611	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.38E-02	2.54E-03	3.04E-03
Sample ID:	355618	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<7.09E-04	0.00E+00	7.09E-04
				Cs-137	<9.45E-04	0.00E+00	9.45E-04
				Be-7	1.25E-01	2.28E-02	1.25E-02
				K-40	<1.77E-02	0.00E+00	1.77E-02
Sample ID:	356472	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.60E-02	3.09E-03	3.05E-03
Sample ID:	357022	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	3.11E-03	3.88E-03
Sample ID:	358030	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.68E-02	2.72E-03	3.12E-03
Sample ID:	358640	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.53E-02	2.62E-03	3.07E-03
Sample ID:	359300	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E-02	3.14E-03	3.61E-03
Sample ID:	360009	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.20E-02	2.86E-03	2.88E-03
Sample ID:	360694	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.71E-02	2.87E-03	3.45E-03
Sample ID:	361558	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.43E-02	3.12E-03	3.32E-03
Sample ID:	361938	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.84E-02	2.85E-03	3.29E-03
Sample ID:	362762	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E-02	2.81E-03	3.14E-03
Sample ID:	363505	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.27E-02	2.94E-03	2.98E-03
Sample ID:	363954	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.79E-02	3.18E-03	3.06E-03
Sample ID:	364481	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	2.67E-03	2.76E-03
Sample ID:	364488	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<7.08E-04	0.00E+00	7.08E-04
				Cs-137	<6.83E-04	0.00E+00	6.83E-04
				Be-7	1.05E-01	2.12E-02	1.61E-02
				K-40	<2.08E-02	0.00E+00	2.08E-02

## Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	280628	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	1.36E-03	2.80E-03
Sample ID:	280801	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.80E-02	1.40E-03	2.96E-03
Sample ID:	281160	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.39E-02	1.29E-03	3.01E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	281481	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.07E-02	1.42E-03	2.87E-03
Sample ID:	282104	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.96E-02	1.41E-03	3.00E-03
Sample ID:	282916	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.64E-02	1.38E-03	3.10E-03
Sample ID:	283363	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.49E-02	1.54E-03	3.07E-03
Sample ID:	284530	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.93E-02	1.45E-03	3.12E-03
Sample ID:	285091	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.58E-02	1.54E-03	3.01E-03
Sample ID:	285696	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.54E-02	1.44E-03	3.57E-03
Sample ID:	286200	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.07E-02	1.47E-03	3.03E-03
Sample ID:	287085	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.32E-02	1.35E-03	3.37E-03
Sample ID:	288336	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.61E-02	1.33E-03	2.96E-03
Sample ID:	289032	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.54E-04	0.00E+00	2.54E-04
				Cs-137	<2.93E-04	0.00E+00	2.93E-04
				Be-7	1.31E-01	5.58E-03	4.13E-03
				K-40	6.24E-03	1.71E-03	2.26E-03
Sample ID:	289060	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.91E-02	1.39E-03	2.80E-03
Sample ID:	289446	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.56E-02	1.35E-03	3.09E-03
Sample ID:	289856	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.91E-02	1.46E-03	3.22E-03
Sample ID:	291461	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.05E-02	1.41E-03	2.87E-03
Sample ID:	292755	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.75E-02	1.35E-03	2.83E-03
Sample ID:	293017	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.47E-02	1.61E-03	3.32E-03
Sample ID:	294648	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.37E-02	1.52E-03	3.01E-03
Sample ID:	295157	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.29E-02	1.34E-03	2.42E-03
Sample ID:	295418	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.73E-02	1.75E-03	3.36E-03
Sample ID:	295933	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.27E-02	1.30E-03	3.17E-03
Sample ID:	296178	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.74E-02	1.44E-03	3.27E-03
Sample ID:	296699	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.59E-02	1.51E-03	2.72E-03
Sample ID:	296926	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	1.40E-03	2.91E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	297296	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.98E-03	0.00E+00	1.98E-03
				Cs-137	<1.92E-03	0.00E+00	1.92E-03
				Be-7	1.90E-01	5.08E-02	3.75E-02
				K-40	<5.95E-02	0.00E+00	5.95E-02
Sample ID:	297323	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.00E-02	2.80E-03	2.93E-03
Sample ID:	297611	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.09E-02	2.84E-03	2.95E-03
Sample ID:	298147	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.81E-02	2.79E-03	3.23E-03
Sample ID:	350498	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E-02	2.81E-03	3.04E-03
Sample ID:	350969	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.56E-02	2.56E-03	2.86E-03
Sample ID:	351190	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.74E-02	3.12E-03	2.94E-03
Sample ID:	351596	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.38E-02	2.93E-03	2.93E-03
Sample ID:	353410	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.13E-02	2.93E-03	3.10E-03
Sample ID:	354030	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.95E-02	2.64E-03	2.87E-03
Sample ID:	354427	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.33E-02	2.75E-03	3.39E-03
Sample ID:	354748	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.42E-02	2.46E-03	2.86E-03
Sample ID:	355126	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.30E-02	3.39E-03	3.05E-03
Sample ID:	355612	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.38E-02	2.54E-03	3.04E-03
Sample ID:	355619	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<8.83E-04	0.00E+00	8.83E-04
				Cs-137	<7.00E-04	0.00E+00	7.00E-04
				Be-7	1.40E-01	2.54E-02	1.71E-02
				K-40	1.02E-02	9.13E-03	1.36E-02
Sample ID:	356473	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.73E-02	3.13E-03	3.02E-03
Sample ID:	357023	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	3.09E-03	3.85E-03
Sample ID:	358031	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.74E-02	2.76E-03	3.13E-03
Sample ID:	358641	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.85E-02	2.86E-03	3.21E-03
Sample ID:	359303	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.17E-02	3.12E-03	3.61E-03
Sample ID:	360010	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.49E-02	2.96E-03	2.82E-03
Sample ID:	360695	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.61E-02	3.30E-03	3.53E-03
Sample ID:	361559	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.21E-02	3.03E-03	3.33E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	361939	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.60E-02	2.74E-03	3.29E-03
Sample ID:	362763	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.34E-02	2.96E-03	3.07E-03
Sample ID:	363506	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.15E-02	2.84E-03	2.90E-03
Sample ID:	363955	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.42E-02	3.03E-03	3.07E-03
Sample ID:	364482	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.40E-02	2.43E-03	2.75E-03
Sample ID:	364489	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<8.81E-04	0.00E+00	8.81E-04
				Cs-137	<7.53E-04	0.00E+00	7.53E-04
				Be-7	1.20E-01	2.42E-02	2.10E-02
				K-40	<1.84E-02	0.00E+00	1.84E-02

## Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	280625	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.68E-02	1.31E-03	2.80E-03
Sample ID:	280798	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.72E-02	1.37E-03	2.95E-03
Sample ID:	281157	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.49E-02	1.32E-03	3.01E-03
Sample ID:	281478	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	1.43E-03	3.02E-03
Sample ID:	282101	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.09E-02	1.45E-03	3.03E-03
Sample ID:	282913	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.74E-02	1.39E-03	3.07E-03
Sample ID:	283360	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.29E-02	1.50E-03	3.07E-03
Sample ID:	284527	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.75E-02	1.40E-03	3.12E-03
Sample ID:	285088	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E-02	1.47E-03	3.02E-03
Sample ID:	285693	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.57E-02	1.44E-03	3.56E-03
Sample ID:	286197	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.37E-02	1.30E-03	3.03E-03
Sample ID:	287082	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.29E-02	1.34E-03	3.37E-03
Sample ID:	288333	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E-02	1.39E-03	2.97E-03
Sample ID:	289033	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.28E-04	0.00E+00	2.28E-04
				Cs-137	<2.66E-04	0.00E+00	2.66E-04
				Be-7	1.36E-01	4.48E-03	3.85E-03
				K-40	2.35E-02	2.38E-03	2.96E-03
Sample ID:	289057	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.52E-02	1.29E-03	2.78E-03
Sample ID:	289443	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.79E-02	1.41E-03	3.10E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	289853	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.85E-02	1.42E-03	3.14E-03
Sample ID:	291458	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	1.38E-03	2.88E-03
Sample ID:	292752	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.66E-02	1.33E-03	2.82E-03
Sample ID:	293014	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.57E-02	1.63E-03	3.32E-03
Sample ID:	294645	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.12E-02	1.47E-03	3.00E-03
Sample ID:	295154	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.18E-02	1.31E-03	2.40E-03
Sample ID:	295415	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.34E-02	1.67E-03	3.40E-03
Sample ID:	295930	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.66E-02	1.40E-03	3.17E-03
Sample ID:	296175	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.45E-02	1.34E-03	3.18E-03
Sample ID:	296696	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E-02	1.43E-03	2.73E-03
Sample ID:	296923	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.15E-02	1.47E-03	2.91E-03
Sample ID:	297297	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<4.08E-04	0.00E+00	4.08E-04
				Cs-137	<2.14E-03	0.00E+00	2.14E-03
				Be-7	2.21E-01	5.40E-02	3.39E-02
				K-40	<4.67E-02	0.00E+00	4.67E-02
Sample ID:	297320	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.01E-02	2.81E-03	2.94E-03
Sample ID:	297608	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.95E-02	2.77E-03	2.94E-03
Sample ID:	298144	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.51E-02	2.66E-03	3.24E-03
Sample ID:	350499	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.82E-02	2.77E-03	3.04E-03
Sample ID:	350970	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.66E-02	2.61E-03	2.87E-03
Sample ID:	351191	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.06E-02	3.25E-03	2.93E-03
Sample ID:	351597	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.15E-02	2.84E-03	2.94E-03
Sample ID:	353411	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.21E-02	2.97E-03	3.09E-03
Sample ID:	354031	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.98E-02	2.65E-03	2.87E-03
Sample ID:	354428	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.36E-02	2.77E-03	3.39E-03
Sample ID:	354749	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.39E-02	2.45E-03	2.86E-03
Sample ID:	355128	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.45E-02	3.45E-03	3.04E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	355613	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.46E-02	2.57E-03	3.04E-03
Sample ID:	355620	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<7.19E-04	0.00E+00	7.19E-04
				Cs-137	<6.06E-04	0.00E+00	6.06E-04
				Be-7	1.19E-01	2.10E-02	1.32E-02
				K-40	1.87E-02	7.85E-03	2.12E-03
Sample ID:	356474	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.94E-02	3.21E-03	3.03E-03
Sample ID:	357024	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.79E-02	3.04E-03	3.84E-03
Sample ID:	358032	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.50E-02	2.69E-03	3.21E-03
Sample ID:	358642	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	2.73E-03	3.06E-03
Sample ID:	359305	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.19E-02	3.13E-03	3.62E-03
Sample ID:	360011	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.25E-02	2.85E-03	2.83E-03
Sample ID:	360696	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.28E-02	3.15E-03	3.51E-03
Sample ID:	361560	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.63E-02	3.20E-03	3.33E-03
Sample ID:	361940	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.70E-02	2.79E-03	3.29E-03
Sample ID:	362764	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.28E-02	2.94E-03	3.08E-03
Sample ID:	363507	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.99E-02	2.86E-03	3.04E-03
Sample ID:	363956	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.28E-02	2.97E-03	3.07E-03
Sample ID:	364483	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	2.62E-03	2.75E-03
Sample ID:	364490	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<7.91E-04	0.00E+00	7.91E-04
				Cs-137	<6.27E-04	0.00E+00	6.27E-04
				Be-7	1.11E-01	2.06E-02	9.67E-03
				K-40	<1.65E-02	0.00E+00	1.65E-02

## Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	280626	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.78E-02	1.34E-03	2.81E-03
Sample ID:	280799	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.77E-02	1.68E-03	3.87E-03
Sample ID:	281158	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.37E-02	1.29E-03	3.01E-03
Sample ID:	281479	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.83E-02	1.42E-03	3.02E-03
Sample ID:	282102	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.11E-02	1.46E-03	3.03E-03
Sample ID:	282914	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.91E-02	1.43E-03	3.06E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	283361	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.43E-02	1.53E-03	3.08E-03
Sample ID:	284528	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	1.41E-03	3.12E-03
Sample ID:	285089	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.25E-02	1.47E-03	3.03E-03
Sample ID:	285694	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.45E-03	3.55E-03
Sample ID:	286198	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	1.40E-03	3.03E-03
Sample ID:	287083	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	9.48E-03	1.25E-03	3.37E-03
Sample ID:	288334	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.33E-03	2.98E-03
Sample ID:	289034	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.75E-04	0.00E+00	2.75E-04
				Cs-137	<3.47E-04	0.00E+00	3.47E-04
				Be-7	1.34E-01	5.05E-03	4.81E-03
				K-40	8.87E-03	2.10E-03	3.43E-03
Sample ID:	289058	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.81E-02	1.37E-03	2.79E-03
Sample ID:	289444	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.44E-02	1.33E-03	3.12E-03
Sample ID:	289854	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.09E-02	1.49E-03	3.20E-03
Sample ID:	291459	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.11E-02	1.43E-03	2.89E-03
Sample ID:	292753	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.82E-02	1.37E-03	2.84E-03
Sample ID:	293015	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.43E-02	1.60E-03	3.31E-03
Sample ID:	294646	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.00E-02	1.44E-03	3.00E-03
Sample ID:	295155	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.27E-02	1.34E-03	2.42E-03
Sample ID:	295416	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.13E-02	1.61E-03	3.37E-03
Sample ID:	295931	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.58E-02	1.37E-03	3.16E-03
Sample ID:	296176	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.39E-02	1.33E-03	3.19E-03
Sample ID:	296697	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.47E-02	1.49E-03	2.72E-03
Sample ID:	296924	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.11E-02	1.45E-03	2.90E-03
Sample ID:	297298	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.40E-03	0.00E+00	1.40E-03
				Cs-137	<4.82E-04	0.00E+00	4.82E-04
				Be-7	1.62E-01	4.64E-02	3.43E-02
				K-40	<4.92E-02	0.00E+00	4.92E-02
Sample ID:	297321	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.85E-02	2.74E-03	2.94E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	297609	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.11E-02	2.84E-03	2.94E-03
Sample ID:	298145	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.70E-02	2.75E-03	3.24E-03
Sample ID:	350500	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.87E-02	2.81E-03	3.04E-03
Sample ID:	350971	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.62E-02	2.59E-03	2.87E-03
Sample ID:	351192	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.34E-02	3.36E-03	2.94E-03
Sample ID:	351598	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.16E-02	2.85E-03	2.94E-03
Sample ID:	353412	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.09E-02	2.91E-03	3.09E-03
Sample ID:	354032	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.93E-02	2.63E-03	2.87E-03
Sample ID:	354429	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.27E-02	2.71E-03	3.38E-03
Sample ID:	354750	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.41E-02	2.46E-03	2.87E-03
Sample ID:	355130	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.56E-02	3.49E-03	3.05E-03
Sample ID:	355614	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.13E-02	2.42E-03	3.05E-03
Sample ID:	355621	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<6.12E-04	0.00E+00	6.12E-04
				Cs-137	<8.68E-04	0.00E+00	8.68E-04
				Be-7	1.35E-01	2.42E-02	1.46E-02
				K-40	9.68E-03	6.80E-03	7.79E-03
Sample ID:	356475	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.80E-02	3.16E-03	3.04E-03
Sample ID:	357025	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.22E-02	3.20E-03	3.81E-03
Sample ID:	358033	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.71E-02	2.79E-03	3.21E-03
Sample ID:	358643	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E-02	2.78E-03	3.06E-03
Sample ID:	359308	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.28E-02	3.17E-03	3.62E-03
Sample ID:	360012	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.63E-02	3.02E-03	2.83E-03
Sample ID:	360697	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.28E-02	3.14E-03	3.50E-03
Sample ID:	361561	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.10E-02	2.98E-03	3.32E-03
Sample ID:	361941	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.67E-02	2.77E-03	3.29E-03
Sample ID:	362765	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.01E-02	2.83E-03	3.08E-03
Sample ID:	363508	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.84E-02	2.78E-03	3.03E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	363957	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.55E-02	3.09E-03	3.07E-03
Sample ID:	364484	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.76E-02	2.61E-03	2.75E-03
Sample ID:	364491	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<4.74E-04	0.00E+00	4.74E-04
				Cs-137	<4.45E-04	0.00E+00	4.45E-04
				Be-7	1.22E-01	1.84E-02	1.20E-02
				K-40	1.44E-02	7.25E-03	9.39E-03

## Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	280627	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.69E-02	1.33E-03	2.86E-03
Sample ID:	280800	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.79E-02	1.38E-03	2.90E-03
Sample ID:	281159	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.41E-02	1.30E-03	3.01E-03
Sample ID:	281480	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	1.42E-03	3.02E-03
Sample ID:	282103	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.90E-02	1.42E-03	3.07E-03
Sample ID:	282915	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.65E-02	1.36E-03	3.02E-03
Sample ID:	283362	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.41E-02	1.55E-03	3.15E-03
Sample ID:	284529	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.67E-02	1.39E-03	3.12E-03
Sample ID:	285090	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.56E-02	1.56E-03	3.08E-03
Sample ID:	285695	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	1.43E-03	3.49E-03
Sample ID:	286199	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.74E-02	1.39E-03	3.04E-03
Sample ID:	287084	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.14E-02	1.30E-03	3.37E-03
Sample ID:	288335	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.40E-02	1.29E-03	3.01E-03
Sample ID:	289035	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.30E-04	0.00E+00	2.30E-04
				Cs-137	<3.14E-04	0.00E+00	3.14E-04
				Be-7	1.35E-01	6.47E-03	5.10E-03
				K-40	1.29E-02	2.48E-03	4.03E-03
Sample ID:	289059	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	1.37E-03	2.75E-03
Sample ID:	289445	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.60E-02	1.37E-03	3.13E-03
Sample ID:	289855	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	1.44E-03	3.18E-03
Sample ID:	291460	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.03E-02	1.43E-03	2.93E-03
Sample ID:	292754	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.75E-02	1.34E-03	2.78E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	293016	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.60E-02	1.63E-03	3.32E-03
Sample ID:	294647	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.93E-02	1.42E-03	3.00E-03
Sample ID:	295156	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.36E-02	1.35E-03	2.41E-03
Sample ID:	295417	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.35E-02	1.67E-03	3.38E-03
Sample ID:	295932	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.42E-02	1.35E-03	3.23E-03
Sample ID:	296177	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.44E-02	1.34E-03	3.19E-03
Sample ID:	296698	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.30E-02	1.47E-03	2.78E-03
Sample ID:	296925	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	1.40E-03	2.86E-03
Sample ID:	297299	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.63E-03	0.00E+00	1.63E-03
				Cs-137	<1.92E-03	0.00E+00	1.92E-03
				Be-7	1.80E-01	4.93E-02	3.72E-02
				K-40	<4.69E-02	0.00E+00	4.69E-02
Sample ID:	297322	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.55E-02	2.59E-03	2.93E-03
Sample ID:	297610	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.75E-02	2.73E-03	3.02E-03
Sample ID:	298146	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.83E-02	2.86E-03	3.33E-03
Sample ID:	350501	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.87E-02	2.75E-03	2.95E-03
Sample ID:	350972	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.70E-02	2.63E-03	2.87E-03
Sample ID:	351193	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.87E-02	3.17E-03	2.93E-03
Sample ID:	351599	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.08E-02	2.85E-03	2.99E-03
Sample ID:	353413	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.14E-02	2.90E-03	3.04E-03
Sample ID:	354034	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.81E-02	2.59E-03	2.88E-03
Sample ID:	354430	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.21E-02	2.68E-03	3.38E-03
Sample ID:	354751	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.14E-02	2.35E-03	2.92E-03
Sample ID:	355132	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.00E-02	3.25E-03	3.01E-03
Sample ID:	355615	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.35E-02	2.52E-03	3.04E-03
Sample ID:	355622	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<1.11E-03	0.00E+00	1.11E-03
				Cs-137	<1.01E-03	0.00E+00	1.01E-03
				Be-7	1.45E-01	3.27E-02	2.56E-02
				K-40	<2.79E-02	0.00E+00	2.79E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	356476	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.53E-02	3.06E-03	3.06E-03
Sample ID:	357026	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.96E-02	3.08E-03	3.78E-03
Sample ID:	358034	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.57E-02	2.66E-03	3.12E-03
Sample ID:	358644	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.59E-02	2.65E-03	3.07E-03
Sample ID:	359310	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.17E-02	3.11E-03	3.60E-03
Sample ID:	360013	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.17E-02	2.85E-03	2.88E-03
Sample ID:	360698	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.32E-02	3.13E-03	3.44E-03
Sample ID:	361562	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.55E-02	3.17E-03	3.32E-03
Sample ID:	361942	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.80E-02	2.83E-03	3.29E-03
Sample ID:	362766	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	2.81E-03	3.14E-03
Sample ID:	363509	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.21E-02	2.92E-03	2.98E-03
Sample ID:	363958	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.55E-02	3.08E-03	3.06E-03
Sample ID:	364485	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.49E-02	2.48E-03	2.76E-03
Sample ID:	364492	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<8.80E-04	0.00E+00	8.80E-04
				Cs-137	<8.01E-04	0.00E+00	8.01E-04
				Be-7	1.01E-01	2.14E-02	1.78E-02
				K-40	<2.10E-02	0.00E+00	2.10E-02

### Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	280629	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.71E-02	1.32E-03	2.80E-03
Sample ID:	280802	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.89E-02	1.42E-03	2.96E-03
Sample ID:	281161	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.44E-02	1.30E-03	3.01E-03
Sample ID:	281482	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.22E-02	1.46E-03	2.87E-03
Sample ID:	282105	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.06E-02	1.44E-03	3.00E-03
Sample ID:	282917	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.79E-02	1.41E-03	3.10E-03
Sample ID:	283364	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.51E-02	1.55E-03	3.07E-03
Sample ID:	284531	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.83E-02	1.42E-03	3.12E-03
Sample ID:	285092	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.72E-02	1.57E-03	3.01E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	285697	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.42E-02	1.47E-03	3.75E-03
Sample ID:	286201	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.71E-02	1.39E-03	3.03E-03
Sample ID:	287086	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.18E-02	1.31E-03	3.37E-03
Sample ID:	288337	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.68E-02	1.34E-03	2.96E-03
Sample ID:	289036	Sample Dates:	12/30/2013 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<2.39E-04	0.00E+00	2.39E-04
				Cs-137	<2.94E-04	0.00E+00	2.94E-04
				Be-7	1.30E-01	5.01E-03	4.10E-03
				K-40	2.06E-02	2.13E-03	2.52E-03
Sample ID:	289061	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.67E-02	1.33E-03	2.80E-03
Sample ID:	289447	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	1.42E-03	3.08E-03
Sample ID:	289857	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.17E-02	1.52E-03	3.22E-03
Sample ID:	291462	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.86E-02	1.37E-03	2.87E-03
Sample ID:	292756	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.74E-02	1.35E-03	2.83E-03
Sample ID:	293018	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.84E-02	1.68E-03	3.31E-03
Sample ID:	294649	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.19E-02	1.48E-03	3.00E-03
Sample ID:	295158	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.29E-02	1.34E-03	2.42E-03
Sample ID:	295419	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.72E-02	1.74E-03	3.36E-03
Sample ID:	295934	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.62E-02	1.39E-03	3.17E-03
Sample ID:	296179	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.64E-02	1.39E-03	3.19E-03
Sample ID:	296700	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.20E-02	1.42E-03	2.72E-03
Sample ID:	296927	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.97E-02	1.42E-03	2.91E-03
Sample ID:	297300	Sample Dates:	3/31/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<4.09E-04	0.00E+00	4.09E-04
				Cs-137	<1.31E-03	0.00E+00	1.31E-03
				Be-7	1.91E-01	5.60E-02	5.59E-02
				K-40	<4.43E-02	0.00E+00	4.43E-02
Sample ID:	297324	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.01E-02	2.81E-03	2.94E-03
Sample ID:	297612	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.26E-02	2.87E-03	2.87E-03
Sample ID:	298148	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.03E-02	2.88E-03	3.23E-03
Sample ID:	350502	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.14E-02	2.94E-03	3.04E-03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	350973	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.77E-02	2.66E-03	2.87E-03
Sample ID:	351194	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.62E-02	3.07E-03	2.93E-03
Sample ID:	351600	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.97E-02	2.76E-03	2.93E-03
Sample ID:	353414	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E-02	2.99E-03	3.10E-03
Sample ID:	354036	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.87E-02	2.61E-03	2.87E-03
Sample ID:	354431	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.26E-02	2.71E-03	3.39E-03
Sample ID:	354752	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.22E-02	2.36E-03	2.86E-03
Sample ID:	355134	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.25E-02	3.37E-03	3.05E-03
Sample ID:	355616	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.38E-02	2.53E-03	3.04E-03
Sample ID:	355623	Sample Dates:	6/30/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<6.24E-04	0.00E+00	6.24E-04
				Cs-137	<7.52E-04	0.00E+00	7.52E-04
				Be-7	1.27E-01	2.33E-02	1.34E-02
				K-40	1.38E-02	1.01E-02	1.41E-02
Sample ID:	356477	Sample Dates:	9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.67E-02	3.10E-03	3.02E-03
Sample ID:	357027	Sample Dates:	10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.21E-02	3.21E-03	3.85E-03
Sample ID:	358035	Sample Dates:	10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.53E-02	2.71E-03	3.21E-03
Sample ID:	358645	Sample Dates:	10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.53E-02	2.61E-03	3.05E-03
Sample ID:	359312	Sample Dates:	10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.21E-02	3.13E-03	3.62E-03
Sample ID:	360014	Sample Dates:	11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.52E-02	2.96E-03	2.82E-03
Sample ID:	360699	Sample Dates:	11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.13E-02	3.10E-03	3.53E-03
Sample ID:	361563	Sample Dates:	11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.45E-02	3.13E-03	3.33E-03
Sample ID:	361943	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.93E-02	2.89E-03	3.29E-03
Sample ID:	362767	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.06E-02	2.84E-03	3.07E-03
Sample ID:	363510	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.20E-02	2.96E-03	3.04E-03
Sample ID:	363959	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	3.07E-02	3.30E-03	3.07E-03
Sample ID:	364486	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.46E-02	2.46E-03	2.75E-03
Sample ID:	364493	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<9.28E-04	0.00E+00	9.28E-04
				Cs-137	<6.27E-04	0.00E+00	6.27E-04

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	364493	Sample Dates:	9/29/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	1.12E-01	2.16E-02	1.44E-02
				K-40	<1.83E-02	0.00E+00	1.83E-02

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	280630	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.50E-02	0.00E+00	2.50E-02
				Cs-134	<1.79E-02	0.00E+00	1.79E-02
				Cs-137	<1.58E-02	0.00E+00	1.58E-02
				Be-7	<1.52E-01	0.00E+00	1.52E-01
				K-40	2.11E-01	1.32E-01	3.14E-01

Sample ID:	280803	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.25E-02	0.00E+00	2.25E-02
				Cs-134	<1.80E-02	0.00E+00	1.80E-02
				Cs-137	<2.31E-02	0.00E+00	2.31E-02
				Be-7	<1.43E-01	0.00E+00	1.43E-01
				K-40	2.46E-01	1.15E-01	2.17E-01

Sample ID:	281162	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.17E-02	0.00E+00	2.17E-02
				Cs-134	<1.43E-02	0.00E+00	1.43E-02
				Cs-137	<1.80E-02	0.00E+00	1.80E-02
				Be-7	<1.15E-01	0.00E+00	1.15E-01
				K-40	<5.18E-01	0.00E+00	5.18E-01

Sample ID:	281483	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.36E-02	0.00E+00	1.36E-02
				Cs-134	<1.36E-02	0.00E+00	1.36E-02
				Cs-137	<1.61E-02	0.00E+00	1.61E-02
				Be-7	<6.00E-02	0.00E+00	6.00E-02
				K-40	6.38E-01	1.41E-01	2.42E-01

Sample ID:	282106	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.22E-02	0.00E+00	2.22E-02
				Cs-134	<1.58E-02	0.00E+00	1.58E-02
				Cs-137	<1.98E-02	0.00E+00	1.98E-02
				Be-7	<1.65E-01	0.00E+00	1.65E-01
				K-40	<6.43E-01	0.00E+00	6.43E-01

Sample ID:	282918	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.21E-03	0.00E+00	9.21E-03
				Cs-134	<7.69E-03	0.00E+00	7.69E-03
				Cs-137	<8.55E-03	0.00E+00	8.55E-03
				Be-7	<5.66E-02	0.00E+00	5.66E-02
				K-40	5.15E-01	7.85E-02	8.76E-02

Sample ID:	283365	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.31E-02	0.00E+00	2.31E-02
				Cs-134	<1.52E-02	0.00E+00	1.52E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.35E-01	0.00E+00	1.35E-01
				K-40	<5.89E-01	0.00E+00	5.89E-01

Sample ID:	284532	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.03E-02	0.00E+00	2.03E-02
				Cs-134	<1.88E-02	0.00E+00	1.88E-02
				Cs-137	<2.07E-02	0.00E+00	2.07E-02
				Be-7	<1.46E-01	0.00E+00	1.46E-01
				K-40	<5.93E-01	0.00E+00	5.93E-01

Sample ID:	285093	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.05E-02	0.00E+00	2.05E-02
				Cs-134	<2.01E-02	0.00E+00	2.01E-02
				Cs-137	<1.93E-02	0.00E+00	1.93E-02
				Be-7	<1.08E-01	0.00E+00	1.08E-01
				K-40	2.07E-01	1.34E-01	3.19E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID: 285698	Sample Dates: 3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<5.35E-01	0.00E+00	5.35E-01
Sample ID: 286202	Sample Dates: 3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	2.86E-01	1.34E-01	3.11E-01
Sample ID: 287087	Sample Dates: 3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<2.98E-03	0.00E+00	2.98E-03
		Be-7	<7.52E-02	0.00E+00	7.52E-02
		K-40	3.78E-01	1.11E-01	1.81E-01
Sample ID: 288338	Sample Dates: 3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	6.88E-01	1.40E-01	7.74E-02
Sample ID: 289062	Sample Dates: 3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
Sample ID: 289448	Sample Dates: 4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	4.58E-01	1.14E-01	2.06E-01
Sample ID: 289858	Sample Dates: 4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.38E-01	0.00E+00	6.38E-01
Sample ID: 291463	Sample Dates: 4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.44E-01	1.25E-01	2.16E-01
Sample ID: 292757	Sample Dates: 4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<4.46E-03	0.00E+00	4.46E-03
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	3.23E-01	1.28E-01	2.12E-01
Sample ID: 293019	Sample Dates: 5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<8.15E-02	0.00E+00	8.15E-02
		K-40	2.88E-01	9.23E-02	1.84E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID: 294650	Sample Dates: 5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01
Sample ID: 295159	Sample Dates: 5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	5.74E-01	1.20E-01	1.88E-01
Sample ID: 295420	Sample Dates: 5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	6.65E-01	1.49E-01	3.01E-01
Sample ID: 295935	Sample Dates: 6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	6.89E-01	1.41E-01	7.76E-02
Sample ID: 296180	Sample Dates: 6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<4.48E-03	0.00E+00	4.48E-03
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
Sample ID: 296701	Sample Dates: 6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	6.85E-01	1.40E-01	2.60E-01
Sample ID: 296928	Sample Dates: 6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<6.29E-01	0.00E+00	6.29E-01
Sample ID: 297325	Sample Dates: 6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	3.47E-01	1.22E-01	7.74E-02
Sample ID: 297613	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	3.47E-01	2.13E-01	2.37E-01
Sample ID: 298149	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<4.77E-03	0.00E+00	4.77E-03
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	3.97E-01	2.54E-01	2.90E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	350503	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.09E-02	0.00E+00	2.09E-02
				Cs-134	<1.70E-02	0.00E+00	1.70E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.05E-01	0.00E+00	1.05E-01
				K-40	<6.34E-01	0.00E+00	6.34E-01
Sample ID:	350974	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.27E-02	0.00E+00	2.27E-02
				Cs-134	<1.52E-02	0.00E+00	1.52E-02
				Cs-137	<1.64E-02	0.00E+00	1.64E-02
				Be-7	<1.33E-01	0.00E+00	1.33E-01
				K-40	<5.82E-01	0.00E+00	5.82E-01
Sample ID:	351195	Sample Dates:	8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.03E-02	0.00E+00	1.03E-02
				Cs-134	<1.95E-02	0.00E+00	1.95E-02
				Cs-137	<1.63E-02	0.00E+00	1.63E-02
				Be-7	<1.01E-01	0.00E+00	1.01E-01
				K-40	5.82E-01	2.99E-01	3.03E-01
Sample ID:	351601	Sample Dates:	8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.11E-02	0.00E+00	2.11E-02
				Cs-134	<1.31E-02	0.00E+00	1.31E-02
				Cs-137	<2.31E-02	0.00E+00	2.31E-02
				Be-7	<1.19E-01	0.00E+00	1.19E-01
				K-40	5.05E-01	2.49E-01	8.05E-02
Sample ID:	353415	Sample Dates:	8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.10E-02	0.00E+00	2.10E-02
				Cs-134	<2.77E-02	0.00E+00	2.77E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.43E-01	0.00E+00	1.43E-01
				K-40	5.65E-01	2.64E-01	8.06E-02
Sample ID:	354038	Sample Dates:	8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.56E-02	0.00E+00	1.56E-02
				Cs-134	<1.99E-02	0.00E+00	1.99E-02
				Cs-137	<1.43E-02	0.00E+00	1.43E-02
				Be-7	<1.44E-01	0.00E+00	1.44E-01
				K-40	3.77E-01	2.26E-01	2.40E-01
Sample ID:	354432	Sample Dates:	9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.21E-02	0.00E+00	2.21E-02
				Cs-134	<2.64E-02	0.00E+00	2.64E-02
				Cs-137	<1.51E-02	0.00E+00	1.51E-02
				Be-7	<1.65E-01	0.00E+00	1.65E-01
				K-40	4.81E-01	2.82E-01	2.70E-01
Sample ID:	354753	Sample Dates:	9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.61E-02	0.00E+00	1.61E-02
				Cs-134	<1.56E-02	0.00E+00	1.56E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.02E-01	0.00E+00	1.02E-01
				K-40	<6.53E-01	0.00E+00	6.53E-01
Sample ID:	355137	Sample Dates:	9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.94E-03	0.00E+00	3.94E-03
				Cs-134	<1.94E-02	0.00E+00	1.94E-02
				Cs-137	<1.59E-02	0.00E+00	1.59E-02
				Be-7	<1.29E-01	0.00E+00	1.29E-01
				K-40	4.31E-01	2.84E-01	3.61E-01
Sample ID:	355624	Sample Dates:	9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.25E-02	0.00E+00	2.25E-02
				Cs-134	<1.31E-02	0.00E+00	1.31E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<8.11E-02	0.00E+00	8.11E-02
				K-40	<6.69E-01	0.00E+00	6.69E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID: 356478	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	6.70E-01	3.08E-01	2.63E-01
Sample ID: 357028	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	6.54E-01	2.84E-01	8.05E-02
Sample ID: 358036	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<5.79E-01	0.00E+00	5.79E-01
Sample ID: 358646	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	3.01E-01	2.07E-01	2.12E-01
Sample ID: 359314	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.57E-01	0.00E+00	5.57E-01
Sample ID: 360015	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	5.77E-01	3.06E-01	3.26E-01
Sample ID: 360700	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	5.72E-01	2.97E-01	3.01E-01
Sample ID: 361564	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<6.00E-01	0.00E+00	5.99E-01
Sample ID: 361944	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.81E-01	2.53E-01	2.73E-01
Sample ID: 362768	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<8.57E-03	0.00E+00	8.57E-03
		Cs-137	<9.32E-03	0.00E+00	9.32E-03
		Be-7	<8.40E-02	0.00E+00	8.40E-02
		K-40	4.06E-01	1.46E-01	3.34E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	363511	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.15E-03	0.00E+00	9.15E-03
				Cs-134	<8.28E-03	0.00E+00	8.28E-03
				Cs-137	<1.43E-02	0.00E+00	1.43E-02
				Be-7	<7.16E-02	0.00E+00	7.16E-02
				K-40	4.98E-01	1.88E-01	1.58E-01

Sample ID:	363960	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.08E-02	0.00E+00	1.08E-02
				Cs-134	<1.20E-02	0.00E+00	1.20E-02
				Cs-137	<1.36E-02	0.00E+00	1.36E-02
				Be-7	<7.08E-02	0.00E+00	7.08E-02
				K-40	2.94E-01	1.97E-01	2.80E-01

Sample ID:	364494	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.14E-02	0.00E+00	3.14E-02
				Cs-134	<1.26E-02	0.00E+00	1.26E-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	6.37E-01	2.36E-01	1.92E-01

## Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	280631	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.87E-02	0.00E+00	2.87E-02
				Cs-134	<1.96E-02	0.00E+00	1.96E-02
				Cs-137	<1.64E-02	0.00E+00	1.64E-02
				Be-7	<1.84E-01	0.00E+00	1.84E-01
				K-40	<5.86E-01	0.00E+00	5.86E-01

Sample ID:	280804	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.85E-02	0.00E+00	1.85E-02
				Cs-134	<1.45E-02	0.00E+00	1.45E-02
				Cs-137	<2.00E-02	0.00E+00	2.00E-02
				Be-7	<1.61E-01	0.00E+00	1.61E-01
				K-40	3.86E-01	1.37E-01	3.23E-01

Sample ID:	281163	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.56E-02	0.00E+00	2.56E-02
				Cs-134	<1.87E-02	0.00E+00	1.87E-02
				Cs-137	<1.89E-02	0.00E+00	1.89E-02
				Be-7	<1.64E-01	0.00E+00	1.64E-01
				K-40	4.58E-01	1.14E-01	3.01E-01

Sample ID:	281484	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.18E-02	0.00E+00	1.18E-02
				Cs-134	<9.33E-03	0.00E+00	9.33E-03
				Cs-137	<9.71E-03	0.00E+00	9.71E-03
				Be-7	<5.90E-02	0.00E+00	5.90E-02
				K-40	4.87E-01	8.33E-02	1.00E-01

Sample ID:	282107	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.74E-02	0.00E+00	2.74E-02
				Cs-134	<2.08E-02	0.00E+00	2.08E-02
				Cs-137	<2.39E-02	0.00E+00	2.39E-02
				Be-7	<9.54E-02	0.00E+00	9.54E-02
				K-40	<5.32E-01	0.00E+00	5.32E-01

Sample ID:	282919	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.72E-03	0.00E+00	9.72E-03
				Cs-134	<1.26E-02	0.00E+00	1.26E-02
				Cs-137	<1.23E-02	0.00E+00	1.23E-02
				Be-7	<8.38E-02	0.00E+00	8.38E-02
				K-40	<4.64E-01	0.00E+00	4.64E-01

Sample ID:	283366	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.02E-02	0.00E+00	1.02E-02
				Cs-134	<7.97E-03	0.00E+00	7.97E-03
				Cs-137	<8.97E-03	0.00E+00	8.97E-03
				Be-7	<6.90E-02	0.00E+00	6.90E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	283366	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	6.54E-01	8.82E-02	3.21E-02
Sample ID:	284533	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.50E-02	0.00E+00	2.50E-02
				Cs-134	<1.75E-02	0.00E+00	1.75E-02
				Cs-137	<2.37E-02	0.00E+00	2.37E-02
				Be-7	<1.20E-01	0.00E+00	1.20E-01
				K-40	5.73E-01	1.28E-01	2.73E-01
Sample ID:	285094	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<1.74E-02	0.00E+00	1.74E-02
				Cs-137	<2.39E-02	0.00E+00	2.39E-02
				Be-7	<1.10E-01	0.00E+00	1.10E-01
				K-40	2.50E-01	1.13E-01	2.70E-01
Sample ID:	285699	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.07E-02	0.00E+00	1.07E-02
				Cs-134	<8.62E-03	0.00E+00	8.62E-03
				Cs-137	<6.91E-03	0.00E+00	6.91E-03
				Be-7	<5.86E-02	0.00E+00	5.86E-02
				K-40	5.44E-01	8.86E-02	1.08E-01
Sample ID:	286203	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.78E-02	0.00E+00	1.78E-02
				Cs-134	<1.65E-02	0.00E+00	1.65E-02
				Cs-137	<2.05E-02	0.00E+00	2.05E-02
				Be-7	<1.49E-01	0.00E+00	1.49E-01
				K-40	<6.07E-01	0.00E+00	6.07E-01
Sample ID:	287088	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<7.44E-03	0.00E+00	7.44E-03
				Cs-134	<9.98E-03	0.00E+00	9.98E-03
				Cs-137	<1.01E-02	0.00E+00	1.01E-02
				Be-7	<7.13E-02	0.00E+00	7.13E-02
				K-40	5.24E-01	8.51E-02	1.25E-01
Sample ID:	288339	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.49E-02	0.00E+00	1.49E-02
				Cs-134	<2.38E-02	0.00E+00	2.38E-02
				Cs-137	<1.77E-02	0.00E+00	1.77E-02
				Be-7	<1.47E-01	0.00E+00	1.47E-01
				K-40	4.29E-01	1.43E-01	2.48E-01
Sample ID:	289063	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.53E-02	0.00E+00	1.53E-02
				Cs-134	<1.44E-02	0.00E+00	1.44E-02
				Cs-137	<1.81E-02	0.00E+00	1.81E-02
				Be-7	<1.19E-01	0.00E+00	1.19E-01
				K-40	4.84E-01	1.08E-01	6.54E-02
Sample ID:	289449	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.31E-02	0.00E+00	1.31E-02
				Cs-134	<1.88E-02	0.00E+00	1.88E-02
				Cs-137	<1.23E-02	0.00E+00	1.23E-02
				Be-7	<1.47E-01	0.00E+00	1.47E-01
				K-40	3.44E-01	9.92E-02	3.00E-01
Sample ID:	289859	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.36E-02	0.00E+00	2.36E-02
				Cs-134	<2.27E-02	0.00E+00	2.27E-02
				Cs-137	<2.73E-02	0.00E+00	2.73E-02
				Be-7	<1.65E-01	0.00E+00	1.65E-01
				K-40	5.40E-01	1.24E-01	3.02E-01
Sample ID:	291464	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.95E-02	0.00E+00	1.95E-02
				Cs-134	<1.71E-02	0.00E+00	1.71E-02
				Cs-137	<2.76E-02	0.00E+00	2.76E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID:	291464	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<1.53E-01	0.00E+00	1.53E-01
				K-40	5.10E-01	1.20E-01	7.66E-02
Sample ID:	292758	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.09E-02	0.00E+00	1.09E-02
				Cs-134	<8.73E-03	0.00E+00	8.73E-03
				Cs-137	<9.52E-03	0.00E+00	9.52E-03
				Be-7	<5.64E-02	0.00E+00	5.64E-02
				K-40	4.58E-01	8.21E-02	1.07E-01
Sample ID:	293020	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.46E-02	0.00E+00	1.46E-02
				Cs-134	<7.14E-03	0.00E+00	7.14E-03
				Cs-137	<1.04E-02	0.00E+00	1.04E-02
				Be-7	<9.60E-02	0.00E+00	9.60E-02
				K-40	<4.65E-01	0.00E+00	4.65E-01
Sample ID:	294651	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.62E-02	0.00E+00	1.62E-02
				Cs-134	<1.85E-02	0.00E+00	1.85E-02
				Cs-137	<1.57E-02	0.00E+00	1.57E-02
				Be-7	<7.53E-02	0.00E+00	7.53E-02
				K-40	4.35E-01	1.40E-01	7.69E-02
Sample ID:	295160	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.05E-02	0.00E+00	2.05E-02
				Cs-134	<1.75E-02	0.00E+00	1.75E-02
				Cs-137	<1.34E-02	0.00E+00	1.34E-02
				Be-7	<8.77E-02	0.00E+00	8.77E-02
				K-40	4.20E-01	1.02E-01	1.86E-01
Sample ID:	295421	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.53E-02	0.00E+00	2.53E-02
				Cs-134	<2.05E-02	0.00E+00	2.05E-02
				Cs-137	<2.47E-02	0.00E+00	2.47E-02
				Be-7	<1.89E-01	0.00E+00	1.89E-01
				K-40	<6.96E-01	0.00E+00	6.96E-01
Sample ID:	295936	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.69E-02	0.00E+00	1.69E-02
				Cs-134	<9.84E-03	0.00E+00	9.84E-03
				Cs-137	<2.01E-02	0.00E+00	2.01E-02
				Be-7	<1.20E-01	0.00E+00	1.20E-01
				K-40	<5.41E-01	0.00E+00	5.41E-01
Sample ID:	296181	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.45E-02	0.00E+00	2.45E-02
				Cs-134	<1.45E-02	0.00E+00	1.45E-02
				Cs-137	<1.67E-02	0.00E+00	1.67E-02
				Be-7	<1.54E-01	0.00E+00	1.54E-01
				K-40	2.99E-01	1.21E-01	3.52E-01
Sample ID:	296702	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.06E-02	0.00E+00	2.06E-02
				Cs-134	<1.58E-02	0.00E+00	1.58E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.25E-01	0.00E+00	1.25E-01
				K-40	2.86E-01	1.38E-01	7.62E-02
Sample ID:	296929	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.66E-02	0.00E+00	1.66E-02
				Cs-134	<1.18E-02	0.00E+00	1.18E-02
				Cs-137	<1.30E-02	0.00E+00	1.30E-02
				Be-7	<1.14E-01	0.00E+00	1.14E-01
				K-40	3.75E-01	1.14E-01	6.43E-02
Sample ID:	297326	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.00E-02	0.00E+00	2.00E-02
				Cs-134	<1.40E-02	0.00E+00	1.40E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID: 297326	Sample Dates: 6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	5.14E-01	1.21E-01	2.59E-01
Sample ID: 297614	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<9.78E-03	0.00E+00	9.78E-03
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
Sample ID: 298150	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
Sample ID: 350504	Sample Dates: 7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
Sample ID: 350975	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<8.11E-02	0.00E+00	8.11E-02
Sample ID: 351196	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<9.57E-03	0.00E+00	9.57E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<5.15E-02	0.00E+00	5.15E-02
Sample ID: 351602	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
Sample ID: 353416	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
Sample ID: 354040	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
Sample ID: 354433	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
Sample ID: 354754	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.68E-02	0.00E+00	2.68E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID: 354754	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<7.09E-01	0.00E+00	7.09E-01
Sample ID: 355139	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<8.15E-02	0.00E+00	8.15E-02
Sample ID: 355625	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
Sample ID: 356479	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
Sample ID: 357029	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
Sample ID: 358037	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
Sample ID: 358647	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
Sample ID: 359316	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
Sample ID: 360016	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<4.28E-03	0.00E+00	4.28E-03
		Cs-134	<3.00E-03	0.00E+00	3.00E-03
		Cs-137	<3.58E-03	0.00E+00	3.58E-03
		Be-7	<2.52E-02	0.00E+00	2.52E-02
Sample ID: 360701	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<3.86E-03	0.00E+00	3.86E-03
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	5.03E-01	2.71E-01	2.54E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 103 [ INDICATOR - NE @ 4.2 miles ]

Sample ID: 361565	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<8.03E-02	0.00E+00	8.03E-02
		K-40	4.96E-01	2.86E-01	3.18E-01
Sample ID: 361945	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
Sample ID: 362769	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	1.54E-01	1.92E-01	3.10E-01
Sample ID: 363512	Sample Dates: 12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.48E-03	0.00E+00	6.48E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	4.31E-01	2.22E-01	2.88E-01
Sample ID: 363961	Sample Dates: 12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<8.83E-02	0.00E+00	8.83E-02
		K-40	5.38E-01	2.45E-01	7.29E-02
Sample ID: 364495	Sample Dates: 12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<9.01E-03	0.00E+00	9.01E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<7.70E-02	0.00E+00	7.70E-02
		K-40	3.68E-01	1.70E-01	1.77E-01

## Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID: 280632	Sample Dates: 12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<6.42E-01	0.00E+00	6.42E-01
Sample ID: 280805	Sample Dates: 1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<6.13E-01	0.00E+00	6.13E-01
Sample ID: 281164	Sample Dates: 1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.43E-01	1.25E-01	3.36E-01
Sample ID: 281485	Sample Dates: 1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<9.38E-02	0.00E+00	9.38E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	281485	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	6.00E-01	1.13E-01	5.79E-02
Sample ID:	282108	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.90E-02	0.00E+00	1.90E-02
				Cs-134	<1.59E-02	0.00E+00	1.59E-02
				Cs-137	<2.40E-02	0.00E+00	2.40E-02
				Be-7	<1.42E-01	0.00E+00	1.42E-01
				K-40	5.26E-01	1.21E-01	2.01E-01
Sample ID:	282920	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.69E-02	0.00E+00	1.69E-02
				Cs-134	<1.54E-02	0.00E+00	1.54E-02
				Cs-137	<3.65E-03	0.00E+00	3.65E-03
				Be-7	<1.05E-01	0.00E+00	1.05E-01
				K-40	4.99E-01	1.12E-01	1.76E-01
Sample ID:	283367	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.62E-02	0.00E+00	1.62E-02
				Cs-134	<1.67E-02	0.00E+00	1.67E-02
				Cs-137	<2.06E-02	0.00E+00	2.06E-02
				Be-7	<1.19E-01	0.00E+00	1.19E-01
				K-40	3.23E-01	1.33E-01	2.55E-01
Sample ID:	284534	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.08E-02	0.00E+00	1.08E-02
				Cs-134	<1.02E-02	0.00E+00	1.02E-02
				Cs-137	<1.48E-02	0.00E+00	1.48E-02
				Be-7	<7.31E-02	0.00E+00	7.31E-02
				K-40	3.30E-01	9.82E-02	1.67E-01
Sample ID:	285095	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.94E-02	0.00E+00	1.94E-02
				Cs-134	<1.70E-02	0.00E+00	1.70E-02
				Cs-137	<1.99E-02	0.00E+00	1.99E-02
				Be-7	<1.16E-01	0.00E+00	1.16E-01
				K-40	4.61E-01	1.35E-01	2.09E-01
Sample ID:	285700	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.27E-02	0.00E+00	1.27E-02
				Cs-134	<8.83E-03	0.00E+00	8.83E-03
				Cs-137	<1.13E-02	0.00E+00	1.13E-02
				Be-7	<8.40E-02	0.00E+00	8.40E-02
				K-40	<3.55E-01	0.00E+00	3.55E-01
Sample ID:	286204	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.00E-02	0.00E+00	2.00E-02
				Cs-134	<1.64E-02	0.00E+00	1.64E-02
				Cs-137	<2.44E-02	0.00E+00	2.44E-02
				Be-7	<1.52E-01	0.00E+00	1.52E-01
				K-40	4.18E-01	1.34E-01	2.58E-01
Sample ID:	287089	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.01E-02	0.00E+00	1.01E-02
				Cs-134	<1.38E-02	0.00E+00	1.38E-02
				Cs-137	<1.32E-02	0.00E+00	1.32E-02
				Be-7	<7.07E-02	0.00E+00	7.07E-02
				K-40	3.66E-01	8.88E-02	5.82E-02
Sample ID:	288340	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.45E-02	0.00E+00	1.45E-02
				Cs-134	<1.64E-02	0.00E+00	1.64E-02
				Cs-137	<2.08E-02	0.00E+00	2.08E-02
				Be-7	<1.78E-01	0.00E+00	1.78E-01
				K-40	3.65E-01	1.44E-01	2.06E-01
Sample ID:	289064	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.92E-02	0.00E+00	1.92E-02
				Cs-134	<1.71E-02	0.00E+00	1.71E-02
				Cs-137	<2.84E-02	0.00E+00	2.84E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	289064	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<1.63E-01	0.00E+00	1.63E-01
				K-40	<6.67E-01	0.00E+00	6.67E-01
Sample ID:	289450	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.35E-02	0.00E+00	2.35E-02
				Cs-134	<1.73E-02	0.00E+00	1.73E-02
				Cs-137	<1.66E-02	0.00E+00	1.66E-02
				Be-7	<1.23E-01	0.00E+00	1.23E-01
				K-40	4.54E-01	1.13E-01	2.04E-01
Sample ID:	289860	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<8.99E-03	0.00E+00	8.99E-03
				Cs-134	<9.06E-03	0.00E+00	9.06E-03
				Cs-137	<1.02E-02	0.00E+00	1.02E-02
				Be-7	<7.81E-02	0.00E+00	7.81E-02
				K-40	5.05E-01	7.80E-02	1.10E-01
Sample ID:	291465	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.32E-02	0.00E+00	2.32E-02
				Cs-134	<1.39E-02	0.00E+00	1.39E-02
				Cs-137	<1.49E-02	0.00E+00	1.49E-02
				Be-7	<1.42E-01	0.00E+00	1.42E-01
				K-40	3.61E-01	1.00E-01	2.65E-01
Sample ID:	292759	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.39E-02	0.00E+00	1.39E-02
				Cs-134	<1.31E-02	0.00E+00	1.31E-02
				Cs-137	<1.48E-02	0.00E+00	1.48E-02
				Be-7	<8.99E-02	0.00E+00	8.99E-02
				K-40	4.10E-01	1.33E-01	1.79E-01
Sample ID:	293021	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.18E-02	0.00E+00	2.18E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<2.40E-02	0.00E+00	2.40E-02
				Be-7	<1.82E-01	0.00E+00	1.82E-01
				K-40	7.34E-01	1.73E-01	3.30E-01
Sample ID:	294652	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.50E-02	0.00E+00	2.50E-02
				Cs-134	<1.23E-02	0.00E+00	1.23E-02
				Cs-137	<2.23E-02	0.00E+00	2.23E-02
				Be-7	<1.47E-01	0.00E+00	1.47E-01
				K-40	6.18E-01	1.57E-01	2.11E-01
Sample ID:	295161	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.02E-02	0.00E+00	1.02E-02
				Cs-134	<1.07E-02	0.00E+00	1.07E-02
				Cs-137	<1.38E-02	0.00E+00	1.38E-02
				Be-7	<1.46E-01	0.00E+00	1.46E-01
				K-40	<4.65E-01	0.00E+00	4.65E-01
Sample ID:	295422	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.94E-02	0.00E+00	2.94E-02
				Cs-134	<2.04E-02	0.00E+00	2.04E-02
				Cs-137	<1.80E-02	0.00E+00	1.80E-02
				Be-7	<2.10E-01	0.00E+00	2.10E-01
				K-40	5.68E-01	1.38E-01	3.50E-01
Sample ID:	295937	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.23E-02	0.00E+00	2.23E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<2.26E-02	0.00E+00	2.26E-02
				Be-7	<1.44E-01	0.00E+00	1.44E-01
				K-40	<5.42E-01	0.00E+00	5.42E-01
Sample ID:	296182	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.34E-02	0.00E+00	2.34E-02
				Cs-134	<1.64E-02	0.00E+00	1.64E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID: 296182	Sample Dates: 6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.15E-01	1.34E-01	2.20E-01
Sample ID: 296703	Sample Dates: 6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
Sample ID: 296930	Sample Dates: 6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<7.47E-02	0.00E+00	7.47E-02
Sample ID: 297327	Sample Dates: 6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<9.59E-02	0.00E+00	9.59E-02
Sample ID: 297615	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
Sample ID: 298151	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.45E-02	0.00E+00	2.45E-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	<1.02E-01	0.00E+00	1.02E-01
Sample ID: 350505	Sample Dates: 7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
Sample ID: 350976	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
Sample ID: 351197	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
Sample ID: 351603	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
Sample ID: 353417	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.71E-02	0.00E+00	1.71E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID: 353417	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	5.21E-01	2.56E-01	8.30E-02
Sample ID: 354042	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<9.43E-03	0.00E+00	9.43E-03
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
Sample ID: 354434	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
Sample ID: 354755	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<7.86E-02	0.00E+00	7.86E-02
Sample ID: 355140	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
Sample ID: 355626	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
Sample ID: 356480	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<3.77E-03	0.00E+00	3.77E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
Sample ID: 357030	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<4.68E-03	0.00E+00	4.68E-03
		Be-7	<1.16E-01	0.00E+00	1.16E-01
Sample ID: 358038	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
Sample ID: 358648	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	7.58E-01	3.39E-01	2.98E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID: 359318	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	3.75E-01	3.02E-01	4.32E-01
Sample ID: 360017	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.00E-01	2.75E-01	3.55E-01
Sample ID: 360702	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	4.61E-01	2.41E-01	8.33E-02
Sample ID: 361566	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<8.05E-02	0.00E+00	8.05E-02
		K-40	4.66E-01	2.63E-01	2.62E-01
Sample ID: 361946	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<6.15E-01	0.00E+00	6.15E-01
Sample ID: 362770	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<8.74E-03	0.00E+00	8.74E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<9.01E-02	0.00E+00	9.01E-02
		K-40	<3.02E-01	0.00E+00	3.02E-01
Sample ID: 363513	Sample Dates: 12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<6.30E-03	0.00E+00	6.30E-03
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<8.06E-02	0.00E+00	8.06E-02
		K-40	3.77E-01	1.66E-01	1.58E-01
Sample ID: 363962	Sample Dates: 12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	3.47E-01	2.29E-01	2.85E-01
Sample ID: 364496	Sample Dates: 12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.39E-01	2.47E-01	2.87E-01

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID: 280633	Sample Dates: 12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	280633	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	4.71E-01	1.14E-01	2.07E-01
Sample ID:	280806	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.38E-02	0.00E+00	2.38E-02
				Cs-134	<1.65E-02	0.00E+00	1.65E-02
				Cs-137	<2.37E-02	0.00E+00	2.37E-02
				Be-7	<1.39E-01	0.00E+00	1.39E-01
				K-40	<5.35E-01	0.00E+00	5.35E-01
Sample ID:	281165	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.28E-02	0.00E+00	2.28E-02
				Cs-134	<1.67E-02	0.00E+00	1.67E-02
				Cs-137	<2.01E-02	0.00E+00	2.01E-02
				Be-7	<1.51E-01	0.00E+00	1.51E-01
				K-40	4.68E-01	1.44E-01	3.01E-01
Sample ID:	281486	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.75E-02	0.00E+00	1.75E-02
				Cs-134	<1.37E-02	0.00E+00	1.37E-02
				Cs-137	<1.25E-02	0.00E+00	1.25E-02
				Be-7	<1.22E-01	0.00E+00	1.22E-01
				K-40	7.25E-01	1.35E-01	2.34E-01
Sample ID:	282109	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.64E-02	0.00E+00	1.64E-02
				Cs-134	<1.98E-02	0.00E+00	1.98E-02
				Cs-137	<2.17E-02	0.00E+00	2.17E-02
				Be-7	<1.31E-01	0.00E+00	1.31E-01
				K-40	4.19E-01	1.08E-01	3.30E-01
Sample ID:	282921	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.18E-02	0.00E+00	2.18E-02
				Cs-134	<2.20E-02	0.00E+00	2.20E-02
				Cs-137	<2.19E-02	0.00E+00	2.19E-02
				Be-7	<1.64E-01	0.00E+00	1.64E-01
				K-40	5.91E-01	1.53E-01	7.97E-02
Sample ID:	283368	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.44E-02	0.00E+00	1.44E-02
				Cs-134	<1.87E-02	0.00E+00	1.87E-02
				Cs-137	<9.21E-03	0.00E+00	9.21E-03
				Be-7	<9.32E-02	0.00E+00	9.32E-02
				K-40	4.75E-01	1.37E-01	1.97E-01
Sample ID:	284535	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.03E-02	0.00E+00	2.03E-02
				Cs-134	<1.76E-02	0.00E+00	1.76E-02
				Cs-137	<1.90E-02	0.00E+00	1.90E-02
				Be-7	<2.82E-02	0.00E+00	2.82E-02
				K-40	3.73E-01	1.04E-01	2.16E-01
Sample ID:	285096	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<1.78E-02	0.00E+00	1.78E-02
				Be-7	<1.67E-01	0.00E+00	1.67E-01
				K-40	4.56E-01	1.54E-01	2.09E-01
Sample ID:	285701	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.07E-02	0.00E+00	1.07E-02
				Cs-134	<1.08E-02	0.00E+00	1.08E-02
				Cs-137	<1.18E-02	0.00E+00	1.18E-02
				Be-7	<8.12E-02	0.00E+00	8.12E-02
				K-40	4.30E-01	7.72E-02	1.46E-01
Sample ID:	286205	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.88E-02	0.00E+00	1.88E-02
				Cs-134	<2.26E-02	0.00E+00	2.26E-02
				Cs-137	<2.05E-02	0.00E+00	2.05E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	286205	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<1.66E-01	0.00E+00	1.66E-01
				K-40	2.00E-01	1.19E-01	2.58E-01
Sample ID:	287090	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.28E-02	0.00E+00	1.28E-02
				Cs-134	<1.78E-02	0.00E+00	1.78E-02
				Cs-137	<1.49E-02	0.00E+00	1.49E-02
				Be-7	<1.34E-01	0.00E+00	1.34E-01
				K-40	5.01E-01	1.09E-01	1.75E-01
Sample ID:	288341	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.37E-02	0.00E+00	2.37E-02
				Cs-134	<1.86E-02	0.00E+00	1.86E-02
				Cs-137	<1.84E-02	0.00E+00	1.84E-02
				Be-7	<1.09E-01	0.00E+00	1.09E-01
				K-40	4.73E-01	1.15E-01	2.06E-01
Sample ID:	289065	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.85E-02	0.00E+00	1.85E-02
				Cs-134	<1.43E-02	0.00E+00	1.43E-02
				Cs-137	<1.98E-02	0.00E+00	1.98E-02
				Be-7	<1.18E-01	0.00E+00	1.18E-01
				K-40	8.35E-01	1.43E-01	1.90E-01
Sample ID:	289451	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.37E-02	0.00E+00	2.37E-02
				Cs-134	<1.87E-02	0.00E+00	1.87E-02
				Cs-137	<2.08E-02	0.00E+00	2.08E-02
				Be-7	<1.51E-01	0.00E+00	1.51E-01
				K-40	5.69E-01	1.27E-01	2.58E-01
Sample ID:	289861	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.08E-02	0.00E+00	1.08E-02
				Cs-134	<1.08E-02	0.00E+00	1.08E-02
				Cs-137	<1.00E-02	0.00E+00	1.00E-02
				Be-7	<5.79E-02	0.00E+00	5.79E-02
				K-40	4.40E-01	9.16E-02	1.61E-01
Sample ID:	291466	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.13E-02	0.00E+00	2.13E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<2.28E-02	0.00E+00	2.28E-02
				Be-7	<1.08E-01	0.00E+00	1.08E-01
				K-40	3.62E-01	1.00E-01	2.49E-01
Sample ID:	292760	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.32E-03	0.00E+00	9.32E-03
				Cs-134	<2.42E-03	0.00E+00	2.42E-03
				Cs-137	<1.35E-02	0.00E+00	1.35E-02
				Be-7	<8.58E-02	0.00E+00	8.58E-02
				K-40	<4.45E-01	0.00E+00	4.45E-01
Sample ID:	293022	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<8.04E-03	0.00E+00	8.04E-03
				Cs-134	<7.98E-03	0.00E+00	7.98E-03
				Cs-137	<1.20E-02	0.00E+00	1.20E-02
				Be-7	<5.01E-02	0.00E+00	5.01E-02
				K-40	<4.44E-01	0.00E+00	4.44E-01
Sample ID:	294653	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.10E-02	0.00E+00	2.10E-02
				Cs-134	<1.23E-02	0.00E+00	1.23E-02
				Cs-137	<1.77E-02	0.00E+00	1.77E-02
				Be-7	<1.68E-01	0.00E+00	1.68E-01
				K-40	<5.38E-01	0.00E+00	5.38E-01
Sample ID:	295162	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.69E-02	0.00E+00	1.69E-02
				Cs-134	<1.61E-02	0.00E+00	1.61E-02

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# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	295162	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-137	<1.56E-02	0.00E+00	1.56E-02
				Be-7	<1.49E-01	0.00E+00	1.49E-01
				K-40	3.15E-01	1.13E-01	2.82E-01
Sample ID:	295423	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.13E-02	0.00E+00	3.13E-02
				Cs-134	<2.50E-02	0.00E+00	2.50E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<2.12E-01	0.00E+00	2.12E-01
				K-40	<7.58E-01	0.00E+00	7.58E-01
Sample ID:	295938	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.01E-02	0.00E+00	2.01E-02
				Cs-134	<1.44E-02	0.00E+00	1.44E-02
				Cs-137	<2.61E-02	0.00E+00	2.61E-02
				Be-7	<1.56E-01	0.00E+00	1.56E-01
				K-40	<5.44E-01	0.00E+00	5.44E-01
Sample ID:	296183	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.24E-02	0.00E+00	2.24E-02
				Cs-134	<1.65E-02	0.00E+00	1.65E-02
				Cs-137	<2.16E-02	0.00E+00	2.16E-02
				Be-7	<1.23E-01	0.00E+00	1.23E-01
				K-40	<6.39E-01	0.00E+00	6.39E-01
Sample ID:	296704	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.29E-02	0.00E+00	2.29E-02
				Cs-134	<1.39E-02	0.00E+00	1.39E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.28E-01	0.00E+00	1.28E-01
				K-40	2.48E-01	1.50E-01	3.60E-01
Sample ID:	296931	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.57E-02	0.00E+00	2.57E-02
				Cs-134	<2.16E-02	0.00E+00	2.16E-02
				Cs-137	<1.77E-02	0.00E+00	1.77E-02
				Be-7	<1.46E-01	0.00E+00	1.46E-01
				K-40	<6.05E-01	0.00E+00	6.05E-01
Sample ID:	297328	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.80E-02	0.00E+00	1.80E-02
				Cs-134	<1.55E-02	0.00E+00	1.55E-02
				Cs-137	<1.99E-02	0.00E+00	1.99E-02
				Be-7	<1.36E-01	0.00E+00	1.36E-01
				K-40	<5.41E-01	0.00E+00	5.41E-01
Sample ID:	297616	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.68E-02	0.00E+00	3.68E-02
				Cs-134	<1.22E-02	0.00E+00	1.22E-02
				Cs-137	<1.07E-02	0.00E+00	1.07E-02
				Be-7	<7.41E-02	0.00E+00	7.41E-01
				K-40	<4.23E-01	0.00E+00	4.23E-01
Sample ID:	298152	Sample Dates:	7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.46E-02	0.00E+00	2.46E-02
				Cs-134	<2.05E-02	0.00E+00	2.05E-02
				Cs-137	<1.25E-02	0.00E+00	1.25E-02
				Be-7	<1.33E-01	0.00E+00	1.33E-01
				K-40	4.48E-01	2.52E-01	2.47E-01
Sample ID:	350506	Sample Dates:	7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.34E-02	0.00E+00	2.34E-02
				Cs-134	<1.58E-02	0.00E+00	1.58E-02
				Cs-137	<1.70E-02	0.00E+00	1.70E-02
				Be-7	<1.26E-01	0.00E+00	1.26E-01
				K-40	4.27E-01	2.55E-01	2.55E-01
Sample ID:	350977	Sample Dates:	7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.61E-02	0.00E+00	1.61E-02

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# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID: 350977	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<5.79E-01	0.00E+00	5.79E-01
Sample ID: 351198	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<3.82E-03	0.00E+00	3.82E-03
		Cs-137	<4.78E-03	0.00E+00	4.78E-03
		Be-7	<1.54E-01	0.00E+00	1.54E-01
Sample ID: 351604	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
Sample ID: 353418	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
Sample ID: 354044	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
Sample ID: 354435	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
Sample ID: 354756	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<9.94E-02	0.00E+00	9.94E-02
Sample ID: 355142	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.96E-02	0.00E+00	1.96E-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	<1.34E-01	0.00E+00	1.34E-01
Sample ID: 355627	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
Sample ID: 356482	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<8.00E-02	0.00E+00	8.00E-02
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	5.88E-01	2.68E-01	7.97E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID: 357031	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<6.37E-01	0.00E+00	6.37E-01
Sample ID: 358039	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<4.98E-03	0.00E+00	4.98E-03
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	2.85E-01	2.85E-01	4.34E-01
Sample ID: 358649	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.91E-01	2.69E-01	8.00E-02
Sample ID: 359320	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	4.02E-01	2.48E-01	2.66E-01
Sample ID: 360018	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<4.12E-01	0.00E+00	4.12E-01
Sample ID: 360703	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<3.93E-03	0.00E+00	3.93E-03
		Cs-137	<4.91E-03	0.00E+00	4.91E-03
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	2.93E-01	2.79E-01	4.18E-01
Sample ID: 361567	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<6.64E-02	0.00E+00	6.64E-02
		K-40	5.82E-01	1.93E-01	4.04E-02
Sample ID: 361947	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	3.16E-01	2.22E-01	2.86E-01
Sample ID: 362771	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<8.26E-03	0.00E+00	8.26E-03
		Cs-137	<9.70E-03	0.00E+00	9.70E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	3.73E-01	1.49E-01	1.45E-01
Sample ID: 363514	Sample Dates: 12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<8.36E-03	0.00E+00	8.36E-03
		Cs-134	<8.53E-03	0.00E+00	8.53E-03
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<8.44E-02	0.00E+00	8.44E-02
		K-40	3.27E-01	1.56E-01	1.49E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 121 [ INDICATOR - NE @ 0.47 miles ]

Sample ID:	363963	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.31E-02	0.00E+00	1.31E-02
				Cs-134	<1.34E-02	0.00E+00	1.34E-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	6.21E-01	2.64E-01	7.32E-02

Sample ID:	364497	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.84E-02	0.00E+00	2.84E-02
				Cs-134	<1.49E-02	0.00E+00	1.49E-02
				Cs-137	<1.65E-02	0.00E+00	1.65E-02
				Be-7	<1.22E-01	0.00E+00	1.22E-01
				K-40	4.74E-01	2.29E-01	2.64E-01

## Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	280634	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.76E-02	0.00E+00	2.76E-02
				Cs-134	<1.98E-02	0.00E+00	1.98E-02
				Cs-137	<1.42E-02	0.00E+00	1.42E-02
				Be-7	<1.02E-01	0.00E+00	1.02E-01
				K-40	2.50E-01	1.28E-01	7.52E-02

Sample ID:	280807	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.36E-02	0.00E+00	2.36E-02
				Cs-134	<1.90E-02	0.00E+00	1.90E-02
				Cs-137	<1.98E-02	0.00E+00	1.98E-02
				Be-7	<2.45E-01	0.00E+00	2.45E-01
				K-40	6.58E-01	1.60E-01	2.93E-01

Sample ID:	281166	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.88E-02	0.00E+00	1.88E-02
				Cs-134	<1.89E-02	0.00E+00	1.89E-02
				Cs-137	<1.60E-02	0.00E+00	1.60E-02
				Be-7	<1.34E-01	0.00E+00	1.34E-01
				K-40	<5.04E-01	0.00E+00	5.04E-01

Sample ID:	281487	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.06E-02	0.00E+00	1.06E-02
				Cs-134	<9.36E-03	0.00E+00	9.36E-03
				Cs-137	<7.16E-03	0.00E+00	7.16E-03
				Be-7	<7.46E-02	0.00E+00	7.46E-02
				K-40	5.81E-01	9.75E-02	1.60E-01

Sample ID:	282110	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.26E-02	0.00E+00	2.26E-02
				Cs-134	<1.87E-02	0.00E+00	1.87E-02
				Cs-137	<1.88E-02	0.00E+00	1.88E-02
				Be-7	<1.84E-01	0.00E+00	1.84E-01
				K-40	4.93E-01	1.40E-01	2.56E-01

Sample ID:	282922	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.36E-03	0.00E+00	9.36E-03
				Cs-134	<1.04E-02	0.00E+00	1.04E-02
				Cs-137	<8.18E-03	0.00E+00	8.18E-03
				Be-7	<5.08E-02	0.00E+00	5.08E-02
				K-40	2.54E-01	9.24E-02	2.17E-01

Sample ID:	283369	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<8.43E-03	0.00E+00	8.43E-03
				Cs-134	<7.46E-03	0.00E+00	7.46E-03
				Cs-137	<5.97E-03	0.00E+00	5.97E-03
				Be-7	<8.12E-02	0.00E+00	8.12E-02
				K-40	3.21E-01	1.01E-01	2.44E-01

Sample ID:	284536	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.14E-02	0.00E+00	2.14E-02
				Cs-134	<2.00E-02	0.00E+00	2.00E-02
				Cs-137	<1.70E-02	0.00E+00	1.70E-02
				Be-7	<9.07E-02	0.00E+00	9.07E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	284536	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	2.38E-01	1.04E-01	2.16E-01
Sample ID:	285097	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.87E-02	0.00E+00	1.87E-02
				Cs-134	<1.70E-02	0.00E+00	1.70E-02
				Cs-137	<1.41E-02	0.00E+00	1.41E-02
				Be-7	<1.04E-01	0.00E+00	1.04E-01
				K-40	<5.21E-01	0.00E+00	5.21E-01
Sample ID:	285702	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.11E-02	0.00E+00	1.11E-02
				Cs-134	<7.19E-03	0.00E+00	7.19E-03
				Cs-137	<5.44E-03	0.00E+00	5.44E-03
				Be-7	<9.55E-02	0.00E+00	9.55E-02
				K-40	4.06E-01	6.97E-02	1.10E-01
Sample ID:	286206	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.61E-02	0.00E+00	1.61E-02
				Cs-134	<2.03E-02	0.00E+00	2.03E-02
				Cs-137	<2.24E-02	0.00E+00	2.24E-02
				Be-7	<1.42E-01	0.00E+00	1.42E-01
				K-40	4.10E-01	1.10E-01	2.18E-01
Sample ID:	287091	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.22E-02	0.00E+00	1.22E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<2.05E-02	0.00E+00	2.05E-02
				Be-7	<1.10E-01	0.00E+00	1.10E-01
				K-40	5.98E-01	1.31E-01	7.70E-02
Sample ID:	288342	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.64E-02	0.00E+00	1.64E-02
				Cs-134	<1.94E-02	0.00E+00	1.94E-02
				Cs-137	<1.62E-02	0.00E+00	1.62E-02
				Be-7	<1.37E-01	0.00E+00	1.37E-01
				K-40	5.29E-01	1.22E-01	2.45E-01
Sample ID:	289066	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.22E-02	0.00E+00	2.22E-02
				Cs-134	<1.47E-02	0.00E+00	1.47E-02
				Cs-137	<2.84E-02	0.00E+00	2.84E-02
				Be-7	<1.67E-01	0.00E+00	1.67E-01
				K-40	<5.52E-01	0.00E+00	5.52E-01
Sample ID:	289452	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.69E-02	0.00E+00	1.69E-02
				Cs-134	<2.12E-02	0.00E+00	2.12E-02
				Cs-137	<1.58E-02	0.00E+00	1.58E-02
				Be-7	<1.11E-01	0.00E+00	1.11E-01
				K-40	<6.55E-01	0.00E+00	6.55E-01
Sample ID:	289862	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.15E-02	0.00E+00	1.15E-02
				Cs-134	<1.08E-02	0.00E+00	1.08E-02
				Cs-137	<1.23E-02	0.00E+00	1.23E-02
				Be-7	<5.64E-02	0.00E+00	5.64E-02
				K-40	<3.09E-01	0.00E+00	3.09E-01
Sample ID:	291467	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.98E-02	0.00E+00	1.98E-02
				Cs-134	<2.24E-02	0.00E+00	2.24E-02
				Cs-137	<1.94E-02	0.00E+00	1.94E-02
				Be-7	<1.52E-01	0.00E+00	1.52E-01
				K-40	2.78E-01	8.80E-02	7.52E-02
Sample ID:	292761	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.25E-02	0.00E+00	1.25E-02
				Cs-134	<1.04E-02	0.00E+00	1.04E-02
				Cs-137	<1.08E-02	0.00E+00	1.08E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	292761	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<6.28E-02	0.00E+00	6.28E-02
				K-40	2.76E-01	7.49E-02	1.06E-01
Sample ID:	293023	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.88E-02	0.00E+00	1.88E-02
				Cs-134	<2.21E-02	0.00E+00	2.21E-02
				Cs-137	<2.22E-02	0.00E+00	2.22E-02
				Be-7	<1.38E-01	0.00E+00	1.38E-01
				K-40	4.09E-01	1.29E-01	2.72E-01
Sample ID:	294654	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.58E-02	0.00E+00	1.58E-02
				Cs-134	<9.74E-03	0.00E+00	9.74E-03
				Cs-137	<1.77E-02	0.00E+00	1.77E-02
				Be-7	<1.40E-01	0.00E+00	1.40E-01
				K-40	5.12E-01	1.21E-01	2.11E-01
Sample ID:	295163	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<1.27E-02	0.00E+00	1.27E-02
				Cs-137	<1.38E-02	0.00E+00	1.38E-02
				Be-7	<1.00E-01	0.00E+00	1.00E-01
				K-40	<4.12E-01	0.00E+00	4.12E-01
Sample ID:	295424	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.08E-02	0.00E+00	2.08E-02
				Cs-134	<2.13E-02	0.00E+00	2.13E-02
				Cs-137	<2.20E-02	0.00E+00	2.20E-02
				Be-7	<1.44E-01	0.00E+00	1.44E-01
				K-40	5.69E-01	1.38E-01	3.51E-01
Sample ID:	295939	Sample Dates:	6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.76E-02	0.00E+00	1.76E-02
				Cs-134	<2.15E-02	0.00E+00	2.15E-02
				Cs-137	<2.20E-02	0.00E+00	2.20E-02
				Be-7	<1.43E-01	0.00E+00	1.43E-01
				K-40	<5.98E-01	0.00E+00	5.98E-01
Sample ID:	296184	Sample Dates:	6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.11E-02	0.00E+00	2.11E-02
				Cs-134	<1.85E-02	0.00E+00	1.85E-02
				Cs-137	<1.99E-02	0.00E+00	1.99E-02
				Be-7	<1.53E-01	0.00E+00	1.53E-01
				K-40	<5.90E-01	0.00E+00	5.90E-01
Sample ID:	296705	Sample Dates:	6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.14E-02	0.00E+00	2.14E-02
				Cs-134	<1.69E-02	0.00E+00	1.69E-02
				Cs-137	<1.74E-02	0.00E+00	1.74E-02
				Be-7	<1.69E-01	0.00E+00	1.69E-01
				K-40	<5.40E-01	0.00E+00	5.40E-01
Sample ID:	296932	Sample Dates:	6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.52E-02	0.00E+00	1.52E-02
				Cs-134	<1.33E-02	0.00E+00	1.33E-02
				Cs-137	<1.80E-02	0.00E+00	1.80E-02
				Be-7	<9.73E-02	0.00E+00	9.73E-02
				K-40	6.50E-01	1.25E-01	6.50E-02
Sample ID:	297329	Sample Dates:	6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.35E-02	0.00E+00	2.35E-02
				Cs-134	<9.84E-03	0.00E+00	9.84E-03
				Cs-137	<1.51E-02	0.00E+00	1.51E-02
				Be-7	<1.50E-01	0.00E+00	1.50E-01
				K-40	4.31E-01	1.11E-01	2.07E-01
Sample ID:	297617	Sample Dates:	7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.79E-02	0.00E+00	3.79E-02
				Cs-134	<1.03E-02	0.00E+00	1.03E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID: 297617	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
Sample ID: 298153	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<7.88E-03	0.00E+00	7.88E-03
		Be-7	<7.23E-02	0.00E+00	7.23E-02
Sample ID: 350507	Sample Dates: 7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
Sample ID: 350978	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
Sample ID: 351199	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
Sample ID: 351605	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
Sample ID: 353419	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
Sample ID: 354046	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
Sample ID: 354436	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
Sample ID: 354757	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<4.65E-03	0.00E+00	4.65E-03
		Be-7	<9.96E-02	0.00E+00	9.96E-02
Sample ID: 355144	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.97E-02	0.00E+00	1.97E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID: 355144	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<5.90E-01	0.00E+00	5.90E-01
Sample ID: 355628	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
Sample ID: 356484	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
Sample ID: 357032	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<3.71E-03	0.00E+00	3.71E-03
		Cs-137	<4.63E-03	0.00E+00	4.63E-03
		Be-7	<1.30E-01	0.00E+00	1.30E-01
Sample ID: 358040	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<4.98E-03	0.00E+00	4.98E-03
		Be-7	<1.36E-01	0.00E+00	1.36E-01
Sample ID: 358650	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<2.94E-02	0.00E+00	2.94E-02
Sample ID: 359321	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<4.75E-03	0.00E+00	4.75E-03
		Be-7	<1.91E-01	0.00E+00	1.91E-01
Sample ID: 360019	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.28E-02	0.00E+00	2.28E-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	<1.19E-01	0.00E+00	1.19E-01
Sample ID: 360704	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
Sample ID: 361568	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	5.07E-01	2.50E-01	8.08E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	361948	Sample Dates:	11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.62E-02	0.00E+00	3.62E-02
				Cs-134	<1.75E-02	0.00E+00	1.75E-02
				Cs-137	<2.58E-02	0.00E+00	2.58E-02
				Be-7	<9.76E-02	0.00E+00	9.76E-02
				K-40	8.88E-01	3.75E-01	4.01E-01
Sample ID:	362772	Sample Dates:	12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.42E-02	0.00E+00	1.42E-02
				Cs-134	<9.25E-03	0.00E+00	9.25E-03
				Cs-137	<6.42E-03	0.00E+00	6.42E-03
				Be-7	<7.13E-02	0.00E+00	7.13E-02
				K-40	5.40E-01	1.77E-01	1.25E-01
Sample ID:	363515	Sample Dates:	12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.30E-02	0.00E+00	1.30E-02
				Cs-134	<1.24E-02	0.00E+00	1.24E-02
				Cs-137	<1.25E-02	0.00E+00	1.25E-02
				Be-7	<7.93E-02	0.00E+00	7.93E-02
				K-40	<3.46E-01	0.00E+00	3.46E-01
Sample ID:	363964	Sample Dates:	12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.14E-02	0.00E+00	1.14E-02
				Cs-134	<9.04E-03	0.00E+00	9.04E-03
				Cs-137	<1.36E-02	0.00E+00	1.36E-02
				Be-7	<9.03E-02	0.00E+00	9.03E-02
				K-40	2.52E-01	1.32E-01	1.22E-01
Sample ID:	364498	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.10E-02	0.00E+00	3.10E-02
				Cs-134	<1.17E-02	0.00E+00	1.17E-02
				Cs-137	<8.07E-03	0.00E+00	8.07E-03
				Be-7	<1.01E-01	0.00E+00	1.01E-01
				K-40	4.57E-01	2.56E-01	3.42E-01

## Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	280646	Sample Dates:	12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.40E-02	0.00E+00	2.40E-02
				Cs-134	<1.23E-02	0.00E+00	1.23E-02
				Cs-137	<2.05E-02	0.00E+00	2.05E-02
				Be-7	<1.47E-01	0.00E+00	1.47E-01
				K-40	6.24E-01	1.33E-01	3.47E-01
Sample ID:	280819	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.38E-02	0.00E+00	2.38E-02
				Cs-134	<1.62E-02	0.00E+00	1.62E-02
				Cs-137	<1.63E-02	0.00E+00	1.63E-02
				Be-7	<1.34E-01	0.00E+00	1.34E-01
				K-40	5.21E-01	1.23E-01	3.23E-01
Sample ID:	281178	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.40E-02	0.00E+00	2.40E-02
				Cs-134	<1.68E-02	0.00E+00	1.68E-02
				Cs-137	<1.72E-02	0.00E+00	1.72E-02
				Be-7	<9.66E-02	0.00E+00	9.66E-02
				K-40	4.86E-01	1.18E-01	2.60E-01
Sample ID:	281499	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.24E-02	0.00E+00	1.24E-02
				Cs-134	<1.52E-02	0.00E+00	1.52E-02
				Cs-137	<1.72E-02	0.00E+00	1.72E-02
				Be-7	<1.05E-01	0.00E+00	1.05E-01
				K-40	3.61E-01	9.02E-02	6.10E-02
Sample ID:	282122	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<2.12E-02	0.00E+00	2.12E-02
				Cs-137	<2.04E-02	0.00E+00	2.04E-02
				Be-7	<1.57E-01	0.00E+00	1.57E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID:	282122	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	6.73E-01	1.61E-01	3.92E-01
Sample ID:	282934	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.17E-02	0.00E+00	1.17E-02
				Cs-134	<9.05E-03	0.00E+00	9.05E-03
				Cs-137	<1.05E-02	0.00E+00	1.05E-02
				Be-7	<8.40E-02	0.00E+00	8.40E-02
				K-40	5.94E-01	8.48E-02	1.12E-01
Sample ID:	283381	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.07E-02	0.00E+00	2.07E-02
				Cs-134	<1.73E-02	0.00E+00	1.73E-02
				Cs-137	<2.58E-02	0.00E+00	2.58E-02
				Be-7	<9.92E-02	0.00E+00	9.92E-02
				K-40	<5.42E-01	0.00E+00	5.42E-01
Sample ID:	284548	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.21E-02	0.00E+00	1.21E-02
				Cs-134	<9.20E-03	0.00E+00	9.20E-03
				Cs-137	<7.83E-03	0.00E+00	7.83E-03
				Be-7	<6.98E-02	0.00E+00	6.98E-02
				K-40	6.70E-01	8.96E-02	1.10E-01
Sample ID:	285109	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.31E-02	0.00E+00	2.31E-02
				Cs-134	<9.64E-03	0.00E+00	9.64E-03
				Cs-137	<1.75E-02	0.00E+00	1.75E-02
				Be-7	<7.53E-02	0.00E+00	7.53E-02
				K-40	4.79E-01	1.16E-01	3.51E-01
Sample ID:	285714	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.36E-02	0.00E+00	1.36E-02
				Cs-134	<1.04E-02	0.00E+00	1.04E-02
				Cs-137	<1.25E-02	0.00E+00	1.25E-02
				Be-7	<6.99E-02	0.00E+00	6.99E-02
				K-40	<3.86E-01	0.00E+00	3.86E-01
Sample ID:	286218	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<1.93E-02	0.00E+00	1.93E-02
				Cs-137	<2.57E-02	0.00E+00	2.57E-02
				Be-7	<1.44E-01	0.00E+00	1.44E-01
				K-40	<5.64E-01	0.00E+00	5.64E-01
Sample ID:	287103	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.18E-02	0.00E+00	1.18E-02
				Cs-134	<7.18E-03	0.00E+00	7.18E-03
				Cs-137	<9.51E-03	0.00E+00	9.51E-03
				Be-7	<7.65E-02	0.00E+00	7.65E-02
				K-40	3.40E-01	1.20E-01	1.81E-01
Sample ID:	288354	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.68E-02	0.00E+00	1.68E-02
				Cs-134	<1.70E-02	0.00E+00	1.70E-02
				Cs-137	<2.48E-02	0.00E+00	2.48E-02
				Be-7	<1.27E-01	0.00E+00	1.27E-01
				K-40	6.77E-01	1.38E-01	7.62E-02
Sample ID:	289078	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.12E-02	0.00E+00	1.12E-02
				Cs-134	<5.99E-03	0.00E+00	5.99E-03
				Cs-137	<9.57E-03	0.00E+00	9.57E-03
				Be-7	<6.63E-02	0.00E+00	6.63E-02
				K-40	6.04E-01	8.54E-02	1.12E-01
Sample ID:	289464	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.74E-02	0.00E+00	1.74E-02
				Cs-134	<1.72E-02	0.00E+00	1.72E-02
				Cs-137	<1.70E-02	0.00E+00	1.70E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID: 289464	Sample Dates: 4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<6.88E-01	0.00E+00	6.88E-01
Sample ID: 289874	Sample Dates: 4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	2.79E-01	7.74E-02	1.78E-01
Sample ID: 291479	Sample Dates: 4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01
Sample ID: 292773	Sample Dates: 4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	5.66E-01	1.52E-01	2.53E-01
Sample ID: 293035	Sample Dates: 5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	2.90E-01	9.16E-02	2.11E-01
Sample ID: 294666	Sample Dates: 5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<4.76E-01	0.00E+00	4.76E-01
Sample ID: 295175	Sample Dates: 5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.69E-01	1.19E-01	2.84E-01
Sample ID: 295436	Sample Dates: 5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	4.37E-01	1.21E-01	9.08E-02
Sample ID: 295951	Sample Dates: 6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.47E-01	1.45E-01	7.98E-02
Sample ID: 296196	Sample Dates: 6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	3.83E-01	1.31E-01	2.72E-01
Sample ID: 296717	Sample Dates: 6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID: 296717	Sample Dates: 6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.79E-01	1.16E-01	2.04E-01
Sample ID: 296944	Sample Dates: 6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
Sample ID: 297341	Sample Dates: 6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
Sample ID: 297629	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<7.80E-03	0.00E+00	7.80E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	<5.32E-02	0.00E+00	5.32E-02
Sample ID: 298165	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.53E-03	0.00E+00	1.53E-03
		Cs-137	<9.92E-03	0.00E+00	9.92E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
Sample ID: 350508	Sample Dates: 7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<8.38E-02	0.00E+00	8.38E-02
Sample ID: 350979	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
Sample ID: 351200	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
Sample ID: 351606	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<4.02E-03	0.00E+00	4.02E-03
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
Sample ID: 353420	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
Sample ID: 354048	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.21E-02	0.00E+00	1.21E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID: 354048	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	3.34E-01	2.08E-01	2.14E-01
Sample ID: 354437	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
Sample ID: 354758	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
Sample ID: 355146	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<8.15E-02	0.00E+00	8.15E-02
Sample ID: 355629	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
Sample ID: 356485	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.80E-02	0.00E+00	1.80E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
Sample ID: 357033	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
Sample ID: 358041	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
Sample ID: 358651	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
Sample ID: 359323	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	<5.35E-01	0.00E+00	5.35E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 133 [ INDICATOR - ENE @ 6.23 miles ]

Sample ID: 360020	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	<6.33E-01	0.00E+00	6.33E-01
Sample ID: 360705	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	5.21E-01	3.19E-01	4.01E-01
Sample ID: 361569	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<6.00E-01	0.00E+00	6.00E-01
Sample ID: 361949	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	3.56E-01	2.06E-01	2.04E-01
Sample ID: 362773	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<9.38E-02	0.00E+00	9.38E-02
		K-40	5.97E-01	2.84E-01	3.03E-01
Sample ID: 363516	Sample Dates: 12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<8.78E-02	0.00E+00	8.78E-02
		K-40	4.34E-01	1.77E-01	1.53E-01
Sample ID: 363965	Sample Dates: 12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<9.05E-02	0.00E+00	9.05E-02
		K-40	2.87E-01	2.22E-01	3.04E-01
Sample ID: 364499	Sample Dates: 12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.29E-02	0.00E+00	9.29E-02
		K-40	4.93E-01	2.13E-01	2.01E-01

## Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 280635	Sample Dates: 12/30/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	4.98E-01	1.17E-01	2.62E-01
Sample ID: 280808	Sample Dates: 1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	280808	Sample Dates:	1/6/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	6.80E-01	1.42E-01	2.84E-01
Sample ID:	281167	Sample Dates:	1/13/2014 - 1/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.25E-02	0.00E+00	2.25E-02
				Cs-134	<2.10E-02	0.00E+00	2.10E-02
				Cs-137	<1.46E-02	0.00E+00	1.46E-02
				Be-7	<1.49E-01	0.00E+00	1.49E-01
				K-40	6.29E-01	1.34E-01	3.01E-01
Sample ID:	281488	Sample Dates:	1/20/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.69E-02	0.00E+00	1.69E-02
				Cs-134	<1.78E-02	0.00E+00	1.78E-02
				Cs-137	<1.09E-02	0.00E+00	1.09E-02
				Be-7	<1.16E-01	0.00E+00	1.16E-01
				K-40	6.91E-01	1.52E-01	1.76E-01
Sample ID:	282111	Sample Dates:	1/27/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.58E-02	0.00E+00	2.58E-02
				Cs-134	<1.59E-02	0.00E+00	1.59E-02
				Cs-137	<1.97E-02	0.00E+00	1.97E-02
				Be-7	<1.52E-01	0.00E+00	1.52E-01
				K-40	3.23E-01	1.24E-01	2.01E-01
Sample ID:	282923	Sample Dates:	2/3/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.25E-02	0.00E+00	1.25E-02
				Cs-134	<1.48E-02	0.00E+00	1.48E-02
				Cs-137	<1.82E-02	0.00E+00	1.82E-02
				Be-7	<1.31E-01	0.00E+00	1.31E-01
				K-40	4.98E-01	1.12E-01	6.74E-02
Sample ID:	283370	Sample Dates:	2/10/2014 - 2/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.96E-02	0.00E+00	1.96E-02
				Cs-134	<9.79E-03	0.00E+00	9.79E-03
				Cs-137	<1.77E-02	0.00E+00	1.77E-02
				Be-7	<1.07E-01	0.00E+00	1.07E-01
				K-40	7.73E-01	1.56E-01	1.69E-01
Sample ID:	284537	Sample Dates:	2/17/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.08E-02	0.00E+00	1.08E-02
				Cs-134	<9.72E-03	0.00E+00	9.72E-03
				Cs-137	<8.38E-03	0.00E+00	8.38E-03
				Be-7	<8.15E-02	0.00E+00	8.15E-02
				K-40	6.24E-01	8.65E-02	1.26E-01
Sample ID:	285098	Sample Dates:	2/24/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.17E-02	0.00E+00	2.17E-02
				Cs-134	<1.54E-02	0.00E+00	1.54E-02
				Cs-137	<1.41E-02	0.00E+00	1.41E-02
				Be-7	<1.72E-01	0.00E+00	1.72E-01
				K-40	4.41E-01	1.10E-01	2.09E-01
Sample ID:	285703	Sample Dates:	3/3/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.82E-02	0.00E+00	1.82E-02
				Cs-134	<1.09E-02	0.00E+00	1.09E-02
				Cs-137	<1.51E-02	0.00E+00	1.51E-02
				Be-7	<1.12E-01	0.00E+00	1.12E-01
				K-40	<6.72E-01	0.00E+00	6.72E-01
Sample ID:	286207	Sample Dates:	3/10/2014 - 3/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.22E-02	0.00E+00	2.22E-02
				Cs-134	<1.45E-02	0.00E+00	1.45E-02
				Cs-137	<2.99E-02	0.00E+00	2.99E-02
				Be-7	<1.13E-01	0.00E+00	1.13E-01
				K-40	5.28E-01	1.24E-01	3.88E-01
Sample ID:	287092	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<9.39E-03	0.00E+00	9.39E-03
				Cs-134	<1.10E-02	0.00E+00	1.10E-02
				Cs-137	<1.09E-02	0.00E+00	1.09E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	287092	Sample Dates:	3/17/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<6.26E-02	0.00E+00	6.26E-02
				K-40	4.06E-01	9.75E-02	1.45E-01
Sample ID:	288343	Sample Dates:	3/24/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.46E-02	0.00E+00	2.46E-02
				Cs-134	<2.11E-02	0.00E+00	2.11E-02
				Cs-137	<1.34E-02	0.00E+00	1.34E-02
				Be-7	<1.69E-01	0.00E+00	1.69E-01
				K-40	<5.56E-01	0.00E+00	5.56E-01
Sample ID:	289067	Sample Dates:	3/31/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.35E-02	0.00E+00	1.35E-02
				Cs-134	<1.23E-02	0.00E+00	1.23E-02
				Cs-137	<1.11E-02	0.00E+00	1.11E-02
				Be-7	<6.84E-02	0.00E+00	6.84E-02
				K-40	2.70E-01	9.73E-02	1.43E-01
Sample ID:	289453	Sample Dates:	4/7/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.68E-02	0.00E+00	1.68E-02
				Cs-134	<1.82E-02	0.00E+00	1.82E-02
				Cs-137	<2.09E-02	0.00E+00	2.09E-02
				Be-7	<1.20E-01	0.00E+00	1.20E-01
				K-40	<5.70E-01	0.00E+00	5.70E-01
Sample ID:	289863	Sample Dates:	4/14/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.27E-02	0.00E+00	1.27E-02
				Cs-134	<1.06E-02	0.00E+00	1.06E-02
				Cs-137	<3.73E-03	0.00E+00	3.73E-03
				Be-7	<1.01E-01	0.00E+00	1.01E-01
				K-40	5.08E-01	1.11E-01	1.77E-01
Sample ID:	291468	Sample Dates:	4/21/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.62E-02	0.00E+00	1.62E-02
				Cs-134	<1.39E-02	0.00E+00	1.39E-02
				Cs-137	<1.40E-02	0.00E+00	1.40E-02
				Be-7	<8.78E-02	0.00E+00	8.78E-02
				K-40	4.19E-01	9.87E-02	1.65E-01
Sample ID:	292762	Sample Dates:	4/28/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.45E-02	0.00E+00	1.45E-02
				Cs-134	<9.31E-03	0.00E+00	9.31E-03
				Cs-137	<1.54E-02	0.00E+00	1.54E-02
				Be-7	<7.18E-02	0.00E+00	7.18E-02
				K-40	4.30E-01	1.17E-01	1.57E-01
Sample ID:	293024	Sample Dates:	5/5/2014 - 5/12/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.79E-02	0.00E+00	1.79E-02
				Cs-134	<1.80E-02	0.00E+00	1.80E-02
				Cs-137	<1.82E-02	0.00E+00	1.82E-02
				Be-7	<1.45E-01	0.00E+00	1.45E-01
				K-40	4.93E-01	1.20E-01	7.84E-02
Sample ID:	294655	Sample Dates:	5/12/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.80E-02	0.00E+00	1.80E-02
				Cs-134	<2.62E-02	0.00E+00	2.62E-02
				Cs-137	<2.37E-02	0.00E+00	2.37E-02
				Be-7	<1.45E-01	0.00E+00	1.45E-01
				K-40	3.08E-01	1.29E-01	2.67E-01
Sample ID:	295164	Sample Dates:	5/19/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.01E-02	0.00E+00	2.01E-02
				Cs-134	<1.07E-02	0.00E+00	1.07E-02
				Cs-137	<1.89E-02	0.00E+00	1.89E-02
				Be-7	<1.55E-01	0.00E+00	1.55E-01
				K-40	3.42E-01	1.14E-01	1.86E-01
Sample ID:	295425	Sample Dates:	5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<3.02E-02	0.00E+00	3.02E-02
				Cs-134	<1.47E-02	0.00E+00	1.47E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 295425	Sample Dates: 5/27/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<7.41E-01	0.00E+00	7.41E-01
Sample ID: 295940	Sample Dates: 6/2/2014 - 6/9/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
Sample ID: 296185	Sample Dates: 6/9/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
Sample ID: 296706	Sample Dates: 6/16/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
Sample ID: 296933	Sample Dates: 6/23/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
Sample ID: 297330	Sample Dates: 6/30/2014 - 7/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
Sample ID: 297618	Sample Dates: 7/7/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<3.88E-02	0.00E+00	3.88E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
Sample ID: 298154	Sample Dates: 7/14/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<6.54E-02	0.00E+00	6.54E-02
Sample ID: 350509	Sample Dates: 7/21/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
Sample ID: 350980	Sample Dates: 7/28/2014 - 8/4/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<3.81E-03	0.00E+00	3.81E-03
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
Sample ID: 351201	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.52E-02	0.00E+00	1.52E-02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 351201	Sample Dates: 8/4/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	2.58E-01	2.39E-01	3.45E-01
Sample ID: 351607	Sample Dates: 8/11/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
Sample ID: 353421	Sample Dates: 8/18/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
Sample ID: 354050	Sample Dates: 8/25/2014 - 9/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<8.91E-02	0.00E+00	8.91E-02
Sample ID: 354438	Sample Dates: 9/2/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
Sample ID: 354759	Sample Dates: 9/8/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
Sample ID: 355148	Sample Dates: 9/15/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
Sample ID: 355630	Sample Dates: 9/22/2014 - 9/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
Sample ID: 356487	Sample Dates: 9/29/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
Sample ID: 357034	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
Sample ID: 357034	Sample Dates: 10/6/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		K-40	4.76E-01	2.70E-01	2.85E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 358042	Sample Dates: 10/13/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.97E-01	2.52E-01	8.41E-02
Sample ID: 358652	Sample Dates: 10/20/2014 - 10/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<2.94E-02	0.00E+00	2.94E-02
		K-40	<6.64E-01	0.00E+00	6.64E-01
Sample ID: 359325	Sample Dates: 10/27/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<4.75E-03	0.00E+00	4.75E-03
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.85E-01	2.16E-01	8.02E-02
Sample ID: 360021	Sample Dates: 11/3/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<2.98E-02	0.00E+00	2.98E-02
		K-40	5.80E-01	2.64E-01	7.85E-02
Sample ID: 360706	Sample Dates: 11/10/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<6.57E-01	0.00E+00	6.57E-01
Sample ID: 361570	Sample Dates: 11/17/2014 - 11/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.48E-01	2.33E-01	2.59E-01
Sample ID: 361950	Sample Dates: 11/24/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<4.19E-02	0.00E+00	4.19E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.64E-01	2.54E-01	2.62E-01
Sample ID: 362774	Sample Dates: 12/1/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<7.16E-02	0.00E+00	7.16E-02
		K-40	3.85E-01	1.64E-01	1.50E-01
Sample ID: 363517	Sample Dates: 12/8/2014 - 12/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<7.40E-02	0.00E+00	7.40E-02
		K-40	3.15E-01	1.52E-01	1.41E-01
Sample ID: 363966	Sample Dates: 12/15/2014 - 12/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<9.42E-03	0.00E+00	9.42E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<9.04E-02	0.00E+00	9.04E-02
		K-40	5.63E-01	1.95E-01	1.37E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 195 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	364500	Sample Dates:	12/22/2014 - 12/29/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<2.72E-02	0.00E+00	2.72E-02
				Cs-134	<1.55E-02	0.00E+00	1.55E-02
				Cs-137	<1.02E-02	0.00E+00	1.02E-02
				Be-7	<9.28E-02	0.00E+00	9.28E-02
				K-40	4.25E-01	1.77E-01	4.80E-02

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

Sample Point 104 [ INDICATOR - NNW @ 1.52 miles ]

Sample ID:	279592	Sample Dates:	1/6/2014 - 1/6/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.07E+01	0.00E+00	1.07E+01
					Cs-134	<8.26E+00	0.00E+00	8.26E+00
					Cs-137	<7.96E+00	0.00E+00	7.96E+00
					Be-7	1.20E+02	3.52E+01	7.35E+01
					K-40	2.89E+03	1.41E+02	7.92E+01

Sample ID:	281235	Sample Dates:	2/3/2014 - 2/3/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.04E+01	0.00E+00	1.04E+01
					Cs-134	<9.85E+00	0.00E+00	9.85E+00
					Cs-137	<1.30E+01	0.00E+00	1.30E+01
					Be-7	5.36E+01	2.15E+01	7.27E+01
					K-40	2.12E+03	1.59E+02	1.34E+02

Sample ID:	284432	Sample Dates:	3/3/2014 - 3/3/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.09E+01	0.00E+00	1.09E+01
					Cs-134	<1.32E+01	0.00E+00	1.32E+01
					Cs-137	<1.49E+01	0.00E+00	1.49E+01
					Be-7	<1.22E+02	0.00E+00	1.22E+02
					K-40	3.00E+03	2.06E+02	1.39E+02

Sample ID:	294852	Sample Dates:	6/2/2014 - 6/2/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.33E+01	0.00E+00	1.33E+01
					Cs-134	<1.31E+01	0.00E+00	1.31E+01
					Cs-137	<1.52E+01	0.00E+00	1.52E+01
					Be-7	<1.03E+02	0.00E+00	1.03E+02
					K-40	2.52E+03	1.64E+02	1.18E+02

Sample ID:	296620	Sample Dates:	7/7/2014 - 7/7/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<9.11E+00	0.00E+00	9.11E+00
					Cs-134	<1.35E+01	0.00E+00	1.35E+01
					Cs-137	<1.38E+01	0.00E+00	1.38E+01
					Be-7	<1.17E+02	0.00E+00	1.17E+02
					K-40	2.08E+03	1.80E+02	1.89E+02

Sample ID:	298139	Sample Dates:	8/4/2014 - 8/4/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<9.49E+00	0.00E+00	9.49E+00
					Cs-134	<1.05E+01	0.00E+00	1.05E+01
					Cs-137	<1.09E+01	0.00E+00	1.09E+01
					Be-7	1.44E+02	8.09E+01	1.19E+02
					K-40	2.40E+03	3.35E+02	9.43E+01

Sample ID:	354443	Sample Dates:	9/2/2014 - 9/2/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<8.96E+00	0.00E+00	8.96E+00
					Cs-134	<1.12E+01	0.00E+00	1.12E+01
					Cs-137	<1.20E+01	0.00E+00	1.20E+01
					Be-7	4.07E+01	5.17E+01	8.48E+01
					K-40	2.61E+03	3.56E+02	1.34E+02

Sample ID:	357039	Sample Dates:	10/6/2014 - 10/6/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<7.08E+00	0.00E+00	7.08E+00
					Cs-134	<1.15E+01	0.00E+00	1.15E+01
					Cs-137	<1.15E+01	0.00E+00	1.15E+01
					Be-7	<1.10E+02	0.00E+00	1.10E+02
					K-40	3.13E+03	4.07E+02	1.52E+02

Sample ID:	360026	Sample Dates:	11/3/2014 - 11/3/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.16E+01	0.00E+00	1.16E+01
					Cs-134	<1.28E+01	0.00E+00	1.28E+01
					Cs-137	<1.21E+01	0.00E+00	1.21E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 104 [ INDICATOR - NNW @ 1.52 miles ]

Sample ID: 360026	Sample Dates: 11/3/2014 - 11/3/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Be-7	5.26E+01	6.75E+01	1.11E+02
			K-40	3.19E+03	4.25E+02	9.81E+01
Sample ID: 362779	Sample Dates: 12/1/2014 - 12/1/2014	MIXEDCROPS	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.04E+01	0.00E+00	2.04E+01
			Cs-134	<8.84E+00	0.00E+00	8.84E+00
			Cs-137	<9.32E+00	0.00E+00	9.32E+00
			Be-7	4.88E+02	9.40E+01	1.08E+02
			K-40	4.05E+03	4.12E+02	1.56E+02

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID: 280875	Sample Dates: 12/9/2013 - 1/6/2014		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Beta	1.76E+00	3.85E-01	1.17E+00
			Mn-54	<4.06E+00	0.00E+00	4.06E+00
			Co-58	<4.37E+00	0.00E+00	4.37E+00
			Fe-59	<1.02E+01	0.00E+00	1.02E+01
			Co-60	<5.16E+00	0.00E+00	5.16E+00
			Zn-65	<1.09E+01	0.00E+00	1.09E+01
			Zr-95	<8.94E+00	0.00E+00	8.94E+00
			Nb-95	<5.53E+00	0.00E+00	5.53E+00
			I-131	<1.39E+01	0.00E+00	1.39E+01
			Cs-134	<4.19E+00	0.00E+00	4.19E+00
			Cs-137	<4.22E+00	0.00E+00	4.22E+00
			BaLa-140	<1.00E+01	0.00E+00	1.00E+01
			Be-7	<4.13E+01	0.00E+00	4.13E+01
			K-40	2.20E+02	3.04E+01	4.64E+01

Sample ID: 282990	Sample Dates: 1/6/2014 - 2/3/2014		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Beta	1.37E+00	4.15E-01	1.31E+00
			Mn-54	<5.60E+00	0.00E+00	5.60E+00
			Co-58	<4.92E+00	0.00E+00	4.92E+00
			Fe-59	<9.59E+00	0.00E+00	9.59E+00
			Co-60	<5.18E+00	0.00E+00	5.18E+00
			Zn-65	<1.09E+01	0.00E+00	1.09E+01
			Zr-95	<7.96E+00	0.00E+00	7.96E+00
			Nb-95	<7.36E+00	0.00E+00	7.36E+00
			I-131	<1.43E+01	0.00E+00	1.43E+01
			Cs-134	<4.18E+00	0.00E+00	4.18E+00
			Cs-137	<5.83E+00	0.00E+00	5.83E+00
			BaLa-140	<1.19E+01	0.00E+00	1.19E+01
			Be-7	<4.82E+01	0.00E+00	4.82E+01
			K-40	1.09E+02	2.18E+01	3.27E+01

Sample ID: 284713	Sample Dates: 12/9/2013 - 3/3/2014		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			H3DW	7.93E+02	6.95E+01	1.89E+02

Sample ID: 285770	Sample Dates: 2/3/2014 - 3/3/2014		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Beta	<5.41E-01	0.00E+00	1.27E+00
			Mn-54	<3.52E+00	0.00E+00	3.52E+00
			Co-58	<5.18E+00	0.00E+00	5.18E+00
			Fe-59	<7.76E+00	0.00E+00	7.76E+00
			Co-60	<5.28E+00	0.00E+00	5.28E+00
			Zn-65	<8.31E+00	0.00E+00	8.31E+00
			Zr-95	<6.83E+00	0.00E+00	6.83E+00
			Nb-95	<5.60E+00	0.00E+00	5.60E+00
			I-131	<1.44E+01	0.00E+00	1.44E+01
			Cs-134	<4.38E+00	0.00E+00	4.38E+00
			Cs-137	<4.56E+00	0.00E+00	4.56E+00
			BaLa-140	<1.38E+01	0.00E+00	1.38E+01
			Be-7	<4.45E+01	0.00E+00	4.45E+01
			K-40	1.36E+02	2.09E+01	2.30E+01

Sample ID: 289131	Sample Dates: 3/3/2014 - 3/31/2014		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Beta	1.12E+00	3.93E-01	1.26E+00
			Mn-54	<3.07E+00	0.00E+00	3.07E+00
			Co-58	<3.41E+00	0.00E+00	3.41E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID: 289131	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Fe-59	<7.06E+00	0.00E+00	7.06E+00
		Co-60	<2.67E+00	0.00E+00	2.67E+00
		Zn-65	<6.12E+00	0.00E+00	6.12E+00
		Zr-95	<5.77E+00	0.00E+00	5.77E+00
		Nb-95	<3.32E+00	0.00E+00	3.32E+00
		I-131	<1.28E+01	0.00E+00	1.28E+01
		Cs-134	<3.16E+00	0.00E+00	3.16E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<8.49E+00	0.00E+00	8.49E+00
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	1.70E+02	2.48E+01	2.73E+01
Sample ID: 292826	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	7.77E-01	3.80E-01	1.24E+00
		Mn-54	<4.30E+00	0.00E+00	4.30E+00
		Co-58	<4.50E+00	0.00E+00	4.50E+00
		Fe-59	<9.32E+00	0.00E+00	9.32E+00
		Co-60	<6.24E+00	0.00E+00	6.24E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<6.64E+00	0.00E+00	6.64E+00
		Nb-95	<6.41E+00	0.00E+00	6.41E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<3.59E+00	0.00E+00	3.59E+00
		Cs-137	<4.90E+00	0.00E+00	4.90E+00
		BaLa-140	<8.70E+00	0.00E+00	8.70E+00
		Be-7	<4.23E+01	0.00E+00	4.23E+01
		K-40	<7.55E+01	0.00E+00	7.55E+01
Sample ID: 295216	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	1.05E+03	7.36E+01	1.89E+02
Sample ID: 295489	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.44E+00	3.94E-01	1.23E+00
		Mn-54	<3.01E+00	0.00E+00	3.01E+00
		Co-58	<3.73E+00	0.00E+00	3.73E+00
		Fe-59	<9.65E+00	0.00E+00	9.65E+00
		Co-60	<3.95E+00	0.00E+00	3.95E+00
		Zn-65	<7.68E+00	0.00E+00	7.68E+00
		Zr-95	<5.55E+00	0.00E+00	5.55E+00
		Nb-95	<3.68E+00	0.00E+00	3.68E+00
		I-131	<1.40E+01	0.00E+00	1.40E+01
		Cs-134	<3.02E+00	0.00E+00	3.02E+00
		Cs-137	<4.01E+00	0.00E+00	4.01E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<2.79E+01	0.00E+00	2.79E+01
		K-40	8.64E+01	1.76E+01	2.71E+01
Sample ID: 296997	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.87E+00	8.25E-01	1.21E+00
		Mn-54	<3.71E+00	0.00E+00	3.71E+00
		Co-58	<2.64E+00	0.00E+00	2.64E+00
		Fe-59	<8.40E+00	0.00E+00	8.40E+00
		Co-60	<4.89E+00	0.00E+00	4.89E+00
		Zn-65	<7.76E+00	0.00E+00	7.76E+00
		Zr-95	<6.49E+00	0.00E+00	6.49E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.26E+00	0.00E+00	3.26E+00
		Cs-137	<4.15E+00	0.00E+00	4.15E+00
		BaLa-140	<8.54E+00	0.00E+00	8.54E+00
		Be-7	<3.17E+01	0.00E+00	3.17E+01
		K-40	1.14E+02	1.93E+01	3.04E+01
Sample ID: 350539	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.57E+00	7.92E-01	1.17E+00
		Mn-54	<2.33E+00	0.00E+00	2.33E+00
		Co-58	<2.71E+00	0.00E+00	2.71E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID: 350539	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Fe-59	<5.39E+00	0.00E+00	5.39E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<4.98E+00	0.00E+00	4.98E+00
		Zr-95	<4.42E+00	0.00E+00	4.42E+00
		Nb-95	<3.19E+00	0.00E+00	3.19E+00
		I-131	<9.70E+00	0.00E+00	9.70E+00
		Cs-134	<1.92E+00	0.00E+00	1.92E+00
		Cs-137	<2.36E+00	0.00E+00	2.36E+00
		BaLa-140	<6.19E+00	0.00E+00	6.19E+00
		Be-7	<2.23E+01	0.00E+00	2.23E+01
		K-40	7.74E+01	2.85E+01	3.98E+01
Sample ID: 351608	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.80E+00	7.71E-01	1.20E+00
		Mn-54	<2.80E+00	0.00E+00	2.80E+00
		Co-58	<3.35E+00	0.00E+00	3.35E+00
		Fe-59	<7.16E+00	0.00E+00	7.16E+00
		Co-60	<3.82E+00	0.00E+00	3.82E+00
		Zn-65	<5.23E+00	0.00E+00	5.23E+00
		Zr-95	<6.51E+00	0.00E+00	6.51E+00
		Nb-95	<5.62E+00	0.00E+00	5.62E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.65E+00	0.00E+00	3.65E+00
		Cs-137	<3.13E+00	0.00E+00	3.13E+00
		BaLa-140	<6.83E+00	0.00E+00	6.83E+00
		Be-7	<2.80E+01	0.00E+00	2.80E+01
		K-40	1.03E+02	3.71E+01	4.55E+01
Sample ID: 354198	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	8.01E+02	1.34E+02	1.88E+02
Sample ID: 354585	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	<6.24E-01	0.00E+00	1.45E+00
		Mn-54	<3.06E+00	0.00E+00	3.06E+00
		Co-58	<3.03E+00	0.00E+00	3.03E+00
		Fe-59	<7.91E+00	0.00E+00	7.91E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<6.52E+00	0.00E+00	6.52E+00
		Zr-95	<6.69E+00	0.00E+00	6.69E+00
		Nb-95	<3.81E+00	0.00E+00	3.81E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.56E+00	0.00E+00	3.56E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<7.00E+00	0.00E+00	7.00E+00
		Be-7	<2.96E+01	0.00E+00	2.96E+01
		K-40	1.69E+02	5.31E+01	7.02E+01
Sample ID: 356856	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.61E+00	7.73E-01	1.22E+00
		Mn-54	<1.81E+00	0.00E+00	1.81E+00
		Co-58	<2.01E+00	0.00E+00	2.01E+00
		Fe-59	<3.57E+00	0.00E+00	3.57E+00
		Co-60	<1.53E+00	0.00E+00	1.53E+00
		Zn-65	<2.95E+00	0.00E+00	2.95E+00
		Zr-95	<3.93E+00	0.00E+00	3.93E+00
		Nb-95	<2.49E+00	0.00E+00	2.49E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.11E+00	0.00E+00	2.11E+00
		Cs-137	<2.06E+00	0.00E+00	2.06E+00
		BaLa-140	<6.02E+00	0.00E+00	6.02E+00
		Be-7	<1.75E+01	0.00E+00	1.75E+01
		K-40	3.20E+01	1.64E+01	2.32E+01
Sample ID: 359747	Sample Dates: 10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.42E+00	8.31E-01	1.27E+00
		Mn-54	<2.00E+00	0.00E+00	2.00E+00
		Co-58	<2.00E+00	0.00E+00	2.00E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

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

Sample Point 101 [ INDICATOR - E @ 3.31 miles ]

Sample ID:	359747	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Fe-59	<4.00E+00	0.00E+00	4.00E+00
				Co-60	<2.05E+00	0.00E+00	2.05E+00
				Zn-65	<3.58E+00	0.00E+00	3.58E+00
				Zr-95	<3.97E+00	0.00E+00	3.97E+00
				Nb-95	<2.72E+00	0.00E+00	2.72E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<2.27E+00	0.00E+00	2.27E+00
				Cs-137	<1.93E+00	0.00E+00	1.93E+00
				BaLa-140	<6.34E+00	0.00E+00	6.34E+00
				Be-7	<1.66E+01	0.00E+00	1.66E+01
				K-40	4.16E+01	1.81E+01	2.42E+01

Sample ID:	362144	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	<1.53E-01	0.00E+00	1.34E+00
				Mn-54	<1.56E+00	0.00E+00	1.56E+00
				Co-58	<2.08E+00	0.00E+00	2.08E+00
				Fe-59	<3.80E+00	0.00E+00	3.80E+00
				Co-60	<1.86E+00	0.00E+00	1.86E+00
				Zn-65	<4.03E+00	0.00E+00	4.03E+00
				Zr-95	<4.20E+00	0.00E+00	4.20E+00
				Nb-95	<2.92E+00	0.00E+00	2.92E+00
				I-131	<1.15E+01	0.00E+00	1.15E+01
				Cs-134	<1.90E+00	0.00E+00	1.90E+00
				Cs-137	<2.10E+00	0.00E+00	2.10E+00
				BaLa-140	<6.61E+00	0.00E+00	6.61E+00
				Be-7	<1.59E+01	0.00E+00	1.59E+01
				K-40	4.99E+01	2.26E+01	3.17E+01

Sample ID:	364861	Sample Dates:	8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	9.84E+02	1.46E+02	1.99E+02

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID:	280859	Sample Dates:	12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.88E+00	3.86E-01	1.16E+00
				Mn-54	<3.39E+00	0.00E+00	3.39E+00
				Co-58	<2.92E+00	0.00E+00	2.92E+00
				Fe-59	<6.09E+00	0.00E+00	6.09E+00
				Co-60	<3.50E+00	0.00E+00	3.50E+00
				Zn-65	<6.23E+00	0.00E+00	6.23E+00
				Zr-95	<7.96E+00	0.00E+00	7.96E+00
				Nb-95	<4.97E+00	0.00E+00	4.97E+00
				I-131	<1.40E+01	0.00E+00	1.40E+01
				Cs-134	<3.50E+00	0.00E+00	3.50E+00
				Cs-137	<3.44E+00	0.00E+00	3.44E+00
				BaLa-140	<7.30E+00	0.00E+00	7.30E+00
				Be-7	<3.21E+01	0.00E+00	3.21E+01
				K-40	1.54E+02	3.12E+01	3.76E+01

Sample ID:	282974	Sample Dates:	1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	<5.85E-01	0.00E+00	1.31E+00
				Mn-54	<2.78E+00	0.00E+00	2.78E+00
				Co-58	<2.90E+00	0.00E+00	2.90E+00
				Fe-59	<7.16E+00	0.00E+00	7.16E+00
				Co-60	<4.41E+00	0.00E+00	4.41E+00
				Zn-65	<6.29E+00	0.00E+00	6.29E+00
				Zr-95	<6.15E+00	0.00E+00	6.15E+00
				Nb-95	<4.40E+00	0.00E+00	4.40E+00
				I-131	<1.14E+01	0.00E+00	1.14E+01
				Cs-134	<2.90E+00	0.00E+00	2.90E+00
				Cs-137	<3.42E+00	0.00E+00	3.42E+00
				BaLa-140	<8.86E+00	0.00E+00	8.86E+00
				Be-7	<2.83E+01	0.00E+00	2.83E+01
				K-40	<5.66E+01	0.00E+00	5.66E+01

Sample ID:	284712	Sample Dates:	12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	4.87E+02	6.53E+01	1.89E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID: 285754	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.28E+00	4.00E-01	1.27E+00
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.42E+00	0.00E+00	3.42E+00
		Fe-59	<6.77E+00	0.00E+00	6.77E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<6.57E+00	0.00E+00	6.57E+00
		Zr-95	<5.83E+00	0.00E+00	5.83E+00
		Nb-95	<4.02E+00	0.00E+00	4.02E+00
		I-131	<1.26E+01	0.00E+00	1.26E+01
		Cs-134	<2.32E+00	0.00E+00	2.32E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<8.51E+00	0.00E+00	8.51E+00
		Be-7	<2.68E+01	0.00E+00	2.68E+01
		K-40	4.88E+01	1.55E+01	3.11E+01
Sample ID: 289118	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	7.37E-01	3.81E-01	1.25E+00
		Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<3.90E+00	0.00E+00	3.90E+00
		Fe-59	<7.67E+00	0.00E+00	7.67E+00
		Co-60	<4.79E+00	0.00E+00	4.79E+00
		Zn-65	<5.68E+00	0.00E+00	5.68E+00
		Zr-95	<6.84E+00	0.00E+00	6.84E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<3.38E+00	0.00E+00	3.38E+00
		Cs-137	<4.11E+00	0.00E+00	4.11E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<3.28E+01	0.00E+00	3.28E+01
		K-40	9.75E+01	2.38E+01	3.41E+01
Sample ID: 292813	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	9.38E-01	3.80E-01	1.23E+00
		Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.53E+00	0.00E+00	3.53E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<3.67E+00	0.00E+00	3.67E+00
		Zn-65	<9.71E+00	0.00E+00	9.71E+00
		Zr-95	<7.28E+00	0.00E+00	7.28E+00
		Nb-95	<5.65E+00	0.00E+00	5.65E+00
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<3.76E+00	0.00E+00	3.76E+00
		Cs-137	<4.88E+00	0.00E+00	4.88E+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	9.52E+01	3.31E+01	4.51E+01
Sample ID: 295217	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	4.92E+02	6.58E+01	1.90E+02
Sample ID: 295476	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.87E+00	4.01E-01	1.22E+00
		Mn-54	<2.09E+00	0.00E+00	2.09E+00
		Co-58	<2.48E+00	0.00E+00	2.48E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<2.47E+00	0.00E+00	2.47E+00
		Zn-65	<4.58E+00	0.00E+00	4.58E+00
		Zr-95	<4.55E+00	0.00E+00	4.55E+00
		Nb-95	<3.37E+00	0.00E+00	3.37E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<1.91E+00	0.00E+00	1.91E+00
		Cs-137	<2.53E+00	0.00E+00	2.53E+00
		BaLa-140	<7.24E+00	0.00E+00	7.24E+00
		Be-7	<2.34E+01	0.00E+00	2.34E+01
		K-40	1.16E+02	1.49E+01	1.84E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID: 296984	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.78E+00	8.15E-01	1.20E+00
		Mn-54	<3.97E+00	0.00E+00	3.97E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<9.13E+00	0.00E+00	9.13E+00
		Co-60	<3.54E+00	0.00E+00	3.54E+00
		Zn-65	<8.69E+00	0.00E+00	8.69E+00
		Zr-95	<5.48E+00	0.00E+00	5.48E+00
		Nb-95	<5.52E+00	0.00E+00	5.52E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<3.57E+00	0.00E+00	3.57E+00
		Cs-137	<4.18E+00	0.00E+00	4.18E+00
		BaLa-140	<8.87E+00	0.00E+00	8.87E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	<5.74E+01	0.00E+00	5.74E+01
Sample ID: 350540	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.90E+00	7.55E-01	1.16E+00
		Mn-54	<2.31E+00	0.00E+00	2.31E+00
		Co-58	<2.54E+00	0.00E+00	2.54E+00
		Fe-59	<4.98E+00	0.00E+00	4.98E+00
		Co-60	<2.64E+00	0.00E+00	2.64E+00
		Zn-65	<4.07E+00	0.00E+00	4.07E+00
		Zr-95	<4.77E+00	0.00E+00	4.77E+00
		Nb-95	<2.98E+00	0.00E+00	2.98E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<1.98E+00	0.00E+00	1.98E+00
		Cs-137	<2.07E+00	0.00E+00	2.07E+00
		BaLa-140	<6.06E+00	0.00E+00	6.06E+00
		Be-7	<2.29E+01	0.00E+00	2.29E+01
		K-40	1.48E+02	3.27E+01	3.59E+01
Sample ID: 351609	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.62E+00	8.03E-01	1.19E+00
		Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.25E+00	0.00E+00	3.25E+00
		Fe-59	<7.07E+00	0.00E+00	7.07E+00
		Co-60	<4.76E+00	0.00E+00	4.76E+00
		Zn-65	<7.60E+00	0.00E+00	7.60E+00
		Zr-95	<6.45E+00	0.00E+00	6.45E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.07E+00	0.00E+00	4.07E+00
		Cs-137	<3.89E+00	0.00E+00	3.89E+00
		BaLa-140	<6.34E+00	0.00E+00	6.34E+00
		Be-7	<3.44E+01	0.00E+00	3.44E+01
		K-40	1.11E+02	3.62E+01	3.90E+01
Sample ID: 354199	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	6.79E+02	1.30E+02	1.87E+02
Sample ID: 354586	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.56E+00	8.81E-01	1.44E+00
		Mn-54	<5.82E+00	0.00E+00	5.82E+00
		Co-58	<4.47E+00	0.00E+00	4.47E+00
		Fe-59	<1.41E+01	0.00E+00	1.41E+01
		Co-60	<5.45E+00	0.00E+00	5.45E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<7.15E+00	0.00E+00	7.15E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<6.69E+00	0.00E+00	6.69E+00
		Cs-137	<5.64E+00	0.00E+00	5.64E+00
		BaLa-140	<8.12E+00	0.00E+00	8.12E+00
		Be-7	<4.79E+01	0.00E+00	4.79E+01
		K-40	<1.03E+02	0.00E+00	1.03E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 119 [ INDICATOR - SSW @ 7.4 miles ]

Sample ID:	356857	Sample Dates:	9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	7.51E+00	1.00E+00	1.21E+00
				Mn-54	<4.01E+00	0.00E+00	4.01E+00
				Co-58	<3.33E+00	0.00E+00	3.33E+00
				Fe-59	<6.51E+00	0.00E+00	6.51E+00
				Co-60	<4.05E+00	0.00E+00	4.05E+00
				Zn-65	<9.00E+00	0.00E+00	9.00E+00
				Zr-95	<7.85E+00	0.00E+00	7.85E+00
				Nb-95	<6.68E+00	0.00E+00	6.68E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<4.63E+00	0.00E+00	4.63E+00
				Cs-137	<3.88E+00	0.00E+00	3.88E+00
				BaLa-140	<7.74E+00	0.00E+00	7.74E+00
				Be-7	<3.46E+01	0.00E+00	3.46E+01
				K-40	5.40E+01	3.23E+01	3.96E+01

Sample ID:	359748	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	8.67E-01	7.59E-01	1.26E+00
				Mn-54	<1.75E+00	0.00E+00	1.75E+00
				Co-58	<2.19E+00	0.00E+00	2.19E+00
				Fe-59	<4.66E+00	0.00E+00	4.66E+00
				Co-60	<1.94E+00	0.00E+00	1.94E+00
				Zn-65	<4.37E+00	0.00E+00	4.37E+00
				Zr-95	<3.73E+00	0.00E+00	3.73E+00
				Nb-95	<2.72E+00	0.00E+00	2.72E+00
				I-131	<1.03E+01	0.00E+00	1.03E+01
				Cs-134	<2.24E+00	0.00E+00	2.24E+00
				Cs-137	<1.74E+00	0.00E+00	1.74E+00
				BaLa-140	<7.54E+00	0.00E+00	7.54E+00
				Be-7	<1.80E+01	0.00E+00	1.80E+01
				K-40	2.74E+01	1.78E+01	2.65E+01

Sample ID:	362145	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	<3.03E-01	0.00E+00	1.33E+00
				Mn-54	<1.81E+00	0.00E+00	1.81E+00
				Co-58	<2.12E+00	0.00E+00	2.12E+00
				Fe-59	<3.94E+00	0.00E+00	3.94E+00
				Co-60	<1.94E+00	0.00E+00	1.94E+00
				Zn-65	<3.81E+00	0.00E+00	3.81E+00
				Zr-95	<4.19E+00	0.00E+00	4.19E+00
				Nb-95	<2.83E+00	0.00E+00	2.83E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<2.55E+00	0.00E+00	2.55E+00
				Cs-137	<2.19E+00	0.00E+00	2.19E+00
				BaLa-140	<6.16E+00	0.00E+00	6.16E+00
				Be-7	<1.95E+01	0.00E+00	1.95E+01
				K-40	4.61E+01	1.94E+01	2.58E+01

Sample ID:	364862	Sample Dates:	8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	5.36E+02	1.33E+02	1.99E+02

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	280860	Sample Dates:	12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.83E+00	3.86E-01	1.17E+00
				Mn-54	<3.11E+00	0.00E+00	3.11E+00
				Co-58	<3.14E+00	0.00E+00	3.14E+00
				Fe-59	<7.81E+00	0.00E+00	7.81E+00
				Co-60	<4.32E+00	0.00E+00	4.32E+00
				Zn-65	<7.21E+00	0.00E+00	7.21E+00
				Zr-95	<6.82E+00	0.00E+00	6.82E+00
				Nb-95	<4.32E+00	0.00E+00	4.32E+00
				I-131	<1.22E+01	0.00E+00	1.22E+01
				Cs-134	<3.32E+00	0.00E+00	3.32E+00
				Cs-137	<3.24E+00	0.00E+00	3.24E+00
				BaLa-140	<8.47E+00	0.00E+00	8.47E+00
				Be-7	<3.00E+01	0.00E+00	3.00E+01
				K-40	1.03E+02	2.10E+01	3.17E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID: 282975	Sample Dates: 1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	9.00E-01	4.05E-01	1.31E+00
		Mn-54	<4.21E+00	0.00E+00	4.21E+00
		Co-58	<3.94E+00	0.00E+00	3.94E+00
		Fe-59	<8.89E+00	0.00E+00	8.89E+00
		Co-60	<5.52E+00	0.00E+00	5.52E+00
		Zn-65	<9.49E+00	0.00E+00	9.49E+00
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<5.59E+00	0.00E+00	5.59E+00
		I-131	<1.37E+01	0.00E+00	1.37E+01
		Cs-134	<4.39E+00	0.00E+00	4.39E+00
		Cs-137	<5.02E+00	0.00E+00	5.02E+00
		BaLa-140	<1.25E+01	0.00E+00	1.25E+01
		Be-7	<4.21E+01	0.00E+00	4.21E+01
		K-40	2.24E+02	2.81E+01	5.15E+01
Sample ID: 284700	Sample Dates: 12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	4.61E+02	6.49E+01	1.89E+02
Sample ID: 285755	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.10E+00	3.97E-01	1.27E+00
		Mn-54	<4.11E+00	0.00E+00	4.11E+00
		Co-58	<3.84E+00	0.00E+00	3.84E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<4.20E+00	0.00E+00	4.20E+00
		Zn-65	<9.20E+00	0.00E+00	9.20E+00
		Zr-95	<6.27E+00	0.00E+00	6.27E+00
		Nb-95	<4.94E+00	0.00E+00	4.94E+00
		I-131	<1.43E+01	0.00E+00	1.43E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<4.17E+00	0.00E+00	4.17E+00
		BaLa-140	<1.16E+01	0.00E+00	1.16E+01
		Be-7	<4.09E+01	0.00E+00	4.09E+01
		K-40	1.78E+02	3.21E+01	4.40E+01
Sample ID: 289119	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.65E+00	4.05E-01	1.26E+00
		Mn-54	<3.60E+00	0.00E+00	3.60E+00
		Co-58	<3.30E+00	0.00E+00	3.30E+00
		Fe-59	<7.87E+00	0.00E+00	7.87E+00
		Co-60	<3.31E+00	0.00E+00	3.31E+00
		Zn-65	<7.36E+00	0.00E+00	7.36E+00
		Zr-95	<6.21E+00	0.00E+00	6.21E+00
		Nb-95	<4.62E+00	0.00E+00	4.62E+00
		I-131	<1.38E+01	0.00E+00	1.38E+01
		Cs-134	<3.17E+00	0.00E+00	3.17E+00
		Cs-137	<4.02E+00	0.00E+00	4.02E+00
		BaLa-140	<8.11E+00	0.00E+00	8.11E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	1.92E+02	2.12E+01	3.08E+01
Sample ID: 292814	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.39E+00	3.93E-01	1.24E+00
		Mn-54	<2.73E+00	0.00E+00	2.73E+00
		Co-58	<3.74E+00	0.00E+00	3.74E+00
		Fe-59	<7.35E+00	0.00E+00	7.35E+00
		Co-60	<5.72E+00	0.00E+00	5.72E+00
		Zn-65	<7.38E+00	0.00E+00	7.38E+00
		Zr-95	<7.69E+00	0.00E+00	7.69E+00
		Nb-95	<4.91E+00	0.00E+00	4.91E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<3.21E+00	0.00E+00	3.21E+00
		Cs-137	<4.32E+00	0.00E+00	4.32E+00
		BaLa-140	<1.21E+01	0.00E+00	1.21E+01
		Be-7	<3.50E+01	0.00E+00	3.50E+01
		K-40	3.43E+01	1.67E+01	3.35E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	295218	Sample Dates:	3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	5.98E+02	6.64E+01	1.87E+02
Sample ID:	295477	Sample Dates:	4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.12E+00	3.86E-01	1.23E+00
				Mn-54	<3.18E+00	0.00E+00	3.18E+00
				Co-58	<3.98E+00	0.00E+00	3.98E+00
				Fe-59	<7.28E+00	0.00E+00	7.28E+00
				Co-60	<3.86E+00	0.00E+00	3.86E+00
				Zn-65	<8.13E+00	0.00E+00	8.13E+00
				Zr-95	<7.67E+00	0.00E+00	7.67E+00
				Nb-95	<4.30E+00	0.00E+00	4.30E+00
				I-131	<1.33E+01	0.00E+00	1.33E+01
				Cs-134	<3.33E+00	0.00E+00	3.33E+00
				Cs-137	<3.58E+00	0.00E+00	3.58E+00
				BaLa-140	<6.97E+00	0.00E+00	6.97E+00
				Be-7	<3.71E+01	0.00E+00	3.71E+01
				K-40	1.87E+02	2.29E+01	3.38E+01
Sample ID:	296985	Sample Dates:	5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.36E+00	8.05E-01	1.21E+00
				Mn-54	<3.32E+00	0.00E+00	3.32E+00
				Co-58	<4.73E+00	0.00E+00	4.73E+00
				Fe-59	<7.06E+00	0.00E+00	7.06E+00
				Co-60	<4.08E+00	0.00E+00	4.08E+00
				Zn-65	<8.29E+00	0.00E+00	8.29E+00
				Zr-95	<8.31E+00	0.00E+00	8.31E+00
				Nb-95	<5.12E+00	0.00E+00	5.12E+00
				I-131	<1.42E+01	0.00E+00	1.42E+01
				Cs-134	<4.07E+00	0.00E+00	4.07E+00
				Cs-137	<4.60E+00	0.00E+00	4.60E+00
				BaLa-140	<9.27E+00	0.00E+00	9.27E+00
				Be-7	<4.11E+01	0.00E+00	4.11E+01
				K-40	1.88E+02	2.74E+01	3.75E+01
Sample ID:	350541	Sample Dates:	6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.24E+00	7.76E-01	1.17E+00
				Mn-54	<2.49E+00	0.00E+00	2.49E+00
				Co-58	<2.95E+00	0.00E+00	2.95E+00
				Fe-59	<6.15E+00	0.00E+00	6.15E+00
				Co-60	<3.09E+00	0.00E+00	3.09E+00
				Zn-65	<6.57E+00	0.00E+00	6.57E+00
				Zr-95	<5.96E+00	0.00E+00	5.96E+00
				Nb-95	<3.80E+00	0.00E+00	3.80E+00
				I-131	<1.11E+01	0.00E+00	1.11E+01
				Cs-134	<2.34E+00	0.00E+00	2.34E+00
				Cs-137	<3.35E+00	0.00E+00	3.35E+00
				BaLa-140	<9.58E+00	0.00E+00	9.58E+00
				Be-7	<2.99E+01	0.00E+00	2.99E+01
				K-40	1.04E+02	3.83E+01	5.04E+01
Sample ID:	351610	Sample Dates:	7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.05E+00	7.81E-01	1.19E+00
				Mn-54	<3.01E+00	0.00E+00	3.01E+00
				Co-58	<3.41E+00	0.00E+00	3.41E+00
				Fe-59	<5.54E+00	0.00E+00	5.54E+00
				Co-60	<2.84E+00	0.00E+00	2.84E+00
				Zn-65	<6.59E+00	0.00E+00	6.59E+00
				Zr-95	<6.17E+00	0.00E+00	6.17E+00
				Nb-95	<4.01E+00	0.00E+00	4.01E+00
				I-131	<1.07E+01	0.00E+00	1.07E+01
				Cs-134	<3.46E+00	0.00E+00	3.46E+00
				Cs-137	<3.04E+00	0.00E+00	3.04E+00
				BaLa-140	<5.85E+00	0.00E+00	5.85E+00
				Be-7	<2.91E+01	0.00E+00	2.91E+01
				K-40	1.43E+02	3.76E+01	4.20E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	354200	Sample Dates:	5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	5.79E+02	1.27E+02	1.87E+02
Sample ID:	354587	Sample Dates:	8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	9.53E-01	8.62E-01	1.45E+00
				Mn-54	<3.73E+00	0.00E+00	3.73E+00
				Co-58	<5.32E+00	0.00E+00	5.32E+00
				Fe-59	<1.19E+01	0.00E+00	1.19E+01
				Co-60	<5.60E+00	0.00E+00	5.60E+00
				Zn-65	<6.00E+00	0.00E+00	6.00E+00
				Zr-95	<7.30E+00	0.00E+00	7.30E+00
				Nb-95	<3.97E+00	0.00E+00	3.97E+00
				I-131	<1.19E+01	0.00E+00	1.19E+01
				Cs-134	<4.01E+00	0.00E+00	4.01E+00
				Cs-137	<4.04E+00	0.00E+00	4.04E+00
				BaLa-140	<8.70E+00	0.00E+00	8.70E+00
				Be-7	<4.09E+01	0.00E+00	4.09E+01
				K-40	<7.96E+01	0.00E+00	7.96E+01
Sample ID:	356858	Sample Dates:	9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	4.64E+00	9.00E-01	1.22E+00
				Mn-54	<3.46E+00	0.00E+00	3.46E+00
				Co-58	<4.14E+00	0.00E+00	4.14E+00
				Fe-59	<7.18E+00	0.00E+00	7.18E+00
				Co-60	<2.79E+00	0.00E+00	2.79E+00
				Zn-65	<6.32E+00	0.00E+00	6.32E+00
				Zr-95	<8.02E+00	0.00E+00	8.02E+00
				Nb-95	<5.30E+00	0.00E+00	5.30E+00
				I-131	<1.06E+01	0.00E+00	1.06E+01
				Cs-134	<4.14E+00	0.00E+00	4.14E+00
				Cs-137	<3.66E+00	0.00E+00	3.66E+00
				BaLa-140	<7.23E+00	0.00E+00	7.23E+00
				Be-7	<2.80E+01	0.00E+00	2.80E+01
				K-40	1.11E+02	4.71E+01	6.46E+01
Sample ID:	359749	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.28E+00	7.80E-01	1.27E+00
				Mn-54	<1.98E+00	0.00E+00	1.98E+00
				Co-58	<2.26E+00	0.00E+00	2.26E+00
				Fe-59	<4.24E+00	0.00E+00	4.24E+00
				Co-60	<1.98E+00	0.00E+00	1.98E+00
				Zn-65	<4.35E+00	0.00E+00	4.35E+00
				Zr-95	<3.80E+00	0.00E+00	3.80E+00
				Nb-95	<2.72E+00	0.00E+00	2.72E+00
				I-131	<1.06E+01	0.00E+00	1.06E+01
				Cs-134	<2.18E+00	0.00E+00	2.18E+00
				Cs-137	<2.15E+00	0.00E+00	2.15E+00
				BaLa-140	<6.40E+00	0.00E+00	6.40E+00
				Be-7	<1.95E+01	0.00E+00	1.95E+01
				K-40	3.13E+01	1.73E+01	2.47E+01
Sample ID:	362146	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	8.04E-01	8.03E-01	1.34E+00
				Mn-54	<1.44E+00	0.00E+00	1.44E+00
				Co-58	<1.82E+00	0.00E+00	1.82E+00
				Fe-59	<3.09E+00	0.00E+00	3.09E+00
				Co-60	<1.34E+00	0.00E+00	1.34E+00
				Zn-65	<3.05E+00	0.00E+00	3.05E+00
				Zr-95	<2.64E+00	0.00E+00	2.64E+00
				Nb-95	<2.04E+00	0.00E+00	2.04E+00
				I-131	<1.03E+01	0.00E+00	1.03E+01
				Cs-134	<1.73E+00	0.00E+00	1.73E+00
				Cs-137	<1.36E+00	0.00E+00	1.36E+00
				BaLa-140	<5.18E+00	0.00E+00	5.18E+00
				Be-7	<1.38E+01	0.00E+00	1.38E+01
				K-40	2.37E+01	1.71E+01	2.67E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 132 [ INDICATOR - SSE @ 11.1 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
364863	8/18/2014 - 12/8/2014	H3DW	6.26E+02	1.35E+02	1.99E+02

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
280861	12/9/2013 - 1/6/2014	Beta	2.11E+00	3.93E-01	1.16E+00
		Mn-54	<3.33E+00	0.00E+00	3.33E+00
		Co-58	<3.97E+00	0.00E+00	3.97E+00
		Fe-59	<6.92E+00	0.00E+00	6.92E+00
		Co-60	<3.64E+00	0.00E+00	3.64E+00
		Zn-65	<7.23E+00	0.00E+00	7.23E+00
		Zr-95	<7.02E+00	0.00E+00	7.02E+00
		Nb-95	<4.41E+00	0.00E+00	4.41E+00
		I-131	<1.38E+01	0.00E+00	1.38E+01
		Cs-134	<3.52E+00	0.00E+00	3.52E+00
		Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<8.18E+00	0.00E+00	8.18E+00
		Be-7	<3.63E+01	0.00E+00	3.63E+01
		K-40	1.76E+02	2.32E+01	3.62E+01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
282976	1/6/2014 - 2/3/2014	Beta	1.42E+00	4.14E-01	1.31E+00
		Mn-54	<3.83E+00	0.00E+00	3.83E+00
		Co-58	<3.80E+00	0.00E+00	3.80E+00
		Fe-59	<9.69E+00	0.00E+00	9.69E+00
		Co-60	<4.07E+00	0.00E+00	4.07E+00
		Zn-65	<8.50E+00	0.00E+00	8.50E+00
		Zr-95	<8.38E+00	0.00E+00	8.38E+00
		Nb-95	<5.10E+00	0.00E+00	5.10E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<3.67E+00	0.00E+00	3.67E+00
		Cs-137	<4.14E+00	0.00E+00	4.14E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.97E+01	0.00E+00	3.97E+01
		K-40	1.71E+02	2.59E+01	4.74E+01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
284701	12/9/2013 - 3/3/2014	H3DW	<3.78E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
285756	2/3/2014 - 3/3/2014	Beta	1.71E+00	4.10E-01	1.27E+00
		Mn-54	<3.01E+00	0.00E+00	3.01E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<7.93E+00	0.00E+00	7.93E+00
		Co-60	<5.26E+00	0.00E+00	5.26E+00
		Zn-65	<7.20E+00	0.00E+00	7.20E+00
		Zr-95	<6.76E+00	0.00E+00	6.76E+00
		Nb-95	<5.12E+00	0.00E+00	5.12E+00
		I-131	<1.21E+01	0.00E+00	1.21E+01
		Cs-134	<2.63E+00	0.00E+00	2.63E+00
		Cs-137	<3.64E+00	0.00E+00	3.64E+00
		BaLa-140	<9.48E+00	0.00E+00	9.48E+00
		Be-7	<3.20E+01	0.00E+00	3.20E+01
		K-40	9.22E+01	2.10E+01	3.09E+01

Sample ID:	Sample Dates:	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
289120	3/3/2014 - 3/31/2014	Beta	1.23E+00	3.93E-01	1.25E+00
		Mn-54	<2.85E+00	0.00E+00	2.85E+00
		Co-58	<3.68E+00	0.00E+00	3.68E+00
		Fe-59	<6.29E+00	0.00E+00	6.29E+00
		Co-60	<4.91E+00	0.00E+00	4.91E+00
		Zn-65	<8.18E+00	0.00E+00	8.18E+00
		Zr-95	<6.91E+00	0.00E+00	6.91E+00
		Nb-95	<4.18E+00	0.00E+00	4.18E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.61E+00	0.00E+00	3.61E+00
		Cs-137	<3.87E+00	0.00E+00	3.87E+00
		BaLa-140	<8.92E+00	0.00E+00	8.92E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID: 289120	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	6.69E+01	1.74E+01	3.78E+01
Sample ID: 292815	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.49E+00	3.94E-01	1.23E+00
		Mn-54	<4.31E+00	0.00E+00	4.31E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<8.24E+00	0.00E+00	8.24E+00
		Co-60	<3.96E+00	0.00E+00	3.96E+00
		Zn-65	<7.08E+00	0.00E+00	7.08E+00
		Zr-95	<7.53E+00	0.00E+00	7.53E+00
		Nb-95	<4.57E+00	0.00E+00	4.57E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.99E+00	0.00E+00	2.99E+00
		Cs-137	<4.38E+00	0.00E+00	4.38E+00
		BaLa-140	<1.25E+01	0.00E+00	1.25E+01
		Be-7	<3.70E+01	0.00E+00	3.70E+01
		K-40	3.82E+01	1.47E+01	3.92E+01
Sample ID: 295219	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	<-5.1E+01	0.00E+00	1.88E+02
Sample ID: 295478	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.67E+00	4.23E-01	1.23E+00
		Mn-54	<3.10E+00	0.00E+00	3.10E+00
		Co-58	<3.24E+00	0.00E+00	3.24E+00
		Fe-59	<7.83E+00	0.00E+00	7.83E+00
		Co-60	<3.27E+00	0.00E+00	3.27E+00
		Zn-65	<7.15E+00	0.00E+00	7.15E+00
		Zr-95	<7.79E+00	0.00E+00	7.79E+00
		Nb-95	<5.06E+00	0.00E+00	5.06E+00
		I-131	<1.43E+01	0.00E+00	1.43E+01
		Cs-134	<3.60E+00	0.00E+00	3.60E+00
		Cs-137	<3.68E+00	0.00E+00	3.68E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	2.08E+02	2.29E+01	3.25E+01
Sample ID: 296986	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.92E+00	7.83E-01	1.21E+00
		Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<4.29E+00	0.00E+00	4.29E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<4.72E+00	0.00E+00	4.72E+00
		Zn-65	<7.62E+00	0.00E+00	7.62E+00
		Zr-95	<8.55E+00	0.00E+00	8.55E+00
		Nb-95	<6.19E+00	0.00E+00	6.19E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<4.61E+00	0.00E+00	4.61E+00
		Cs-137	<4.78E+00	0.00E+00	4.78E+00
		BaLa-140	<9.99E+00	0.00E+00	9.99E+00
		Be-7	<4.61E+01	0.00E+00	4.61E+01
		K-40	4.84E+01	1.83E+01	3.42E+01
Sample ID: 350542	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.03E+00	7.65E-01	1.17E+00
		Mn-54	<2.16E+00	0.00E+00	2.16E+00
		Co-58	<2.68E+00	0.00E+00	2.68E+00
		Fe-59	<6.30E+00	0.00E+00	6.30E+00
		Co-60	<2.88E+00	0.00E+00	2.88E+00
		Zn-65	<5.00E+00	0.00E+00	5.00E+00
		Zr-95	<4.41E+00	0.00E+00	4.41E+00
		Nb-95	<2.77E+00	0.00E+00	2.77E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.16E+00	0.00E+00	2.16E+00
		Cs-137	<2.76E+00	0.00E+00	2.76E+00
		BaLa-140	<6.83E+00	0.00E+00	6.83E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID: 350542	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	1.08E+02	2.76E+01	2.91E+01
Sample ID: 351611	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.24E+00	7.90E-01	1.19E+00
		Mn-54	<3.49E+00	0.00E+00	3.49E+00
		Co-58	<1.85E+00	0.00E+00	1.85E+00
		Fe-59	<5.35E+00	0.00E+00	5.35E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<6.39E+00	0.00E+00	6.39E+00
		Zr-95	<6.83E+00	0.00E+00	6.83E+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	<4.06E+00	0.00E+00	4.06E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<8.87E+00	0.00E+00	8.87E+00
		Be-7	<3.00E+01	0.00E+00	3.00E+01
		K-40	<4.99E+01	0.00E+00	4.99E+01
Sample ID: 354201	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	<4.77E+01	0.00E+00	1.88E+02
Sample ID: 354588	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	3.34E+00	9.54E-01	1.45E+00
		Mn-54	<3.46E+00	0.00E+00	3.46E+00
		Co-58	<3.82E+00	0.00E+00	3.82E+00
		Fe-59	<6.55E+00	0.00E+00	6.55E+00
		Co-60	<3.98E+00	0.00E+00	3.98E+00
		Zn-65	<8.25E+00	0.00E+00	8.25E+00
		Zr-95	<7.98E+00	0.00E+00	7.98E+00
		Nb-95	<4.89E+00	0.00E+00	4.89E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.44E+00	0.00E+00	3.44E+00
		Cs-137	<3.00E+00	0.00E+00	3.00E+00
		BaLa-140	<8.89E+00	0.00E+00	8.89E+00
		Be-7	<2.48E+01	0.00E+00	2.48E+01
		K-40	4.49E+01	3.01E+01	4.21E+01
Sample ID: 356859	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	3.12E+00	8.38E-01	1.21E+00
		Mn-54	<4.37E+00	0.00E+00	4.37E+00
		Co-58	<5.34E+00	0.00E+00	5.34E+00
		Fe-59	<7.17E+00	0.00E+00	7.17E+00
		Co-60	<4.42E+00	0.00E+00	4.42E+00
		Zn-65	<8.70E+00	0.00E+00	8.70E+00
		Zr-95	<8.86E+00	0.00E+00	8.86E+00
		Nb-95	<5.46E+00	0.00E+00	5.46E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<3.14E+00	0.00E+00	3.14E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<3.37E+01	0.00E+00	3.37E+01
		K-40	1.28E+02	5.33E+01	6.83E+01
Sample ID: 359750	Sample Dates: 10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.09E+00	7.73E-01	1.27E+00
		Mn-54	<2.17E+00	0.00E+00	2.17E+00
		Co-58	<2.43E+00	0.00E+00	2.43E+00
		Fe-59	<5.05E+00	0.00E+00	5.05E+00
		Co-60	<2.04E+00	0.00E+00	2.04E+00
		Zn-65	<4.15E+00	0.00E+00	4.15E+00
		Zr-95	<4.10E+00	0.00E+00	4.10E+00
		Nb-95	<2.92E+00	0.00E+00	2.92E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.42E+00	0.00E+00	2.42E+00
		Cs-137	<1.89E+00	0.00E+00	1.89E+00
		BaLa-140	<5.87E+00	0.00E+00	5.87E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 136 [ CONTROL - NNE @ 12.7 miles ]

Sample ID: 359750	Sample Dates: 10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<1.92E+01	0.00E+00	1.92E+01
		K-40	1.73E+02	3.01E+01	2.95E+01

Sample ID: 362147	Sample Dates: 11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.02E+00	8.10E-01	1.33E+00
		Mn-54	<1.80E+00	0.00E+00	1.80E+00
		Co-58	<2.06E+00	0.00E+00	2.06E+00
		Fe-59	<3.94E+00	0.00E+00	3.94E+00
		Co-60	<1.86E+00	0.00E+00	1.86E+00
		Zn-65	<3.23E+00	0.00E+00	3.23E+00
		Zr-95	<3.84E+00	0.00E+00	3.84E+00
		Nb-95	<2.67E+00	0.00E+00	2.67E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<1.97E+00	0.00E+00	1.97E+00
		Cs-137	<1.47E+00	0.00E+00	1.47E+00
		BaLa-140	<6.70E+00	0.00E+00	6.70E+00
		Be-7	<1.64E+01	0.00E+00	1.64E+01
		K-40	1.07E+02	2.34E+01	2.90E+01

Sample ID: 364864	Sample Dates: 8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	<2.52E+01	0.00E+00	1.99E+02

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID: 280862	Sample Dates: 12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.65E+00	3.82E-01	1.17E+00
		Mn-54	<4.54E+00	0.00E+00	4.54E+00
		Co-58	<4.88E+00	0.00E+00	4.88E+00
		Fe-59	<9.64E+00	0.00E+00	9.64E+00
		Co-60	<3.63E+00	0.00E+00	3.63E+00
		Zn-65	<7.92E+00	0.00E+00	7.92E+00
		Zr-95	<8.45E+00	0.00E+00	8.45E+00
		Nb-95	<5.88E+00	0.00E+00	5.88E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<3.84E+00	0.00E+00	3.84E+00
		Cs-137	<4.35E+00	0.00E+00	4.35E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<4.66E+01	0.00E+00	4.66E+01
		K-40	1.52E+02	2.28E+01	3.18E+01

Sample ID: 282977	Sample Dates: 1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.03E+00	4.07E-01	1.31E+00
		Mn-54	<4.49E+00	0.00E+00	4.49E+00
		Co-58	<4.37E+00	0.00E+00	4.37E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<9.06E+00	0.00E+00	9.06E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<9.62E+00	0.00E+00	9.62E+00
		Nb-95	<6.58E+00	0.00E+00	6.58E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<5.60E+00	0.00E+00	5.60E+00
		Cs-137	<7.65E+00	0.00E+00	7.65E+00
		BaLa-140	<1.16E+01	0.00E+00	1.16E+01
		Be-7	4.41E+01	1.45E+01	4.84E+01
		K-40	<9.46E+01	0.00E+00	9.46E+01

Sample ID: 284702	Sample Dates: 12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	<1.4E+01	0.00E+00	1.89E+02

Sample ID: 285757	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.04E+00	4.19E-01	1.27E+00
		Mn-54	<3.84E+00	0.00E+00	3.84E+00
		Co-58	<4.05E+00	0.00E+00	4.05E+00
		Fe-59	<7.39E+00	0.00E+00	7.39E+00
		Co-60	<3.49E+00	0.00E+00	3.49E+00
		Zn-65	<6.19E+00	0.00E+00	6.19E+00
		Zr-95	<6.73E+00	0.00E+00	6.73E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID: 285757	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<2.87E+00	0.00E+00	2.87E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<8.41E+00	0.00E+00	8.41E+00
		Be-7	<3.14E+01	0.00E+00	3.14E+01
		K-40	1.72E+02	2.59E+01	3.36E+01
Sample ID: 289121	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	9.34E-01	3.89E-01	1.26E+00
		Mn-54	<2.54E+00	0.00E+00	2.54E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<6.40E+00	0.00E+00	6.40E+00
		Co-60	<3.42E+00	0.00E+00	3.42E+00
		Zn-65	<4.99E+00	0.00E+00	4.99E+00
		Zr-95	<4.62E+00	0.00E+00	4.62E+00
		Nb-95	<3.69E+00	0.00E+00	3.69E+00
		I-131	<8.86E+00	0.00E+00	8.86E+00
		Cs-134	<2.38E+00	0.00E+00	2.38E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<5.84E+00	0.00E+00	5.84E+00
		Be-7	<2.64E+01	0.00E+00	2.64E+01
		K-40	8.05E+01	1.76E+01	2.70E+01
Sample ID: 292816	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.11E+00	3.87E-01	1.23E+00
		Mn-54	<3.34E+00	0.00E+00	3.34E+00
		Co-58	<3.76E+00	0.00E+00	3.76E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<3.44E+00	0.00E+00	3.44E+00
		Zn-65	<9.16E+00	0.00E+00	9.16E+00
		Zr-95	<6.17E+00	0.00E+00	6.17E+00
		Nb-95	<4.99E+00	0.00E+00	4.99E+00
		I-131	<1.44E+01	0.00E+00	1.44E+01
		Cs-134	<2.96E+00	0.00E+00	2.96E+00
		Cs-137	<3.89E+00	0.00E+00	3.89E+00
		BaLa-140	<8.20E+00	0.00E+00	8.20E+00
		Be-7	<4.59E+01	0.00E+00	4.59E+01
		K-40	1.37E+02	2.32E+01	3.31E+01
Sample ID: 295220	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	<7.45E+01	0.00E+00	1.88E+02
Sample ID: 295479	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.77E+00	4.00E-01	1.23E+00
		Mn-54	<5.34E+00	0.00E+00	5.34E+00
		Co-58	<5.88E+00	0.00E+00	5.88E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<6.57E+00	0.00E+00	6.57E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<7.24E+00	0.00E+00	7.24E+00
		Nb-95	<6.34E+00	0.00E+00	6.34E+00
		I-131	<1.36E+01	0.00E+00	1.36E+01
		Cs-134	<3.73E+00	0.00E+00	3.73E+00
		Cs-137	<5.63E+00	0.00E+00	5.63E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<4.24E+01	0.00E+00	4.24E+01
		K-40	<8.48E+01	0.00E+00	8.48E+01
Sample ID: 296987	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.60E+00	8.11E-01	1.20E+00
		Mn-54	<4.61E+00	0.00E+00	4.61E+00
		Co-58	<2.57E+00	0.00E+00	2.57E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<3.65E+00	0.00E+00	3.65E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<8.87E+00	0.00E+00	8.87E+00
		Nb-95	<5.77E+00	0.00E+00	5.77E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID: 296987	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		I-131	<1.43E+01	0.00E+00	1.43E+01
		Cs-134	<4.41E+00	0.00E+00	4.41E+00
		Cs-137	<5.07E+00	0.00E+00	5.07E+00
		BaLa-140	<9.53E+00	0.00E+00	9.53E+00
		Be-7	<3.93E+01	0.00E+00	3.93E+01
		K-40	1.25E+02	2.30E+01	4.35E+01
Sample ID: 350543	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.18E+00	7.73E-01	1.17E+00
		Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<6.14E+00	0.00E+00	6.14E+00
		Co-60	<2.57E+00	0.00E+00	2.57E+00
		Zn-65	<5.39E+00	0.00E+00	5.39E+00
		Zr-95	<5.50E+00	0.00E+00	5.50E+00
		Nb-95	<3.75E+00	0.00E+00	3.75E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.26E+00	0.00E+00	2.26E+00
		Cs-137	<2.46E+00	0.00E+00	2.46E+00
		BaLa-140	<6.64E+00	0.00E+00	6.64E+00
		Be-7	<2.78E+01	0.00E+00	2.78E+01
		K-40	2.06E+02	4.02E+01	3.87E+01
Sample ID: 351612	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.18E+00	7.86E-01	1.19E+00
		Mn-54	<4.00E+00	0.00E+00	4.00E+00
		Co-58	<4.16E+00	0.00E+00	4.16E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<4.64E+00	0.00E+00	4.64E+00
		Zn-65	<8.37E+00	0.00E+00	8.37E+00
		Zr-95	<7.74E+00	0.00E+00	7.74E+00
		Nb-95	<4.47E+00	0.00E+00	4.47E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.18E+00	0.00E+00	4.18E+00
		Cs-137	<3.69E+00	0.00E+00	3.69E+00
		BaLa-140	<9.09E+00	0.00E+00	9.09E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	4.22E+01	4.14E+01	6.55E+01
Sample ID: 354202	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3DW	2.54E+02	1.18E+02	1.89E+02
Sample ID: 354589	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	1.32E+00	8.77E-01	1.45E+00
		Mn-54	<4.20E+00	0.00E+00	4.20E+00
		Co-58	<3.78E+00	0.00E+00	3.78E+00
		Fe-59	<6.61E+00	0.00E+00	6.61E+00
		Co-60	<3.57E+00	0.00E+00	3.57E+00
		Zn-65	<6.84E+00	0.00E+00	6.84E+00
		Zr-95	<7.29E+00	0.00E+00	7.29E+00
		Nb-95	<4.76E+00	0.00E+00	4.76E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.05E+00	0.00E+00	4.05E+00
		Cs-137	<3.38E+00	0.00E+00	3.38E+00
		BaLa-140	<6.75E+00	0.00E+00	6.75E+00
		Be-7	<3.41E+01	0.00E+00	3.41E+01
		K-40	1.97E+02	5.05E+01	5.40E+01
Sample ID: 356860	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Beta	2.38E+00	8.15E-01	1.23E+00
		Mn-54	<3.17E+00	0.00E+00	3.17E+00
		Co-58	<3.89E+00	0.00E+00	3.89E+00
		Fe-59	<6.91E+00	0.00E+00	6.91E+00
		Co-60	<3.60E+00	0.00E+00	3.60E+00
		Zn-65	<6.45E+00	0.00E+00	6.45E+00
		Zr-95	<6.71E+00	0.00E+00	6.71E+00
		Nb-95	<4.47E+00	0.00E+00	4.47E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 194 [ INDICATOR - NNW @ 6.73 miles ]

Sample ID:	356860	Sample Dates:	9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<3.46E+00	0.00E+00	3.46E+00
				Cs-137	<3.00E+00	0.00E+00	3.00E+00
				BaLa-140	<6.91E+00	0.00E+00	6.91E+00
				Be-7	<2.98E+01	0.00E+00	2.98E+01
				K-40	1.51E+02	4.06E+01	4.30E+01

Sample ID:	359751	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	2.01E+00	8.15E-01	1.27E+00
				Mn-54	<2.44E+00	0.00E+00	2.44E+00
				Co-58	<2.87E+00	0.00E+00	2.87E+00
				Fe-59	<6.17E+00	0.00E+00	6.17E+00
				Co-60	<2.93E+00	0.00E+00	2.93E+00
				Zn-65	<5.04E+00	0.00E+00	5.04E+00
				Zr-95	<4.94E+00	0.00E+00	4.94E+00
				Nb-95	<3.88E+00	0.00E+00	3.88E+00
				I-131	<9.68E+00	0.00E+00	9.68E+00
				Cs-134	<3.13E+00	0.00E+00	3.13E+00
				Cs-137	<2.47E+00	0.00E+00	2.47E+00
				BaLa-140	<7.11E+00	0.00E+00	7.11E+00
				Be-7	<2.29E+01	0.00E+00	2.29E+01
				K-40	1.00E+02	2.64E+01	2.83E+01

Sample ID:	362148	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Beta	1.48E+00	8.31E-01	1.34E+00
				Mn-54	<1.33E+00	0.00E+00	1.33E+00
				Co-58	<1.50E+00	0.00E+00	1.50E+00
				Fe-59	<3.40E+00	0.00E+00	3.40E+00
				Co-60	<1.30E+00	0.00E+00	1.30E+00
				Zn-65	<2.57E+00	0.00E+00	2.57E+00
				Zr-95	<2.97E+00	0.00E+00	2.97E+00
				Nb-95	<1.94E+00	0.00E+00	1.94E+00
				I-131	<1.03E+01	0.00E+00	1.03E+01
				Cs-134	<1.48E+00	0.00E+00	1.48E+00
				Cs-137	<1.21E+00	0.00E+00	1.21E+00
				BaLa-140	<4.70E+00	0.00E+00	4.70E+00
				Be-7	<1.24E+01	0.00E+00	1.24E+01
				K-40	1.63E+02	2.16E+01	1.80E+01

Sample ID:	364865	Sample Dates:	8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3DW	<9.56E+01	0.00E+00	1.99E+02

Media Type: FISH Concentration (Activity): Unknown

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	287068	Sample Dates:	4/9/2014 - 4/9/2014	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<1.42E+01	0.00E+00	1.42E+01
					Co-58	<1.28E+01	0.00E+00	1.28E+01
					Fe-59	<3.35E+01	0.00E+00	3.35E+01
					Co-60	<1.70E+01	0.00E+00	1.70E+01
					Zn-65	<3.64E+01	0.00E+00	3.64E+01
					Nb-95	<1.10E+01	0.00E+00	1.10E+01
					I-131	<1.18E+01	0.00E+00	1.18E+01
					Cs-134	<1.47E+01	0.00E+00	1.47E+01
					Cs-137	1.06E+01	6.31E+00	1.63E+01
					Be-7	<9.34E+01	0.00E+00	9.34E+01
					K-40	3.03E+03	2.28E+02	1.46E+02
					Ag-110M	<9.74E+00	0.00E+00	9.74E+00
					Sb-122	<1.68E+01	0.00E+00	1.68E+01
					Sb-125	<3.18E+01	0.00E+00	3.18E+01

Sample ID:	287070	Sample Dates:	4/9/2014 - 4/9/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<1.54E+01	0.00E+00	1.54E+01
					Co-58	<1.15E+01	0.00E+00	1.15E+01
					Fe-59	<4.12E+01	0.00E+00	4.12E+01
					Co-60	<1.85E+01	0.00E+00	1.85E+01
					Zn-65	<4.04E+01	0.00E+00	4.04E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): Unknown

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID: 287070	Sample Dates: 4/9/2014 - 4/9/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Nb-95	<1.52E+01	0.00E+00	1.52E+01
			I-131	<1.65E+01	0.00E+00	1.65E+01
			Cs-134	<1.79E+01	0.00E+00	1.79E+01
			Cs-137	<1.73E+01	0.00E+00	1.73E+01
			Be-7	<1.33E+02	0.00E+00	1.33E+02
			K-40	3.07E+03	2.02E+02	1.60E+02
			Ag-110M	<1.34E+01	0.00E+00	1.34E+01
			Sb-122	<2.12E+01	0.00E+00	2.12E+01
			Sb-125	<4.39E+01	0.00E+00	4.39E+01
Sample ID: 287072	Sample Dates: 4/9/2014 - 4/9/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.96E+01	0.00E+00	2.96E+01
			Co-58	<2.95E+01	0.00E+00	2.95E+01
			Fe-59	<4.74E+01	0.00E+00	4.74E+01
			Co-60	<3.05E+01	0.00E+00	3.05E+01
			Zn-65	<6.90E+01	0.00E+00	6.90E+01
			Nb-95	<2.43E+01	0.00E+00	2.43E+01
			I-131	<2.19E+01	0.00E+00	2.19E+01
			Cs-134	<2.91E+01	0.00E+00	2.91E+01
			Cs-137	<3.08E+01	0.00E+00	3.08E+01
			Be-7	<2.04E+02	0.00E+00	2.04E+02
			K-40	2.96E+03	3.02E+02	3.59E+02
			Ag-110M	<2.32E+01	0.00E+00	2.32E+01
			Sb-122	<4.28E+01	0.00E+00	4.28E+01
			Sb-125	<7.57E+01	0.00E+00	7.57E+01
Sample ID: 357040	Sample Dates: 10/7/2014 - 10/7/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.03E+01	0.00E+00	2.03E+01
			Co-58	<2.56E+01	0.00E+00	2.56E+01
			Fe-59	<7.29E+01	0.00E+00	7.29E+01
			Co-60	<2.93E+01	0.00E+00	2.93E+01
			Zn-65	<5.77E+01	0.00E+00	5.77E+01
			Nb-95	<2.15E+01	0.00E+00	2.15E+01
			I-131	<4.00E+01	0.00E+00	4.00E+01
			Cs-134	<2.97E+01	0.00E+00	2.97E+01
			Cs-137	<3.15E+01	0.00E+00	3.15E+01
			Be-7	<1.17E+02	0.00E+00	1.17E+02
			K-40	2.93E+03	6.39E+02	3.55E+02
			Ag-110M	<2.31E+01	0.00E+00	2.31E+01
			Sb-122	<2.15E+02	0.00E+00	2.15E+02
			Sb-125	<7.04E+01	0.00E+00	7.04E+01
Sample ID: 357041	Sample Dates: 10/7/2014 - 10/7/2014	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<5.56E+00	0.00E+00	5.56E+00
			Co-58	<5.05E+00	0.00E+00	5.05E+00
			Fe-59	<1.49E+01	0.00E+00	1.49E+01
			Co-60	<5.96E+00	0.00E+00	5.96E+00
			Zn-65	<1.39E+01	0.00E+00	1.39E+01
			Nb-95	<6.65E+00	0.00E+00	6.65E+00
			I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<6.30E+00	0.00E+00	6.30E+00
			Cs-137	2.90E+00	3.38E+00	5.50E+00
			Be-7	<4.71E+01	0.00E+00	4.71E+01
			K-40	2.27E+03	2.50E+02	7.71E+01
			Ag-110M	<4.32E+00	0.00E+00	4.32E+00
			Sb-122	<3.31E+02	0.00E+00	3.31E+02
			Sb-125	<1.37E+01	0.00E+00	1.37E+01
Sample ID: 357042	Sample Dates: 10/7/2014 - 10/7/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<4.82E+01	0.00E+00	4.82E+01
			Co-58	<1.25E+01	0.00E+00	1.25E+01
			Fe-59	<1.19E+02	0.00E+00	1.19E+02
			Co-60	<4.89E+01	0.00E+00	4.89E+01
			Zn-65	<8.51E+01	0.00E+00	8.51E+01
			Nb-95	<5.07E+01	0.00E+00	5.07E+01
			I-131	<7.83E+01	0.00E+00	7.83E+01
			Cs-134	<7.48E+01	0.00E+00	7.48E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): Unknown

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	357042	Sample Dates:	10/7/2014 - 10/7/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Cs-137	<4.55E+01	0.00E+00	4.55E+01
					Be-7	<4.46E+02	0.00E+00	4.46E+02
					K-40	3.14E+03	1.06E+03	9.34E+02
					Ag-110M	<4.10E+01	0.00E+00	4.10E+01
					Sb-122	<3.72E+02	0.00E+00	3.72E+02
					Sb-125	<1.08E+02	0.00E+00	1.08E+02

## Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	287069	Sample Dates:	4/8/2014 - 4/8/2014	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<1.37E+01	0.00E+00	1.37E+01
					Co-58	<1.37E+01	0.00E+00	1.37E+01
					Fe-59	<4.32E+01	0.00E+00	4.32E+01
					Co-60	<1.44E+01	0.00E+00	1.44E+01
					Zn-65	<4.53E+01	0.00E+00	4.53E+01
					Nb-95	<1.61E+01	0.00E+00	1.61E+01
					I-131	<1.16E+01	0.00E+00	1.16E+01
					Cs-134	<1.26E+01	0.00E+00	1.26E+01
					Cs-137	<1.76E+01	0.00E+00	1.76E+01
					Be-7	<1.06E+02	0.00E+00	1.06E+02
					K-40	2.35E+03	1.99E+02	1.14E+02
					Ag-110M	<7.62E+00	0.00E+00	7.62E+00
					Sb-122	<2.67E+01	0.00E+00	2.67E+01
					Sb-125	<3.21E+01	0.00E+00	3.21E+01

Sample ID:	287071	Sample Dates:	4/8/2014 - 4/8/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<2.38E+01	0.00E+00	2.38E+01
					Co-58	<2.07E+01	0.00E+00	2.07E+01
					Fe-59	<5.94E+01	0.00E+00	5.94E+01
					Co-60	<3.75E+01	0.00E+00	3.75E+01
					Zn-65	<6.21E+01	0.00E+00	6.21E+01
					Nb-95	<2.74E+01	0.00E+00	2.74E+01
					I-131	<2.89E+01	0.00E+00	2.89E+01
					Cs-134	<2.73E+01	0.00E+00	2.73E+01
					Cs-137	<2.09E+01	0.00E+00	2.09E+01
					Be-7	<1.17E+02	0.00E+00	1.17E+02
					K-40	3.07E+03	3.00E+02	3.38E+02
					Ag-110M	<1.91E+01	0.00E+00	1.91E+01
					Sb-122	<4.46E+01	0.00E+00	4.46E+01
					Sb-125	<5.65E+01	0.00E+00	5.65E+01

Sample ID:	287073	Sample Dates:	4/8/2014 - 4/8/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<1.27E+01	0.00E+00	1.27E+01
					Co-58	<1.24E+01	0.00E+00	1.24E+01
					Fe-59	<3.00E+01	0.00E+00	3.00E+01
					Co-60	<1.64E+01	0.00E+00	1.64E+01
					Zn-65	<2.62E+01	0.00E+00	2.62E+01
					Nb-95	<1.21E+01	0.00E+00	1.21E+01
					I-131	<1.21E+01	0.00E+00	1.21E+01
					Cs-134	<1.01E+01	0.00E+00	1.01E+01
					Cs-137	<1.74E+01	0.00E+00	1.74E+01
					Be-7	<7.30E+01	0.00E+00	7.30E+01
					K-40	3.27E+03	1.89E+02	1.76E+02
					Ag-110M	<1.41E+01	0.00E+00	1.41E+01
					Sb-122	<2.62E+01	0.00E+00	2.62E+01
					Sb-125	<2.67E+01	0.00E+00	2.67E+01

Sample ID:	357043	Sample Dates:	10/6/2014 - 10/6/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<2.57E+01	0.00E+00	2.57E+01
					Co-58	<3.17E+01	0.00E+00	3.17E+01
					Fe-59	<6.34E+01	0.00E+00	6.34E+01
					Co-60	<2.82E+01	0.00E+00	2.82E+01
					Zn-65	<6.54E+01	0.00E+00	6.54E+01
					Nb-95	<3.94E+01	0.00E+00	3.94E+01
					I-131	<4.21E+01	0.00E+00	4.21E+01
					Cs-134	<3.68E+01	0.00E+00	3.68E+01
					Cs-137	<2.77E+01	0.00E+00	2.77E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

Media Type: FISH Concentration (Activity): Unknown

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID: 357043	Sample Dates: 10/6/2014 - 10/6/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Be-7	<1.94E+02	0.00E+00	1.94E+02
			K-40	3.94E+03	7.47E+02	3.92E+02
			Ag-110M	<2.07E+01	0.00E+00	2.07E+01
			Sb-122	<2.27E+02	0.00E+00	2.27E+02
			Sb-125	<8.09E+01	0.00E+00	8.09E+01
Sample ID: 357044	Sample Dates: 10/6/2014 - 10/6/2014	BOTMFEEDER	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<4.80E+01	0.00E+00	4.80E+01
			Co-58	<5.57E+01	0.00E+00	5.57E+01
			Fe-59	<1.20E+02	0.00E+00	1.20E+02
			Co-60	<7.93E+01	0.00E+00	7.93E+01
			Zn-65	<1.07E+02	0.00E+00	1.07E+02
			Nb-95	<3.51E+01	0.00E+00	3.51E+01
			I-131	<9.19E+01	0.00E+00	9.19E+01
			Cs-134	<6.49E+01	0.00E+00	6.49E+01
			Cs-137	<3.89E+01	0.00E+00	3.89E+01
			Be-7	<4.70E+02	0.00E+00	4.70E+02
			K-40	3.65E+03	1.10E+03	8.21E+02
			Ag-110M	<3.52E+01	0.00E+00	3.52E+01
			Sb-122	<5.01E+02	0.00E+00	5.01E+02
			Sb-125	<1.64E+02	0.00E+00	1.64E+02
Sample ID: 357045	Sample Dates: 10/6/2014 - 10/6/2014	FREESWIM	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<3.27E+01	0.00E+00	3.27E+01
			Co-58	<2.46E+01	0.00E+00	2.46E+01
			Fe-59	<1.31E+01	0.00E+00	1.31E+01
			Co-60	<3.71E+01	0.00E+00	3.71E+01
			Zn-65	<6.55E+01	0.00E+00	6.55E+01
			Nb-95	<2.76E+01	0.00E+00	2.76E+01
			I-131	<4.68E+01	0.00E+00	4.68E+01
			Cs-134	<4.11E+01	0.00E+00	4.11E+01
			Cs-137	<3.41E+01	0.00E+00	3.41E+01
			Be-7	<2.65E+02	0.00E+00	2.65E+02
			K-40	2.43E+03	6.73E+02	6.86E+02
			Ag-110M	<2.23E+01	0.00E+00	2.23E+01
			Sb-122	<2.00E+02	0.00E+00	2.00E+02
			Sb-125	<5.83E+01	0.00E+00	5.83E+01

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID: 281230	Sample Dates: 1/13/2014 - 1/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<3.16E+00	0.00E+00	3.16E+00
		K-40	1.74E+01	2.39E+00	3.97E+00
		LLI-131	<4.28E-01	0.00E+00	4.28E-01
		I-131	<3.72E+00	0.00E+00	3.72E+00
		Cs-134	<3.18E+00	0.00E+00	3.18E+00
		Cs-137	<4.41E+00	0.00E+00	4.41E+00
		BaLa-140	<3.84E+00	0.00E+00	3.84E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	1.54E+03	6.19E+01	4.02E+01
Sample ID: 282166	Sample Dates: 1/27/2014 - 1/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<2.98E+00	0.00E+00	2.98E+00
		K-40	7.97E+00	3.41E+00	6.36E+00
		LLI-131	<6.39E-01	0.00E+00	6.39E-01
		I-131	<8.74E+00	0.00E+00	8.74E+00
		Cs-134	<9.24E+00	0.00E+00	9.24E+00
		Cs-137	<1.07E+01	0.00E+00	1.07E+01
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00
		Be-7	<7.14E+01	0.00E+00	7.14E+01
		K-40	1.30E+03	1.18E+02	1.19E+02
Sample ID: 283425	Sample Dates: 2/10/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<3.96E+00	0.00E+00	3.96E+00
		K-40	1.12E+01	3.24E+00	6.54E+00
		LLI-131	<5.46E-01	0.00E+00	5.46E-01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID:	283425	Sample Dates:	2/10/2014 - 2/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				I-131	<8.93E+00	0.00E+00	8.93E+00
				Cs-134	<9.69E+00	0.00E+00	9.69E+00
				Cs-137	<1.15E+01	0.00E+00	1.15E+01
				BaLa-140	<1.40E+01	0.00E+00	1.40E+01
				Be-7	<6.91E+01	0.00E+00	6.91E+01
				K-40	1.30E+03	1.11E+02	8.13E+01
Sample ID:	285149	Sample Dates:	2/24/2014 - 2/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<4.34E+00	0.00E+00	4.34E+00
				K-40	2.32E+01	4.89E+00	5.58E+00
				LLI-131	<5.47E-01	0.00E+00	5.47E-01
				I-131	<6.25E+00	0.00E+00	6.25E+00
				Cs-134	<6.47E+00	0.00E+00	6.47E+00
				Cs-137	<7.38E+00	0.00E+00	7.38E+00
				BaLa-140	<8.60E+00	0.00E+00	8.60E+00
				Be-7	<4.54E+01	0.00E+00	4.54E+01
				K-40	1.65E+03	8.41E+01	5.06E+01
Sample ID:	286258	Sample Dates:	3/10/2014 - 3/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<4.35E+00	0.00E+00	4.35E+00
				K-40	1.46E+01	3.96E+00	9.58E+00
				LLI-131	<6.48E-01	0.00E+00	6.48E-01
				I-131	<8.57E+00	0.00E+00	8.57E+00
				Cs-134	<1.02E+01	0.00E+00	1.02E+01
				Cs-137	<6.83E+00	0.00E+00	6.83E+00
				BaLa-140	<1.34E+01	0.00E+00	1.34E+01
				Be-7	<8.32E+01	0.00E+00	8.32E+01
				K-40	1.59E+03	1.18E+02	1.11E+02
Sample ID:	288394	Sample Dates:	3/24/2014 - 3/24/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<2.76E+00	0.00E+00	2.76E+00
				K-40	4.58E+01	3.20E+00	3.72E+00
				LLI-131	<5.55E-01	0.00E+00	5.55E-01
				I-131	<1.05E+01	0.00E+00	1.05E+01
				Cs-134	<7.61E+00	0.00E+00	7.61E+00
				Cs-137	<9.34E+00	0.00E+00	9.34E+00
				BaLa-140	<8.07E+00	0.00E+00	8.07E+00
				Be-7	<8.34E+01	0.00E+00	8.34E+01
				K-40	1.40E+03	1.21E+02	1.11E+02
Sample ID:	289504	Sample Dates:	4/7/2014 - 4/7/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<3.94E+00	0.00E+00	3.94E+00
				K-40	2.08E+01	3.07E+00	5.80E+00
				LLI-131	<6.26E-01	0.00E+00	6.26E-01
				I-131	<6.88E+00	0.00E+00	6.88E+00
				Cs-134	<5.05E+00	0.00E+00	5.05E+00
				Cs-137	<7.25E+00	0.00E+00	7.25E+00
				BaLa-140	<6.50E+00	0.00E+00	6.50E+00
				Be-7	<5.56E+01	0.00E+00	5.56E+01
				K-40	1.45E+03	7.82E+01	3.76E+01
Sample ID:	291519	Sample Dates:	4/21/2014 - 4/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<2.71E+00	0.00E+00	2.71E+00
				K-40	1.14E+01	2.27E+00	4.13E+00
				LLI-131	<5.66E-01	0.00E+00	5.66E-01
				I-131	<6.49E+00	0.00E+00	6.49E+00
				Cs-134	<6.60E+00	0.00E+00	6.60E+00
				Cs-137	<6.26E+00	0.00E+00	6.26E+00
				BaLa-140	<4.86E+00	0.00E+00	4.86E+00
				Be-7	<5.55E+01	0.00E+00	5.55E+01
				K-40	1.47E+03	7.92E+01	4.29E+01
Sample ID:	293075	Sample Dates:	5/5/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Be-7	<4.15E+00	0.00E+00	4.15E+00
				K-40	2.21E+01	3.62E+00	7.23E+00
				LLI-131	<6.30E-01	0.00E+00	6.30E-01
				I-131	<7.70E+00	0.00E+00	7.70E+00
				Cs-134	<9.21E+00	0.00E+00	9.21E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID: 293075	Sample Dates: 5/5/2014 - 5/5/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-137	<1.13E+01	0.00E+00	1.13E+01
		BaLa-140	<8.99E+00	0.00E+00	8.99E+00
		Be-7	<5.59E+01	0.00E+00	5.59E+01
		K-40	1.55E+03	1.12E+02	9.76E+01
Sample ID: 295215	Sample Dates: 5/19/2014 - 5/19/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<4.20E+00	0.00E+00	4.20E+00
		K-40	2.00E+01	3.36E+00	5.89E+00
		LLI-131	<5.74E-01	0.00E+00	5.74E-01
		I-131	<8.60E+00	0.00E+00	8.60E+00
		Cs-134	<7.84E+00	0.00E+00	7.84E+00
		Cs-137	<9.87E+00	0.00E+00	9.87E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<7.52E+01	0.00E+00	7.52E+01
Sample ID: 295991	Sample Dates: 6/2/2014 - 6/2/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<4.53E+00	0.00E+00	4.53E+00
		K-40	1.50E+01	3.58E+00	7.36E+00
		LLI-131	<6.08E-01	0.00E+00	6.08E-01
		I-131	<8.46E+00	0.00E+00	8.46E+00
		Cs-134	<6.52E+00	0.00E+00	6.52E+00
		Cs-137	<9.62E+00	0.00E+00	9.62E+00
		BaLa-140	<1.18E+01	0.00E+00	1.18E+01
		Be-7	<5.88E+01	0.00E+00	5.88E+01
Sample ID: 296757	Sample Dates: 6/16/2014 - 6/16/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<3.50E+00	0.00E+00	3.50E+00
		K-40	1.90E+01	2.81E+00	5.85E+00
		LLI-131	<5.22E-01	0.00E+00	5.22E-01
		I-131	<7.72E+00	0.00E+00	7.72E+00
		Cs-134	<5.85E+00	0.00E+00	5.85E+00
		Cs-137	<9.95E+00	0.00E+00	9.95E+00
		BaLa-140	<9.91E+00	0.00E+00	9.91E+00
		Be-7	<7.54E+01	0.00E+00	7.54E+01
Sample ID: 297381	Sample Dates: 6/30/2014 - 6/30/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<2.81E+00	0.00E+00	2.81E+00
		K-40	4.76E+01	3.46E+00	3.64E+00
		LLI-131	<5.83E-01	0.00E+00	5.83E-01
		I-131	<8.70E+00	0.00E+00	8.70E+00
		Cs-134	<9.43E+00	0.00E+00	9.43E+00
		Cs-137	<1.08E+01	0.00E+00	1.08E+01
		BaLa-140	<1.42E+01	0.00E+00	1.42E+01
		Be-7	<5.61E+01	0.00E+00	5.61E+01
Sample ID: 298205	Sample Dates: 7/14/2014 - 7/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<5.28E-01	0.00E+00	5.28E-01
		I-131	<8.94E+00	0.00E+00	8.94E+00
		Cs-134	<3.76E+00	0.00E+00	3.76E+00
		Cs-137	<3.80E+00	0.00E+00	3.80E+00
		BaLa-140	<7.97E+00	0.00E+00	7.97E+00
		Be-7	<3.79E+01	0.00E+00	3.79E+01
		K-40	1.56E+03	1.78E+02	6.21E+01
Sample ID: 351062	Sample Dates: 7/28/2014 - 7/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.15E-01	0.00E+00	6.15E-01
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<7.74E+00	0.00E+00	7.74E+00
		Cs-137	<1.04E+01	0.00E+00	1.04E+01
		BaLa-140	<8.99E+00	0.00E+00	8.99E+00
		Be-7	<6.08E+01	0.00E+00	6.08E+01
		K-40	1.65E+03	2.79E+02	1.37E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID: 352232	Sample Dates: 8/11/2014 - 8/11/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.27E-01	0.00E+00	6.27E-01
		I-131	<7.59E+00	0.00E+00	7.59E+00
		Cs-134	<6.58E+00	0.00E+00	6.58E+00
		Cs-137	<7.67E+00	0.00E+00	7.67E+00
		BaLa-140	<8.70E+00	0.00E+00	8.70E+00
		Be-7	<5.36E+01	0.00E+00	5.36E+01
		K-40	1.60E+03	2.22E+02	1.15E+02
Sample ID: 354204	Sample Dates: 8/25/2014 - 8/25/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<5.68E-01	0.00E+00	5.68E-01
		I-131	<9.63E+00	0.00E+00	9.63E+00
		Cs-134	<1.19E+01	0.00E+00	1.19E+01
		Cs-137	<1.06E+01	0.00E+00	1.06E+01
		BaLa-140	<2.71E+00	0.00E+00	2.71E+00
		Be-7	<6.98E+01	0.00E+00	6.98E+01
		K-40	1.52E+03	2.71E+02	1.64E+02
Sample ID: 354821	Sample Dates: 9/8/2014 - 9/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<6.11E+00	0.00E+00	6.11E+00
		Cs-134	<8.56E+00	0.00E+00	8.56E+00
		Cs-137	<8.42E+00	0.00E+00	8.42E+00
		BaLa-140	<6.27E+00	0.00E+00	6.27E+00
		Be-7	<5.25E+01	0.00E+00	5.25E+01
		K-40	1.49E+03	2.07E+02	1.06E+02
Sample ID: 355631	Sample Dates: 9/22/2014 - 9/22/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.11E-01	0.00E+00	6.11E-01
		I-131	<8.59E+00	0.00E+00	8.59E+00
		Cs-134	<1.03E+01	0.00E+00	1.03E+01
		Cs-137	<1.06E+01	0.00E+00	1.06E+01
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<7.62E+01	0.00E+00	7.62E+01
		K-40	1.47E+03	2.65E+02	1.60E+02
Sample ID: 357046	Sample Dates: 10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.39E-01	0.00E+00	6.39E-01
		I-131	<9.84E+00	0.00E+00	9.84E+00
		Cs-134	<1.12E+01	0.00E+00	1.12E+01
		Cs-137	<8.78E+00	0.00E+00	8.78E+00
		BaLa-140	<9.96E+00	0.00E+00	9.96E+00
		Be-7	<6.87E+01	0.00E+00	6.87E+01
		K-40	1.16E+03	2.24E+02	8.67E+01
Sample ID: 358653	Sample Dates: 10/20/2014 - 10/20/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<5.61E-01	0.00E+00	5.61E-01
		I-131	<4.37E+00	0.00E+00	4.37E+00
		Cs-134	<5.04E+00	0.00E+00	5.04E+00
		Cs-137	<4.06E+00	0.00E+00	4.06E+00
		BaLa-140	<4.58E+00	0.00E+00	4.58E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	1.49E+03	1.68E+02	5.79E+01
Sample ID: 360027	Sample Dates: 11/3/2014 - 11/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.38E-01	0.00E+00	6.38E-01
		I-131	<6.63E+00	0.00E+00	6.63E+00
		Cs-134	<8.83E+00	0.00E+00	8.83E+00
		Cs-137	<7.39E+00	0.00E+00	7.39E+00
		BaLa-140	<6.62E+00	0.00E+00	6.62E+00
		Be-7	<5.20E+01	0.00E+00	5.20E+01
		K-40	1.50E+03	2.11E+02	1.06E+02
Sample ID: 361571	Sample Dates: 11/17/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.06E-01	0.00E+00	6.06E-01
		I-131	<9.03E+00	0.00E+00	9.03E+00
		Cs-134	<8.23E+00	0.00E+00	8.23E+00
		Cs-137	<9.11E+00	0.00E+00	9.11E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 141 [ CONTROL - WNW @ 14.8 miles ]

Sample ID: 361571	Sample Dates: 11/17/2014 - 11/17/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Be-7	<7.15E+01	0.00E+00	7.15E+01
		K-40	1.75E+03	2.90E+02	1.44E+02
Sample ID: 362780	Sample Dates: 12/1/2014 - 12/1/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.43E-01	0.00E+00	6.43E-01
		I-131	<7.20E+00	0.00E+00	7.20E+00
		Cs-134	<7.61E+00	0.00E+00	7.61E+00
		Cs-137	<3.52E+00	0.00E+00	3.52E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<5.64E+01	0.00E+00	5.64E+01
Sample ID: 363967	Sample Dates: 12/15/2014 - 12/15/2014	K-40	1.20E+03	2.03E+02	7.17E+01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.31E-01	0.00E+00	6.31E-01
		I-131	<8.96E+00	0.00E+00	8.96E+00
		Cs-134	<9.83E+00	0.00E+00	9.83E+00
		Cs-137	<7.28E+00	0.00E+00	7.28E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
Sample ID: 364931	Sample Dates: 12/29/2014 - 12/29/2014	Be-7	<7.42E+01	0.00E+00	7.42E+01
		K-40	1.43E+03	2.58E+02	9.93E+01
		Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		LLI-131	<6.43E-01	0.00E+00	6.43E-01
		I-131	<6.81E+00	0.00E+00	6.81E+00
		Cs-134	<9.85E+00	0.00E+00	9.85E+00
		Cs-137	<7.68E+00	0.00E+00	7.68E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<5.83E+01	0.00E+00	5.83E+01
		K-40	1.62E+03	2.52E+02	1.78E+02

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

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID: 287059	Sample Dates: 4/14/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.23E+01	0.00E+00	2.23E+01
		Co-58	<1.52E+01	0.00E+00	1.52E+01
		Fe-59	<3.72E+01	0.00E+00	3.72E+01
		Co-60	<2.11E+01	0.00E+00	2.11E+01
		Zn-65	<4.72E+01	0.00E+00	4.72E+01
		Zr-95	<3.41E+01	0.00E+00	3.41E+01
		Nb-95	<2.28E+01	0.00E+00	2.28E+01
		I-131	<2.94E+01	0.00E+00	2.94E+01
		Cs-134	<1.65E+01	0.00E+00	1.65E+01
		Cs-137	<2.00E+01	0.00E+00	2.00E+01
		Be-7	<2.04E+02	0.00E+00	2.04E+02
		K-40	5.79E+03	2.58E+02	1.74E+02
		Co-57	<1.70E+01	0.00E+00	1.70E+01
		Mo-99	<7.58E+02	0.00E+00	7.58E+02
		Ag-110M	<1.86E+01	0.00E+00	1.86E+01
		Sb-122	<1.48E+02	0.00E+00	1.48E+02
		Sb-125	<5.52E+01	0.00E+00	5.52E+01
Sample ID: 357301	Sample Dates: 10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<9.10E+00	0.00E+00	9.10E+00
		Co-58	<8.26E+00	0.00E+00	8.26E+00
		Fe-59	<2.05E+01	0.00E+00	2.05E+01
		Co-60	<1.01E+01	0.00E+00	1.01E+01
		Zn-65	<2.04E+01	0.00E+00	2.04E+01
		Zr-95	<1.80E+01	0.00E+00	1.80E+01
		Nb-95	<1.27E+01	0.00E+00	1.27E+01
		I-131	<2.50E+01	0.00E+00	2.50E+01
		Cs-134	<1.55E+01	0.00E+00	1.55E+01
		Cs-137	<9.57E+00	0.00E+00	9.57E+00
		Be-7	2.07E+02	1.23E+02	1.96E+02
		K-40	4.29E+03	4.21E+02	1.46E+02
		Co-57	<8.05E+00	0.00E+00	8.05E+00
		Mo-99	<2.52E+03	0.00E+00	2.52E+03

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 129 [ INDICATOR - ENE @ 0.51 miles ]

Sample ID:	357301	Sample Dates:	10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Ag-110M	<7.86E+00	0.00E+00	7.86E+00
				Sb-122	<4.35E+02	0.00E+00	4.35E+02
				Sb-125	<2.60E+01	0.00E+00	2.60E+01

Sample Point 130 [ INDICATOR - SW @ 0.52 miles ]

Sample ID:	287061	Sample Dates:	4/14/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<1.53E+01	0.00E+00	1.53E+01
				Co-58	<1.33E+01	0.00E+00	1.33E+01
				Fe-59	<2.88E+01	0.00E+00	2.88E+01
				Co-60	<1.42E+01	0.00E+00	1.42E+01
				Zn-65	<3.04E+01	0.00E+00	3.04E+01
				Zr-95	<2.90E+01	0.00E+00	2.90E+01
				Nb-95	<1.77E+01	0.00E+00	1.77E+01
				I-131	<2.40E+01	0.00E+00	2.40E+01
				Cs-134	<1.33E+01	0.00E+00	1.33E+01
				Cs-137	2.08E+02	8.98E+00	1.48E+01
				Be-7	<1.32E+02	0.00E+00	1.32E+02
				K-40	1.33E+04	2.18E+02	1.13E+02
				Co-57	<1.28E+01	0.00E+00	1.28E+01
				Mo-99	<6.54E+02	0.00E+00	6.54E+02
				Ag-110M	<1.32E+01	0.00E+00	1.32E+01
				Sb-122	<1.21E+02	0.00E+00	1.21E+02
				Sb-125	<3.80E+01	0.00E+00	3.80E+01

Sample ID:	357302	Sample Dates:	10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<1.77E+01	0.00E+00	1.77E+01
				Co-58	<1.45E+01	0.00E+00	1.45E+01
				Fe-59	<3.54E+01	0.00E+00	3.54E+01
				Co-60	<1.57E+01	0.00E+00	1.57E+01
				Zn-65	<3.60E+01	0.00E+00	3.60E+01
				Zr-95	<2.90E+01	0.00E+00	2.90E+01
				Nb-95	<1.99E+01	0.00E+00	1.99E+01
				I-131	<4.26E+01	0.00E+00	4.26E+01
				Cs-134	<2.23E+01	0.00E+00	2.23E+01
				Cs-137	1.55E+02	3.48E+01	1.79E+01
				Be-7	<1.40E+02	0.00E+00	1.40E+02
				K-40	1.36E+04	1.21E+03	2.58E+02
				Co-57	<1.31E+01	0.00E+00	1.31E+01
				Mo-99	<4.94E+03	0.00E+00	4.94E+03
				Ag-110M	<1.37E+01	0.00E+00	1.37E+01
				Sb-122	<8.29E+02	0.00E+00	8.29E+02
				Sb-125	<3.87E+01	0.00E+00	3.87E+01

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	287060	Sample Dates:	4/14/2014 - 4/14/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<2.01E+01	0.00E+00	2.01E+01
				Co-58	<1.94E+01	0.00E+00	1.94E+01
				Fe-59	<5.57E+01	0.00E+00	5.57E+01
				Co-60	<2.53E+01	0.00E+00	2.53E+01
				Zn-65	<5.34E+01	0.00E+00	5.34E+01
				Zr-95	<3.26E+01	0.00E+00	3.26E+01
				Nb-95	<2.39E+01	0.00E+00	2.39E+01
				I-131	<2.65E+01	0.00E+00	2.65E+01
				Cs-134	<1.68E+01	0.00E+00	1.68E+01
				Cs-137	<2.02E+01	0.00E+00	2.02E+01
				Be-7	<1.53E+02	0.00E+00	1.53E+02
				K-40	1.36E+04	4.06E+02	1.68E+02
				Co-57	<1.34E+01	0.00E+00	1.34E+01
				Mo-99	<8.07E+02	0.00E+00	8.07E+02
				Ag-110M	<1.55E+01	0.00E+00	1.55E+01
				Sb-122	<1.25E+02	0.00E+00	1.25E+02
				Sb-125	<3.91E+01	0.00E+00	3.91E+01

Sample ID:	357304	Sample Dates:	10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<2.36E+01	0.00E+00	2.36E+01
				Co-58	<2.32E+01	0.00E+00	2.32E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

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

Sample Point 137 [ CONTROL - N @ 12 miles ]

Sample ID:	357304	Sample Dates:	10/6/2014 - 10/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Fe-59	<5.65E+01	0.00E+00	5.65E+01
				Co-60	<2.25E+01	0.00E+00	2.25E+01
				Zn-65	<5.92E+01	0.00E+00	5.92E+01
				Zr-95	<3.85E+01	0.00E+00	3.85E+01
				Nb-95	<2.53E+01	0.00E+00	2.53E+01
				I-131	<2.94E+01	0.00E+00	2.94E+01
				Cs-134	<2.36E+01	0.00E+00	2.36E+01
				Cs-137	<1.80E+01	0.00E+00	1.80E+01
				Be-7	<1.69E+02	0.00E+00	1.69E+02
				K-40	1.59E+04	1.58E+03	2.70E+02
				Co-57	<1.61E+01	0.00E+00	1.61E+01
				Mo-99	<9.00E+02	0.00E+00	9.00E+02
				Ag-110M	<1.67E+01	0.00E+00	1.67E+01
				Sb-122	<1.58E+02	0.00E+00	1.58E+02
				Sb-125	<4.97E+01	0.00E+00	4.97E+01

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	280866	Sample Dates:	12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.66E+00	0.00E+00	3.66E+00
				Co-58	<3.72E+00	0.00E+00	3.72E+00
				Fe-59	<8.54E+00	0.00E+00	8.54E+00
				Co-60	<4.21E+00	0.00E+00	4.21E+00
				Zn-65	<8.27E+00	0.00E+00	8.27E+00
				Zr-95	<6.62E+00	0.00E+00	6.62E+00
				Nb-95	<4.68E+00	0.00E+00	4.68E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<3.34E+00	0.00E+00	3.34E+00
				Cs-137	<3.53E+00	0.00E+00	3.53E+00
				BaLa-140	<8.15E+00	0.00E+00	8.15E+00
				Be-7	<3.01E+01	0.00E+00	3.01E+01
				K-40	2.11E+02	2.18E+01	3.68E+01

Sample ID:	282981	Sample Dates:	1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.23E+00	0.00E+00	3.23E+00
				Co-58	<3.43E+00	0.00E+00	3.43E+00
				Fe-59	<8.24E+00	0.00E+00	8.24E+00
				Co-60	<3.86E+00	0.00E+00	3.86E+00
				Zn-65	<7.08E+00	0.00E+00	7.08E+00
				Zr-95	<5.45E+00	0.00E+00	5.45E+00
				Nb-95	<3.84E+00	0.00E+00	3.84E+00
				I-131	<1.09E+01	0.00E+00	1.09E+01
				Cs-134	<3.27E+00	0.00E+00	3.27E+00
				Cs-137	<3.42E+00	0.00E+00	3.42E+00
				BaLa-140	<9.89E+00	0.00E+00	9.89E+00
				Be-7	<3.37E+01	0.00E+00	3.37E+01
				K-40	6.89E+01	1.73E+01	3.74E+01

Sample ID:	284703	Sample Dates:	12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	9.52E+02	7.20E+01	1.89E+02

Sample ID:	285761	Sample Dates:	2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<2.76E+00	0.00E+00	2.76E+00
				Co-58	<3.25E+00	0.00E+00	3.25E+00
				Fe-59	<6.11E+00	0.00E+00	6.11E+00
				Co-60	<3.04E+00	0.00E+00	3.04E+00
				Zn-65	<7.12E+00	0.00E+00	7.12E+00
				Zr-95	<5.43E+00	0.00E+00	5.43E+00
				Nb-95	<4.43E+00	0.00E+00	4.43E+00
				I-131	<1.22E+01	0.00E+00	1.22E+01
				Cs-134	<2.67E+00	0.00E+00	2.67E+00
				Cs-137	<2.95E+00	0.00E+00	2.95E+00
				BaLa-140	<6.91E+00	0.00E+00	6.91E+00
				Be-7	<2.93E+01	0.00E+00	2.93E+01
				K-40	1.61E+02	2.05E+01	2.83E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID: 289125	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.88E+00	0.00E+00	2.88E+00
		Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<5.86E+00	0.00E+00	5.86E+00
		Co-60	<4.04E+00	0.00E+00	4.04E+00
		Zn-65	<5.89E+00	0.00E+00	5.89E+00
		Zr-95	<6.14E+00	0.00E+00	6.14E+00
		Nb-95	<3.33E+00	0.00E+00	3.33E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.50E+00	0.00E+00	2.50E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<7.45E+00	0.00E+00	7.45E+00
		Be-7	<2.92E+01	0.00E+00	2.92E+01
		K-40	4.84E+01	1.66E+01	3.24E+01
Sample ID: 292820	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.41E+00	0.00E+00	3.41E+00
		Co-58	<4.21E+00	0.00E+00	4.21E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<4.39E+00	0.00E+00	4.39E+00
		Zn-65	<8.40E+00	0.00E+00	8.40E+00
		Zr-95	<8.05E+00	0.00E+00	8.05E+00
		Nb-95	<4.73E+00	0.00E+00	4.73E+00
		I-131	<1.29E+01	0.00E+00	1.29E+01
		Cs-134	<3.10E+00	0.00E+00	3.10E+00
		Cs-137	<3.99E+00	0.00E+00	3.99E+00
		BaLa-140	<9.59E+00	0.00E+00	9.59E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	9.06E+01	2.11E+01	3.35E+01
Sample ID: 295221	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	1.28E+03	7.65E+01	1.88E+02
Sample ID: 295483	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.91E+00	0.00E+00	2.91E+00
		Co-58	<3.39E+00	0.00E+00	3.39E+00
		Fe-59	<6.85E+00	0.00E+00	6.85E+00
		Co-60	<3.69E+00	0.00E+00	3.69E+00
		Zn-65	<6.89E+00	0.00E+00	6.89E+00
		Zr-95	<6.15E+00	0.00E+00	6.15E+00
		Nb-95	<3.94E+00	0.00E+00	3.94E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<2.61E+00	0.00E+00	2.61E+00
		Cs-137	<3.30E+00	0.00E+00	3.30E+00
		BaLa-140	<6.54E+00	0.00E+00	6.54E+00
		Be-7	<2.90E+01	0.00E+00	2.90E+01
		K-40	1.52E+02	2.34E+01	2.77E+01
Sample ID: 296991	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<4.63E+00	0.00E+00	4.63E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<1.01E+01	0.00E+00	1.01E+01
		Co-60	<6.09E+00	0.00E+00	6.09E+00
		Zn-65	<8.76E+00	0.00E+00	8.76E+00
		Zr-95	<7.09E+00	0.00E+00	7.09E+00
		Nb-95	<5.44E+00	0.00E+00	5.44E+00
		I-131	<1.40E+01	0.00E+00	1.40E+01
		Cs-134	<3.56E+00	0.00E+00	3.56E+00
		Cs-137	<4.70E+00	0.00E+00	4.70E+00
		BaLa-140	<1.22E+01	0.00E+00	1.22E+01
		Be-7	<4.18E+01	0.00E+00	4.18E+01
		K-40	7.59E+01	2.74E+01	4.20E+01
Sample ID: 350545	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.48E+00	0.00E+00	2.48E+00
		Co-58	<2.56E+00	0.00E+00	2.56E+00
		Fe-59	<7.24E+00	0.00E+00	7.24E+00
		Co-60	<3.26E+00	0.00E+00	3.26E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID: 350545	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Zn-65	<4.17E+00	0.00E+00	4.17E+00
		Zr-95	<4.87E+00	0.00E+00	4.87E+00
		Nb-95	<3.92E+00	0.00E+00	3.92E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.56E+00	0.00E+00	2.56E+00
		Cs-137	<2.67E+00	0.00E+00	2.67E+00
		BaLa-140	<6.11E+00	0.00E+00	6.11E+00
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	8.20E+01	2.64E+01	3.04E+01
Sample ID: 352241	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.12E+00	0.00E+00	3.12E+00
		Co-58	<3.28E+00	0.00E+00	3.28E+00
		Fe-59	<8.49E+00	0.00E+00	8.49E+00
		Co-60	<3.23E+00	0.00E+00	3.23E+00
		Zn-65	<7.51E+00	0.00E+00	7.51E+00
		Zr-95	<6.86E+00	0.00E+00	6.86E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<4.09E+00	0.00E+00	4.09E+00
		Cs-137	<4.46E+00	0.00E+00	4.46E+00
		BaLa-140	<9.52E+00	0.00E+00	9.52E+00
		Be-7	<2.91E+01	0.00E+00	2.91E+01
		K-40	1.40E+02	3.94E+01	3.92E+01
Sample ID: 354205	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	8.27E+02	1.35E+02	1.88E+02
Sample ID: 355153	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.51E+00	0.00E+00	3.51E+00
		Co-58	<3.42E+00	0.00E+00	3.42E+00
		Fe-59	<8.13E+00	0.00E+00	8.13E+00
		Co-60	<3.22E+00	0.00E+00	3.22E+00
		Zn-65	<4.97E+00	0.00E+00	4.97E+00
		Zr-95	<7.25E+00	0.00E+00	7.25E+00
		Nb-95	<4.49E+00	0.00E+00	4.49E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.13E+00	0.00E+00	4.13E+00
		Cs-137	<3.28E+00	0.00E+00	3.28E+00
		BaLa-140	<7.16E+00	0.00E+00	7.16E+00
		Be-7	<3.59E+01	0.00E+00	3.59E+01
		K-40	1.72E+02	4.25E+01	3.92E+01
Sample ID: 358043	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.48E+00	0.00E+00	2.48E+00
		Co-58	<2.69E+00	0.00E+00	2.69E+00
		Fe-59	<4.64E+00	0.00E+00	4.64E+00
		Co-60	<2.23E+00	0.00E+00	2.23E+00
		Zn-65	<4.95E+00	0.00E+00	4.95E+00
		Zr-95	<5.12E+00	0.00E+00	5.12E+00
		Nb-95	<3.09E+00	0.00E+00	3.09E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<2.88E+00	0.00E+00	2.88E+00
		Cs-137	<2.68E+00	0.00E+00	2.68E+00
		BaLa-140	<4.95E+00	0.00E+00	4.95E+00
		Be-7	<2.57E+01	0.00E+00	2.57E+01
		K-40	4.46E+01	2.52E+01	3.52E+01
Sample ID: 360707	Sample Dates: 10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.54E+00	0.00E+00	2.54E+00
		Co-58	<3.04E+00	0.00E+00	3.04E+00
		Fe-59	<6.39E+00	0.00E+00	6.39E+00
		Co-60	<2.77E+00	0.00E+00	2.77E+00
		Zn-65	<5.14E+00	0.00E+00	5.14E+00
		Zr-95	<4.89E+00	0.00E+00	4.89E+00
		Nb-95	<4.12E+00	0.00E+00	4.12E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 128 [ INDICATOR - NE @ 0.45 miles ]

Sample ID:	360707	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Cs-134	<3.22E+00	0.00E+00	3.22E+00
				Cs-137	<2.65E+00	0.00E+00	2.65E+00
				BaLa-140	<5.94E+00	0.00E+00	5.94E+00
				Be-7	<2.82E+01	0.00E+00	2.82E+01
				K-40	2.06E+02	9.41E+01	1.47E+02

Sample ID:	363518	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<1.24E+00	0.00E+00	1.24E+00
				Co-58	<1.42E+00	0.00E+00	1.42E+00
				Fe-59	<3.05E+00	0.00E+00	3.05E+00
				Co-60	<1.11E+00	0.00E+00	1.11E+00
				Zn-65	<2.52E+00	0.00E+00	2.52E+00
				Zr-95	<2.82E+00	0.00E+00	2.82E+00
				Nb-95	<1.97E+00	0.00E+00	1.97E+00
				I-131	<1.10E+01	0.00E+00	1.10E+01
				Cs-134	<1.34E+00	0.00E+00	1.34E+00
				Cs-137	<1.16E+00	0.00E+00	1.16E+00
				BaLa-140	<4.42E+00	0.00E+00	4.42E+00
				Be-7	<1.31E+01	0.00E+00	1.31E+01
				K-40	1.80E+02	2.25E+01	1.89E+01

Sample ID:	364501	Sample Dates:	8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	1.04E+03	1.47E+02	1.99E+02

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	280867	Sample Dates:	12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.27E+00	0.00E+00	3.27E+00
				Co-58	<3.49E+00	0.00E+00	3.49E+00
				Fe-59	<7.72E+00	0.00E+00	7.72E+00
				Co-60	<3.45E+00	0.00E+00	3.45E+00
				Zn-65	<7.71E+00	0.00E+00	7.71E+00
				Zr-95	<7.30E+00	0.00E+00	7.30E+00
				Nb-95	<4.57E+00	0.00E+00	4.57E+00
				I-131	<1.25E+01	0.00E+00	1.25E+01
				Cs-134	<3.17E+00	0.00E+00	3.17E+00
				Cs-137	<3.38E+00	0.00E+00	3.38E+00
				BaLa-140	<6.02E+00	0.00E+00	6.02E+00
				Be-7	<3.26E+01	0.00E+00	3.26E+01
				K-40	9.54E+01	2.09E+01	3.87E+01

Sample ID:	282982	Sample Dates:	1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<4.21E+00	0.00E+00	4.21E+00
				Co-58	<4.37E+00	0.00E+00	4.37E+00
				Fe-59	<1.09E+01	0.00E+00	1.09E+01
				Co-60	<4.50E+00	0.00E+00	4.50E+00
				Zn-65	<6.39E+00	0.00E+00	6.39E+00
				Zr-95	<9.34E+00	0.00E+00	9.34E+00
				Nb-95	<5.58E+00	0.00E+00	5.58E+00
				I-131	<1.33E+01	0.00E+00	1.33E+01
				Cs-134	<3.73E+00	0.00E+00	3.73E+00
				Cs-137	<4.17E+00	0.00E+00	4.17E+00
				BaLa-140	<1.22E+01	0.00E+00	1.22E+01
				Be-7	<4.50E+01	0.00E+00	4.50E+01
				K-40	2.41E+02	2.73E+01	3.24E+01

Sample ID:	284704	Sample Dates:	12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	4.28E+02	6.42E+01	1.89E+02

Sample ID:	285762	Sample Dates:	2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.53E+00	0.00E+00	3.53E+00
				Co-58	<3.64E+00	0.00E+00	3.64E+00
				Fe-59	<7.85E+00	0.00E+00	7.85E+00
				Co-60	<4.96E+00	0.00E+00	4.96E+00
				Zn-65	<6.57E+00	0.00E+00	6.57E+00
				Zr-95	<6.56E+00	0.00E+00	6.56E+00
				Nb-95	<4.59E+00	0.00E+00	4.59E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID: 285762	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Cs-134	<2.59E+00	0.00E+00	2.59E+00
		Cs-137	<3.62E+00	0.00E+00	3.62E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<2.98E+01	0.00E+00	2.98E+01
		K-40	6.73E+01	1.66E+01	3.32E+01
Sample ID: 289126	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.87E+00	0.00E+00	2.87E+00
		Co-58	<2.79E+00	0.00E+00	2.79E+00
		Fe-59	<8.42E+00	0.00E+00	8.42E+00
		Co-60	<3.00E+00	0.00E+00	3.00E+00
		Zn-65	<7.12E+00	0.00E+00	7.12E+00
		Zr-95	<6.59E+00	0.00E+00	6.59E+00
		Nb-95	<4.45E+00	0.00E+00	4.45E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<2.73E+00	0.00E+00	2.73E+00
		Cs-137	<3.62E+00	0.00E+00	3.62E+00
		BaLa-140	<5.82E+00	0.00E+00	5.82E+00
		Be-7	<3.56E+01	0.00E+00	3.56E+01
		K-40	2.27E+02	2.73E+01	3.20E+01
Sample ID: 292821	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.70E+00	0.00E+00	3.70E+00
		Co-58	<3.60E+00	0.00E+00	3.60E+00
		Fe-59	<9.18E+00	0.00E+00	9.18E+00
		Co-60	<3.97E+00	0.00E+00	3.97E+00
		Zn-65	<8.40E+00	0.00E+00	8.40E+00
		Zr-95	<7.73E+00	0.00E+00	7.73E+00
		Nb-95	<4.66E+00	0.00E+00	4.66E+00
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<2.85E+00	0.00E+00	2.85E+00
		Cs-137	<4.57E+00	0.00E+00	4.57E+00
		BaLa-140	<8.10E+00	0.00E+00	8.10E+00
		Be-7	<3.51E+01	0.00E+00	3.51E+01
		K-40	7.68E+01	2.05E+01	2.89E+01
Sample ID: 295222	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	4.01E+02	6.36E+01	1.88E+02
Sample ID: 295484	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.28E+00	0.00E+00	2.28E+00
		Co-58	<2.47E+00	0.00E+00	2.47E+00
		Fe-59	<5.61E+00	0.00E+00	5.61E+00
		Co-60	<2.14E+00	0.00E+00	2.14E+00
		Zn-65	<4.59E+00	0.00E+00	4.59E+00
		Zr-95	<4.61E+00	0.00E+00	4.61E+00
		Nb-95	<3.04E+00	0.00E+00	3.04E+00
		I-131	<1.45E+01	0.00E+00	1.45E+01
		Cs-134	<2.10E+00	0.00E+00	2.10E+00
		Cs-137	<2.00E+00	0.00E+00	2.00E+00
		BaLa-140	<7.24E+00	0.00E+00	7.24E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	1.90E+02	1.63E+01	1.93E+01
Sample ID: 296992	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<4.43E+00	0.00E+00	4.43E+00
		Co-58	<4.81E+00	0.00E+00	4.81E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<3.30E+00	0.00E+00	3.30E+00
		Zn-65	<8.52E+00	0.00E+00	8.52E+00
		Zr-95	<7.75E+00	0.00E+00	7.75E+00
		Nb-95	<5.37E+00	0.00E+00	5.37E+00
		I-131	<1.36E+01	0.00E+00	1.36E+01
		Cs-134	<4.08E+00	0.00E+00	4.08E+00
		Cs-137	<5.07E+00	0.00E+00	5.07E+00
		BaLa-140	<1.17E+01	0.00E+00	1.17E+01
		Be-7	<5.06E+01	0.00E+00	5.06E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	296992	Sample Dates:	5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				K-40	1.34E+02	3.23E+01	4.74E+01
Sample ID:	350546	Sample Dates:	6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<2.06E+00	0.00E+00	2.06E+00
				Co-58	<2.57E+00	0.00E+00	2.57E+00
				Fe-59	<5.39E+00	0.00E+00	5.39E+00
				Co-60	<2.23E+00	0.00E+00	2.23E+00
				Zn-65	<5.22E+00	0.00E+00	5.22E+00
				Zr-95	<5.31E+00	0.00E+00	5.31E+00
				Nb-95	<3.20E+00	0.00E+00	3.20E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01
				Cs-134	<1.91E+00	0.00E+00	1.91E+00
				Cs-137	<2.03E+00	0.00E+00	2.03E+00
				BaLa-140	<7.63E+00	0.00E+00	7.63E+00
				Be-7	<2.15E+01	0.00E+00	2.15E+01
				K-40	1.66E+02	3.44E+01	3.90E+01
Sample ID:	352242	Sample Dates:	7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.26E+00	0.00E+00	3.26E+00
				Co-58	<3.05E+00	0.00E+00	3.05E+00
				Fe-59	<6.88E+00	0.00E+00	6.88E+00
				Co-60	<3.23E+00	0.00E+00	3.23E+00
				Zn-65	<6.33E+00	0.00E+00	6.33E+00
				Zr-95	<6.61E+00	0.00E+00	6.61E+00
				Nb-95	<3.75E+00	0.00E+00	3.75E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<3.47E+00	0.00E+00	3.47E+00
				Cs-137	<2.98E+00	0.00E+00	2.98E+00
				BaLa-140	<4.18E+00	0.00E+00	4.18E+00
				Be-7	<2.98E+01	0.00E+00	2.98E+01
				K-40	1.39E+02	3.76E+01	4.06E+01
Sample ID:	354206	Sample Dates:	5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	3.92E+02	1.22E+02	1.89E+02
Sample ID:	355155	Sample Dates:	8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<4.22E+00	0.00E+00	4.22E+00
				Co-58	<4.20E+00	0.00E+00	4.20E+00
				Fe-59	<9.97E+00	0.00E+00	9.97E+00
				Co-60	<4.80E+00	0.00E+00	4.80E+00
				Zn-65	<9.91E+00	0.00E+00	9.91E+00
				Zr-95	<8.63E+00	0.00E+00	8.63E+00
				Nb-95	<5.19E+00	0.00E+00	5.19E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<5.29E+00	0.00E+00	5.29E+00
				Cs-137	<3.89E+00	0.00E+00	3.89E+00
				BaLa-140	<8.45E+00	0.00E+00	8.45E+00
				Be-7	<2.93E+01	0.00E+00	2.93E+01
				K-40	<5.63E+01	0.00E+00	5.63E+01
Sample ID:	358044	Sample Dates:	9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.00E+00	0.00E+00	3.00E+00
				Co-58	<4.03E+00	0.00E+00	4.03E+00
				Fe-59	<8.85E+00	0.00E+00	8.85E+00
				Co-60	<4.03E+00	0.00E+00	4.03E+00
				Zn-65	<8.95E+00	0.00E+00	8.95E+00
				Zr-95	<7.15E+00	0.00E+00	7.15E+00
				Nb-95	<3.97E+00	0.00E+00	3.97E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<4.59E+00	0.00E+00	4.59E+00
				Cs-137	<4.34E+00	0.00E+00	4.34E+00
				BaLa-140	<8.14E+00	0.00E+00	8.14E+00
				Be-7	<3.04E+01	0.00E+00	3.04E+01
				K-40	7.15E+01	3.70E+01	4.66E+01
Sample ID:	360708	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<2.66E+00	0.00E+00	2.66E+00
				Co-58	<3.01E+00	0.00E+00	3.01E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 131 [ INDICATOR - WNW @ 0.64 miles ]

Sample ID:	360708	Sample Dates:	10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Fe-59	<6.74E+00	0.00E+00	6.74E+00
				Co-60	<2.91E+00	0.00E+00	2.91E+00
				Zn-65	<5.75E+00	0.00E+00	5.75E+00
				Zr-95	<5.59E+00	0.00E+00	5.59E+00
				Nb-95	<3.62E+00	0.00E+00	3.62E+00
				I-131	<1.02E+01	0.00E+00	1.02E+01
				Cs-134	<3.26E+00	0.00E+00	3.26E+00
				Cs-137	<2.62E+00	0.00E+00	2.62E+00
				BaLa-140	<7.78E+00	0.00E+00	7.78E+00
				Be-7	<2.22E+01	0.00E+00	2.22E+01
				K-40	<5.30E+01	0.00E+00	5.30E+01

Sample ID:	363519	Sample Dates:	11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<1.25E+00	0.00E+00	1.25E+00
				Co-58	<1.48E+00	0.00E+00	1.48E+00
				Fe-59	<2.54E+00	0.00E+00	2.54E+00
				Co-60	<1.20E+00	0.00E+00	1.20E+00
				Zn-65	<2.71E+00	0.00E+00	2.71E+00
				Zr-95	<2.84E+00	0.00E+00	2.84E+00
				Nb-95	<1.93E+00	0.00E+00	1.93E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<1.18E+00	0.00E+00	1.18E+00
				Cs-137	<1.22E+00	0.00E+00	1.22E+00
				BaLa-140	<4.68E+00	0.00E+00	4.68E+00
				Be-7	<1.22E+01	0.00E+00	1.22E+01
				K-40	4.92E+01	1.48E+01	1.94E+01

Sample ID:	364502	Sample Dates:	8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	5.36E+02	1.33E+02	1.99E+02

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID:	280868	Sample Dates:	12/9/2013 - 1/6/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.73E+00	0.00E+00	3.73E+00
				Co-58	<3.69E+00	0.00E+00	3.69E+00
				Fe-59	<1.01E+01	0.00E+00	1.01E+01
				Co-60	<4.04E+00	0.00E+00	4.04E+00
				Zn-65	<5.88E+00	0.00E+00	5.88E+00
				Zr-95	<7.51E+00	0.00E+00	7.51E+00
				Nb-95	<3.87E+00	0.00E+00	3.87E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<3.43E+00	0.00E+00	3.43E+00
				Cs-137	<3.05E+00	0.00E+00	3.05E+00
				BaLa-140	<1.00E+01	0.00E+00	1.00E+01
				Be-7	<3.29E+01	0.00E+00	3.29E+01
				K-40	6.22E+01	2.26E+01	4.25E+01

Sample ID:	282983	Sample Dates:	1/6/2014 - 2/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.82E+00	0.00E+00	3.82E+00
				Co-58	<4.31E+00	0.00E+00	4.31E+00
				Fe-59	<1.04E+01	0.00E+00	1.04E+01
				Co-60	<5.26E+00	0.00E+00	5.26E+00
				Zn-65	<8.88E+00	0.00E+00	8.88E+00
				Zr-95	<6.79E+00	0.00E+00	6.79E+00
				Nb-95	<3.82E+00	0.00E+00	3.82E+00
				I-131	<1.44E+01	0.00E+00	1.44E+01
				Cs-134	<3.69E+00	0.00E+00	3.69E+00
				Cs-137	<4.41E+00	0.00E+00	4.41E+00
				BaLa-140	<1.26E+01	0.00E+00	1.26E+01
				Be-7	<4.16E+01	0.00E+00	4.16E+01
				K-40	1.67E+02	2.50E+01	4.24E+01

Sample ID:	284705	Sample Dates:	12/9/2013 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				H3SW	<3.06E+01	0.00E+00	1.89E+02

Sample ID:	285763	Sample Dates:	2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
				Mn-54	<3.36E+00	0.00E+00	3.36E+00
				Co-58	<3.34E+00	0.00E+00	3.34E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)**

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID: 285763	Sample Dates: 2/3/2014 - 3/3/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Fe-59	<8.36E+00	0.00E+00	8.36E+00
		Co-60	<4.90E+00	0.00E+00	4.90E+00
		Zn-65	<6.15E+00	0.00E+00	6.15E+00
		Zr-95	<8.01E+00	0.00E+00	8.01E+00
		Nb-95	<4.34E+00	0.00E+00	4.34E+00
		I-131	<1.40E+01	0.00E+00	1.40E+01
		Cs-134	<2.51E+00	0.00E+00	2.51E+00
		Cs-137	<3.34E+00	0.00E+00	3.34E+00
		BaLa-140	<1.18E+01	0.00E+00	1.18E+01
		Be-7	<3.19E+01	0.00E+00	3.19E+01
		K-40	9.44E+01	1.95E+01	2.80E+01
Sample ID: 289127	Sample Dates: 3/3/2014 - 3/31/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.04E+00	0.00E+00	3.04E+00
		Co-58	<3.56E+00	0.00E+00	3.56E+00
		Fe-59	<6.56E+00	0.00E+00	6.56E+00
		Co-60	<3.76E+00	0.00E+00	3.76E+00
		Zn-65	<7.32E+00	0.00E+00	7.32E+00
		Zr-95	<6.23E+00	0.00E+00	6.23E+00
		Nb-95	<4.07E+00	0.00E+00	4.07E+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	<3.82E+00	0.00E+00	3.82E+00
		BaLa-140	<8.98E+00	0.00E+00	8.98E+00
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	6.00E+01	1.54E+01	3.51E+01
Sample ID: 292822	Sample Dates: 3/31/2014 - 4/28/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<4.24E+00	0.00E+00	4.24E+00
		Co-58	<4.51E+00	0.00E+00	4.51E+00
		Fe-59	<9.74E+00	0.00E+00	9.74E+00
		Co-60	<4.17E+00	0.00E+00	4.17E+00
		Zn-65	<8.86E+00	0.00E+00	8.86E+00
		Zr-95	<8.25E+00	0.00E+00	8.25E+00
		Nb-95	<4.50E+00	0.00E+00	4.50E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<4.07E+00	0.00E+00	4.07E+00
		Cs-137	<4.82E+00	0.00E+00	4.82E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<4.21E+01	0.00E+00	4.21E+01
		K-40	4.38E+01	2.30E+01	5.02E+01
Sample ID: 295223	Sample Dates: 3/3/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	<-8.9E+01	0.00E+00	1.88E+02
Sample ID: 295485	Sample Dates: 4/28/2014 - 5/27/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.40E+00	0.00E+00	3.40E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<6.12E+00	0.00E+00	6.12E+00
		Zr-95	<6.00E+00	0.00E+00	6.00E+00
		Nb-95	<4.07E+00	0.00E+00	4.07E+00
		I-131	<1.23E+01	0.00E+00	1.23E+01
		Cs-134	<2.83E+00	0.00E+00	2.83E+00
		Cs-137	<3.30E+00	0.00E+00	3.30E+00
		BaLa-140	<8.31E+00	0.00E+00	8.31E+00
		Be-7	<2.64E+01	0.00E+00	2.64E+01
		K-40	1.20E+02	1.64E+01	2.79E+01
Sample ID: 296993	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<4.27E+00	0.00E+00	4.27E+00
		Co-58	<4.24E+00	0.00E+00	4.24E+00
		Fe-59	<9.33E+00	0.00E+00	9.33E+00
		Co-60	<6.12E+00	0.00E+00	6.12E+00
		Zn-65	<8.54E+00	0.00E+00	8.54E+00
		Zr-95	<8.84E+00	0.00E+00	8.84E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID: 296993	Sample Dates: 5/27/2014 - 6/23/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Nb-95	<5.73E+00	0.00E+00	5.73E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<4.59E+00	0.00E+00	4.59E+00
		Cs-137	<5.65E+00	0.00E+00	5.65E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<3.50E+01	0.00E+00	3.50E+01
		K-40	9.16E+01	2.65E+01	5.53E+01
Sample ID: 350547	Sample Dates: 6/23/2014 - 7/21/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.34E+00	0.00E+00	2.34E+00
		Co-58	<2.66E+00	0.00E+00	2.66E+00
		Fe-59	<5.41E+00	0.00E+00	5.41E+00
		Co-60	<2.78E+00	0.00E+00	2.78E+00
		Zn-65	<5.07E+00	0.00E+00	5.07E+00
		Zr-95	<4.63E+00	0.00E+00	4.63E+00
		Nb-95	<3.46E+00	0.00E+00	3.46E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.01E+00	0.00E+00	2.01E+00
		Cs-137	<2.83E+00	0.00E+00	2.83E+00
		BaLa-140	<8.11E+00	0.00E+00	8.11E+00
		Be-7	<2.33E+01	0.00E+00	2.33E+01
		K-40	5.21E+01	3.07E+01	4.59E+01
Sample ID: 352243	Sample Dates: 7/21/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<3.54E+00	0.00E+00	3.54E+00
		Fe-59	<9.22E+00	0.00E+00	9.22E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<7.04E+00	0.00E+00	7.04E+00
		Zr-95	<5.94E+00	0.00E+00	5.94E+00
		Nb-95	<4.33E+00	0.00E+00	4.33E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.56E+00	0.00E+00	3.56E+00
		Cs-137	<4.61E+00	0.00E+00	4.61E+00
		BaLa-140	<7.77E+00	0.00E+00	7.77E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	<6.63E+01	0.00E+00	6.63E+01
Sample ID: 354207	Sample Dates: 5/27/2014 - 8/18/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	2.57E+02	1.18E+02	1.88E+02
Sample ID: 355157	Sample Dates: 8/18/2014 - 9/15/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.11E+00	0.00E+00	3.11E+00
		Co-58	<3.60E+00	0.00E+00	3.60E+00
		Fe-59	<4.76E+00	0.00E+00	4.76E+00
		Co-60	<3.96E+00	0.00E+00	3.96E+00
		Zn-65	<6.34E+00	0.00E+00	6.34E+00
		Zr-95	<8.16E+00	0.00E+00	8.16E+00
		Nb-95	<4.36E+00	0.00E+00	4.36E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.38E+00	0.00E+00	4.38E+00
		Cs-137	<3.58E+00	0.00E+00	3.58E+00
		BaLa-140	<9.80E+00	0.00E+00	9.80E+00
		Be-7	<3.04E+01	0.00E+00	3.04E+01
		K-40	5.35E+01	3.96E+01	5.88E+01
Sample ID: 358045	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<3.77E+00	0.00E+00	3.77E+00
		Co-58	<4.01E+00	0.00E+00	4.01E+00
		Fe-59	<5.33E+00	0.00E+00	5.33E+00
		Co-60	<3.49E+00	0.00E+00	3.49E+00
		Zn-65	<8.90E+00	0.00E+00	8.90E+00
		Zr-95	<6.77E+00	0.00E+00	6.77E+00
		Nb-95	<5.27E+00	0.00E+00	5.27E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.18E+00	0.00E+00	4.18E+00
		Cs-137	<3.14E+00	0.00E+00	3.14E+00

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 135 [ CONTROL - N @ 11.9 miles ]

Sample ID: 358045	Sample Dates: 9/15/2014 - 10/13/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		BaLa-140	<8.78E+00	0.00E+00	8.78E+00
		Be-7	<3.28E+01	0.00E+00	3.28E+01
		K-40	4.83E+01	3.24E+01	4.39E+01
Sample ID: 360709	Sample Dates: 10/13/2014 - 11/10/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<2.52E+00	0.00E+00	2.52E+00
		Co-58	<2.06E+00	0.00E+00	2.06E+00
		Fe-59	<5.43E+00	0.00E+00	5.43E+00
		Co-60	<2.00E+00	0.00E+00	2.00E+00
		Zn-65	<4.24E+00	0.00E+00	4.24E+00
		Zr-95	<3.47E+00	0.00E+00	3.47E+00
		Nb-95	<2.91E+00	0.00E+00	2.91E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.19E+00	0.00E+00	3.19E+00
		Cs-137	<2.73E+00	0.00E+00	2.73E+00
		BaLa-140	<7.14E+00	0.00E+00	7.14E+00
		Be-7	<2.49E+01	0.00E+00	2.49E+01
		K-40	<3.47E+01	0.00E+00	3.47E+01
Sample ID: 363520	Sample Dates: 11/10/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		Mn-54	<1.47E+00	0.00E+00	1.47E+00
		Co-58	<1.71E+00	0.00E+00	1.71E+00
		Fe-59	<4.08E+00	0.00E+00	4.08E+00
		Co-60	<1.59E+00	0.00E+00	1.59E+00
		Zn-65	<3.05E+00	0.00E+00	3.05E+00
		Zr-95	<3.25E+00	0.00E+00	3.25E+00
		Nb-95	<2.34E+00	0.00E+00	2.34E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.86E+00	0.00E+00	1.86E+00
		Cs-137	<1.51E+00	0.00E+00	1.51E+00
		BaLa-140	<5.96E+00	0.00E+00	5.96E+00
		Be-7	<1.50E+01	0.00E+00	1.50E+01
		K-40	1.08E+02	2.03E+01	2.28E+01
Sample ID: 364503	Sample Dates: 8/18/2014 - 12/8/2014	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
		H3SW	<-1.5E+01	0.00E+00	1.99E+02

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

Sample Point 143 [ INDICATOR - NW @ 0.27 miles ]

TLD RING TLD\_INNER

Sample ID: 286496	Sample Dates: 12/18/2013 - 3/19/2014	Nuclide	Activity
		mR/Std Qtr	16.65
Sample ID: 296444	Sample Dates: 3/19/2014 - 6/18/2014	Nuclide	Activity
		mR/Std Qtr	14.58
Sample ID: 365593	Sample Dates: 6/18/2014 - 9/17/2014	Nuclide	Activity
		mR/Std Qtr	15.47
Sample ID: 362502	Sample Dates: 9/17/2014 - 12/17/2014	Nuclide	Activity
		mR/Std Qtr	17.27

Sample Point 144 [ INDICATOR - NNE @ 0.46 miles ]

TLD RING TLD\_INNER

Sample ID: 286497	Sample Dates: 12/18/2013 - 3/19/2014	Nuclide	Activity
		mR/Std Qtr	17.57
Sample ID: 296445	Sample Dates: 3/19/2014 - 6/18/2014	Nuclide	Activity
		mR/Std Qtr	16.48
Sample ID: 365594	Sample Dates: 6/18/2014 - 9/17/2014	Nuclide	Activity
		mR/Std Qtr	14.58
Sample ID: 362503	Sample Dates: 9/17/2014 - 12/17/2014	Nuclide	Activity
		mR/Std Qtr	15.48

Sample Point 145 [ INDICATOR - NE @ 0.47 miles ]

TLD RING TLD\_INNER

Sample ID: 286498	Sample Dates: 12/18/2013 - 3/19/2014	Nuclide	Activity
		mR/Std Qtr	18.65

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

### Sample Point 145 [ INDICATOR - NE @ 0.47 miles ]

TLD RING TLD\_INNER

Sample ID:	296446	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.44
Sample ID:	365595	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.58
Sample ID:	362504	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	17.39

### Sample Point 146 [ INDICATOR - ENE @ 0.42 miles ]

TLD RING TLD\_INNER

Sample ID:	286499	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	14.71
Sample ID:	296447	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	11.89
Sample ID:	365596	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	13.40
Sample ID:	362505	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	15.04

### Sample Point 147 [ INDICATOR - E @ 0.44 miles ]

TLD RING TLD\_INNER

Sample ID:	286500	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.95
Sample ID:	296448	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.55
Sample ID:	365597	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.86
Sample ID:	362506	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	16.85

### Sample Point 148 [ INDICATOR - ESE @ 0.46 miles ]

TLD RING TLD\_INNER

Sample ID:	286501	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	14.45
Sample ID:	296449	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	11.28
Sample ID:	365598	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	13.38
Sample ID:	362507	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	13.85

### Sample Point 149 [ INDICATOR - SE @ 0.5 miles ]

TLD RING TLD\_INNER

Sample ID:	286502	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	13.94
Sample ID:	296450	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	11.57
Sample ID:	365599	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	12.00
Sample ID:	362508	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	11.13

### Sample Point 151 [ INDICATOR - S @ 0.37 miles ]

TLD RING TLD\_INNER

Sample ID:	286503	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	16.02
Sample ID:	296451	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	12.07
Sample ID:	365600	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.97

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 151 [ INDICATOR - S @ 0.37 miles ]

TLD RING TLD\_INNER

Sample ID:	362509	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.8

Sample Point 152 [ INDICATOR - SSW @ 0.44 miles ]

TLD RING TLD\_INNER

Sample ID:	286504	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	13.29
Sample ID:	296452	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.33
Sample ID:	365601	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.19
Sample ID:	362510	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	13.84

Sample Point 153 [ INDICATOR - SW @ 0.47 miles ]

TLD RING TLD\_INNER

Sample ID:	286505	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	19.41
Sample ID:	296453	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	16.59
Sample ID:	365602	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	18.17
Sample ID:	362511	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	20.68

Sample Point 154 [ INDICATOR - W @ 0.45 miles ]

TLD RING TLD\_INNER

Sample ID:	286506	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	24.73
Sample ID:	296454	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	16.67
Sample ID:	365603	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	18.55
Sample ID:	362512	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	22.84

Sample Point 156 [ INDICATOR - WNW @ 0.44 miles ]

TLD RING TLD\_INNER

Sample ID:	286507	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.97
Sample ID:	296455	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	18.12
Sample ID:	365604	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.57
Sample ID:	362513	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	19.90

Sample Point 157 [ INDICATOR - N @ 4.69 miles ]

TLD RING TLD\_OUTER

Sample ID:	286508	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	15.89
Sample ID:	296456	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.36
Sample ID:	365605	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.81
Sample ID:	362514	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.41

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 158 [ INDICATOR - NNE @ 4.33 miles ]

TLD RING TLD\_OUTER

Sample ID:	286509	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	16.09
Sample ID:	296457	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	12.65
Sample ID:	365606	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.16
Sample ID:	362515	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.22

Sample Point 159 [ INDICATOR - NE @ 4.73 miles ]

TLD RING TLD\_OUTER

Sample ID:	286510	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	24.05
Sample ID:	362516	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	15.60

Sample Point 160 [ INDICATOR - ENE @ 4.89 miles ]

TLD RING TLD\_OUTER

Sample ID:	286511	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.15
Sample ID:	296459	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.56
Sample ID:	365608	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	15.45
Sample ID:	362517	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	18.13

Sample Point 161 [ INDICATOR - E @ 4.7 miles ]

TLD RING TLD\_OUTER

Sample ID:	286512	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.0
Sample ID:	296460	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.54
Sample ID:	365609	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.49
Sample ID:	362518	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.94

Sample Point 162 [ INDICATOR - ESE @ 4.53 miles ]

TLD RING TLD\_OUTER

Sample ID:	286513	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	12.14
Sample ID:	296461	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	10.29
Sample ID:	365610	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	11.06
Sample ID:	362519	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	12

Sample Point 163 [ INDICATOR - SE @ 4.94 miles ]

TLD RING TLD\_OUTER

Sample ID:	286514	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	14.60
Sample ID:	296462	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	10.38
Sample ID:	365611	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	10.25
Sample ID:	362520	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	11.11

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

### Sample Point 164 [ INDICATOR - SSE @ 4.64 miles ]

TLD RING TLD\_OUTER

Sample ID:	286515	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	11.52
Sample ID:	296463	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.60
Sample ID:	365612	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	11.19
Sample ID:	362521	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	12.69

### Sample Point 165 [ INDICATOR - S @ 4.57 miles ]

TLD RING TLD\_OUTER

Sample ID:	286516	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	21.24
Sample ID:	296464	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	17.22
Sample ID:	365613	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	17.71
Sample ID:	362522	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	20.27

### Sample Point 166 [ INDICATOR - SSW @ 4.44 miles ]

TLD RING TLD\_OUTER

Sample ID:	286517	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	19.09
Sample ID:	296465	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	15.89
Sample ID:	365614	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.68
Sample ID:	362523	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	18.10

### Sample Point 167 [ INDICATOR - SW @ 4.87 miles ]

TLD RING TLD\_OUTER

Sample ID:	286518	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	22.47
Sample ID:	296466	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	16.63
Sample ID:	365615	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	19.68
Sample ID:	362524	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	28.34

### Sample Point 168 [ INDICATOR - WSW @ 4.6 miles ]

TLD RING TLD\_OUTER

Sample ID:	286519	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.90
Sample ID:	296467	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.40
Sample ID:	365616	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	15.66
Sample ID:	362525	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	18.29

### Sample Point 169 [ INDICATOR - W @ 4.03 miles ]

TLD RING TLD\_OUTER

Sample ID:	286520	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	14.62
Sample ID:	296468	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.99

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 169 [ INDICATOR - W @ 4.03 miles ]

TLD RING TLD\_OUTER

Sample ID:	365617	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	13.08
Sample ID:	362526	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.26

Sample Point 170 [ INDICATOR - WNW @ 4.32 miles ]

TLD RING TLD\_OUTER

Sample ID:	286530	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	21.30
Sample ID:	296478	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	17.49
Sample ID:	365618	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	20.50
Sample ID:	362527	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	20.24

Sample Point 171 [ INDICATOR - NW @ 3.95 miles ]

TLD RING TLD\_OUTER

Sample ID:	286521	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	18.78
Sample ID:	296469	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	15.37
Sample ID:	365619	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.91

Sample Point 172 [ INDICATOR - NNW @ 4.69 miles ]

TLD RING TLD\_OUTER

Sample ID:	286522	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	18.90
Sample ID:	296470	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.20
Sample ID:	365620	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.13
Sample ID:	362529	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	15.67

Sample Point 173 [ INDICATOR - NNW @ 8.39 miles ]

TLD RING TLD\_SPEC

Sample ID:	286523	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	25.02
Sample ID:	296471	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	25.25
Sample ID:	365621	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	23.39
Sample ID:	362530	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	20.46

Sample Point 174 [ INDICATOR - WNW @ 8.85 miles ]

TLD RING TLD\_SPEC

Sample ID:	286524	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	25.32
Sample ID:	296472	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	21.03
Sample ID:	365622	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	23.06
Sample ID:	362531	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	22.65

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 175 [ CONTROL - WNW @ 15.5 miles ]

TLD RING TLD\_CTRL

Sample ID:	286525	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	22.27
Sample ID:	296473	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	21.85
Sample ID:	365623	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	23.06
Sample ID:	362532	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	23.08

Sample Point 177 [ INDICATOR - S @ 8.77 miles ]

TLD RING TLD\_SPEC

Sample ID:	286526	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	14.39
Sample ID:	296474	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	11.67
Sample ID:	365624	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	15.00
Sample ID:	362533	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	13.83

Sample Point 178 [ INDICATOR - SE @ 9.36 miles ]

TLD RING TLD\_SPEC

Sample ID:	286527	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	16.71
Sample ID:	296475	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	11.69
Sample ID:	365625	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.10
Sample ID:	362534	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.94

Sample Point 180 [ INDICATOR - NNE @ 12.7 miles ]

TLD RING TLD\_SPEC

Sample ID:	286564	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	26.51
Sample ID:	296512	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	22.41
Sample ID:	365626	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	25.98
Sample ID:	362535	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	29.04

Sample Point 181 [ INDICATOR - NE @ 7.02 miles ]

TLD RING TLD\_SPEC

Sample ID:	286565	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.91
Sample ID:	296513	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.14
Sample ID:	365627	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	15.44
Sample ID:	362536	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	16.48

Sample Point 182 [ INDICATOR - ENE @ 6.23 miles ]

TLD RING TLD\_SPEC

Sample ID:	286566	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	15.01
Sample ID:	296514	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	12.98

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



## MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 182 [ INDICATOR - ENE @ 6.23 miles ]

TLD RING TLD\_SPEC

Sample ID:	365628	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	16.76
Sample ID:	362537	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	19.36

Sample Point 186 [ INDICATOR - NNW @ 0.24 miles ]

TLD RING TLD\_SPEC

Sample ID:	286567	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.11
Sample ID:	296515	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.92
Sample ID:	365629	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	18.10
Sample ID:	362538	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	16.22

Sample Point 187 [ INDICATOR - N @ 0.19 miles ]

TLD RING TLD\_SPEC

Sample ID:	286568	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	21.33
Sample ID:	296516	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	13.58
Sample ID:	365630	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	19.20
Sample ID:	362539	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	15.49

Sample Point 189 [ INDICATOR - SSE @ 0.43 miles ]

TLD RING TLD\_INNER

Sample ID:	286569	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	15.67
Sample ID:	296517	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	14.12
Sample ID:	365631	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.83
Sample ID:	362540	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	14.94

Sample Point 190 [ INDICATOR - WSW @ 0.37 miles ]

TLD RING TLD\_INNER

Sample ID:	286570	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	19.21
Sample ID:	296518	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	17.92
Sample ID:	365632	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	18.96
Sample ID:	362541	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	19.24

Sample Point 191 [ INDICATOR - NNE @ 2.84 miles ]

TLD RING TLD\_SPEC

Sample ID:	286571	Sample Dates:	12/18/2013 - 3/19/2014	Nuclide	Activity
				mR/Std Qtr	17.61
Sample ID:	296519	Sample Dates:	3/19/2014 - 6/18/2014	Nuclide	Activity
				mR/Std Qtr	15.01
Sample ID:	365633	Sample Dates:	6/18/2014 - 9/17/2014	Nuclide	Activity
				mR/Std Qtr	14.92
Sample ID:	362542	Sample Dates:	9/17/2014 - 12/17/2014	Nuclide	Activity
				mR/Std Qtr	16.08

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID: 279581	Sample Dates: 1/6/2014 - 1/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<3.87E+01	0.00E+00	3.87E+01
			Cs-134	<3.36E+01	0.00E+00	3.36E+01
			Cs-137	<4.27E+01	0.00E+00	4.27E+01
			Be-7	1.23E+03	2.10E+02	3.18E+02
			K-40	2.36E+03	3.31E+02	5.33E+02
Sample ID: 281218	Sample Dates: 2/3/2014 - 2/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.33E+01	0.00E+00	2.33E+01
			Cs-134	<1.92E+01	0.00E+00	1.92E+01
			Cs-137	<1.89E+01	0.00E+00	1.89E+01
			Be-7	1.72E+03	1.38E+02	1.78E+02
			K-40	3.23E+03	2.28E+02	1.73E+02
Sample ID: 284399	Sample Dates: 3/3/2014 - 3/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<3.02E+01	0.00E+00	3.02E+01
			Cs-134	<2.94E+01	0.00E+00	2.94E+01
			Cs-137	<3.61E+01	0.00E+00	3.61E+01
			Be-7	1.17E+03	1.77E+02	2.50E+02
			K-40	4.39E+03	3.19E+02	2.68E+02
Sample ID: 287036	Sample Dates: 4/7/2014 - 4/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<1.19E+01	0.00E+00	1.19E+01
			Cs-137	<1.48E+01	0.00E+00	1.48E+01
			Be-7	6.40E+02	7.78E+01	1.02E+02
			K-40	3.24E+03	1.58E+02	1.27E+02
Sample ID: 289837	Sample Dates: 5/5/2014 - 5/5/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<3.11E+01	0.00E+00	3.11E+01
			Cs-134	<3.63E+01	0.00E+00	3.63E+01
			Cs-137	<4.33E+01	0.00E+00	4.33E+01
			Be-7	2.70E+02	1.57E+02	3.18E+02
			K-40	4.46E+03	4.16E+02	4.25E+02
Sample ID: 294841	Sample Dates: 6/2/2014 - 6/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.41E+01	0.00E+00	2.41E+01
			Cs-134	<2.22E+01	0.00E+00	2.22E+01
			Cs-137	<2.56E+01	0.00E+00	2.56E+01
			Be-7	3.50E+02	9.10E+01	1.99E+02
			K-40	4.03E+03	3.35E+02	1.91E+02
Sample ID: 296609	Sample Dates: 7/7/2014 - 7/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<3.30E+01	0.00E+00	3.30E+01
			Cs-134	<2.87E+01	0.00E+00	2.87E+01
			Cs-137	<4.11E+01	0.00E+00	4.11E+01
			Be-7	7.14E+02	1.64E+02	2.93E+02
			K-40	4.45E+03	4.03E+02	3.28E+02
Sample ID: 298128	Sample Dates: 8/4/2014 - 8/4/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<3.17E+01	0.00E+00	3.17E+01
			Co-58	<3.14E+01	0.00E+00	3.14E+01
			Fe-59	<5.54E+01	0.00E+00	5.54E+01
			Co-60	<2.97E+01	0.00E+00	2.97E+01
			Zn-65	<5.44E+01	0.00E+00	5.44E+01
			Zr-95	<4.50E+01	0.00E+00	4.50E+01
			Nb-95	<2.81E+01	0.00E+00	2.81E+01
			I-131	<2.61E+01	0.00E+00	2.61E+01
			Cs-134	<2.43E+01	0.00E+00	2.43E+01
			Cs-137	<3.13E+01	0.00E+00	3.13E+01
			BaLa-140	<2.76E+01	0.00E+00	2.76E+01
			Be-7	3.58E+03	5.13E+02	3.84E+02
			K-40	5.63E+03	8.33E+02	2.99E+02
Sample ID: 354439	Sample Dates: 9/2/2014 - 9/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<1.67E+01	0.00E+00	1.67E+01
			Co-58	<1.29E+01	0.00E+00	1.29E+01
			Fe-59	<4.10E+01	0.00E+00	4.10E+01
			Co-60	<1.80E+01	0.00E+00	1.80E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 102 [ CONTROL - WNW @ 9.89 miles ]

Sample ID:	354439	Sample Dates:	9/2/2014 - 9/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Zn-65	<3.97E+01	0.00E+00	3.97E+01
					Zr-95	<2.87E+01	0.00E+00	2.87E+01
					Nb-95	<2.14E+01	0.00E+00	2.14E+01
					I-131	<4.12E+01	0.00E+00	4.12E+01
					Cs-134	<2.35E+01	0.00E+00	2.35E+01
					Cs-137	<1.53E+01	0.00E+00	1.53E+01
					BaLa-140	<3.23E+01	0.00E+00	3.23E+01
					Be-7	1.03E+03	2.01E+02	2.19E+02
					K-40	4.86E+03	5.68E+02	1.73E+02

Sample ID:	357035	Sample Dates:	10/6/2014 - 10/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<4.27E+01	0.00E+00	4.27E+01
					Co-58	<3.05E+01	0.00E+00	3.05E+01
					Fe-59	<8.95E+01	0.00E+00	8.95E+01
					Co-60	<2.60E+01	0.00E+00	2.60E+01
					Zn-65	<6.52E+01	0.00E+00	6.52E+01
					Zr-95	<6.68E+01	0.00E+00	6.68E+01
					Nb-95	<3.88E+01	0.00E+00	3.88E+01
					I-131	<2.72E+01	0.00E+00	2.72E+01
					Cs-134	<4.60E+01	0.00E+00	4.60E+01
					Cs-137	<3.75E+01	0.00E+00	3.75E+01
					BaLa-140	<1.25E+01	0.00E+00	1.25E+01
					Be-7	1.92E+03	4.44E+02	4.51E+02
					K-40	4.88E+03	9.77E+02	5.93E+02

Sample ID:	360022	Sample Dates:	11/3/2014 - 11/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<3.11E+01	0.00E+00	3.11E+01
					Co-58	<2.96E+01	0.00E+00	2.96E+01
					Fe-59	<5.26E+01	0.00E+00	5.26E+01
					Co-60	<2.31E+01	0.00E+00	2.31E+01
					Zn-65	<4.83E+01	0.00E+00	4.83E+01
					Zr-95	<3.71E+01	0.00E+00	3.71E+01
					Nb-95	<1.80E+01	0.00E+00	1.80E+01
					I-131	<1.66E+01	0.00E+00	1.66E+01
					Cs-134	<3.42E+01	0.00E+00	3.42E+01
					Cs-137	<2.33E+01	0.00E+00	2.33E+01
					BaLa-140	<2.07E+01	0.00E+00	2.07E+01
					Be-7	2.17E+03	3.49E+02	2.67E+02
					K-40	4.37E+03	6.98E+02	3.93E+02

Sample ID:	362775	Sample Dates:	12/1/2014 - 12/1/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<3.72E+01	0.00E+00	3.72E+01
					Co-58	<2.68E+01	0.00E+00	2.68E+01
					Fe-59	<6.09E+01	0.00E+00	6.09E+01
					Co-60	<2.20E+01	0.00E+00	2.20E+01
					Zn-65	<7.15E+01	0.00E+00	7.15E+01
					Zr-95	<5.42E+01	0.00E+00	5.42E+01
					Nb-95	<2.70E+01	0.00E+00	2.70E+01
					I-131	<2.27E+01	0.00E+00	2.27E+01
					Cs-134	<3.88E+01	0.00E+00	3.88E+01
					Cs-137	<3.25E+01	0.00E+00	3.25E+01
					BaLa-140	<2.25E+01	0.00E+00	2.25E+01
					Be-7	2.08E+03	3.89E+02	3.34E+02
					K-40	3.18E+03	6.64E+02	4.97E+02

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	279594	Sample Dates:	1/6/2014 - 1/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<3.74E+01	0.00E+00	3.74E+01
					Cs-134	<3.62E+01	0.00E+00	3.62E+01
					Cs-137	<3.80E+01	0.00E+00	3.80E+01
					Be-7	8.49E+02	1.48E+02	2.40E+02
					K-40	3.27E+03	3.76E+02	3.39E+02

Sample ID:	281237	Sample Dates:	2/3/2014 - 2/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<4.43E+01	0.00E+00	4.43E+01
					Cs-134	<3.77E+01	0.00E+00	3.77E+01
					Cs-137	<3.39E+01	0.00E+00	3.39E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID: 281237	Sample Dates: 2/3/2014 - 2/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Be-7	7.96E+02		
			K-40	3.92E+03		
Sample ID: 284434	Sample Dates: 3/3/2014 - 3/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<1.50E+01		
			Cs-134	<1.46E+01		
			Cs-137	<1.76E+01		
			Be-7	2.41E+02		
			K-40	1.22E+03		
Sample ID: 287078	Sample Dates: 4/7/2014 - 4/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<1.97E+01		
			Cs-134	<1.77E+01		
			Cs-137	<2.49E+01		
			Be-7	<2.34E+02		
			K-40	3.51E+03		
Sample ID: 289850	Sample Dates: 5/5/2014 - 5/5/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.58E+01		
			Cs-134	<2.46E+01		
			Cs-137	<3.51E+01		
			Be-7	4.14E+02		
			K-40	4.74E+03		
Sample ID: 294854	Sample Dates: 6/2/2014 - 6/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.85E+01		
			Cs-134	<3.07E+01		
			Cs-137	<2.80E+01		
			Be-7	1.70E+02		
			K-40	4.04E+03		
Sample ID: 296622	Sample Dates: 7/7/2014 - 7/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<4.04E+01		
			Cs-134	<3.78E+01		
			Cs-137	<4.55E+01		
			Be-7	4.95E+02		
			K-40	3.06E+03		
Sample ID: 298141	Sample Dates: 8/4/2014 - 8/4/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<4.01E+01		
			Co-58	<3.52E+01		
			Fe-59	<7.57E+01		
			Co-60	<4.08E+01		
			Zn-65	<6.04E+01		
			Zr-95	<6.08E+01		
			Nb-95	<4.51E+01		
			I-131	<3.64E+01		
			Cs-134	<3.53E+01		
			Cs-137	<4.86E+01		
			BaLa-140	<6.52E+01		
			Be-7	9.31E+02		
			K-40	3.76E+03		
Sample ID: 354440	Sample Dates: 9/2/2014 - 9/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.24E+01		
			Co-58	<2.62E+01		
			Fe-59	<4.76E+01		
			Co-60	<4.01E+01		
			Zn-65	<5.43E+01		
			Zr-95	<4.66E+01		
			Nb-95	<2.35E+01		
			I-131	<1.80E+01		
			Cs-134	<2.72E+01		
			Cs-137	<3.13E+01		
			BaLa-140	<2.98E+01		
			Be-7	7.66E+02		
			K-40	4.92E+03		

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.





# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 120 [ INDICATOR - NNE @ 0.46 miles ]

Sample ID:	357036	Sample Dates:	10/6/2014 - 10/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<2.64E+01	0.00E+00	2.64E+01
					Co-58	<2.41E+01	0.00E+00	2.41E+01
					Fe-59	<4.60E+01	0.00E+00	4.60E+01
					Co-60	<2.60E+01	0.00E+00	2.60E+01
					Zn-65	<6.78E+01	0.00E+00	6.78E+01
					Zr-95	<4.29E+01	0.00E+00	4.29E+01
					Nb-95	<2.70E+01	0.00E+00	2.70E+01
					I-131	<2.56E+01	0.00E+00	2.56E+01
					Cs-134	<3.20E+01	0.00E+00	3.20E+01
					Cs-137	<2.29E+01	0.00E+00	2.29E+01
					BaLa-140	<2.85E+01	0.00E+00	2.85E+01
					Be-7	1.20E+03	2.71E+02	3.29E+02
					K-40	4.09E+03	6.24E+02	3.85E+02

Sample ID:	360023	Sample Dates:	11/3/2014 - 11/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<8.69E+00	0.00E+00	8.69E+00
					Co-58	<8.71E+00	0.00E+00	8.71E+00
					Fe-59	<2.12E+01	0.00E+00	2.12E+01
					Co-60	<9.39E+00	0.00E+00	9.39E+00
					Zn-65	<2.14E+01	0.00E+00	2.14E+01
					Zr-95	<1.37E+01	0.00E+00	1.37E+01
					Nb-95	<8.57E+00	0.00E+00	8.57E+00
					I-131	<8.11E+00	0.00E+00	8.11E+00
					Cs-134	<1.17E+01	0.00E+00	1.17E+01
					Cs-137	<8.22E+00	0.00E+00	8.22E+00
					BaLa-140	<8.36E+00	0.00E+00	8.36E+00
					Be-7	1.16E+03	1.40E+02	7.93E+01
					K-40	3.10E+03	3.43E+02	1.11E+02

Sample ID:	362776	Sample Dates:	12/1/2014 - 12/1/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<2.91E+01	0.00E+00	2.91E+01
					Co-58	<3.06E+01	0.00E+00	3.06E+01
					Fe-59	<5.79E+01	0.00E+00	5.79E+01
					Co-60	<3.99E+01	0.00E+00	3.99E+01
					Zn-65	<8.19E+01	0.00E+00	8.19E+01
					Zr-95	<5.58E+01	0.00E+00	5.58E+01
					Nb-95	<3.27E+01	0.00E+00	3.27E+01
					I-131	<3.31E+01	0.00E+00	3.31E+01
					Cs-134	<2.85E+01	0.00E+00	2.85E+01
					Cs-137	<4.21E+01	0.00E+00	4.21E+01
					BaLa-140	<6.03E+01	0.00E+00	6.03E+01
					Be-7	1.90E+02	2.02E+02	3.24E+02
					K-40	4.26E+03	8.15E+02	4.67E+02

## Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	279584	Sample Dates:	1/6/2014 - 1/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<3.43E+01	0.00E+00	3.43E+01
					Cs-134	<3.50E+01	0.00E+00	3.50E+01
					Cs-137	<4.96E+01	0.00E+00	4.96E+01
					Be-7	9.65E+02	1.88E+02	2.62E+02
					K-40	3.45E+03	4.78E+02	7.38E+02

Sample ID:	281221	Sample Dates:	2/3/2014 - 2/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<3.50E+01	0.00E+00	3.50E+01
					Cs-134	<3.51E+01	0.00E+00	3.51E+01
					Cs-137	<3.62E+01	0.00E+00	3.62E+01
					Be-7	5.72E+02	1.72E+02	3.12E+02
					K-40	3.80E+03	4.62E+02	4.30E+02

Sample ID:	284404	Sample Dates:	3/3/2014 - 3/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<3.73E+01	0.00E+00	3.73E+01
					Cs-134	<2.28E+01	0.00E+00	2.28E+01
					Cs-137	<4.00E+01	0.00E+00	4.00E+01
					Be-7	4.23E+02	1.44E+02	3.03E+02
					K-40	3.46E+03	3.76E+02	3.62E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID: 287041	Sample Dates: 4/7/2014 - 4/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<3.53E+01	0.00E+00	3.53E+01
			Cs-134	<3.40E+01	0.00E+00	3.40E+01
			Cs-137	<4.29E+01	0.00E+00	4.29E+01
			Be-7	5.36E+02	1.46E+02	2.64E+02
			K-40	3.02E+03	3.62E+02	5.16E+02
Sample ID: 289842	Sample Dates: 5/5/2014 - 5/5/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.12E+01	0.00E+00	2.12E+01
			Cs-134	<2.38E+01	0.00E+00	2.38E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			Be-7	<2.78E+02	0.00E+00	2.78E+02
			K-40	4.39E+03	3.27E+02	2.83E+02
Sample ID: 294846	Sample Dates: 6/2/2014 - 6/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.63E+01	0.00E+00	2.63E+01
			Cs-134	<2.44E+01	0.00E+00	2.44E+01
			Cs-137	<3.38E+01	0.00E+00	3.38E+01
			Be-7	4.09E+02	1.35E+02	2.28E+02
			K-40	4.30E+03	3.95E+02	3.54E+02
Sample ID: 296614	Sample Dates: 7/7/2014 - 7/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<4.32E+01	0.00E+00	4.32E+01
			Cs-134	<4.14E+01	0.00E+00	4.14E+01
			Cs-137	<5.54E+01	0.00E+00	5.54E+01
			Be-7	8.98E+02	1.98E+02	2.81E+02
			K-40	3.70E+03	4.24E+02	4.74E+02
Sample ID: 298133	Sample Dates: 8/4/2014 - 8/4/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<4.24E+01	0.00E+00	4.24E+01
			Co-58	<3.30E+01	0.00E+00	3.30E+01
			Fe-59	<8.20E+01	0.00E+00	8.20E+01
			Co-60	<5.00E+01	0.00E+00	5.00E+01
			Zn-65	<8.58E+01	0.00E+00	8.58E+01
			Zr-95	<7.87E+01	0.00E+00	7.87E+01
			Nb-95	<3.63E+01	0.00E+00	3.63E+01
			I-131	<3.11E+01	0.00E+00	3.11E+01
			Cs-134	<2.76E+01	0.00E+00	2.76E+01
			Cs-137	<3.19E+01	0.00E+00	3.19E+01
			BaLa-140	<6.00E+01	0.00E+00	6.00E+01
			Be-7	7.58E+02	3.37E+02	4.57E+02
			K-40	3.30E+03	8.01E+02	4.95E+02
Sample ID: 354441	Sample Dates: 9/2/2014 - 9/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<1.45E+01	0.00E+00	1.45E+01
			Co-58	<1.53E+01	0.00E+00	1.53E+01
			Fe-59	<3.23E+01	0.00E+00	3.23E+01
			Co-60	<1.95E+01	0.00E+00	1.95E+01
			Zn-65	<3.36E+01	0.00E+00	3.36E+01
			Zr-95	<3.09E+01	0.00E+00	3.09E+01
			Nb-95	<1.87E+01	0.00E+00	1.87E+01
			I-131	<4.49E+01	0.00E+00	4.49E+01
			Cs-134	<2.31E+01	0.00E+00	2.31E+01
			Cs-137	<1.69E+01	0.00E+00	1.69E+01
			BaLa-140	<2.70E+01	0.00E+00	2.70E+01
			Be-7	1.11E+03	2.18E+02	2.62E+02
			K-40	3.95E+03	4.78E+02	2.37E+02
Sample ID: 357037	Sample Dates: 10/6/2014 - 10/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.51E+01	0.00E+00	2.51E+01
			Co-58	<2.48E+01	0.00E+00	2.48E+01
			Fe-59	<4.94E+01	0.00E+00	4.94E+01
			Co-60	<3.81E+01	0.00E+00	3.81E+01
			Zn-65	<7.70E+01	0.00E+00	7.70E+01
			Zr-95	<4.30E+01	0.00E+00	4.30E+01
			Nb-95	<3.16E+01	0.00E+00	3.16E+01
			I-131	<2.09E+01	0.00E+00	2.09E+01
			Cs-134	<2.93E+01	0.00E+00	2.93E+01
			Cs-137	<2.87E+01	0.00E+00	2.87E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 125 [ INDICATOR - SW @ 0.38 miles ]

Sample ID:	357037	Sample Dates:	10/6/2014 - 10/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					BaLa-140	<2.75E+01	0.00E+00	2.75E+01
					Be-7	1.74E+03	3.20E+02	2.56E+02
					K-40	3.91E+03	6.95E+02	4.54E+02

Sample ID:	360024	Sample Dates:	11/3/2014 - 11/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<1.89E+01	0.00E+00	1.89E+01
					Co-58	<2.02E+01	0.00E+00	2.02E+01
					Fe-59	<3.66E+01	0.00E+00	3.66E+01
					Co-60	<1.70E+01	0.00E+00	1.70E+01
					Zn-65	<4.13E+01	0.00E+00	4.13E+01
					Zr-95	<4.17E+01	0.00E+00	4.17E+01
					Nb-95	<2.31E+01	0.00E+00	2.31E+01
					I-131	<1.51E+01	0.00E+00	1.51E+01
					Cs-134	<2.60E+01	0.00E+00	2.60E+01
					Cs-137	<2.37E+01	0.00E+00	2.37E+01
					BaLa-140	<1.46E+01	0.00E+00	1.46E+01
					Be-7	1.08E+03	2.31E+02	2.22E+02
					K-40	3.78E+03	6.02E+02	2.82E+02

Sample ID:	362777	Sample Dates:	12/1/2014 - 12/1/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					Mn-54	<2.61E+01	0.00E+00	2.61E+01
					Co-58	<1.93E+01	0.00E+00	1.93E+01
					Fe-59	<4.64E+01	0.00E+00	4.64E+01
					Co-60	<2.51E+01	0.00E+00	2.51E+01
					Zn-65	<6.04E+01	0.00E+00	6.04E+01
					Zr-95	<4.38E+01	0.00E+00	4.38E+01
					Nb-95	<2.59E+01	0.00E+00	2.59E+01
					I-131	<2.01E+01	0.00E+00	2.01E+01
					Cs-134	<2.76E+01	0.00E+00	2.76E+01
					Cs-137	<2.53E+01	0.00E+00	2.53E+01
					BaLa-140	<3.14E+01	0.00E+00	3.14E+01
					Be-7	3.41E+02	1.58E+02	2.12E+02
					K-40	3.14E+03	5.77E+02	3.80E+02

## Sample Point 193 [ INDICATOR - N @ 0.19 miles ]

Sample ID:	279582	Sample Dates:	1/6/2014 - 1/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.73E+01	0.00E+00	1.73E+01
					Cs-134	<1.40E+01	0.00E+00	1.40E+01
					Cs-137	<1.65E+01	0.00E+00	1.65E+01
					Be-7	8.98E+02	9.50E+01	1.24E+02
					K-40	3.21E+03	2.05E+02	1.18E+02

Sample ID:	281219	Sample Dates:	2/3/2014 - 2/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<1.88E+01	0.00E+00	1.88E+01
					Cs-134	<1.93E+01	0.00E+00	1.93E+01
					Cs-137	<1.79E+01	0.00E+00	1.79E+01
					Be-7	7.47E+02	1.10E+02	1.52E+02
					K-40	3.85E+03	2.60E+02	2.03E+02

Sample ID:	284400	Sample Dates:	3/3/2014 - 3/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<2.23E+01	0.00E+00	2.23E+01
					Cs-134	<2.58E+01	0.00E+00	2.58E+01
					Cs-137	<2.76E+01	0.00E+00	2.76E+01
					Be-7	7.15E+02	1.40E+02	1.85E+02
					K-40	3.07E+03	3.24E+02	3.54E+02

Sample ID:	287037	Sample Dates:	4/7/2014 - 4/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<2.02E+01	0.00E+00	2.02E+01
					Cs-134	<1.71E+01	0.00E+00	1.71E+01
					Cs-137	<3.04E+01	0.00E+00	3.04E+01
					Be-7	3.53E+02	1.17E+02	1.75E+02
					K-40	3.03E+03	2.78E+02	1.82E+02

Sample ID:	289838	Sample Dates:	5/5/2014 - 5/5/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
					I-131	<2.01E+01	0.00E+00	2.01E+01
					Cs-134	<2.38E+01	0.00E+00	2.38E+01
					Cs-137	<2.83E+01	0.00E+00	2.83E+01

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 193 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 289838	Sample Dates: 5/5/2014 - 5/5/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Be-7	4.87E+02		
			K-40	5.44E+03		
Sample ID: 294842	Sample Dates: 6/2/2014 - 6/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.05E+01		
			Cs-134	<2.05E+01		
			Cs-137	<2.63E+01		
			Be-7	4.84E+02		
			K-40	4.74E+03		
Sample ID: 296610	Sample Dates: 7/7/2014 - 7/7/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			I-131	<2.76E+01		
			Cs-134	<2.71E+01		
			Cs-137	<3.20E+01		
			Be-7	7.73E+02		
			K-40	5.42E+03		
Sample ID: 298129	Sample Dates: 8/4/2014 - 8/4/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.12E+01		
			Co-58	<1.82E+01		
			Fe-59	<3.77E+01		
			Co-60	<3.10E+01		
			Zn-65	<5.22E+01		
			Zr-95	<3.75E+01		
			Nb-95	<2.37E+01		
			I-131	<1.76E+01		
			Cs-134	<2.04E+01		
			Cs-137	<2.46E+01		
			BaLa-140	<2.59E+01		
			Be-7	8.52E+02		
			K-40	5.27E+03		
Sample ID: 354442	Sample Dates: 9/2/2014 - 9/2/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<1.69E+01		
			Co-58	<2.02E+01		
			Fe-59	<4.58E+01		
			Co-60	<2.61E+01		
			Zn-65	<6.71E+01		
			Zr-95	<4.10E+01		
			Nb-95	<2.01E+01		
			I-131	<1.76E+01		
			Cs-134	<2.77E+01		
			Cs-137	<2.20E+01		
			BaLa-140	<2.49E+01		
			Be-7	1.07E+03		
			K-40	4.04E+03		
Sample ID: 357038	Sample Dates: 10/6/2014 - 10/6/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<3.35E+01		
			Co-58	<2.93E+01		
			Fe-59	<6.75E+01		
			Co-60	<3.80E+01		
			Zn-65	<9.04E+01		
			Zr-95	<5.38E+01		
			Nb-95	<3.46E+01		
			I-131	<2.71E+01		
			Cs-134	<4.60E+01		
			Cs-137	<3.51E+01		
			BaLa-140	<1.10E+01		
			Be-7	5.34E+02		
			K-40	4.45E+03		
Sample ID: 360025	Sample Dates: 11/3/2014 - 11/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<2.49E+01		
			Co-58	<2.39E+01		
			Fe-59	<5.29E+01		
			Co-60	<2.86E+01		
			Zn-65	<6.50E+01		

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



# MCGUIRE Radiological Environmental Monitoring Analysis Report - 2014 (Appendix E)

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

Sample Point 193 [ INDICATOR - N @ 0.19 miles ]

Sample ID: 360025	Sample Dates: 11/3/2014 - 11/3/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Zr-95	<4.58E+01	0.00E+00	4.58E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<2.28E+01	0.00E+00	2.28E+01
			Cs-134	<2.87E+01	0.00E+00	2.87E+01
			Cs-137	<2.12E+01	0.00E+00	2.12E+01
			BaLa-140	<3.26E+01	0.00E+00	3.26E+01
			Be-7	3.01E+02	1.94E+02	2.96E+02
			K-40	5.00E+03	7.25E+02	2.74E+02
Sample ID: 362778	Sample Dates: 12/1/2014 - 12/1/2014	MIXEDBLV	Nuclide	Activity	Sigma Error <sup>1</sup>	LLD
			Mn-54	<3.00E+01	0.00E+00	3.00E+01
			Co-58	<2.98E+01	0.00E+00	2.98E+01
			Fe-59	<6.92E+01	0.00E+00	6.92E+01
			Co-60	<3.18E+01	0.00E+00	3.18E+01
			Zn-65	<7.07E+01	0.00E+00	7.07E+01
			Zr-95	<4.71E+01	0.00E+00	4.71E+01
			Nb-95	<3.67E+01	0.00E+00	3.67E+01
			I-131	<3.17E+01	0.00E+00	3.17E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			BaLa-140	<5.06E+01	0.00E+00	5.06E+01
			Be-7	8.11E+02	2.68E+02	2.86E+02
			K-40	4.04E+03	8.66E+02	5.46E+02

(1) Effective 10JUL2014, analytical samples indicating detectable activity are reported with 2 Sigma error.



**APPENDIX F**

**ERRATA TO  
PREVIOUS REPORTS**

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# APPENDIX F

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## ERRATA TO THE 2014 AREOR

### I. McGuire AREORs: 2009, 2011, and 2013

Report titled "Environmental TLD Dose Report" used by the Dosimetry Laboratory to communicate final TLD results was found to have an error in the calculation of dose per standard quarter. The error would have existed since the report's first use for 2nd quarter 2009 and only applies to quarters where date ranges were other than a standard quarter (not equal to 91 days). McGuire environmental TLD data were evaluated and it was determined the quarters affected were McGuire 3Q2009, McGuire 2Q2011, and McGuire 1Q2013. McGuire environmental TLD results were updated during 2015 in the EnRad Sample Manager database to indicate the corrected dose per standard quarter values derived from the new Dosimetry Laboratory reporting mechanism. (PIP G-14-02451).

2009 McGuire AREOR entities affected:

- Section 3.9, Figure 3.9
- Section 3.9, Table 3.9
- 2009 inner ring average updated from 66.7 mR/yr to 67.7 mR/yr
- 2009 outer ring average updated from 65.3 mR/yr to 66.4 mR/yr
- 2009 control average updated from 91.2 mR/yr to 92.4 mR/yr

2009 Appendix B, Direct Radiation TLD section

#### **2009 TLD Appendix B section as originally reported**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
17.1 (158 / 158)	180	27.0 (4 / 4)	22.8 (4 / 4)
9.30 – 30.7	(12.7 mi NNE)	23.2 – 30.7	19.5 – 26.5

#### **Updated 2009 TLD Appendix B section**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
17.4 (158 / 158)	180	27.4 (4 / 4)	23.1 (4 / 4)
10.2 – 30.7	(12.7 mi NNE)	25.1 – 30.7	20.1 – 26.5

2011 McGuire AREOR entities affected:

- Section 3.9, Figure 3.9-1, Figure 3.9-2, Figure 3.9-3
- Section 3.9, Table 3.9-A, Table 3.9-B, Table 3.9-C
- 2011 inner ring average updated from 65.1 mR/yr to 65.1 mR/yr
- 2011 outer ring average updated from 66.4 mR/yr to 66.5 mR/yr
- 2011 control average updated from 94.0 mR/yr to 94.4 mR/yr

2011 Appendix B, Direct Radiation TLD section

**2011 TLD Appendix B section as originally reported**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
17.2 (159 / 159)	180	26.5 (4 / 4)	23.5 (4 / 4)
9.00 – 36.0	(12.7 mi NNE)	25.0 – 29.0	22.0 – 25.0

**Updated 2011 TLD Appendix B section**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
17.2 (159 / 159)	180	26.5 (4 / 4)	23.6 (4 / 4)
9.00 – 36.0	(12.7 mi NNE)	25.0 – 29.0	22.0 – 25.0

2013 McGuire AREOR entities affected:

- Section 3.9, Figure 3.9
- Section 3.9, Table 3.9
- 2013 inner ring average updated from 62.9 mR/yr to 64.1 mR/yr
- 2013 outer ring average updated from 64.4 mR/yr to 65.6 mR/yr
- 2013 control average updated from 92.4 mR/yr to 94.4 mR/yr

2013 Appendix B, Direct Radiation TLD section

**2013 TLD Appendix B section as originally reported**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
16.5 (160 / 160)	180	26.3 (4 / 4)	23.1 (4 / 4)
9.00 – 31.0	(12.7 mi NNE)	22.0 – 31.0	21.0 – 24.4

**Updated 2013 TLD Appendix B section**

All Indicator Locations	Location with Highest Annual Mean		Control Location
Mean (Fraction) Range	Location Code	Mean (Fraction) Range	Mean (Fraction) Range
16.8 (160 / 160)	180	26.8 (4 / 4)	23.6 (4 / 4)
9.00 – 33.4	(12.7 mi NNE)	22.0 – 33.4	21.0 – 26.4



## **II. McGuire AREOR: 2013**

The Section 3, Interpretation of Results, subsection 3.8, Shoreline Sediment, Table 3.8, Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg) Cs-137 column for year 2013 incorrectly indicated a Cs-137 activity of 0.00 pCi/kg activity. The Table 3.8 Cs-137 column for year 2013 was updated to indicate a Cs-137 activity of 1.41E2 pCi/kg. The corresponding Figure 3.8 of the 2013 AREOR was correct and did not require an update.